

PONTE SULLO STRETTO DI MESSINA



PROGETTO DEFINITIVO

EUROLINK S.C.p.A.

IMPREGILO S.p.A. (MANDATARIA)

SOCIETÀ ITALIANA PER CONDOTTE D'ACQUA S.p.A. (MANDANTE)

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Unità Funzionale

Tipo di sistema

Raggruppamento di opere/attività

Opera - tratto d'opera - parte d'opera

Titolo del documento

COLLEGAMENTI VERSANTE CALABRIA

RILIEVI ACCERTAMENTI E INDAGINI IN CAMPO - INDAGINI AMBIENTALI

ELEMENTI DI CARATTERE GENERALE

STUDIO SUL RUMORE

MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA

ACUSTICO

AC0053_F0

CODICE

C	G	3	2	0	0	A	S	D	D	C	I	7	0	0	R	M	0	0	0	0	0	0	1	F0

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F0	20/06/2011	EMISSIONE FINALE	CAMPIONE	RUSSO	CHIOVETTA

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Monitoraggio emissioni di rumore per la mappatura di clima acustico

1 Oggetto delle attività

Le misure di rumore sono propedeutiche alla predisposizione della mappatura di clima acustico ante operam da effettuarsi in sede di progettazione definitiva.

L'attività ha interessato le principali infrastrutture ferroviarie e stradali ad oggi presenti all'interno dell'area di mappatura acustica preliminarmente identificati.

Inoltre sono stati monitorati le emissioni di rumore correlate alla mappatura di clima acustico delle aree di cava, di deposito e di cantiere.

2 Infrastrutture stradali

2.1 Misure di rumore

La caratterizzazione acustica delle infrastrutture stradali principali (strade con caratteristiche geometriche e di traffico autostradale) è stata svolta per mezzo di misure settimanali Metodica R3 in accordo al Decreto Ministero Ambiente 16 Marzo 1998 (Tecniche di rilevamento e di misurazione dell'inquinamento acustico).

Per le infrastrutture stradali secondarie la misurazione di tipo R2s sono state svolte in continuo per una durata minima di 24 ore, in giorno feriale non influenzato da situazioni di traffico anomale.

In entrambi i casi la postazione microfonica è stata localizzata in posizione significativa delle velocità tipiche di percorrenza dell'infrastruttura e in assenza di fattori ambientali (riflessioni, ostacoli, altre sorgenti di rumore, ..) o stradali (giunti, pavimentazione, zone di accelerazione/decelerazione, semafori, ...) che avrebbero potuto influire sulla estendibilità spaziale della misura.

Le misure sono state eseguite in campo libero a 25 m dal ciglio stradale e a 4 m di altezza dal p.c. locale, con tracciato stradale a raso o rilevato basso, in condizioni meteorologiche conformi, annotando nella scheda di misura se il punto di misura è stato localizzato in corrispondenza di un ricettore (a 1 m di distanza dalla facciata e a + 4 m di altezza dal p.c. locale).

In caso di misura in prossimità di ricettori, nel rapporto di misura, è stata precisata la distanza dal ciglio stradale, ponendo particolare attenzione ai possibili effetti di disturbo sulla misura.

La strumentazione di misura è stata sempre assistita da personale idoneamente formato con

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compito di annotare l'identificazione di eventi anomali (sorvoli, eventi locali non riferibili al traffico veicolare, ecc.) e periodi di non conformità meteorologica.

2.2 Misure dati meteorologici

In parallelo alle misure di rumore è stato eseguito il rilievo in continuo dei principali dati meteorologici (T, UR, VV, DV). La centralina meteorologica è stata installata in prossimità del punto di misura in posizione tale da non determinare interferenze con il campo sonoro.

Particolare attenzione è stata posta all'acquisizione, analisi e documentazione nel rapporto di misura, della velocità e direzione del vento.

2.3 Misure di traffico

La metodica di rilievo settimanale R3, in assenza di dati di traffico contestuali resi direttamente dal gestore dell'infrastruttura stradale, deve essere affiancata da rilievi di traffico.

I flussi di traffico sono stati rilevati su una sezione stradale localizzata in prossimità del punto di misura del rumore e rappresentativa delle velocità di percorrenza dei veicoli nella sezione di misura, lontano da svincoli, curve, ecc.

I conteggi del traffico sono stati eseguiti distinguendo i transiti sulla singola corsia di marcia.

I rilievi hanno coperto tutto il periodo di misura del rumore, la cui durata minima è di 7 giorni per le R3 e 24 ore per le R2.

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3 Infrastrutture ferroviarie

3.1 Misure di rumore

Le linee ferroviarie sono state caratterizzate in termini di rilievo di singoli transiti. I punti di misura sono stati individuati in tratti in cui la linea ferroviaria è in rilevato basso/raso, in assenza di schermature (barriere antirumore e altri ostacoli fisici) da entrambi i lati della linea, in presenza di piano campagna orizzontale e di idonea copertura superficiale.

Il microfono è stato posto in prossimità dell'infrastruttura ferroviaria, in condizioni di campo sonoro libero, a 7.5 m di distanza dall'asse binario di corsa e a + 1.2 m di altezza dal piano del ferro. Questo punto viene a trovarsi abbastanza distante dal treno per poter essere considerato nel campo lontano per il campo di frequenze dominanti ma, al tempo stesso, è sufficientemente vicino per essere maggiormente sensibile alle differenze di emissione dei differenti convogli (la traccia acustica è più definita) e minimizza gli effetti di attenuazione del terreno. Questa posizione, in accordo alla EN ISO 3095, è in termini acustici migliore rispetto a P1, a distanza di 25 m dall'asse binario e a +3.5 m di altezza dal piano del ferro.

Il microfono, come prescritto dalle tecniche di misura di "pass-by" (ISO 3095 "Measurement of noise emitted by railbound vehicles") e come indicato dal Decreto 16 marzo 1998 "Tecniche di rilevamento e di misurazione dell'inquinamento acustico" è stato disposto con asse di massima sensibilità direzionato verso la sorgente. Le condizioni di misura sono in accordo con le prescrizioni della norma ISO 3095 "Measurement of noise emitted by railbound vehicles", riprese in parte dal DPR 459/1998 per quanto riguarda la verifica dei limiti massimi di emissione del materiale rotabile.

La tecnica di monitoraggio adottata consiste nella misura in continuo per 24 ore, metodica R2f, in dBA Fast in terze di ottava, con acquisizione degli eventi sonori determinati dal transito di convogli sulla linea ferroviaria. I parametri acustici determinati sono rappresentati dai $Leq(6-22)$ e $Leq(22-6)$ riferiti al solo esercizio ferroviario depurato da eventi anomali e, per il singolo transito, i seguenti indicatori:

- profilo temporale LAF(t) in terze di ottava contenente il mascheramento del profilo esterno a L_{max-10} dBA;
- livello massimo L_{max} ;
- SEL relativo al profilo temporale con taglio a L_{max-10} dBA.

Nell'analisi dei dati sono stati effettuati :

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- Identificazione ed eliminazione eventi anomali (sorvoli, eventi locali non riferibili al traffico veicolare, ecc.) in base a soglie preimpostate o all'analisi del decorso temporale della misura;
- Individuazione ed eliminazione dei periodi di non conformità meteorologica;
- Estrazione e documentazione grafica e numerica del periodo diurno e notturno;
- Estrazione singoli transiti e riepilogo tabellare.

L'elaborazione dei singoli dati, in uno alla programmazione dei transiti fornita da RFI, ha permesso di correlare agli indicatori di rumore precedentemente enunciati i parametri fisici dei convogli in transito.

3.2 Misure di Velocità, tipologia e composizione dei convogli

Per ogni transito è stato svolto un rilievo indiretto della velocità di transito. Il rilievo della velocità è stato confrontato con il dato ricavabile indirettamente dalla traccia acustica del passaggio.

3.3 Misure dati meteorologici

In parallelo alle misure di rumore è stato eseguito il rilievo in continuo dei principali dati meteorologici (T, UR, VV, DV). La centralina meteorologica è stata installata in prossimità del punto di misura in posizione tale da non determinare interferenze con il campo sonoro.

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4 Localizzazione punti di misura

La Tabella seguente riassume la localizzazione dei punti di monitoraggio e le metodiche di misura, rispettivamente lato Sicilia e Calabria:

GIORNI di misurazioni	Codice punto	Metodica misura	Localizzazione
1	R C 01	R3	A3 km 432+300
2		"	"
3		"	"
4		"	"
5		"	"
6		"	"
7		"	"
8	R C 02	R3	A3
9		"	"
10		"	"
11		"	"
12		"	"
13		"	"
14		"	"
15	R C 03	R2S	SS18
16	R C 04	R2S	SS18
17	R C 05	R2S	Lungomare
18	R C 06	R2S	Via Tre Croci
19	R C 07	R2F	Scalo Ferroviario VSG
20	R C 08	R3	Svincolo A3
21		"	"
22		"	"
23		"	"
24		"	"
25		"	"
26		"	"
27	R C 09	R2S	SP6
28	R C 10	R2S	Via Campo Piale
29	R C 11	R2S	Via Messina
30	R C 12	R2S	Via Zona Industriale
31	RC 13	R2f	Linea ferroviaria Via Italia Cannitello
32	R C 14	R2S	Via Fiumara
33	R C 15	R2S	Scuola
34		R2f	Via Naz.Catona Svincolo autostrada Campo Calabro

Tabella 4.1 Localizzaione punti di misura

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5 Riferimenti normativi

EN 60651-1994 Class 1 Sound Level Meters (CEI 29-1)

EN 60804-1994 Class 1 Integrating-averaging sound level meters (CEI 29-10)

EN 61094/1-1994 Measurements microphones - Part 1: Specifications for laboratory standard microphones

EN 61094/2-1993 Measurements microphones - Part 2: Primary method for pressure calibration of laboratory standard microphones by the reciprocity technique

EN 61094/3-1994 Measurements microphones - Part 3: Primary method for free-field calibration of laboratory standard microphones by the reciprocity technique

EN 61094/4-1995 Measurements microphones - Part 4: Specifications for working standard microphones

EN 61260-1995 Octave-band and fractional-octave-band filters (CEI 29-4)

IEC 942-1988 Electroacoustics - Sound calibrators (CEI 29-14)

ISO 226-1987 Acoustics - Normal equal - loudness level contours

UNI 9884-1991 Caratterizzazione acustica del territorio mediante la descrizione del rumore ambientale

DPCM 1/3/1991 Limiti massimi di esposizione al rumore negli ambienti abitativi e nell'ambiente esterno

Legge 447-1996 Legge quadro sull'inquinamento acustico DPCM 14/11/1997 Determinazione dei valori limite delle sorgenti sonore

DM 16/03/1998 Tecniche di rilevamento e di misurazione dell'inquinamento acustico

DPR n. 459 - 18/11/98 Regolamento recante norme di esecuzione dell'Art.11 della legge 26 ottobre 1995, n. 447, in materia di inquinamento acustico derivante da traffico ferroviario.

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ALLEGATI

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Schede di monitoraggio rumore

R3 - MISURE DI 7 GIORNI CON POSTAZIONE FISSA		
Punto	Ricettore R 1 C	Indirizzo A3
Descrizione del punto di misura		
L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sulla piazzola di servizio al Km 431+200 dell'autostrada A3 Salerno - Reggio Calabria in direzione Reggio Calabria ad una distanza di mt 4,50 dal ciglio stradale		

Caratterizzazione del punto di misura/ricettore				
Zonizzazione acustica e limiti diurni/notturni				
☐	Classe I	50 / 40 dB(a)		
☐	Classe II	55 / 45 dB(a)		
☒	Classe III	60 / 50 dB(a)		
☐	Classe IV	65 / 55 dB(a)		
☐	Classe V	70 / 60 dB(a)		
☐	Classe VI	70 / 70 dB(a)		
Caratterizzazione delle sorgenti di rumore				
Tipologia CNR				
Pavimentazione	☒	Conglomerato bituminoso chiuso	☐	Fonoassorbente
	☐	Conglomerato bituminoso aperto	☐	altro
Note Eventuali				
Strumentazione adottata				
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826				

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Punto	Ricettore	Indirizzo
	R_1_C	A3

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)								
	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Laeq 6-22h (grn) [dBA]	76	76.3	76	76.2	76	74.7	73	75.46
Laeq 22-6h (ntt) [dBA]	71.7	71.5	72	70.9	70.9	71.8	71.6	71.49

RISULTATI MISURE - periodo DIURNO (6/22h)								
Parametri	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Data	21-giu	22-giu	23-giu	24-giu	25-giu	19-giu	20-giu	
Note								
LAeq. TM [dBA]	76.0	76.3	76.0	76.2	76.0	74.7	73.0	75.46
L1 [dBA]	85.0	86.0	85.0	85.0	84.0	83.0	81.0	84.14
L5 [dBA]	81.0	81.5	81.0	81.3	81.0	79.7	78.7	80.60
L10 [dBA]	79.3	79.8	79.5	79.8	79.5	78.3	77.3	79.07
L50 [dBA]	72.7	73.0	73.0	73.3	73.3	71.0	68.6	72.13
L90 [dBA]	61.5	62.5	61.5	61.5	62.0	60.3	55.0	60.61
L95 [dBA]	58.0	59.0	58.0	58.0	59.0	57.0	50.0	57.00
L99 [dBA]	52.0	52.0	52.0	52.0	53.0	52.0	42.0	50.71
LI max [dBA]	103.3	98.4	100.8	98.4	95.1	99.4	99.1	99.21
LF max [dBA]	101.6	97.8	99.6	96.9	93.8	98.5	98.6	98.11
Ls max [dBA]	94.7	94.8	94.5	93.9	89.7	95.3	94.4	93.90
KI [dBA]	0	0	0	0	0	0	0	
KT [dBA]	0	0	0	0	0	0	0	
Laeq.TRC [dBA]	76	76.3	76	76.2	76	74.7	73	75.46

Note:

Punto	Ricettore	Indirizzo
	R_1_C	A3

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Sorgente stradale REGGIO CALABRIA - SALERNO								
	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
	21-giu	22-giu	23-giu	24-giu	25-giu	19-giu	20-giu	
Veic. Leggeri/h	4013	8809	3973	3943	4640	3376	3581	4619.3
Veic. Pesanti/h	6414	12770	6376	4120	3990	5927	4951	6364
Motocicli/h	499	2989	495	2012	2912	219	242	1338.3
Sorgente stradale SALERNO - REGGIO CALABRIA								
Veic. Leggeri/h	6939	6735	7036	6647	7536	6736	6424	6864.7
Veic. Pesanti/h	2734	2970	2744	2835	2817	1786	1312	2456.9
Motocicli/h	101	77	124	106	152	193	139	127.43

Parametri meteorologici							
MARTEDI 22-giu	Condizioni cielo		SERENO	SERENO	SERENO	SERENO	
	Temperatura		20	21.1	22	20.4	20.875
	Umidità relativa		73	76	66	71	71.5
	Velocità vento		1.1	1.1	1.3	2.9	1.6
	Direzione vento		E	N W	W S W	N N W	
			6-9h	9-14h	14-19h	19-22h	Media
MERCOLEDI 23-giu	Condizioni cielo		NUV	POC NUV	POC NUV	NUV	
	Temperatura		20.3	24.5	24.3	21.8	22.725
	Umidità relativa		76	52	57	64	62.25
	Velocità vento		1.8	1.6	3.8	2.8	2.5
	Direzione vento		N N E	E N E	N N E	N E	

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Punto	Ricettore R_1_C	Indirizzo A3

		6-9h	9-14h	14-19h	19-22h	Media
GIOVEDÌ 24-giu	Condizioni cielo	NUV	NUV	NUV	NUV	
	Temperatura	19.7	24.4	23.3	21.3	22.175
	Umidità relativa	76	58	67	79	70
	Velocità vento	1.8	1.2	1.3	3.4	1.925
	Direzione vento	E N E	N N W	N E	N E	
		6-9h	9-14h	14-19h	19-22h	Media
VENERDÌ 25-giu	Condizioni cielo	SERENO	SERENO	SERENO	NUV	
	Temperatura	19.4	24.3	24.4	22.8	22.725
	Umidità relativa	83	64	66	64	69.25
	Velocità vento	1.8	3.5	3.7	1.3	2.575
	Direzione vento	N E	N E	N E	N E	
		6-9h	9-14h	14-19h	19-22h	Media
SABATO 19-giu	Condizioni cielo	NUV	NUV	NUV	NUV	
	Temperatura	18	23.6	24	19.8	21.35
	Umidità relativa	78	69	58	59	66
	Velocità vento	2.2	4	4.2	1.3	2.925
	Direzione vento	N W	N W	W N W	W N W	
		6-9h	9-14h	14-19h	19-22h	Media
DOMENICA 20-giu	Condizioni cielo					
	Temperatura	20.6	26.4	26.9	22.8	24.175
	Umidità relativa	65	51	40	66	55.5
	Velocità vento	0.8	1.6	3.8	0.8	1.75
	Direzione vento	E S E	N N E	N N E	S E	

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Punto	Ricettore R_1_C	Indirizzo A3

RISULTATI MISURE - periodo NOTTURNO (22/6h)								
Parametri	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Data	21-giu	22-giu	23-giu	24-giu	25-giu	19-giu	20-giu	
Note								
LAeq. TM [dBA]	71.7	71.5	72.0	70.9	70.9	71.8	71.6	71.49
L1 [dBA]	83.0	83.0	83.0	82.0	82.0	83.0	82.0	82.57
L5 [dBA]	78.0	78.0	78.0	77.0	77.5	78.0	77.5	77.71
L10 [dBA]	75.0	75.0	75.5	74.7	75.0	75.0	75.0	75.03
L50 [dBA]	60.3	63.3	62.0	59.5	60.7	61.3	62.3	61.34
L90 [dBA]	44.0	50.5	44.0	43.5	45.5	46.0	47.0	45.79
L95 [dBA]	40.0	47.0	41.0	40.5	43.0	43.5	43.0	42.57
L99 [dBA]	35.0	42.0	37.0	38.0	37.0	40.0	39.0	38.29
Ll max [dBA]	112.7	97.0	100.2	97.6	92.4	97.7	105.3	100.41
LF max [dBA]	109.4	94.0	97.9	96.9	91.7	96.8	104.4	98.73
Ls max [dBA]	101.3	90.1	91.3	94.0	88.3	92.1	101.4	94.07
Kl [dBA]	0	0	0	0	0	0	0	
KT [dBA]	0	0	0	0	0	0	0	
KB [dBA]	0	0	0	0	0	0	0	
Laeq.TRC [dBA]	71.7	71.5	72	70.9	70.9	71.8	71.6	71.49

Note:

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto	Ricettore R_1_C	Indirizzo A3

Parametri meteorologici					
			22-2h	2-6h	Media
LUNEDI' 21-giu	Condizioni cielo		NUV	NUV	
	Temperatura		20.3	21.1	20.7
	Umidità relativa		61	67	64
	Velocità vento		0.9	0.3	0.6
	Direzione vento		S S W	W N W	
			22-2h	2-6h	Media
MARTEDI 22-giu	Condizioni cielo		NUV	NUV	
	Temperatura		20	19.7	19.85
	Umidità relativa		66	68	67
	Velocità vento		1.3	1.6	1.45
	Direzione vento		N E	W	
			22-2h	2-6h	Media
MERCOLEDI 23-giu	Condizioni cielo		SERENO	SERENO	
	Temperatura		18.2	17.9	18.05
	Umidità relativa		81	83	82
	Velocità vento		0.2	1.4	0.8
	Direzione vento		N N W	N N E	
			22-2h	2-6h	Media
GIOVEDI 24-giu	Condizioni cielo		NUV	NUV	
	Temperatura		19.9	19.2	19.55
	Umidità relativa		77	80	78.5
	Velocità vento		1.9	0.8	1.35
	Direzione vento		N	E N E	

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto	Ricettore	Indirizzo
	R_1_C	A3

		22-2h	2-6h	Media
VENERDI 25-giu	Condizioni cielo	NUV	NUV	
	Temperatura	20	19.4	19.7
	Umidità relativa	83	85	84
	Velocità vento	2.2	1.3	1.75
	Direzione vento	N E	N E	
		22-2h	2-6h	Media
SABATO 19-giu	Condizioni cielo	NUV	NUV	
	Temperatura	19	18	18.5
	Umidità relativa	78	68	73
	Velocità vento	2.5	2.3	2.4
	Direzione vento	N E	N E	
		22-2h	2-6h	Media
DOMENICA 20-giu	Condizioni cielo	SERENO	SERENO	
	Temperatura	21.6	19	20.3
	Umidità relativa	70	78	74
	Velocità vento	0.8	0.3	0.55
	Direzione vento	N E	W NW	

MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO*Codice documento*

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F0

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20/06/2011

Punto	Ricettore	Indirizzo
	R_1_C	A3

Fotografia del punto di misura

MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO

Codice documento

AC0053_F0.docx_F0

Rev

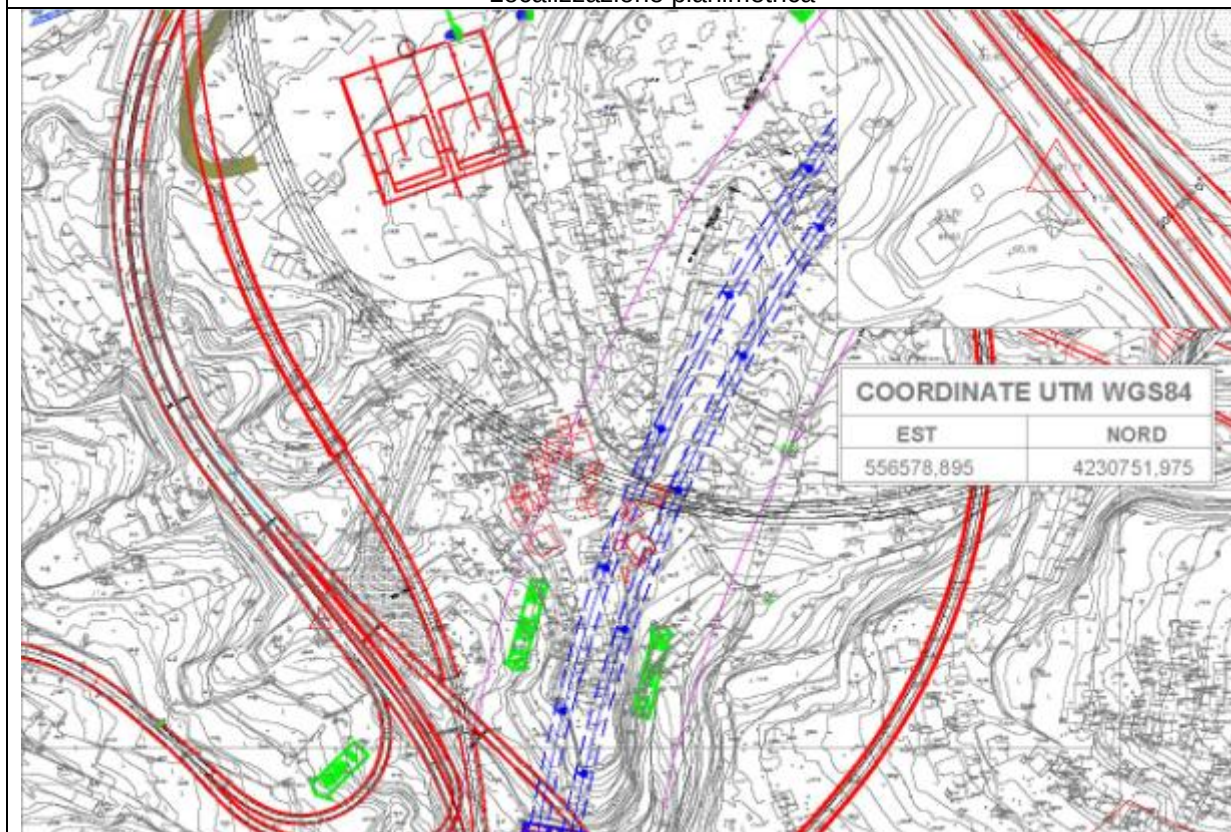
F0

Data

20/06/2011

Punto	Ricettore	Indirizzo
	R_1_C	A3

Localizzazione planimetrica



DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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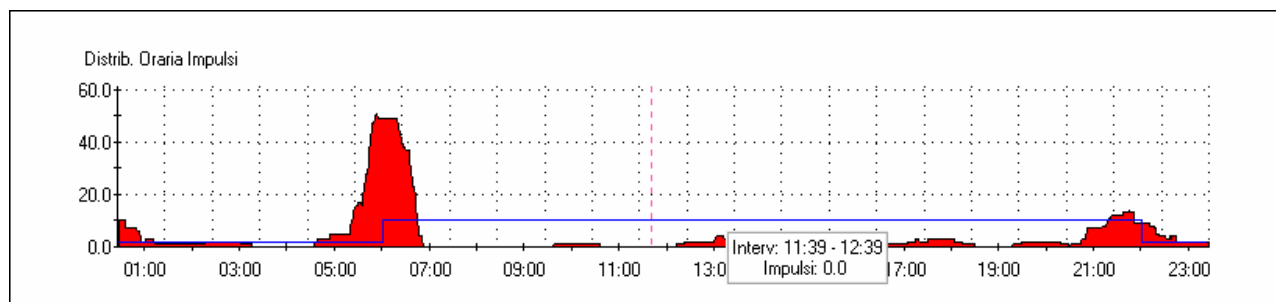
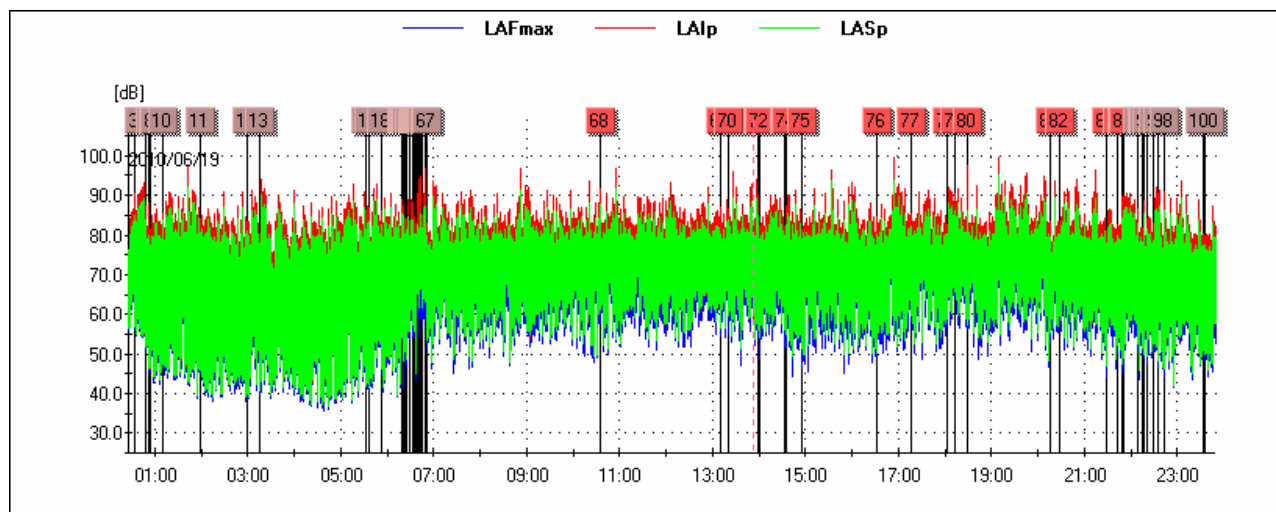
R_1_C 19/06/2010

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/06/19 00:33:07	0.625	80.2	8.9
2	2010/06/19 00:33:41	0.625	88.4	9.4
3	2010/06/19 00:33:46	0.625	89.1	7.8
4	2010/06/19 00:48:13	0.750	68.3	8.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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5	2010/06/19 00:52:18	0.875	62.7	10.8
6	2010/06/19 00:52:24	0.750	58.9	10.9
7	2010/06/19 00:52:41	0.625	72.6	9.2
8	2010/06/19 00:53:25	0.625	65.8	8.2
9	2010/06/19 01:10:54	0.625	66.7	11.4
10	2010/06/19 01:10:55	0.750	64.3	11.0
11	2010/06/19 01:59:36	0.875	76.3	10.2
12	2010/06/19 02:59:55	0.875	72.4	11.3
13	2010/06/19 03:14:44	0.500	55.1	10.2
14	2010/06/19 05:32:49	0.625	61.6	10.0
15	2010/06/19 05:33:18	0.625	61.9	10.3
16	2010/06/19 05:36:38	0.750	64.1	7.9
17	2010/06/19 05:52:10	0.625	70.5	12.3
18	2010/06/19 05:52:32	0.625	70.5	7.5
19	2010/06/19 06:18:52	1.000	66.1	6.1
20	2010/06/19 06:18:54	0.625	78.1	13.6
21	2010/06/19 06:18:55	0.750	78.1	10.1
22	2010/06/19 06:19:19	0.750	65.1	7.3
23	2010/06/19 06:20:11	0.750	69.6	8.4
24	2010/06/19 06:21:41	1.000	70.6	7.4
25	2010/06/19 06:22:55	0.750	74.7	10.7
26	2010/06/19 06:22:58	0.875	76.0	8.7
27	2010/06/19 06:23:02	1.000	71.7	9.9
28	2010/06/19 06:23:42	0.875	66.4	8.4
29	2010/06/19 06:25:50	0.625	65.8	12.6
30	2010/06/19 06:28:31	0.750	73.6	9.8
31	2010/06/19 06:33:05	0.625	78.9	11.0
32	2010/06/19 06:33:18	0.500	71.4	12.9
33	2010/06/19 06:33:21	0.500	77.0	13.6
34	2010/06/19 06:33:22	0.875	69.3	13.4
35	2010/06/19 06:33:25	1.000	74.8	10.2
36	2010/06/19 06:34:48	1.000	79.6	10.1
37	2010/06/19 06:35:54	0.625	72.5	12.0
38	2010/06/19 06:36:03	0.500	79.4	11.4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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39	2010/06/19 06:36:12	0.750	65.8	7.2
40	2010/06/19 06:36:28	0.625	78.4	11.6
41	2010/06/19 06:36:42	0.750	61.4	9.6
42	2010/06/19 06:36:55	0.625	77.3	12.9
43	2010/06/19 06:36:56	0.875	69.0	12.8
44	2010/06/19 06:37:47	0.750	63.1	11.4
45	2010/06/19 06:39:51	0.750	76.1	10.1
46	2010/06/19 06:40:04	0.500	85.5	13.6
47	2010/06/19 06:40:05	0.500	76.7	14.5
48	2010/06/19 06:41:14	1.000	83.1	10.8
49	2010/06/19 06:41:27	0.750	80.0	10.5
50	2010/06/19 06:41:35	0.875	78.2	11.7
51	2010/06/19 06:41:57	0.875	77.9	8.5
52	2010/06/19 06:42:01	0.875	76.4	11.5
53	2010/06/19 06:42:33	1.000	83.3	8.3
54	2010/06/19 06:42:43	0.875	84.4	9.4
55	2010/06/19 06:42:44	1.000	80.8	9.0
56	2010/06/19 06:42:48	0.875	81.1	10.1
57	2010/06/19 06:42:59	0.625	80.2	10.7
58	2010/06/19 06:44:12	0.750	76.0	11.2
59	2010/06/19 06:44:18	0.750	77.3	12.6
60	2010/06/19 06:44:51	1.000	75.5	12.8
61	2010/06/19 06:44:58	0.750	72.8	9.5
62	2010/06/19 06:45:00	1.000	74.5	10.3
63	2010/06/19 06:45:15	1.000	79.9	10.2
64	2010/06/19 06:48:15	0.875	79.4	6.9
65	2010/06/19 06:48:48	0.625	93.9	9.5
66	2010/06/19 06:49:14	0.625	92.7	11.3
67	2010/06/19 06:51:54	0.750	69.0	12.4
68	2010/06/19 10:35:35	1.000	80.4	9.5
69	2010/06/19 13:10:01	0.625	82.5	11.1
70	2010/06/19 13:20:14	0.750	76.9	9.5
71	2010/06/19 13:59:33	0.625	79.0	9.9
72	2010/06/19 14:01:08	0.750	68.2	9.7

73	2010/06/19 14:34:06	0.875	70.0	8.7
74	2010/06/19 14:34:13	0.625	68.7	7.4
75	2010/06/19 14:54:51	0.500	67.2	11.8
76	2010/06/19 16:31:59	0.625	61.6	10.6
77	2010/06/19 17:17:03	0.750	79.0	10.1
78	2010/06/19 18:02:47	0.875	76.6	9.2
79	2010/06/19 18:12:26	0.750	89.2	7.7
80	2010/06/19 18:28:35	0.625	93.1	11.1
81	2010/06/19 20:16:40	1.000	70.4	7.8
82	2010/06/19 20:27:57	1.000	76.2	9.4
83	2010/06/19 21:29:38	1.000	69.4	9.9
84	2010/06/19 21:42:55	0.750	65.4	9.9
85	2010/06/19 21:43:43	0.875	69.5	10.6
86	2010/06/19 21:49:35	1.000	73.2	9.5
87	2010/06/19 21:49:37	0.750	67.1	10.5
88	2010/06/19 21:49:39	0.625	67.0	10.0
89	2010/06/19 21:49:59	0.500	74.4	11.8
90	2010/06/19 22:08:55	1.000	75.1	9.8
91	2010/06/19 22:14:42	0.750	70.8	11.2
92	2010/06/19 22:16:35	1.000	71.1	10.4
93	2010/06/19 22:16:56	1.000	73.5	10.1
94	2010/06/19 22:20:21	0.875	70.4	6.2
95	2010/06/19 22:29:25	1.000	71.3	8.6
96	2010/06/19 22:35:00	1.000	58.3	9.2
97	2010/06/19 22:42:42	0.625	70.2	12.5
98	2010/06/19 22:42:43	0.625	65.8	10.2
99	2010/06/19 23:34:25	1.000	66.1	8.1
100	2010/06/19 23:36:48	0.875	65.7	6.3

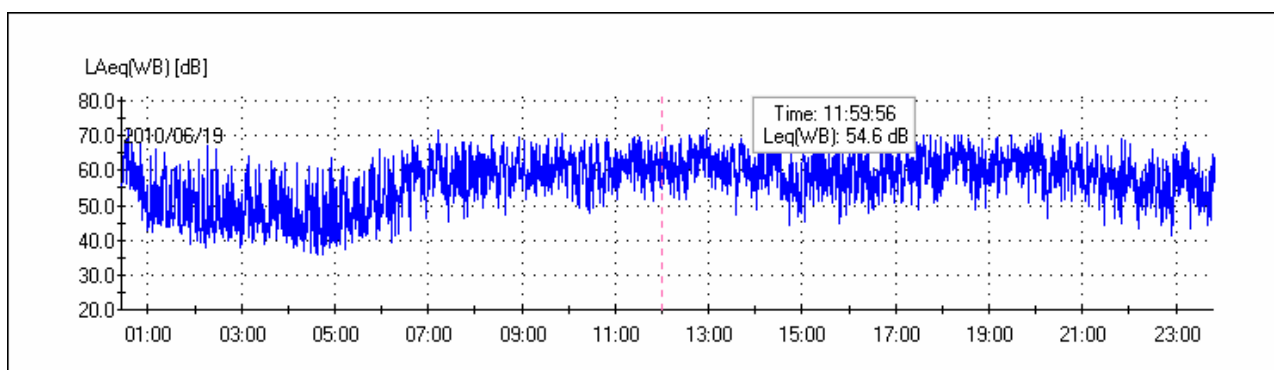
		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.1
Freq: 100	0.0
Freq: 250	0.0
Freq: 315	0.2
Freq: 400	0.2
Freq: 500	0.1
Freq: 630	0.1
Freq: 800	0.0
Freq: 1 k	0.1
Freq: 2.5 k	0.0
Freq: 3.15 k	10.9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME HISTORY COMPONENTI TONALI

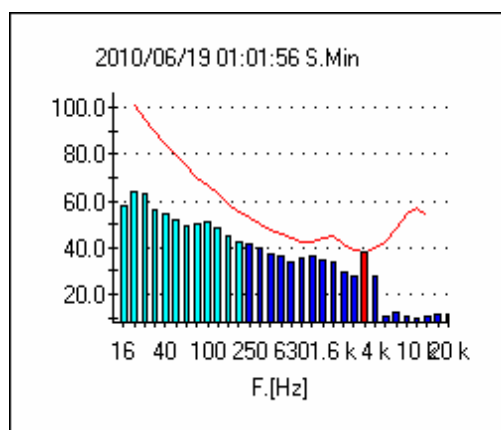
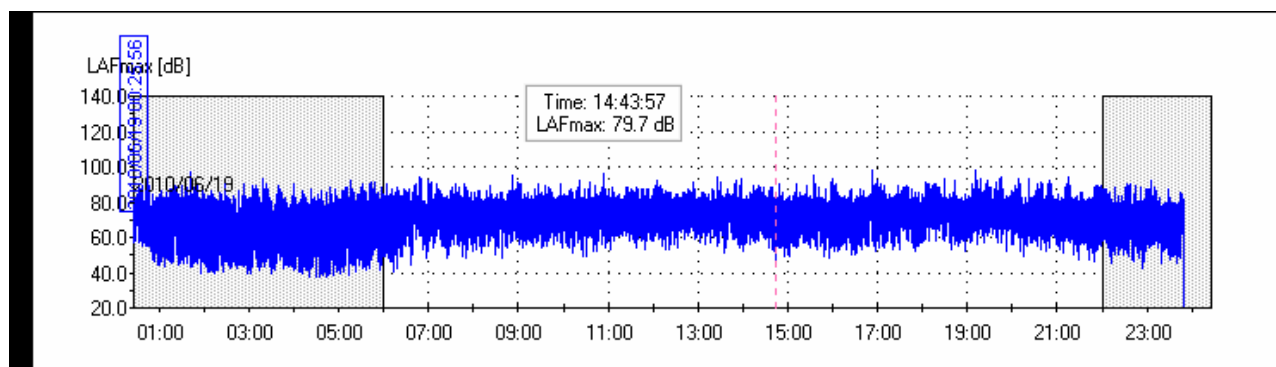
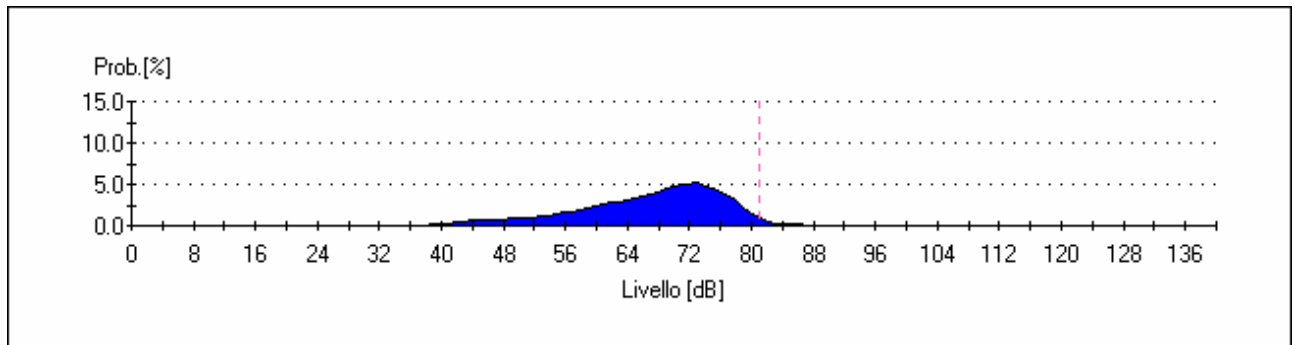
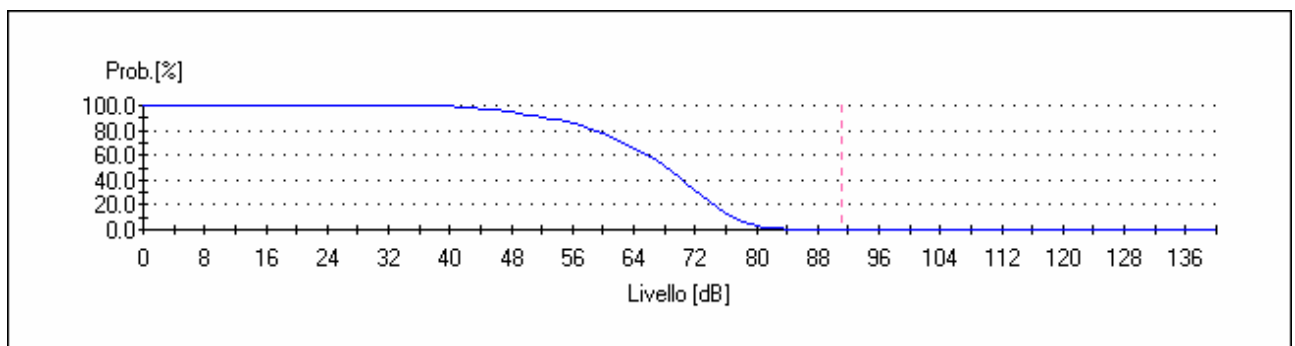
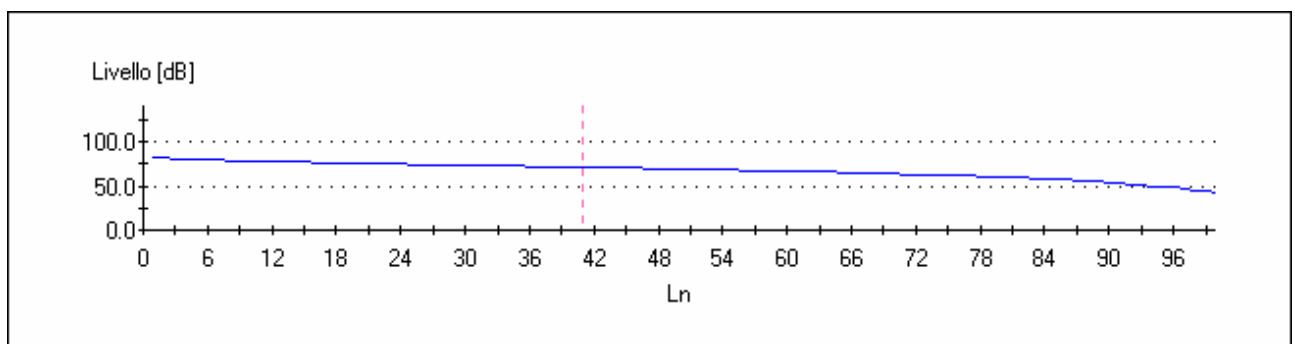


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA

CUMULATIVA

GRAFICO PERCENTILI


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	83.0
1	83.0
2	81.0
3	80.5
4	80.0
5	79.7
6	79.3
7	79.0
8	78.8
9	78.5
10	78.3
11	78.0
12	77.8
13	77.6
14	77.4
15	77.2
16	77.0
17	76.8
18	76.6
19	76.4
20	76.2
21	76.0
22	75.8
23	75.6
24	75.4
25	75.2
26	75.0
27	74.8
28	74.7
29	74.5
30	74.3

31	74.2
32	74.0
33	73.8
34	73.7
35	73.5
36	73.3
37	73.2
38	73.0
39	72.8
40	72.7
41	72.5
42	72.3
43	72.2
44	72.0
45	71.8
46	71.7
47	71.5
48	71.3
49	71.2
50	71.0
51	70.8
52	70.7
53	70.5
54	70.3
55	70.2
56	70.0
57	69.8
58	69.6
59	69.4
60	69.2
61	69.0
62	68.8
63	68.5
64	68.3

65	68.0
66	67.8
67	67.5
68	67.3
69	67.0
70	66.8
71	66.5
72	66.3
73	66.0
74	65.8
75	65.5
76	65.3
77	65.0
78	64.7
79	64.3
80	64.0
81	63.7
82	63.3
83	63.0
84	62.7
85	62.3
86	62.0
87	61.5
88	61.0
89	60.7
90	60.3
91	60.0
92	59.0
93	58.5
94	58.0
95	57.0
96	56.0
97	55.0
98	54.0

99**52.0**

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	83.0
1	83.0
2	81.0
3	79.0
4	78.5
5	78.0
6	77.0
7	76.5
8	76.0
9	75.5
10	75.0
11	74.7
12	74.3
13	74.0
14	73.5
15	73.0
16	72.7
17	72.3
18	72.0
19	71.7
20	71.3
21	71.0
22	70.8
23	70.5
24	70.3
25	70.0
26	69.7
27	69.3
28	69.0
29	68.7

30	68.3
31	68.0
32	67.7
33	67.3
34	67.0
35	66.7
36	66.3
37	66.0
38	65.7
39	65.3
40	65.0
41	64.7
42	64.3
43	64.0
44	63.7
45	63.3
46	63.0
47	62.5
48	62.0
49	61.7
50	61.3
51	61.0
52	60.7
53	60.3
54	60.0
55	59.7
56	59.3
57	59.0
58	58.7
59	58.3
60	58.0
61	57.7
62	57.3
63	57.0

64	56.5
65	56.0
66	55.7
67	55.3
68	55.0
69	54.5
70	54.0
71	53.7
72	53.3
73	53.0
74	52.7
75	52.3
76	52.0
77	51.5
78	51.0
79	50.7
80	50.3
81	50.0
82	49.5
83	49.0
84	48.5
85	48.0
86	47.7
87	47.3
88	47.0
89	46.5
90	46.0
91	45.5
92	45.0
93	44.5
94	44.0
95	43.5
96	43.0
97	42.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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98	41.0
99	40.0

CLIMA ACUSTICO GIORNALIERO

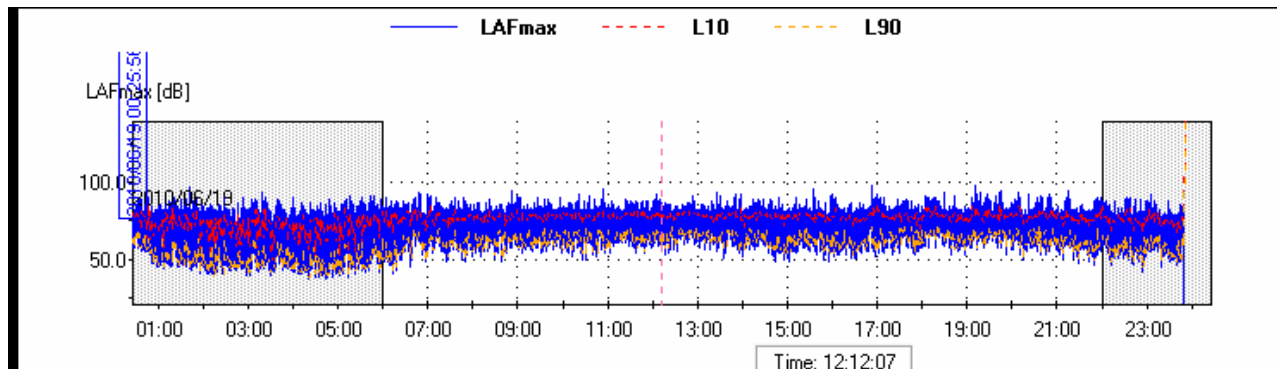
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
96,9	89,5	93,9
96,9	91,7	95,8
99,4	93,5	97,9
99,4	95,3	98,5
90,4	86,9	89,7
99,4	95,3	98,5

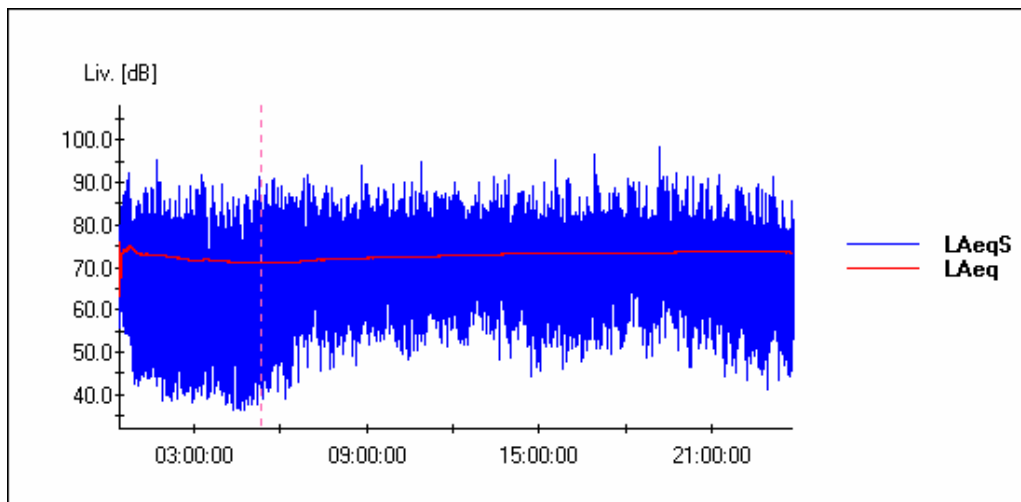
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
93,5	89,4	92,3
97,7	92,1	96,8
92,8	89	91,8
97,7	92,1	96,8

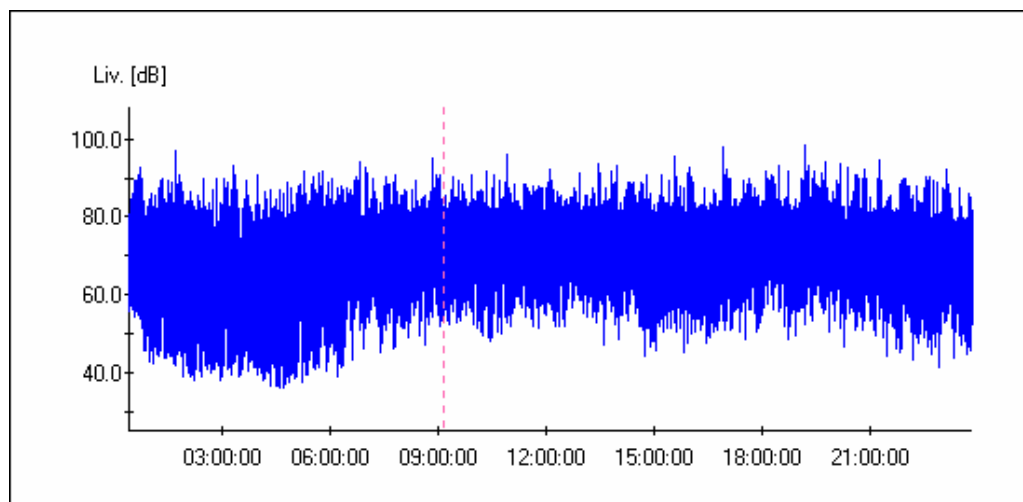
TIME HISTORY L10 – L90



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERA



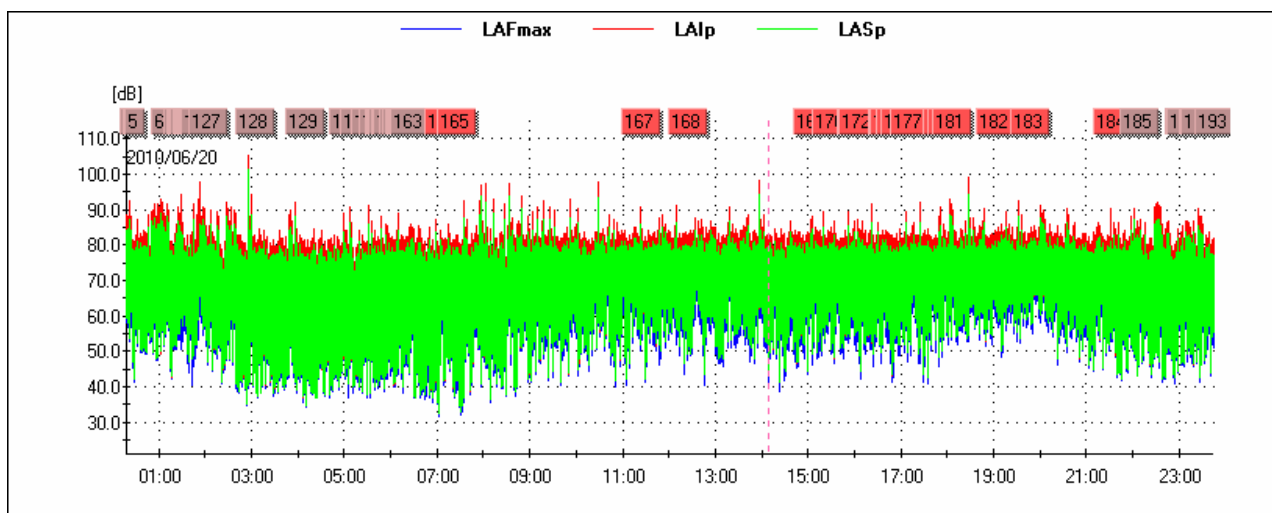
20/06/2010

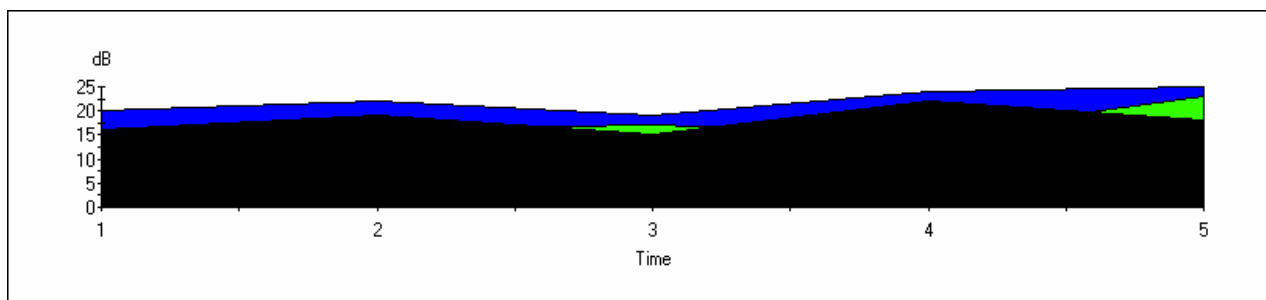
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAI_{max} e LAS_{max} superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAF_{max} inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.




Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAI _{max} - LAS _{max} [dB]
1	2010/06/20 00:21:30	0.750	67.9	7.9
2	2010/06/20 00:25:20	1.000	68.2	11.6
3	2010/06/20 00:25:34	0.750	58.1	10.8
4	2010/06/20 00:25:59	0.875	70.9	7.0
5	2010/06/20 00:27:53	0.875	56.5	11.1
6	2010/06/20 01:03:08	0.750	78.0	9.9
7	2010/06/20 01:18:53	0.625	69.5	11.9
8	2010/06/20 01:18:57	0.625	64.2	10.8
9	2010/06/20 01:27:39	0.625	82.3	12.4
10	2010/06/20 01:27:56	0.500	83.8	13.0
11	2010/06/20 01:28:01	0.500	89.4	13.6
12	2010/06/20 01:28:02	0.625	81.7	13.6
13	2010/06/20 01:28:06	0.625	67.7	15.2
14	2010/06/20 01:28:08	0.625	84.6	13.2
15	2010/06/20 01:28:22	0.625	74.6	11.2
16	2010/06/20 01:28:28	0.875	73.5	9.7
17	2010/06/20 01:28:32	0.875	66.9	7.6
18	2010/06/20 01:28:39	1.000	70.9	8.1
19	2010/06/20 01:28:46	0.750	68.3	9.6
20	2010/06/20 01:28:48	0.875	69.5	9.9
21	2010/06/20 01:28:51	0.625	91.0	10.5
22	2010/06/20 01:28:59	0.875	71.1	10.3
23	2010/06/20 01:29:02	0.625	73.1	9.1
24	2010/06/20 01:29:19	0.750	74.4	12.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

25	2010/06/20 01:29:21	0.625	76.5	12.7
26	2010/06/20 01:29:33	0.625	75.2	11.6
27	2010/06/20 01:30:30	0.500	76.4	8.8
28	2010/06/20 01:30:40	0.750	69.1	10.0
29	2010/06/20 01:30:44	1.000	78.8	8.8
30	2010/06/20 01:30:51	0.875	78.6	8.3
31	2010/06/20 01:32:27	0.875	68.5	10.6
32	2010/06/20 01:32:33	0.875	74.2	7.9
33	2010/06/20 01:36:01	0.500	68.9	10.0
34	2010/06/20 01:36:26	0.875	66.0	9.8
35	2010/06/20 01:36:53	0.625	62.9	11.3
36	2010/06/20 01:38:28	0.750	67.3	6.3
37	2010/06/20 01:38:36	0.625	65.0	12.3
38	2010/06/20 01:38:43	0.750	59.2	11.0
39	2010/06/20 01:38:45	0.750	60.5	11.3
40	2010/06/20 01:38:49	0.625	58.5	12.3
41	2010/06/20 01:38:50	0.750	58.4	9.2
42	2010/06/20 01:38:54	0.625	60.0	11.7
43	2010/06/20 01:39:00	0.500	69.4	13.7
44	2010/06/20 01:41:09	0.625	66.5	7.9
45	2010/06/20 01:41:58	0.625	78.7	11.7
46	2010/06/20 01:42:39	0.875	72.2	9.8
47	2010/06/20 01:42:59	0.875	60.4	9.7
48	2010/06/20 01:43:06	0.500	60.7	11.6
49	2010/06/20 01:43:09	0.500	70.8	12.5
50	2010/06/20 01:43:11	1.000	59.9	12.7
51	2010/06/20 01:43:12	1.000	52.9	13.2
52	2010/06/20 01:43:14	0.500	63.1	13.1
53	2010/06/20 01:43:19	0.750	55.4	10.4
54	2010/06/20 01:43:21	0.625	59.2	9.8
55	2010/06/20 01:43:25	0.625	64.7	12.5
56	2010/06/20 01:43:27	0.625	63.0	11.9
57	2010/06/20 01:43:32	0.750	64.2	11.5
58	2010/06/20 01:43:33	0.750	63.8	10.4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

59	2010/06/20 01:43:35	0.875	60.7	10.9
60	2010/06/20 01:43:36	0.625	70.2	12.8
61	2010/06/20 01:43:39	0.625	60.5	10.7
62	2010/06/20 01:43:41	0.625	75.1	13.6
63	2010/06/20 01:43:55	0.625	66.3	11.5
64	2010/06/20 01:44:01	0.500	63.7	12.6
65	2010/06/20 01:44:03	0.875	58.8	11.3
66	2010/06/20 01:44:06	0.625	80.8	12.9
67	2010/06/20 01:44:07	0.500	72.2	13.1
68	2010/06/20 01:44:10	1.000	63.9	14.2
69	2010/06/20 01:46:22	0.750	72.6	11.5
70	2010/06/20 01:46:35	0.500	68.8	13.0
71	2010/06/20 01:48:00	0.625	68.1	12.5
72	2010/06/20 01:49:09	0.625	73.8	11.6
73	2010/06/20 01:49:19	0.875	79.4	10.3
74	2010/06/20 01:49:26	0.750	83.6	12.0
75	2010/06/20 01:49:33	0.500	69.9	11.5
76	2010/06/20 01:49:56	0.875	72.2	11.9
77	2010/06/20 01:49:57	0.750	67.0	9.4
78	2010/06/20 01:50:01	0.750	76.4	12.8
79	2010/06/20 01:50:02	0.625	75.3	11.8
80	2010/06/20 01:50:25	1.000	78.0	7.7
81	2010/06/20 01:50:26	0.500	82.0	12.1
82	2010/06/20 01:50:27	1.000	73.5	12.4
83	2010/06/20 01:50:31	1.000	78.7	10.3
84	2010/06/20 01:50:33	0.875	82.4	12.7
85	2010/06/20 01:50:34	0.500	79.6	11.4
86	2010/06/20 01:50:35	1.000	73.8	11.3
87	2010/06/20 01:50:46	0.875	71.1	8.8
88	2010/06/20 01:50:52	0.625	81.3	11.0
89	2010/06/20 01:51:07	0.500	88.0	13.5
90	2010/06/20 01:51:08	1.000	83.2	11.8
91	2010/06/20 01:51:11	0.625	85.7	12.5
92	2010/06/20 01:51:13	0.875	82.9	12.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

93	2010/06/20 01:51:18	0.875	77.9	10.9
94	2010/06/20 01:51:20	0.625	74.0	14.3
95	2010/06/20 01:51:21	0.625	75.5	14.2
96	2010/06/20 01:51:30	0.750	71.9	7.9
97	2010/06/20 01:51:38	1.000	73.0	9.2
98	2010/06/20 01:51:52	0.625	74.2	10.2
99	2010/06/20 01:51:53	0.750	76.4	11.4
100	2010/06/20 01:51:54	1.000	74.6	10.2
101	2010/06/20 01:51:56	0.750	74.8	10.7
102	2010/06/20 01:52:07	0.875	83.0	10.5
103	2010/06/20 01:52:20	0.625	86.7	13.1
104	2010/06/20 01:52:23	0.625	85.1	11.4
105	2010/06/20 01:52:25	0.875	77.6	9.8
106	2010/06/20 01:52:29	1.000	83.3	11.3
107	2010/06/20 01:52:34	0.625	88.7	12.7
108	2010/06/20 01:52:35	0.500	86.7	11.7
109	2010/06/20 01:52:36	0.875	89.8	12.9
110	2010/06/20 01:52:38	1.000	89.3	10.8
111	2010/06/20 01:52:39	0.625	91.2	12.3
112	2010/06/20 01:52:40	0.875	93.3	12.1
113	2010/06/20 01:52:44	1.000	79.3	12.8
114	2010/06/20 01:52:45	1.000	85.2	11.5
115	2010/06/20 01:53:06	0.750	82.0	11.1
116	2010/06/20 01:53:18	0.750	86.1	11.0
117	2010/06/20 01:53:21	0.625	75.0	11.3
118	2010/06/20 01:53:23	0.750	82.3	12.3
119	2010/06/20 01:53:31	0.625	82.7	10.8
120	2010/06/20 01:53:34	0.625	82.6	11.8
121	2010/06/20 01:53:35	0.875	84.6	12.2
122	2010/06/20 01:53:38	0.875	85.0	12.0
123	2010/06/20 01:53:44	0.500	85.1	13.4
124	2010/06/20 01:53:46	1.000	74.5	14.6
125	2010/06/20 01:53:47	0.750	77.5	11.3
126	2010/06/20 01:53:50	0.625	84.6	11.5

127	2010/06/20 02:02:36	0.625	57.8	10.7
128	2010/06/20 03:03:02	0.875	73.1	10.2
129	2010/06/20 04:08:32	0.750	77.4	10.6
130	2010/06/20 05:05:17	0.750	58.4	10.1
131	2010/06/20 05:20:09	0.750	56.3	11.0
132	2010/06/20 05:32:44	0.875	53.4	10.7
133	2010/06/20 05:44:17	0.750	57.0	7.7
134	2010/06/20 05:44:29	0.625	55.0	11.9
135	2010/06/20 05:50:58	0.875	68.0	10.5
136	2010/06/20 05:54:15	0.750	59.7	11.2
137	2010/06/20 05:55:15	0.750	60.4	11.1
138	2010/06/20 05:59:16	0.875	61.2	10.1
139	2010/06/20 05:59:39	0.750	74.2	8.3
140	2010/06/20 06:01:20	0.625	68.9	11.3
141	2010/06/20 06:01:22	0.750	66.7	10.1
142	2010/06/20 06:02:40	0.875	67.4	9.6
143	2010/06/20 06:09:22	0.625	66.0	12.1
144	2010/06/20 06:10:03	0.625	61.8	9.0
145	2010/06/20 06:10:05	1.000	59.6	9.2
146	2010/06/20 06:14:19	0.750	62.9	11.5
147	2010/06/20 06:14:20	0.875	63.8	10.2
148	2010/06/20 06:17:48	0.625	71.9	11.6
149	2010/06/20 06:17:51	0.625	68.0	8.9
150	2010/06/20 06:17:53	0.875	78.5	9.6
151	2010/06/20 06:18:49	0.875	75.5	8.1
152	2010/06/20 06:18:51	0.750	75.7	7.9
153	2010/06/20 06:18:55	0.875	72.3	9.6
154	2010/06/20 06:19:03	1.000	68.4	6.4
155	2010/06/20 06:19:36	1.000	66.4	7.4
156	2010/06/20 06:19:45	0.875	73.7	8.7
157	2010/06/20 06:19:58	0.750	70.1	7.3
158	2010/06/20 06:19:59	1.000	62.6	7.2
159	2010/06/20 06:20:04	1.000	62.0	9.2
160	2010/06/20 06:21:30	0.625	62.0	10.0

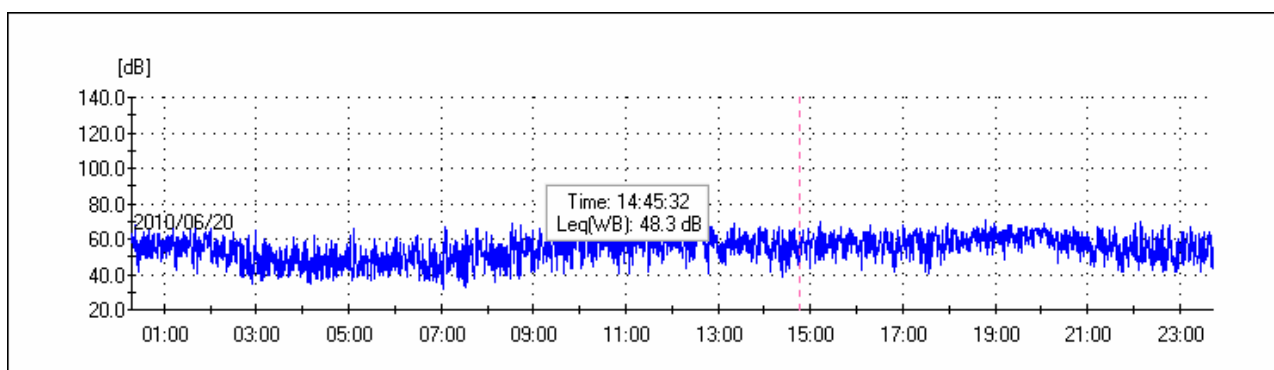
161	2010/06/20 06:23:19	0.750	71.1	8.0
162	2010/06/20 06:23:28	0.750	67.8	7.8
163	2010/06/20 06:24:36	0.625	65.9	12.3
164	2010/06/20 07:08:03	0.625	78.3	10.7
165	2010/06/20 07:25:36	0.625	53.2	10.3
166	2010/06/20 11:23:19	0.625	65.4	8.1
167	2010/06/20 11:23:21	0.875	60.6	7.6
168	2010/06/20 12:23:15	0.750	73.2	11.6
169	2010/06/20 15:05:56	0.875	63.4	10.0
170	2010/06/20 15:30:28	0.625	78.2	8.7
171	2010/06/20 16:01:26	0.750	68.9	10.9
172	2010/06/20 16:04:25	0.750	78.7	11.5
173	2010/06/20 16:43:10	0.750	80.0	10.8
174	2010/06/20 16:44:39	0.875	67.8	9.5
175	2010/06/20 16:53:10	0.750	73.4	10.4
176	2010/06/20 16:58:43	0.875	68.3	10.8
177	2010/06/20 17:10:02	0.875	75.0	8.3
178	2010/06/20 17:53:43	0.625	75.1	12.5
179	2010/06/20 17:59:35	0.875	78.4	9.1
180	2010/06/20 17:59:36	0.750	73.0	7.5
181	2010/06/20 18:04:47	0.875	74.6	8.0
182	2010/06/20 19:01:35	0.875	78.6	9.6
183	2010/06/20 19:46:38	1.000	74.5	9.6
184	2010/06/20 21:34:11	0.750	75.8	11.3
185	2010/06/20 22:08:42	0.750	76.9	10.1
186	2010/06/20 23:07:47	0.750	77.9	8.2
187	2010/06/20 23:08:04	0.875	71.9	10.3
188	2010/06/20 23:09:31	0.750	73.4	8.7
189	2010/06/20 23:25:15	0.750	67.1	10.0
190	2010/06/20 23:27:03	0.625	66.3	12.9
191	2010/06/20 23:27:45	0.625	64.1	12.7
192	2010/06/20 23:44:19	0.500	74.5	10.0
193	2010/06/20 23:44:21	0.625	76.9	12.1

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 125	0.1
Freq: 160	0.0
Freq: 200	0.0
Freq: 250	0.1
Freq: 315	0.0
Freq: 630	0.1
Freq: 800	0.0
Freq: 1 k	0.1
Freq: 2.5 k	0.1
Freq: 3.15 k	3.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

TIME ISTORY COMPONENTI TONALI

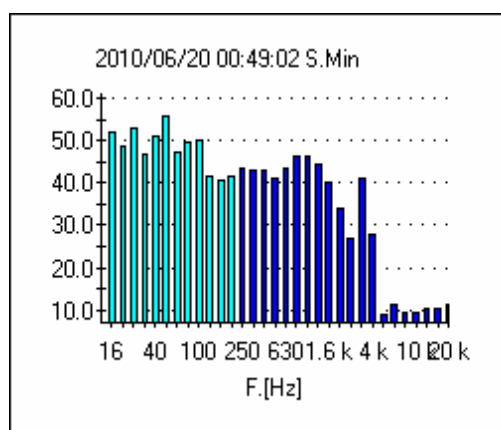
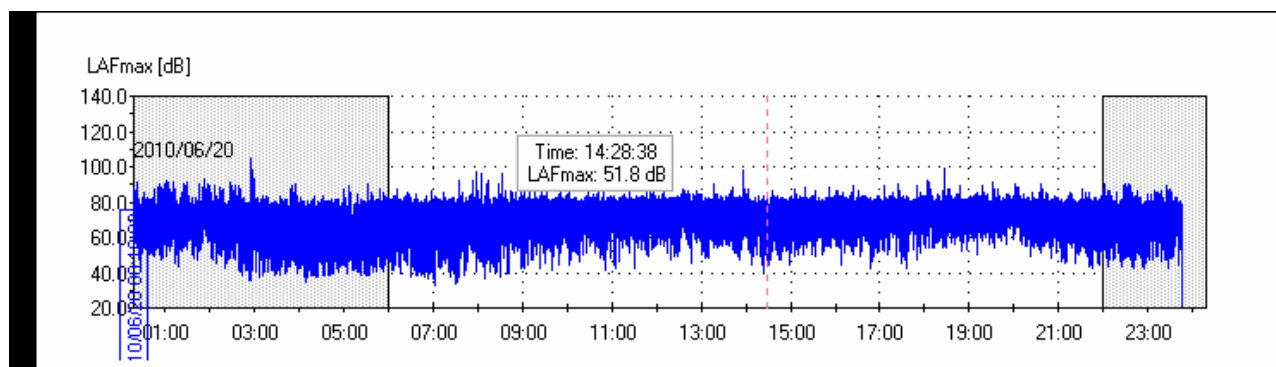
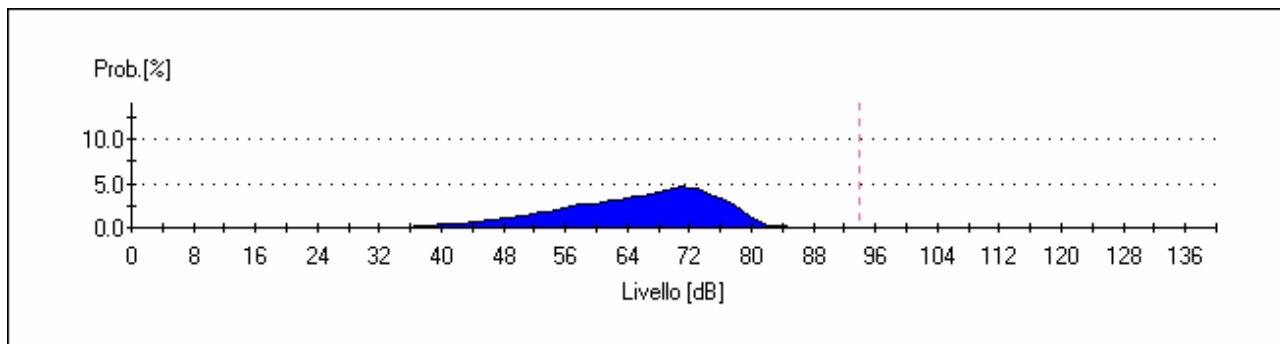


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

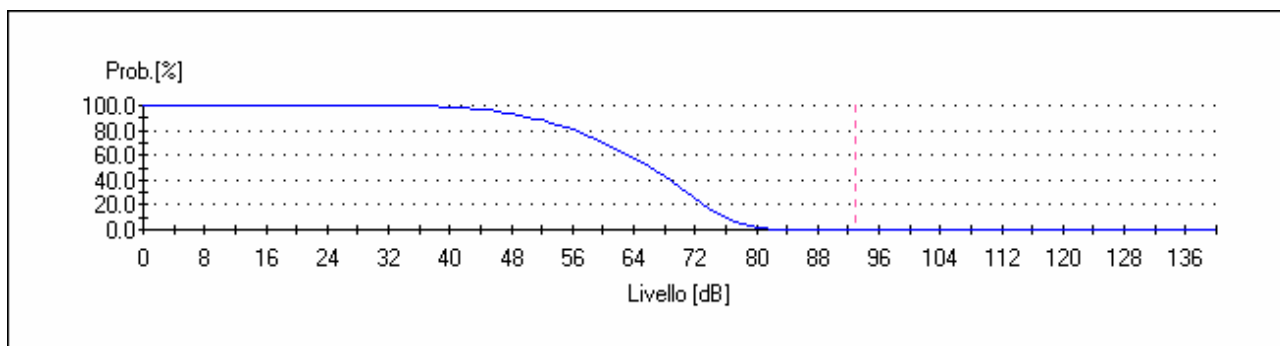
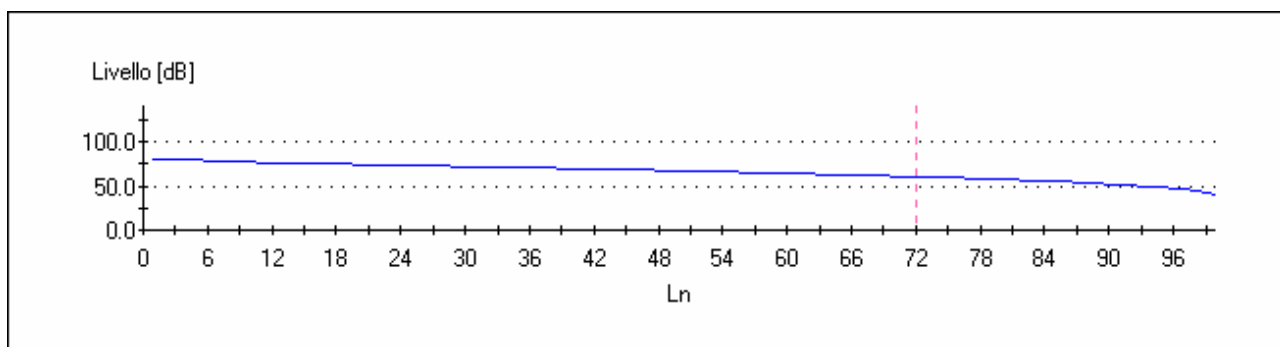


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	81.0
1	81.0
2	80.0
3	79.5
4	79.0
5	78.7
6	78.3
7	78.0
8	77.8
9	77.5
10	77.3
11	77.0
12	76.8
13	76.5
14	76.3
15	76.0
16	75.8
17	75.5
18	75.3
19	75.0
20	74.8
21	74.6
22	74.4
23	74.2
24	74.0
25	73.8
26	73.6
27	73.4
28	73.2
29	73.0
30	72.8

31	72.6
32	72.4
33	72.2
34	72.0
35	71.8
36	71.6
37	71.4
38	71.2
39	71.0
40	70.8
41	70.6
42	70.4
43	70.2
44	70.0
45	69.8
46	69.5
47	69.3
48	69.0
49	68.8
50	68.6
51	68.4
52	68.2
53	68.0
54	67.8
55	67.5
56	67.3
57	67.0
58	66.7
59	66.3
60	66.0
61	65.8
62	65.5
63	65.3
64	65.0

65	64.7
66	64.3
67	64.0
68	63.7
69	63.3
70	63.0
71	62.7
72	62.3
73	62.0
74	61.7
75	61.3
76	61.0
77	60.7
78	60.3
79	60.0
80	59.5
81	59.0
82	58.7
83	58.3
84	58.0
85	57.5
86	57.0
87	56.5
88	56.0
89	55.5
90	55.0
91	54.0
92	53.0
93	52.0
94	51.0
95	50.0
96	49.0
97	47.0
98	45.0

99

42.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	82.0
1	82.0
2	80.0
3	79.0
4	78.0
5	77.5
6	77.0
7	76.0
8	75.7
9	75.3
10	75.0
11	74.5
12	74.0
13	73.7
14	73.3
15	73.0
16	72.7
17	72.3
18	72.0
19	71.8
20	71.5
21	71.3
22	71.0
23	70.7
24	70.3
25	70.0
26	69.8
27	69.5

28	69.3
29	69.0
30	68.7
31	68.3
32	68.0
33	67.7
34	67.3
35	67.0
36	66.7
37	66.3
38	66.0
39	65.8
40	65.5
41	65.3
42	65.0
43	64.7
44	64.3
45	64.0
46	63.7
47	63.3
48	63.0
49	62.7
50	62.3
51	62.0
52	61.7
53	61.3
54	61.0
55	60.7
56	60.3
57	60.0
58	59.7
59	59.3
60	59.0
61	58.8

62	58.5
63	58.3
64	58.0
65	57.7
66	57.3
67	57.0
68	56.7
69	56.3
70	56.0
71	55.7
72	55.3
73	55.0
74	54.5
75	54.0
76	53.7
77	53.3
78	53.0
79	52.5
80	52.0
81	51.7
82	51.3
83	51.0
84	50.5
85	50.0
86	49.5
87	49.0
88	48.5
89	48.0
90	47.0
91	46.5
92	46.0
93	45.0
94	44.0
95	43.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

96	42.0
97	41.0
98	40.0
99	39.0

CLIMA ACUSTICO GIORNALIERO

LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

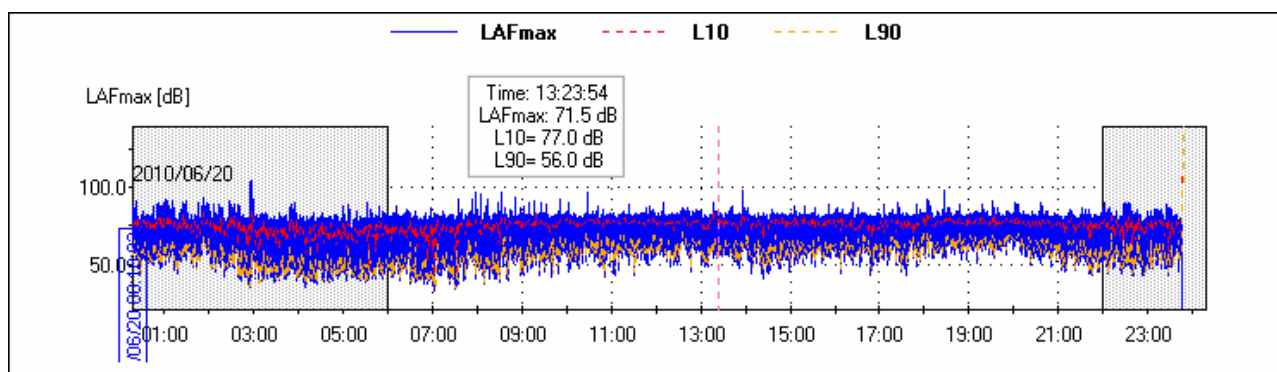
LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
97,3	93,9	96,6
98	93,5	97,3
98,4	94,4	97,8
99,1	94,2	98,6
90,2	84,3	87,3
99,1	94,4	98,6

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

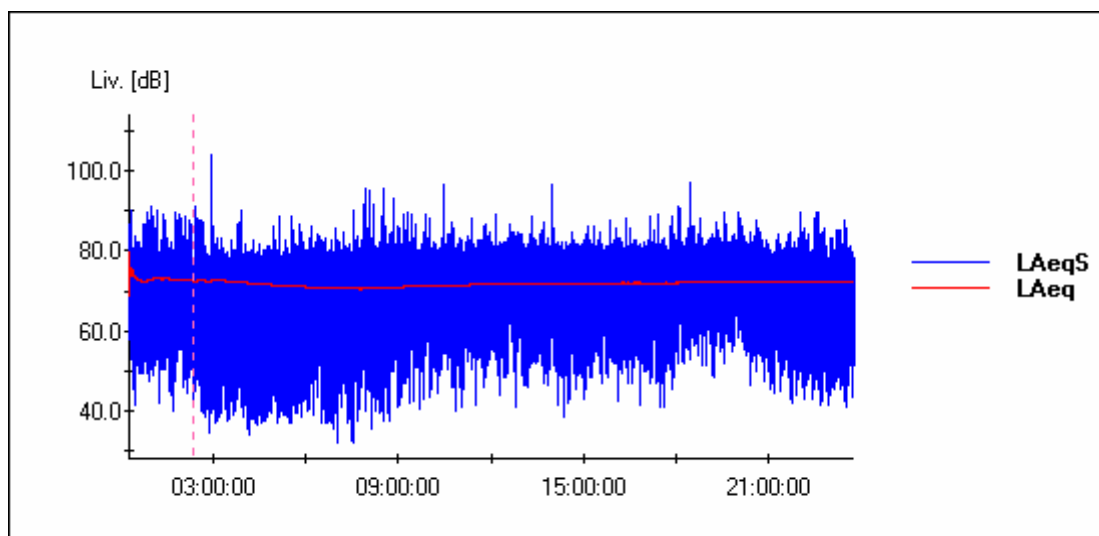
LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
105,3	101,4	104,4
91,1	86,2	90
92	87,4	90,7
105,3	101,4	104,4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

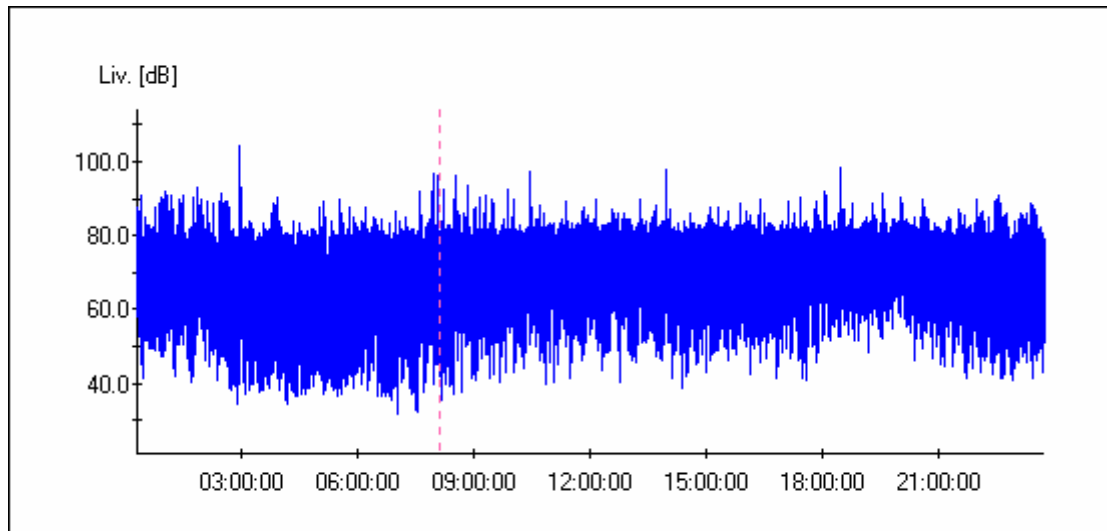
TIME HISTORY L10 – L90



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



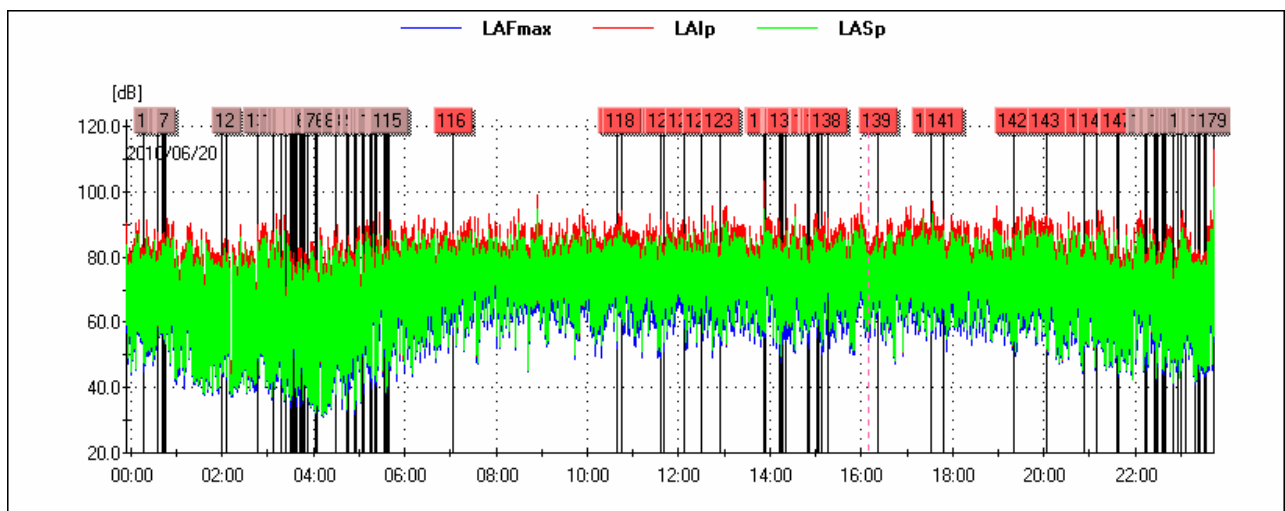
R_1_C 21/06/2010

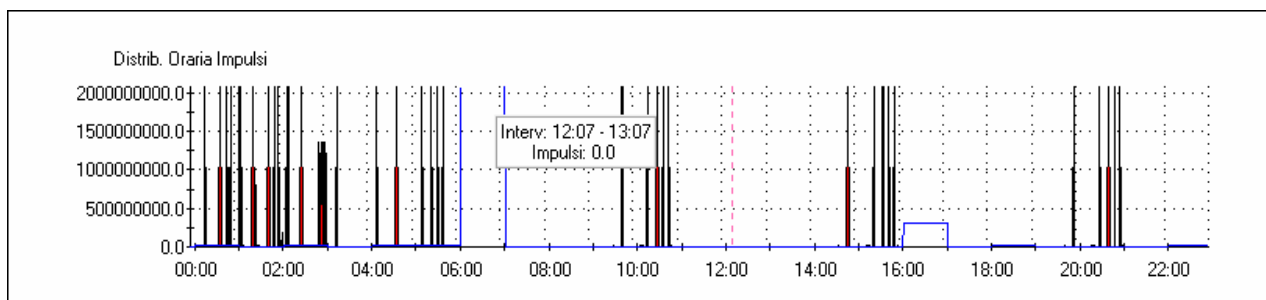
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAI_{max} e LAS_{max} superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAF_{max} inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.





Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/06/21 00:15:50	0.750	74.9	11.3
2	2010/06/21 00:36:01	0.750	84.4	8.7
3	2010/06/21 00:40:59	0.875	71.3	10.6
4	2010/06/21 00:43:17	0.625	76.4	12.1
5	2010/06/21 00:43:42	0.875	76.4	6.8
6	2010/06/21 00:44:26	0.750	85.6	8.2
7	2010/06/21 00:46:22	0.500	76.2	12.8
8	2010/06/21 01:59:27	1.000	68.3	9.9
9	2010/06/21 02:05:24	0.625	66.8	9.9
10	2010/06/21 02:05:25	0.875	62.8	8.4
11	2010/06/21 02:05:26	1.000	61.9	7.0
12	2010/06/21 02:05:30	1.000	58.5	9.2
13	2010/06/21 02:47:21	0.875	78.1	10.6
14	2010/06/21 03:06:43	0.750	58.5	8.8
15	2010/06/21 03:08:13	0.750	57.2	11.8
16	2010/06/21 03:17:20	1.000	62.7	9.0
17	2010/06/21 03:24:13	0.750	53.6	11.6
18	2010/06/21 03:29:16	1.000	53.3	10.6
19	2010/06/21 03:29:21	0.500	60.4	13.1
20	2010/06/21 03:29:28	0.625	63.3	11.1
21	2010/06/21 03:31:00	1.000	58.8	7.3
22	2010/06/21 03:31:56	1.000	60.9	9.5
23	2010/06/21 03:31:58	0.625	58.2	10.4
24	2010/06/21 03:32:13	0.500	62.8	11.8

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

25	2010/06/21 03:32:24	0.500	65.5	12.6
26	2010/06/21 03:32:32	0.500	63.3	11.1
27	2010/06/21 03:32:33	0.625	74.6	12.8
28	2010/06/21 03:32:36	0.625	57.2	15.6
29	2010/06/21 03:32:38	0.500	58.5	12.9
30	2010/06/21 03:32:57	0.625	70.2	11.1
31	2010/06/21 03:35:45	0.750	60.9	9.8
32	2010/06/21 03:35:47	0.625	59.5	10.6
33	2010/06/21 03:37:09	1.000	63.2	10.2
34	2010/06/21 03:38:03	0.500	59.2	11.7
35	2010/06/21 03:38:08	0.625	59.0	12.3
36	2010/06/21 03:38:13	1.000	55.1	11.5
37	2010/06/21 03:41:30	1.000	59.9	12.0
38	2010/06/21 03:41:31	0.625	64.1	12.9
39	2010/06/21 03:41:35	0.500	72.6	14.1
40	2010/06/21 03:41:43	0.625	62.4	12.5
41	2010/06/21 03:41:48	0.500	69.9	13.3
42	2010/06/21 03:41:52	0.625	61.9	13.1
43	2010/06/21 03:41:55	0.625	52.3	12.8
44	2010/06/21 03:41:56	0.625	59.2	13.0
45	2010/06/21 03:41:59	0.500	62.8	13.4
46	2010/06/21 03:42:02	0.625	64.3	12.5
47	2010/06/21 03:42:03	0.875	60.3	11.9
48	2010/06/21 03:42:05	0.625	47.8	11.7
49	2010/06/21 03:42:06	0.500	67.8	13.8
50	2010/06/21 03:42:11	0.625	67.8	13.2
51	2010/06/21 03:42:14	0.500	56.3	14.4
52	2010/06/21 03:42:16	0.750	59.0	12.0
53	2010/06/21 03:42:17	0.625	62.7	12.3
54	2010/06/21 03:42:18	0.500	53.9	13.5
55	2010/06/21 03:42:19	0.750	49.1	12.9
56	2010/06/21 03:42:22	0.625	52.7	11.3
57	2010/06/21 03:42:25	0.875	48.8	10.7
58	2010/06/21 03:42:28	0.875	55.9	12.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

59	2010/06/21 03:43:23	0.500	65.1	13.2
60	2010/06/21 03:43:26	0.625	64.0	12.4
61	2010/06/21 03:43:54	0.750	56.4	10.4
62	2010/06/21 03:44:00	0.875	65.7	10.8
63	2010/06/21 03:44:22	0.625	66.2	12.2
64	2010/06/21 03:45:51	0.625	56.9	12.1
65	2010/06/21 03:45:51	0.750	57.1	9.8
66	2010/06/21 03:46:27	0.750	58.9	10.7
67	2010/06/21 03:49:16	0.625	56.7	11.7
68	2010/06/21 03:52:46	0.625	60.4	11.6
69	2010/06/21 04:02:45	0.500	54.4	12.9
70	2010/06/21 04:02:45	0.625	54.1	11.5
71	2010/06/21 04:02:46	0.625	50.4	11.2
72	2010/06/21 04:02:54	0.625	50.2	12.4
73	2010/06/21 04:02:55	0.875	52.0	11.7
74	2010/06/21 04:05:06	0.625	48.7	12.1
75	2010/06/21 04:05:14	0.750	47.8	11.8
76	2010/06/21 04:05:15	0.625	49.6	12.0
77	2010/06/21 04:28:59	0.625	62.0	12.8
78	2010/06/21 04:29:27	0.625	65.4	11.8
79	2010/06/21 04:29:35	0.625	64.1	13.3
80	2010/06/21 04:30:09	1.000	58.9	11.0
81	2010/06/21 04:30:10	1.000	57.5	7.4
82	2010/06/21 04:30:15	0.500	57.4	12.5
83	2010/06/21 04:30:18	0.625	61.8	12.2
84	2010/06/21 04:44:21	1.000	50.3	10.5
85	2010/06/21 04:44:43	1.000	68.2	9.1
86	2010/06/21 04:44:57	0.875	65.2	11.2
87	2010/06/21 04:53:34	0.875	52.8	10.2
88	2010/06/21 04:54:00	0.625	49.2	11.6
89	2010/06/21 04:54:01	0.625	46.9	9.9
90	2010/06/21 04:54:34	0.625	53.9	10.9
91	2010/06/21 04:54:54	0.875	66.9	11.0
92	2010/06/21 04:55:04	0.500	53.7	11.3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

93	2010/06/21 04:55:11	0.500	61.8	12.3
94	2010/06/21 05:04:18	0.750	72.6	10.1
95	2010/06/21 05:04:21	0.625	67.0	9.6
96	2010/06/21 05:05:13	0.875	65.2	7.3
97	2010/06/21 05:06:20	0.875	64.1	8.6
98	2010/06/21 05:06:27	0.875	55.3	12.0
99	2010/06/21 05:15:25	0.875	59.1	9.8
100	2010/06/21 05:15:47	0.625	70.9	9.6
101	2010/06/21 05:16:01	0.625	66.5	11.6
102	2010/06/21 05:20:15	0.875	58.4	11.0
103	2010/06/21 05:21:13	0.750	76.4	8.7
104	2010/06/21 05:21:14	0.875	76.4	7.7
105	2010/06/21 05:21:20	1.000	58.5	6.8
106	2010/06/21 05:22:52	0.750	69.4	10.4
107	2010/06/21 05:23:03	0.875	52.5	8.7
108	2010/06/21 05:23:07	0.750	57.8	8.6
109	2010/06/21 05:23:07	0.875	56.4	7.5
110	2010/06/21 05:33:46	0.750	68.4	9.7
111	2010/06/21 05:35:23	0.625	63.4	11.8
112	2010/06/21 05:36:49	0.500	63.4	12.3
113	2010/06/21 05:38:20	0.625	81.0	8.6
114	2010/06/21 05:38:21	0.625	76.2	8.8
115	2010/06/21 05:38:27	0.750	68.7	10.2
116	2010/06/21 07:03:16	0.750	72.6	10.3
117	2010/06/21 10:38:20	0.625	76.7	10.9
118	2010/06/21 10:45:00	0.875	79.5	9.6
119	2010/06/21 11:36:46	1.000	81.2	8.6
120	2010/06/21 11:39:58	0.875	70.9	7.6
121	2010/06/21 12:06:13	0.750	79.4	10.8
122	2010/06/21 12:30:32	0.875	81.1	9.9
123	2010/06/21 12:53:33	0.875	67.9	10.0
124	2010/06/21 13:52:38	0.750	101.6	8.7
125	2010/06/21 13:53:30	0.750	76.4	10.1
126	2010/06/21 14:12:12	1.000	77.3	10.4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

127	2010/06/21 14:12:52	1.000	76.6	9.5
128	2010/06/21 14:15:07	0.750	65.8	8.2
129	2010/06/21 14:15:39	0.750	79.5	10.3
130	2010/06/21 14:15:47	0.625	72.1	10.0
131	2010/06/21 14:20:46	0.875	72.4	10.2
132	2010/06/21 14:49:13	0.625	78.9	10.9
133	2010/06/21 14:50:57	1.000	74.4	9.7
134	2010/06/21 14:51:34	1.000	69.8	6.9
135	2010/06/21 15:01:05	1.000	84.1	8.1
136	2010/06/21 15:03:50	1.000	77.1	11.0
137	2010/06/21 15:07:29	1.000	73.1	8.5
138	2010/06/21 15:16:09	0.625	87.5	11.3
139	2010/06/21 16:21:03	0.750	87.6	9.7
140	2010/06/21 17:31:59	0.750	74.3	10.2
141	2010/06/21 17:47:51	0.875	78.0	9.6
142	2010/06/21 19:21:23	0.875	74.5	9.3
143	2010/06/21 20:03:06	0.625	74.2	11.5
144	2010/06/21 20:53:34	1.000	76.2	8.0
145	2010/06/21 21:10:14	0.750	67.4	10.4
146	2010/06/21 21:36:29	0.875	66.5	6.9
147	2010/06/21 21:37:25	0.625	61.8	9.5
148	2010/06/21 22:11:58	0.875	75.9	9.3
149	2010/06/21 22:14:24	0.750	74.9	10.3
150	2010/06/21 22:14:47	0.625	63.7	11.5
151	2010/06/21 22:24:46	0.750	75.6	8.7
152	2010/06/21 22:27:19	0.750	64.2	11.9
153	2010/06/21 22:28:06	0.875	61.3	8.5
154	2010/06/21 22:28:59	0.875	64.5	7.9
155	2010/06/21 22:35:30	1.000	63.1	9.6
156	2010/06/21 22:37:52	0.625	78.3	10.5
157	2010/06/21 22:37:59	0.875	66.8	8.5
158	2010/06/21 22:38:16	0.625	77.7	10.8
159	2010/06/21 22:39:51	0.750	75.7	10.4
160	2010/06/21 22:39:54	0.625	69.7	8.9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

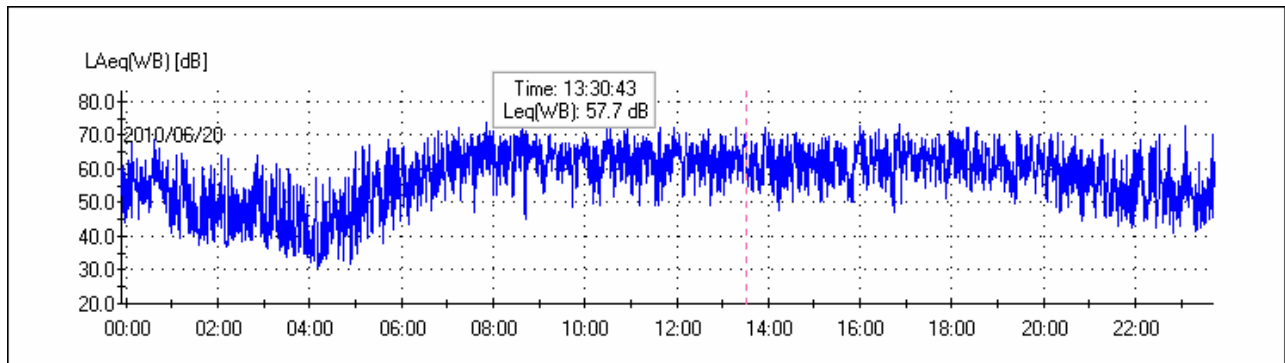
161	2010/06/21 22:39:56	0.625	73.0	9.7
162	2010/06/21 22:49:11	0.625	56.7	10.9
163	2010/06/21 22:49:17	0.750	58.5	10.0
164	2010/06/21 22:49:51	1.000	57.2	9.8
165	2010/06/21 22:55:56	1.000	59.2	8.8
166	2010/06/21 22:55:59	0.875	60.4	7.9
167	2010/06/21 22:56:35	0.875	74.6	10.6
168	2010/06/21 22:59:11	0.750	64.2	9.6
169	2010/06/21 23:06:48	0.750	67.5	9.3
170	2010/06/21 23:19:02	0.750	61.6	10.2
171	2010/06/21 23:23:36	0.750	70.6	10.0
172	2010/06/21 23:24:40	0.750	55.7	9.2
173	2010/06/21 23:25:06	0.875	65.3	9.2
174	2010/06/21 23:25:15	0.875	62.1	11.2
175	2010/06/21 23:31:03	0.625	68.6	11.3
176	2010/06/21 23:31:25	1.000	69.5	10.5
177	2010/06/21 23:32:59	0.875	61.3	9.2
178	2010/06/21 23:42:23	0.625	109.4	11.4
179	2010/06/21 23:42:37	0.750	76.7	10.8

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 63	0.0
Freq: 80	0.0
Freq: 100	0.0
Freq: 250	0.0
Freq: 315	0.1
Freq: 400	0.1
Freq: 500	0.2
Freq: 630	0.1
Freq: 800	0.3
Freq: 1 k	0.2
Freq: 2.5 k	0.0
Freq: 3.15 k	9.4
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

TIME ISTORY COMPONENTI TONALI

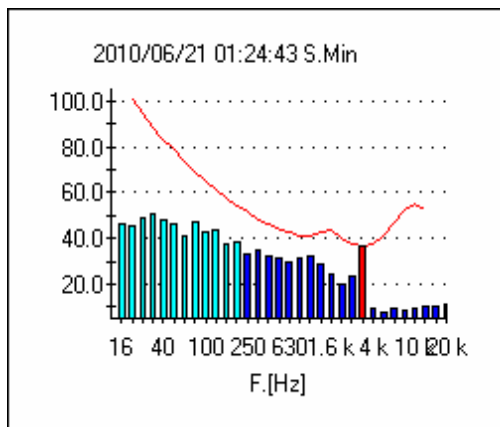
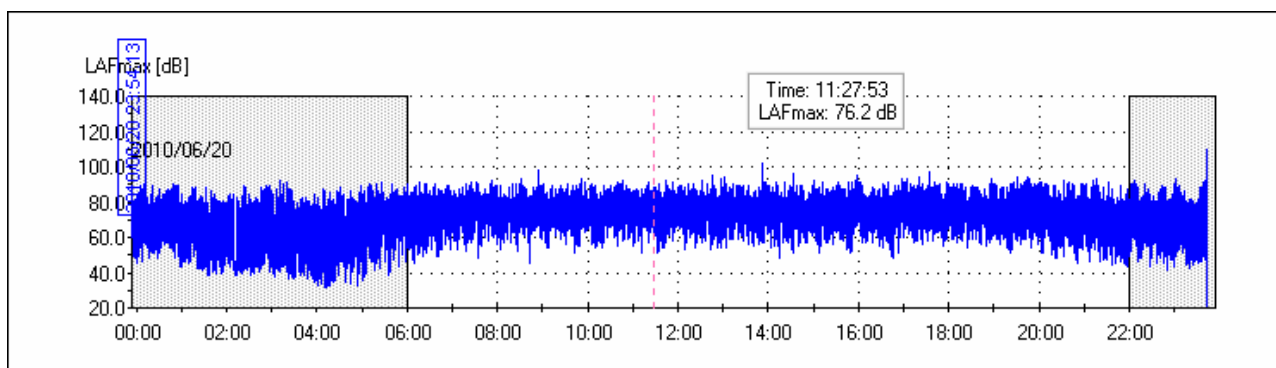
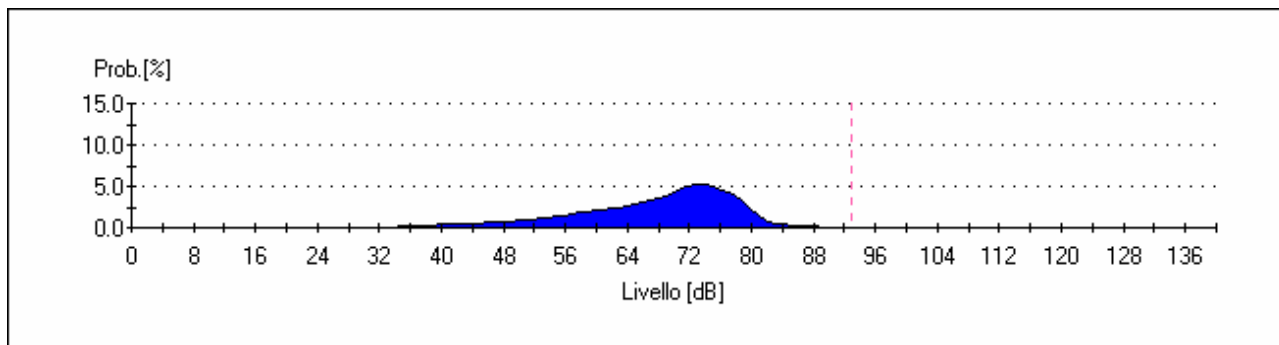


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

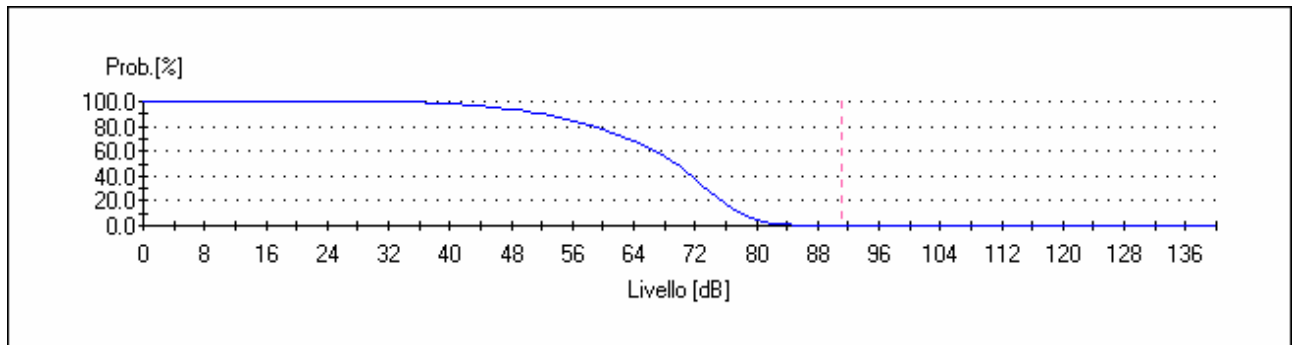
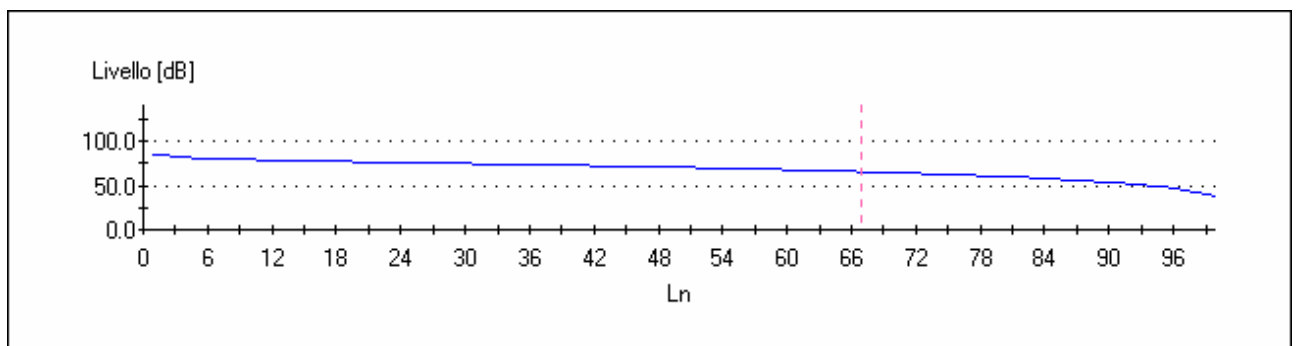


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	85.0
1	85.0
2	83.0
3	82.0
4	81.5
5	81.0
6	80.7
7	80.3
8	80.0
9	79.7
10	79.3

11	79.0
12	78.8
13	78.6
14	78.4
15	78.2
16	78.0
17	77.8
18	77.7
19	77.5
20	77.3
21	77.2
22	77.0
23	76.8
24	76.7
25	76.5
26	76.3
27	76.2
28	76.0
29	75.8
30	75.7
31	75.5
32	75.3
33	75.2
34	75.0
35	74.9
36	74.7
37	74.6
38	74.4
39	74.3
40	74.1
41	74.0
42	73.9
43	73.7
44	73.6

45	73.4
46	73.3
47	73.1
48	73.0
49	72.8
50	72.7
51	72.5
52	72.3
53	72.2
54	72.0
55	71.8
56	71.7
57	71.5
58	71.3
59	71.2
60	71.0
61	70.8
62	70.6
63	70.4
64	70.2
65	70.0
66	69.8
67	69.5
68	69.3
69	69.0
70	68.8
71	68.5
72	68.3
73	68.0
74	67.8
75	67.5
76	67.3
77	67.0
78	66.7

79	66.3
80	66.0
81	65.7
82	65.3
83	65.0
84	64.5
85	64.0
86	63.5
87	63.0
88	62.5
89	62.0
90	61.5
91	61.0
92	60.0
93	59.5
94	59.0
95	58.0
96	57.0
97	56.0
98	54.0
99	52.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	83.0
1	83.0
2	81.0
3	79.0
4	78.5
5	78.0
6	77.0
7	76.5
8	76.0
9	75.5
10	75.0
11	74.5
12	74.0
13	73.5
14	73.0
15	72.7
16	72.3
17	72.0
18	71.5
19	71.0
20	70.7
21	70.3
22	70.0
23	69.7
24	69.3
25	69.0
26	68.5
27	68.0
28	67.7
29	67.3
30	67.0

31	66.7
32	66.3
33	66.0
34	65.7
35	65.3
36	65.0
37	64.7
38	64.3
39	64.0
40	63.7
41	63.3
42	63.0
43	62.7
44	62.3
45	62.0
46	61.7
47	61.3
48	61.0
49	60.7
50	60.3
51	60.0
52	59.8
53	59.5
54	59.3
55	59.0
56	58.7
57	58.3
58	58.0
59	57.7
60	57.3
61	57.0
62	56.7
63	56.3
64	56.0

65	55.7
66	55.3
67	55.0
68	54.5
69	54.0
70	53.7
71	53.3
72	53.0
73	52.5
74	52.0
75	51.7
76	51.3
77	51.0
78	50.5
79	50.0
80	49.5
81	49.0
82	48.5
83	48.0
84	47.5
85	47.0
86	46.0
87	45.5
88	45.0
89	44.5
90	44.0
91	43.0
92	42.5
93	42.0
94	41.0
95	40.0
96	39.0
97	38.0
98	37.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

99	35.0

CLIMA ACUSTICO GIORNALIERO

LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

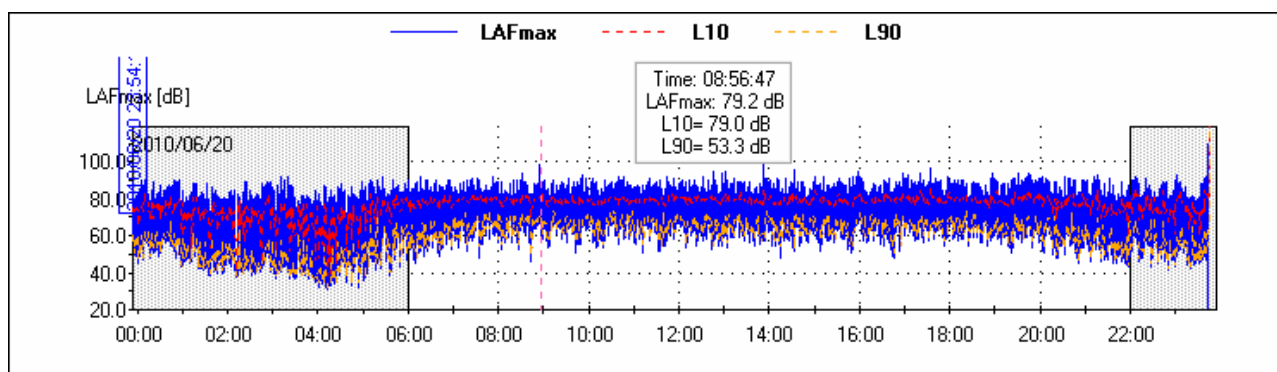
LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
93,2	88,5	91,8
99,2	94,7	98,3
103,3	94,6	101,6
97,3	93,3	96,6
94,1	90,1	93
103,3	94,7	101,6

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

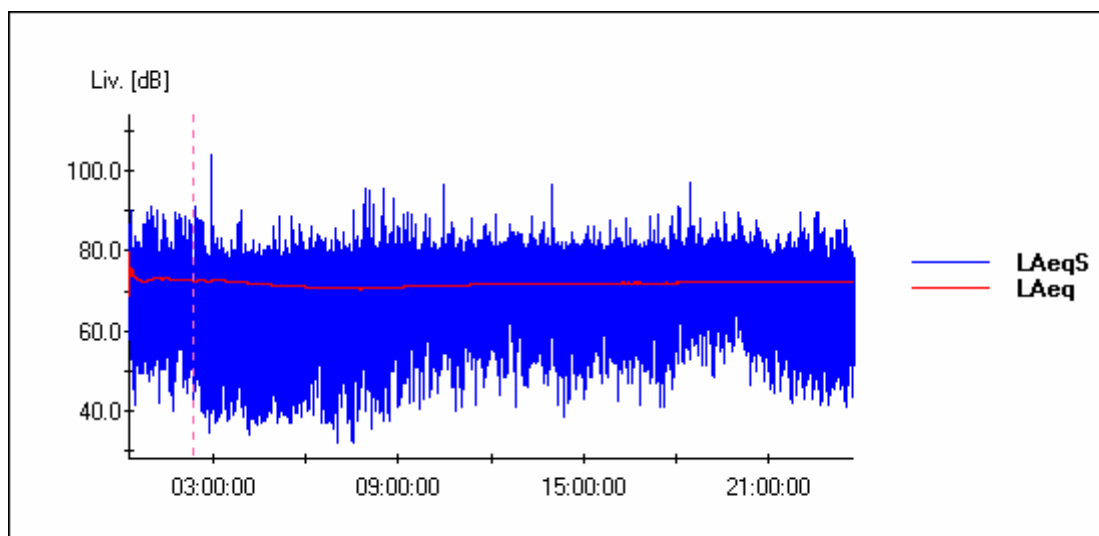
LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
93,3	88,3	92,1
93,8	88,1	91,7
112,7	101,3	109,4
112,7	101,3	109,4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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TIME HISTORY L10 – L90

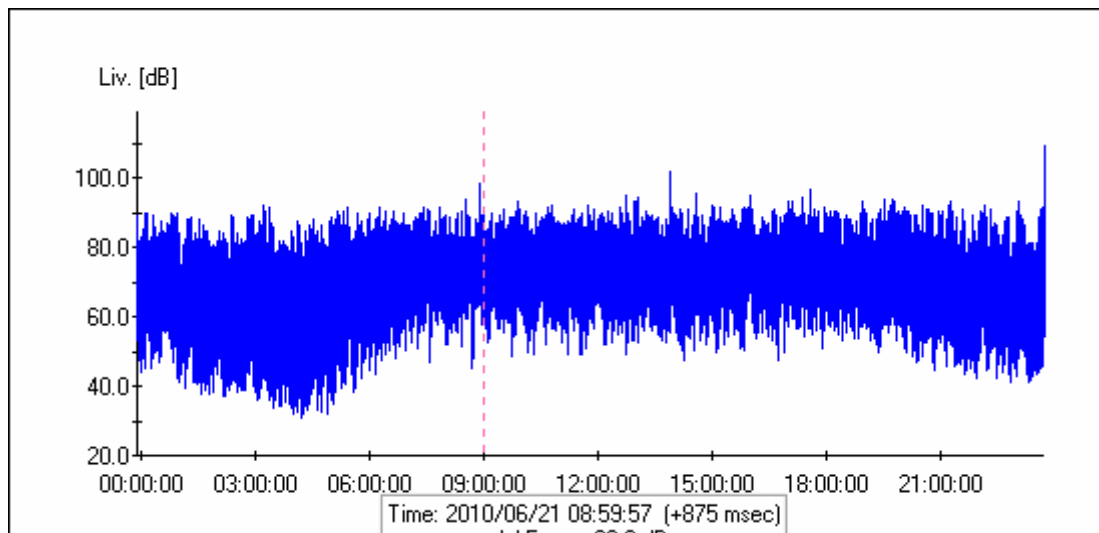


LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"

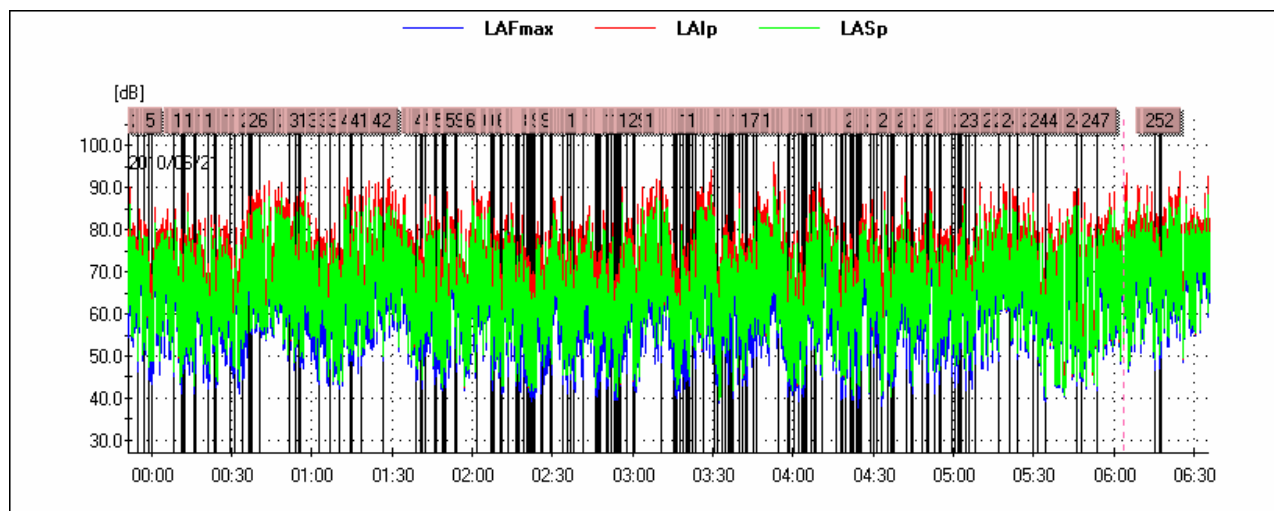


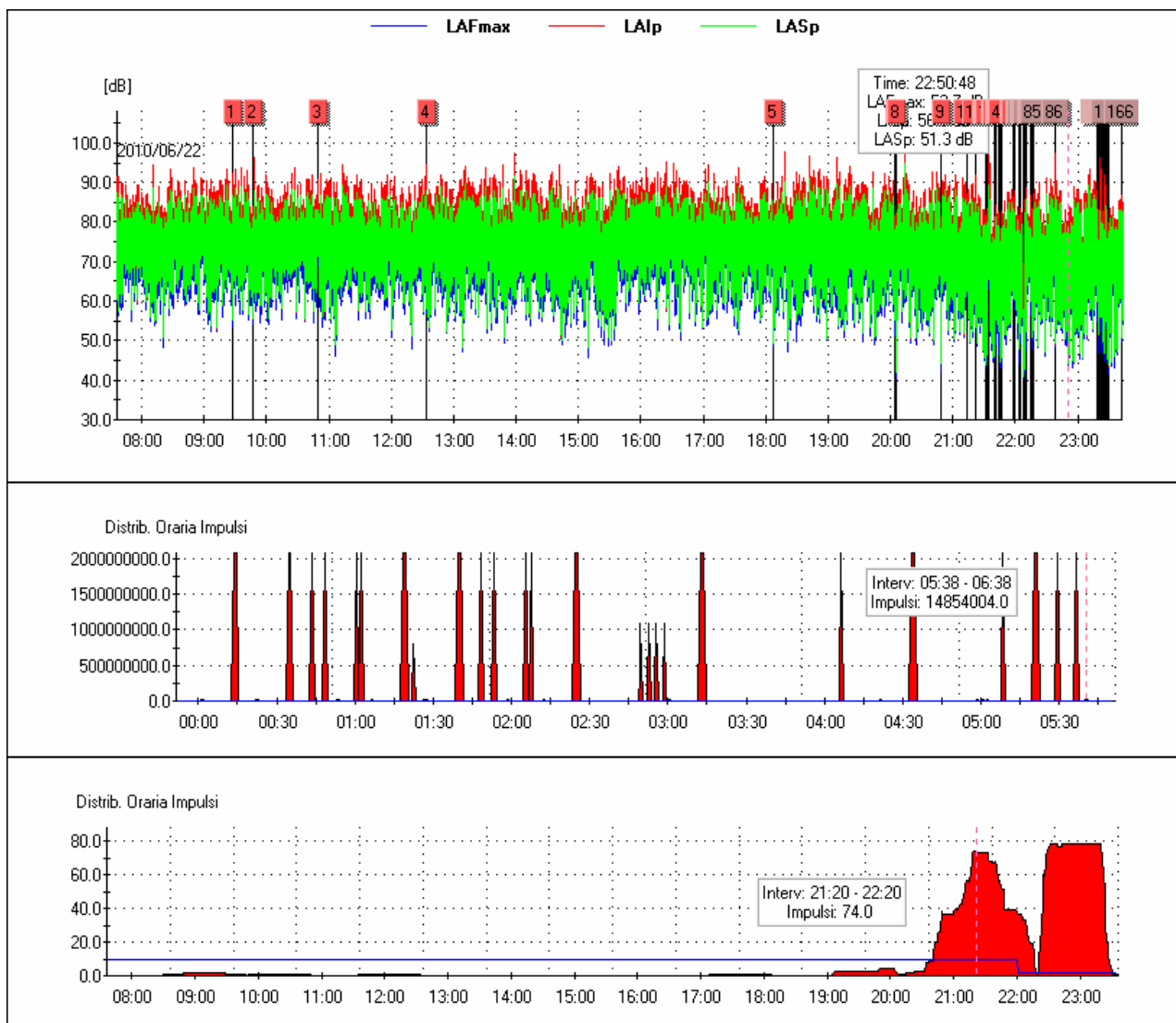
R_1_C Mercoledì 14/07/2010 Martedì 22/06/2010 RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAI_{max} e LAS_{max} superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAF_{max} inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.





Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAI max - LASmax [dB]
1	2010/06/21 23:54:59	0.875	65.4	7.9
2	2010/06/21 23:55:03	0.625	60.9	6.5
3	2010/06/21 23:57:28	0.750	71.3	9.7
4	2010/06/21 23:59:07	0.625	68.1	11.2
5	2010/06/22 00:00:14	1.000	57.6	8.4
6	2010/06/22 00:08:17	0.625	60.2	11.1
7	2010/06/22 00:08:19	0.875	61.8	9.4

8	2010/06/22 00:11:07	0.875	75.6	10.7
9	2010/06/22 00:11:35	0.875	65.8	7.3
10	2010/06/22 00:12:03	0.750	71.1	9.7
11	2010/06/22 00:12:12	1.000	62.9	10.5
12	2010/06/22 00:16:08	0.625	61.1	11.4
13	2010/06/22 00:16:38	0.875	67.8	8.4
14	2010/06/22 00:21:04	0.750	55.4	7.5
15	2010/06/22 00:23:39	1.000	75.2	10.8
16	2010/06/22 00:24:17	1.000	63.0	6.6
17	2010/06/22 00:29:37	0.875	60.6	9.0
18	2010/06/22 00:31:24	0.875	70.1	9.8
19	2010/06/22 00:34:00	0.875	64.4	11.3
20	2010/06/22 00:36:38	0.750	80.3	7.5
21	2010/06/22 00:36:40	0.875	82.3	7.4
22	2010/06/22 00:37:00	0.625	81.0	9.0
23	2010/06/22 00:37:04	0.875	72.2	6.2
24	2010/06/22 00:37:23	0.750	84.0	11.2
25	2010/06/22 00:40:25	0.875	67.1	9.3
26	2010/06/22 00:40:26	1.000	69.7	7.9
27	2010/06/22 00:51:51	0.875	70.6	7.9
28	2010/06/22 00:54:03	0.875	64.6	9.7
29	2010/06/22 00:55:20	0.750	67.0	8.3
30	2010/06/22 00:55:34	1.000	65.6	9.9
31	2010/06/22 00:55:49	0.750	68.4	8.8
32	2010/06/22 01:02:48	0.625	58.4	8.9
33	2010/06/22 01:02:55	0.625	62.5	8.1
34	2010/06/22 01:02:59	0.750	61.7	8.9
35	2010/06/22 01:06:41	0.875	66.9	9.6
36	2010/06/22 01:10:23	0.625	57.6	11.1
37	2010/06/22 01:10:33	1.000	69.0	11.0
38	2010/06/22 01:14:14	0.875	61.8	6.9
39	2010/06/22 01:14:22	0.750	64.0	8.9
40	2010/06/22 01:14:52	0.750	70.8	9.4
41	2010/06/22 01:18:36	0.750	64.9	10.4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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42	2010/06/22 01:26:42	0.625	67.6	12.4
43	2010/06/22 01:38:58	0.875	64.6	9.6
44	2010/06/22 01:40:38	0.625	62.3	7.5
45	2010/06/22 01:41:12	0.750	60.2	7.5
46	2010/06/22 01:41:14	0.750	59.1	10.4
47	2010/06/22 01:42:39	0.875	82.8	9.9
48	2010/06/22 01:45:44	0.875	85.3	8.4
49	2010/06/22 01:45:53	0.750	60.1	9.6
50	2010/06/22 01:46:12	0.875	73.0	10.3
51	2010/06/22 01:46:14	0.750	62.4	10.8
52	2010/06/22 01:46:26	0.750	61.3	10.4
53	2010/06/22 01:49:08	0.625	67.0	9.9
54	2010/06/22 01:49:26	0.875	65.1	8.9
55	2010/06/22 01:49:36	0.750	60.4	9.3
56	2010/06/22 01:49:45	1.000	65.7	8.0
57	2010/06/22 01:49:51	0.875	57.9	8.2
58	2010/06/22 01:53:31	0.875	65.3	9.3
59	2010/06/22 01:54:14	0.625	65.8	9.9
60	2010/06/22 02:01:36	0.625	65.4	9.9
61	2010/06/22 02:07:07	1.000	66.5	8.1
62	2010/06/22 02:07:10	0.875	71.7	8.9
63	2010/06/22 02:07:48	0.625	63.4	10.1
64	2010/06/22 02:08:05	0.750	63.0	7.3
65	2010/06/22 02:10:27	0.750	57.4	6.9
66	2010/06/22 02:11:06	1.000	65.3	9.4
67	2010/06/22 02:11:11	0.750	58.1	10.8
68	2010/06/22 02:13:39	0.750	58.1	6.4
69	2010/06/22 02:13:40	0.625	61.8	10.7
70	2010/06/22 02:16:08	0.625	57.7	10.2
71	2010/06/22 02:16:32	0.625	62.5	7.6
72	2010/06/22 02:17:03	1.000	60.9	10.1
73	2010/06/22 02:17:40	1.000	62.4	7.9
74	2010/06/22 02:19:17	0.875	73.5	8.9
75	2010/06/22 02:20:19	0.875	59.6	8.8

76	2010/06/22 02:20:52	1.000	66.4	8.7
77	2010/06/22 02:21:30	1.000	60.9	8.4
78	2010/06/22 02:21:54	0.625	56.4	7.4
79	2010/06/22 02:22:14	0.500	63.0	10.3
80	2010/06/22 02:22:40	0.625	55.5	8.4
81	2010/06/22 02:23:12	0.875	61.1	6.2
82	2010/06/22 02:23:33	0.875	62.4	8.8
83	2010/06/22 02:25:32	0.750	69.2	7.1
84	2010/06/22 02:25:35	0.750	66.1	9.1
85	2010/06/22 02:25:36	0.625	62.6	8.6
86	2010/06/22 02:25:42	0.750	63.2	8.8
87	2010/06/22 02:25:45	0.750	66.3	11.8
88	2010/06/22 02:25:54	0.750	66.0	9.0
89	2010/06/22 02:25:55	0.750	63.8	8.9
90	2010/06/22 02:26:11	0.625	67.0	7.7
91	2010/06/22 02:29:15	1.000	63.3	9.4
92	2010/06/22 02:29:43	1.000	60.9	9.6
93	2010/06/22 02:29:51	1.000	66.1	10.0
94	2010/06/22 02:33:55	0.750	65.7	9.5
95	2010/06/22 02:35:46	0.750	60.0	9.8
96	2010/06/22 02:36:42	0.750	59.3	10.5
97	2010/06/22 02:36:44	0.750	63.9	10.7
98	2010/06/22 02:38:09	0.500	64.0	11.0
99	2010/06/22 02:38:11	0.875	64.2	9.4
100	2010/06/22 02:41:25	0.875	65.2	8.4
101	2010/06/22 02:41:27	0.875	70.3	8.5
102	2010/06/22 02:46:00	0.625	58.9	9.0
103	2010/06/22 02:46:09	0.750	62.2	10.8
104	2010/06/22 02:46:39	0.750	62.1	10.4
105	2010/06/22 02:47:06	1.000	62.7	11.9
106	2010/06/22 02:47:10	0.750	63.4	10.5
107	2010/06/22 02:47:17	0.875	62.0	8.2
108	2010/06/22 02:47:57	0.875	67.3	11.0
109	2010/06/22 02:50:02	1.000	63.5	10.9

110	2010/06/22 02:50:07	0.750	63.0	10.0
111	2010/06/22 02:50:57	0.625	58.8	9.2
112	2010/06/22 02:52:01	0.750	65.5	10.7
113	2010/06/22 02:53:07	0.625	62.9	9.2
114	2010/06/22 02:53:38	0.750	60.3	9.5
115	2010/06/22 02:53:40	0.875	57.8	8.8
116	2010/06/22 02:53:58	0.875	63.9	6.8
117	2010/06/22 02:54:02	1.000	64.1	10.8
118	2010/06/22 02:54:29	0.875	63.8	8.8
119	2010/06/22 02:54:33	0.750	63.0	11.0
120	2010/06/22 02:54:58	0.875	65.3	10.4
121	2010/06/22 02:55:16	0.625	63.7	11.1
122	2010/06/22 02:55:27	0.875	55.4	7.6
123	2010/06/22 02:57:39	0.750	63.4	8.3
124	2010/06/22 02:57:43	0.875	64.8	9.7
125	2010/06/22 02:57:53	1.000	65.3	9.8
126	2010/06/22 03:00:15	0.875	66.9	8.8
127	2010/06/22 03:00:24	1.000	57.3	8.8
128	2010/06/22 03:00:53	0.750	57.0	10.2
129	2010/06/22 03:00:57	0.875	55.8	9.0
130	2010/06/22 03:10:39	0.875	66.1	6.8
131	2010/06/22 03:10:43	1.000	69.1	8.5
132	2010/06/22 03:15:40	0.750	65.8	8.8
133	2010/06/22 03:15:44	1.000	61.9	8.4
134	2010/06/22 03:15:53	0.625	62.1	6.5
135	2010/06/22 03:15:55	0.625	67.0	11.9
136	2010/06/22 03:15:56	1.000	68.1	8.9
137	2010/06/22 03:16:02	1.000	63.1	7.6
138	2010/06/22 03:16:13	0.875	60.6	9.0
139	2010/06/22 03:16:34	0.750	66.2	9.1
140	2010/06/22 03:16:37	0.750	60.3	10.7
141	2010/06/22 03:17:52	1.000	59.1	9.7
142	2010/06/22 03:18:55	1.000	62.0	6.6
143	2010/06/22 03:19:04	0.625	65.2	7.5

144	2010/06/22 03:19:51	0.875	68.7	6.9
145	2010/06/22 03:20:23	0.750	64.4	11.9
146	2010/06/22 03:20:49	0.750	66.6	9.1
147	2010/06/22 03:21:09	1.000	64.1	11.2
148	2010/06/22 03:22:34	1.000	74.1	8.3
149	2010/06/22 03:23:22	1.000	66.3	8.7
150	2010/06/22 03:23:43	0.875	62.1	9.1
151	2010/06/22 03:23:45	0.750	61.9	8.9
152	2010/06/22 03:23:51	0.875	74.6	9.0
153	2010/06/22 03:26:24	0.625	77.4	9.4
154	2010/06/22 03:30:32	1.000	65.5	9.8
155	2010/06/22 03:31:51	0.750	63.4	10.8
156	2010/06/22 03:31:53	0.875	66.8	9.5
157	2010/06/22 03:33:47	0.750	69.5	7.9
158	2010/06/22 03:34:35	1.000	67.8	8.6
159	2010/06/22 03:36:00	0.750	68.3	11.2
160	2010/06/22 03:36:13	0.875	69.3	9.0
161	2010/06/22 03:37:17	0.875	66.9	7.7
162	2010/06/22 03:37:19	0.750	67.2	7.3
163	2010/06/22 03:37:21	0.625	67.7	10.2
164	2010/06/22 03:40:13	1.000	64.9	9.6
165	2010/06/22 03:40:53	0.875	64.5	6.6
166	2010/06/22 03:42:19	0.875	63.3	8.1
167	2010/06/22 03:42:30	0.625	65.6	8.5
168	2010/06/22 03:42:36	0.875	61.8	8.5
169	2010/06/22 03:43:04	0.875	61.6	9.8
170	2010/06/22 03:45:27	0.625	72.4	8.0
171	2010/06/22 03:46:12	0.875	68.5	7.1
172	2010/06/22 03:54:42	1.000	76.2	7.3
173	2010/06/22 03:57:59	0.625	65.6	11.7
174	2010/06/22 03:58:29	0.875	62.0	9.6
175	2010/06/22 04:00:35	0.750	60.4	10.4
176	2010/06/22 04:00:41	0.750	64.3	9.3
177	2010/06/22 04:02:13	0.750	62.2	9.3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

178	2010/06/22 04:03:37	0.875	67.3	10.3
179	2010/06/22 04:03:49	0.875	59.8	8.3
180	2010/06/22 04:03:57	0.625	58.8	6.7
181	2010/06/22 04:04:11	1.000	62.2	9.7
182	2010/06/22 04:04:14	1.000	64.9	9.3
183	2010/06/22 04:04:20	0.750	64.0	11.5
184	2010/06/22 04:04:26	0.500	67.4	10.2
185	2010/06/22 04:04:48	0.625	64.9	11.3
186	2010/06/22 04:05:01	0.750	68.9	11.0
187	2010/06/22 04:07:06	0.875	67.7	9.2
188	2010/06/22 04:08:19	0.750	65.2	9.1
189	2010/06/22 04:10:56	0.875	65.2	8.2
190	2010/06/22 04:16:11	0.750	66.3	9.7
191	2010/06/22 04:17:49	0.625	63.2	11.6
192	2010/06/22 04:18:24	0.625	65.2	10.8
193	2010/06/22 04:19:40	1.000	62.2	6.2
194	2010/06/22 04:19:54	0.875	62.5	6.4
195	2010/06/22 04:21:26	1.000	66.1	11.3
196	2010/06/22 04:21:33	0.875	62.4	9.8
197	2010/06/22 04:22:14	0.625	61.2	10.1
198	2010/06/22 04:22:36	0.875	64.8	9.9
199	2010/06/22 04:23:40	0.625	64.2	7.2
200	2010/06/22 04:24:15	0.625	67.0	12.2
201	2010/06/22 04:25:16	0.625	63.4	8.1
202	2010/06/22 04:25:20	0.875	59.7	9.3
203	2010/06/22 04:28:50	1.000	70.6	8.0
204	2010/06/22 04:30:07	0.875	68.8	10.0
205	2010/06/22 04:31:18	1.000	72.6	8.3
206	2010/06/22 04:33:17	0.875	56.2	7.8
207	2010/06/22 04:35:39	0.750	61.5	11.3
208	2010/06/22 04:35:41	0.875	60.5	9.9
209	2010/06/22 04:35:42	0.750	58.9	9.7
210	2010/06/22 04:36:32	0.875	62.4	6.9
211	2010/06/22 04:36:51	0.750	64.7	11.1

212	2010/06/22 04:37:20	0.625	71.7	10.0
213	2010/06/22 04:37:50	0.875	67.1	8.3
214	2010/06/22 04:42:34	0.750	70.4	9.7
215	2010/06/22 04:44:27	1.000	65.1	9.1
216	2010/06/22 04:44:40	0.625	62.1	11.2
217	2010/06/22 04:44:48	0.875	66.1	8.0
218	2010/06/22 04:44:49	0.875	67.9	10.3
219	2010/06/22 04:48:15	0.875	60.7	8.5
220	2010/06/22 04:50:04	0.750	67.4	8.0
221	2010/06/22 04:50:23	0.500	64.5	9.7
222	2010/06/22 04:50:27	0.875	60.5	10.8
223	2010/06/22 04:50:29	1.000	68.1	7.9
224	2010/06/22 04:52:47	0.875	64.1	8.2
225	2010/06/22 04:52:53	0.875	59.8	9.4
226	2010/06/22 04:54:43	1.000	61.2	10.9
227	2010/06/22 04:55:23	0.875	73.8	10.4
228	2010/06/22 04:59:42	0.750	66.0	10.1
229	2010/06/22 05:00:53	0.625	57.7	11.3
230	2010/06/22 05:01:35	1.000	63.5	9.5
231	2010/06/22 05:02:10	0.625	71.1	11.9
232	2010/06/22 05:02:13	0.625	69.4	10.8
233	2010/06/22 05:02:57	0.875	68.1	8.8
234	2010/06/22 05:04:36	0.750	65.3	8.5
235	2010/06/22 05:05:50	1.000	69.1	7.7
236	2010/06/22 05:05:53	1.000	61.4	7.2
237	2010/06/22 05:06:00	0.875	65.5	11.1
238	2010/06/22 05:08:19	1.000	73.1	6.8
239	2010/06/22 05:17:11	1.000	72.3	8.9
240	2010/06/22 05:20:58	0.625	74.8	11.8
241	2010/06/22 05:24:02	0.750	72.2	9.5
242	2010/06/22 05:30:01	0.875	70.5	8.7
243	2010/06/22 05:31:45	0.750	70.3	10.9
244	2010/06/22 05:34:21	0.875	52.2	9.9
245	2010/06/22 05:46:08	0.750	55.8	10.5

246	2010/06/22 05:47:52	0.875	59.8	10.7
247	2010/06/22 05:53:43	0.625	58.1	10.8
248	2010/06/22 06:15:11	0.875	68.5	12.1
249	2010/06/22 06:15:13	0.875	61.5	9.9
250	2010/06/22 06:15:31	0.625	68.7	12.1
251	2010/06/22 06:17:01	0.625	64.9	10.9
252	2010/06/22 06:17:43	0.750	63.3	9.5

Ev	Inizio	Durata LAFmax- 10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/06/22 09:27:07	0.625	75.6	11.2
2	2010/06/22 09:47:06	0.875	72.8	9.6
3	2010/06/22 10:49:03	0.750	86.4	10.4
4	2010/06/22 12:33:53	1.000	86.5	6.3
5	2010/06/22 18:06:46	1.000	83.7	7.2
6	2010/06/22 20:03:55	1.000	64.9	10.2
7	2010/06/22 20:04:25	0.875	67.9	7.6
8	2010/06/22 20:05:27	0.625	59.1	12.6
9	2010/06/22 20:48:28	0.625	58.4	11.8
10	2010/06/22 21:13:03	0.750	80.4	7.4
11	2010/06/22 21:21:47	1.000	90.7	6.9
12	2010/06/22 21:31:15	0.750	56.3	11.4
13	2010/06/22 21:31:26	0.500	62.0	12.8
14	2010/06/22 21:31:36	0.750	66.8	9.4
15	2010/06/22 21:32:11	0.625	64.1	11.0
16	2010/06/22 21:32:23	0.875	59.3	11.4
17	2010/06/22 21:35:01	0.750	96.1	9.0
18	2010/06/22 21:39:23	0.625	68.0	13.2
19	2010/06/22 21:39:28	1.000	65.6	12.4
20	2010/06/22 21:39:53	0.750	73.5	10.2
21	2010/06/22 21:40:05	0.625	66.4	10.4
22	2010/06/22 21:40:07	0.625	68.5	12.0
23	2010/06/22 21:40:36	0.750	69.5	7.1

24	2010/06/22 21:40:38	0.875	65.5	9.2
25	2010/06/22 21:40:40	0.875	65.3	9.9
26	2010/06/22 21:40:43	0.625	68.8	12.0
27	2010/06/22 21:40:45	0.625	66.4	11.2
28	2010/06/22 21:40:52	0.625	68.8	10.5
29	2010/06/22 21:43:44	1.000	66.0	11.1
30	2010/06/22 21:43:52	0.750	66.0	11.7
31	2010/06/22 21:43:54	0.875	66.8	11.7
32	2010/06/22 21:43:56	1.000	66.8	10.3
33	2010/06/22 21:44:39	0.875	62.8	9.0
34	2010/06/22 21:44:43	0.750	63.7	10.8
35	2010/06/22 21:46:09	0.625	61.7	12.3
36	2010/06/22 21:46:11	0.500	65.7	11.0
37	2010/06/22 21:46:13	0.500	62.7	11.3
38	2010/06/22 21:46:17	0.750	58.8	10.7
39	2010/06/22 21:46:22	0.500	63.4	11.9
40	2010/06/22 21:46:24	0.875	58.4	14.0
41	2010/06/22 21:46:25	0.750	59.3	10.5
42	2010/06/22 21:46:31	0.625	63.0	12.7
43	2010/06/22 21:46:32	0.500	62.3	10.8
44	2010/06/22 21:46:33	1.000	61.8	10.4
45	2010/06/22 21:46:35	0.875	58.1	9.8
46	2010/06/22 21:46:38	0.500	62.3	11.8
47	2010/06/22 21:58:20	1.000	76.4	9.4
48	2010/06/22 21:59:28	0.625	75.8	12.9
49	2010/06/22 22:03:29	0.750	65.8	11.9
50	2010/06/22 22:03:43	0.750	60.5	9.5
51	2010/06/22 22:04:21	0.625	73.0	11.1
52	2010/06/22 22:04:23	0.625	76.5	9.6
53	2010/06/22 22:07:14	0.750	62.9	10.5
54	2010/06/22 22:07:19	0.625	57.9	9.5
55	2010/06/22 22:07:38	0.625	54.5	10.8
56	2010/06/22 22:07:52	0.750	59.3	12.6
57	2010/06/22 22:07:55	0.625	57.6	12.2

58	2010/06/22 22:08:02	0.625	64.4	11.8
59	2010/06/22 22:08:03	1.000	51.9	12.9
60	2010/06/22 22:09:31	0.500	64.5	12.2
61	2010/06/22 22:09:37	0.750	76.2	13.4
62	2010/06/22 22:09:57	1.000	65.9	10.3
63	2010/06/22 22:10:03	0.625	76.4	13.1
64	2010/06/22 22:10:05	0.500	74.3	12.4
65	2010/06/22 22:10:05	0.625	72.3	11.5
66	2010/06/22 22:10:14	0.625	73.6	13.9
67	2010/06/22 22:10:18	0.625	69.9	12.9
68	2010/06/22 22:14:16	0.500	79.1	12.2
69	2010/06/22 22:14:22	0.625	81.7	13.6
70	2010/06/22 22:14:29	0.625	80.2	12.0
71	2010/06/22 22:14:44	0.750	72.0	9.9
72	2010/06/22 22:14:49	0.875	67.7	10.9
73	2010/06/22 22:15:04	1.000	81.8	13.6
74	2010/06/22 22:15:31	0.500	78.0	12.6
75	2010/06/22 22:15:43	0.875	73.5	10.9
76	2010/06/22 22:15:44	0.875	67.1	10.7
77	2010/06/22 22:15:47	0.750	72.6	11.4
78	2010/06/22 22:15:49	0.625	72.6	12.0
79	2010/06/22 22:15:53	0.750	66.8	10.2
80	2010/06/22 22:16:00	0.500	78.5	12.9
81	2010/06/22 22:16:27	0.875	64.7	8.4
82	2010/06/22 22:16:29	0.750	64.9	11.4
83	2010/06/22 22:16:39	0.625	65.2	12.8
84	2010/06/22 22:17:00	0.750	75.8	12.9
85	2010/06/22 22:17:02	0.500	72.7	12.0
86	2010/06/22 22:37:52	0.750	93.8	10.4
87	2010/06/22 23:18:32	0.625	76.3	12.8
88	2010/06/22 23:18:56	0.625	73.7	12.1
89	2010/06/22 23:19:00	1.000	69.7	8.3
90	2010/06/22 23:19:27	0.625	78.0	13.3
91	2010/06/22 23:19:31	0.750	72.4	11.2

92	2010/06/22 23:19:59	0.500	75.2	12.7
93	2010/06/22 23:20:12	0.750	64.7	8.4
94	2010/06/22 23:20:15	0.625	64.9	10.9
95	2010/06/22 23:20:18	0.500	70.7	13.4
96	2010/06/22 23:20:22	0.500	67.1	12.1
97	2010/06/22 23:20:23	0.750	67.2	10.9
98	2010/06/22 23:20:25	0.750	68.1	11.8
99	2010/06/22 23:20:33	0.625	67.0	12.0
100	2010/06/22 23:20:34	0.625	69.9	11.4
101	2010/06/22 23:20:36	0.875	64.1	9.3
102	2010/06/22 23:20:43	0.625	82.0	13.8
103	2010/06/22 23:20:44	0.500	79.7	11.2
104	2010/06/22 23:20:47	0.500	69.5	11.8
105	2010/06/22 23:20:50	0.625	71.8	11.3
106	2010/06/22 23:20:51	0.625	72.0	11.5
107	2010/06/22 23:21:08	0.500	87.7	14.1
108	2010/06/22 23:21:30	0.625	77.7	11.5
109	2010/06/22 23:21:37	0.625	78.0	11.8
110	2010/06/22 23:21:49	1.000	84.7	12.1
111	2010/06/22 23:21:52	0.500	85.6	12.8
112	2010/06/22 23:22:05	0.625	74.7	9.6
113	2010/06/22 23:22:07	0.750	75.0	11.7
114	2010/06/22 23:22:11	0.625	78.3	11.6
115	2010/06/22 23:22:12	0.625	69.4	12.4
116	2010/06/22 23:22:16	1.000	67.3	11.3
117	2010/06/22 23:22:17	0.875	69.9	12.2
118	2010/06/22 23:22:22	0.500	70.0	11.4
119	2010/06/22 23:22:26	0.500	75.7	13.5
120	2010/06/22 23:22:28	0.500	77.7	13.7
121	2010/06/22 23:22:28	0.500	70.1	13.5
122	2010/06/22 23:22:30	0.500	70.8	12.5
123	2010/06/22 23:22:30	0.625	77.1	12.5
124	2010/06/22 23:22:31	0.500	82.5	13.5
125	2010/06/22 23:22:32	0.750	73.8	14.4

126	2010/06/22 23:22:34	0.500	88.5	13.5
127	2010/06/22 23:22:35	0.625	76.1	15.1
128	2010/06/22 23:22:38	0.625	64.5	17.4
129	2010/06/22 23:22:40	0.500	81.1	13.8
130	2010/06/22 23:22:43	0.500	69.3	14.5
131	2010/06/22 23:22:45	0.750	69.5	11.9
132	2010/06/22 23:22:47	0.500	73.3	13.1
133	2010/06/22 23:22:48	0.500	73.6	11.9
134	2010/06/22 23:22:50	1.000	72.6	11.3
135	2010/06/22 23:23:00	0.625	78.5	12.1
136	2010/06/22 23:23:12	0.625	78.1	10.7
137	2010/06/22 23:23:15	0.500	79.2	13.7
138	2010/06/22 23:23:19	0.500	83.5	13.6
139	2010/06/22 23:23:20	0.500	68.8	15.2
140	2010/06/22 23:23:22	0.500	74.4	12.3
141	2010/06/22 23:23:25	0.625	66.3	12.2
142	2010/06/22 23:23:26	0.625	64.1	10.2
143	2010/06/22 23:23:30	0.500	67.2	12.0
144	2010/06/22 23:23:32	0.625	74.5	13.5
145	2010/06/22 23:23:36	0.500	73.4	13.3
146	2010/06/22 23:23:37	0.625	67.6	13.3
147	2010/06/22 23:25:16	0.625	69.0	12.0
148	2010/06/22 23:25:18	0.500	69.3	11.6
149	2010/06/22 23:25:21	0.625	67.7	12.4
150	2010/06/22 23:25:32	0.625	71.3	13.7
151	2010/06/22 23:25:40	0.500	68.3	13.4
152	2010/06/22 23:25:42	0.625	61.5	11.7
153	2010/06/22 23:25:48	0.625	86.9	14.0
154	2010/06/22 23:26:03	0.500	80.3	14.1
155	2010/06/22 23:26:06	0.500	68.3	14.7
156	2010/06/22 23:26:12	1.000	81.6	11.7
157	2010/06/22 23:26:21	0.625	74.3	8.7
158	2010/06/22 23:26:31	0.500	75.0	13.8
159	2010/06/22 23:27:08	0.625	79.2	12.9

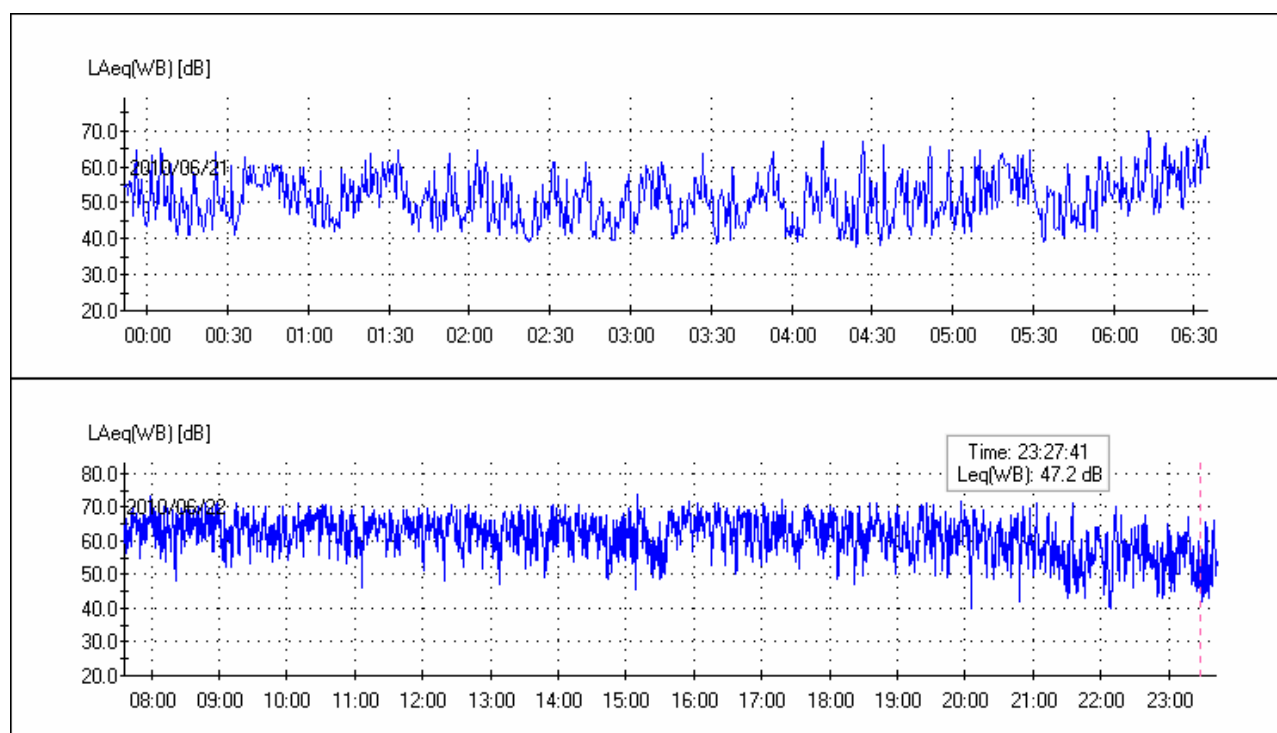
160	2010/06/22 23:27:49	0.625	68.9	11.9
161	2010/06/22 23:27:52	0.625	78.6	13.2
162	2010/06/22 23:28:12	0.625	70.8	13.6
163	2010/06/22 23:28:18	0.500	67.1	13.0
164	2010/06/22 23:29:34	0.875	58.2	10.8
165	2010/06/22 23:29:36	0.625	56.6	10.9
166	2010/06/22 23:41:59	1.000	66.8	7.2

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 200	0.1
Freq: 315	0.1
Freq: 500	0.1
Freq: 630	0.1
Freq: 1 k	0.1
Freq: 2.5 k	0.1
Freq: 3.15 k	5.0
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.1
Freq: 125	0.1
Freq: 200	0.1
Freq: 250	0.1
Freq: 315	0.2
Freq: 400	0.1
Freq: 500	0.3
Freq: 630	0.1
Freq: 800	0.2
Freq: 3.15 k	0.7

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

TIME ISTORY COMPONENTI TONALI

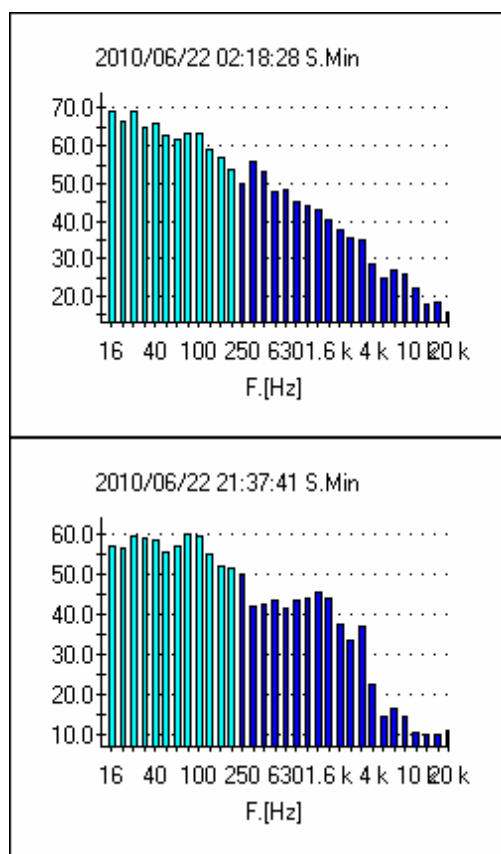
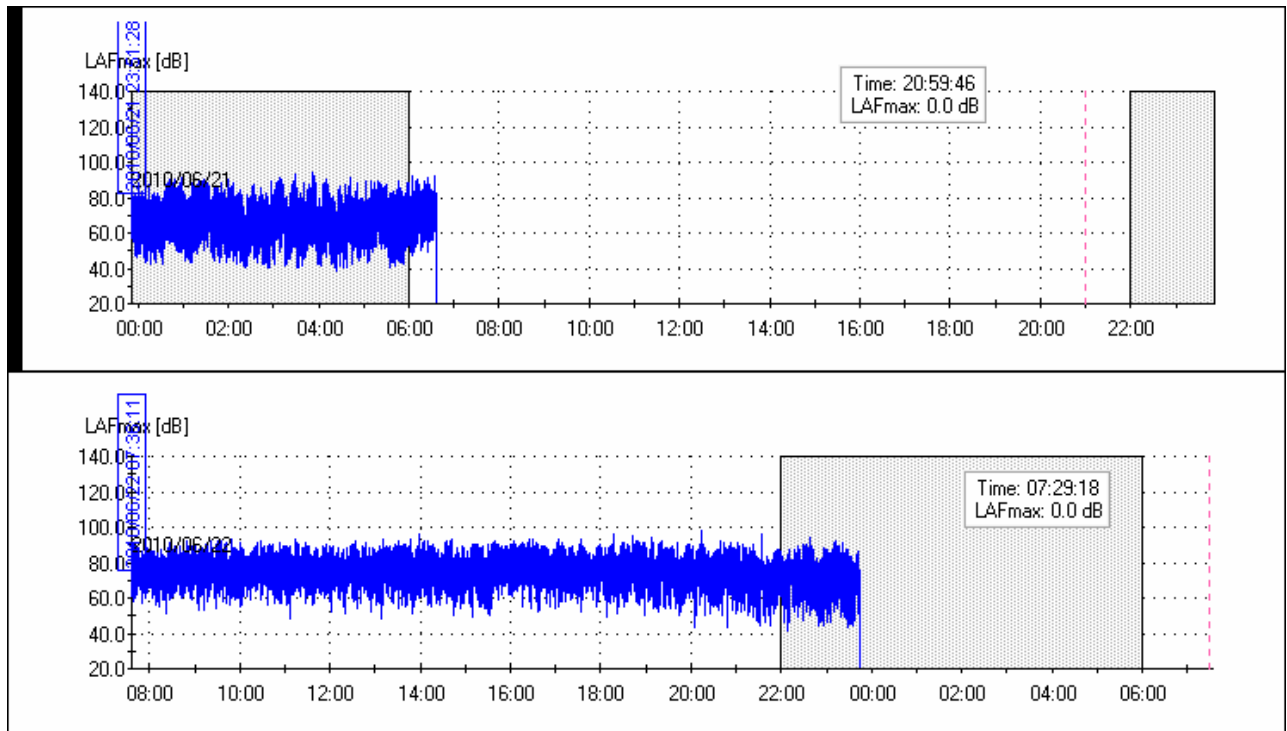
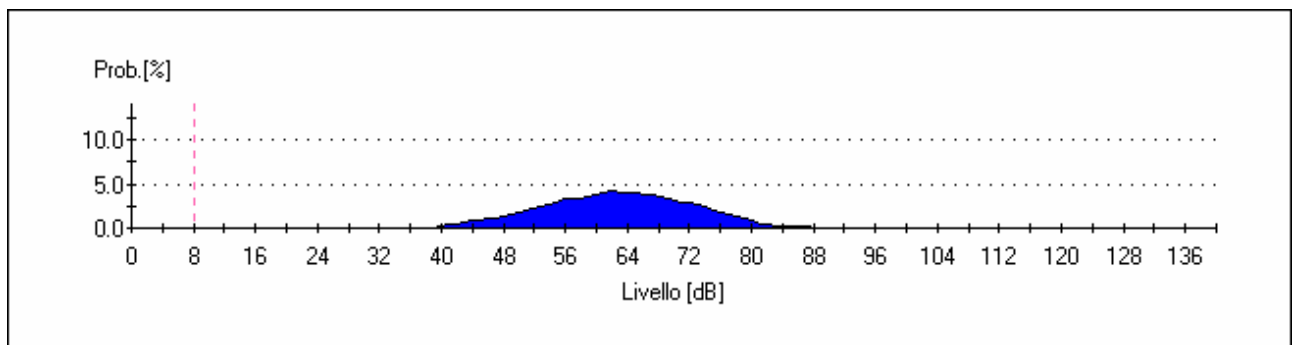
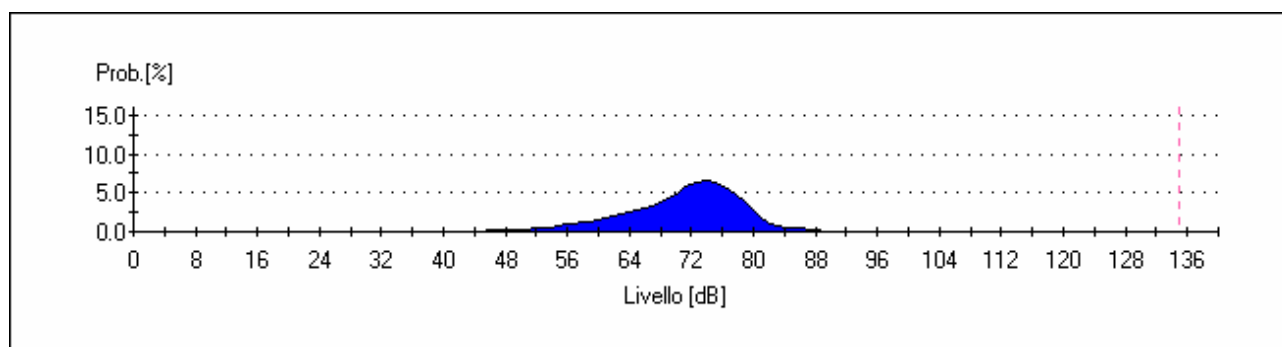


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA





CUMULATIVA

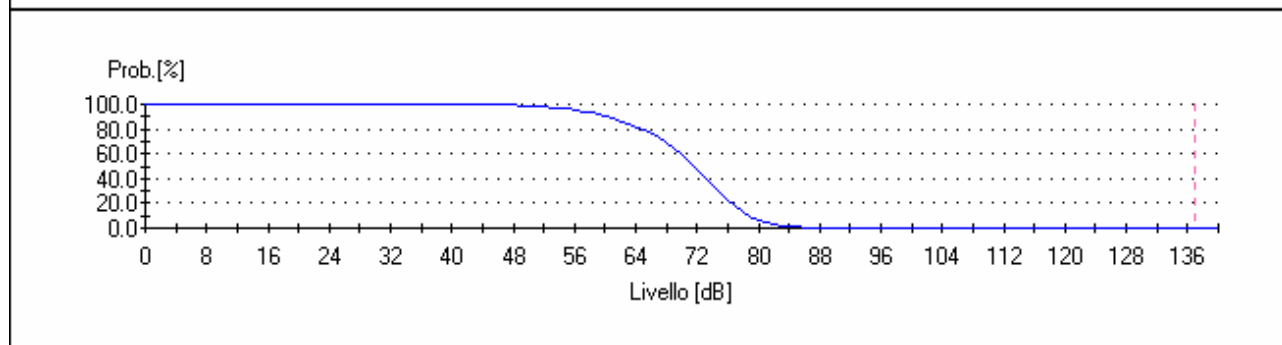
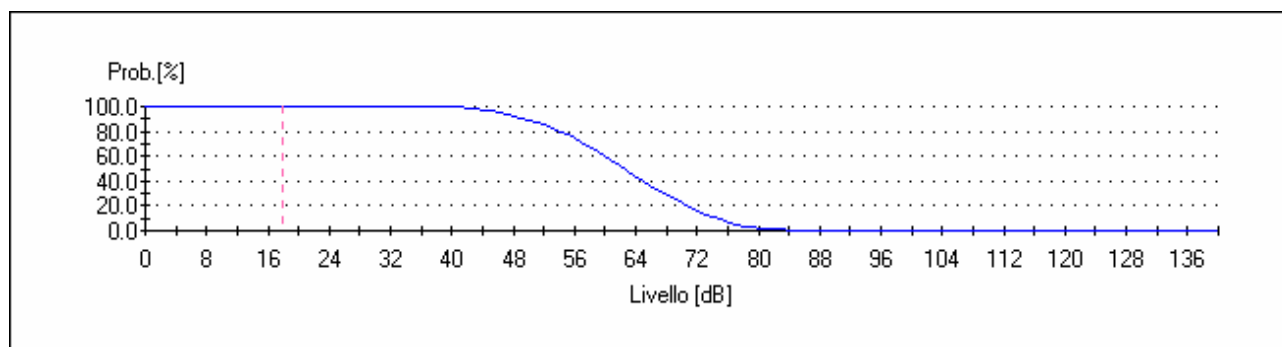
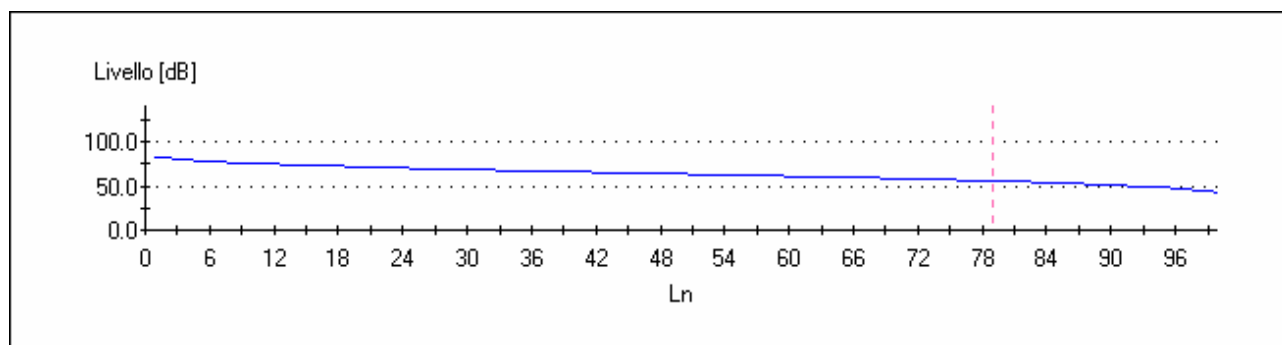
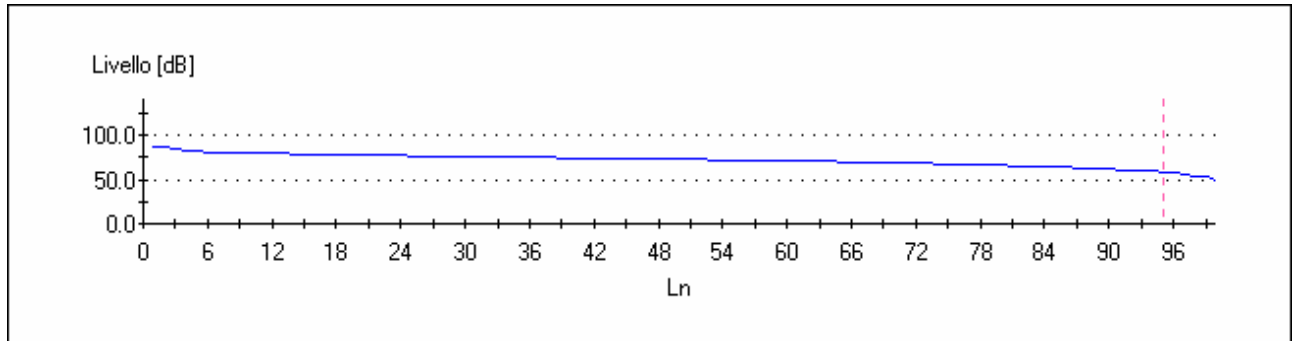


GRAFICO PERCENTILI




LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	86.0
1	86.0
2	84.0
3	83.0
4	82.0
5	81.5
6	81.0
7	80.7
8	80.3
9	80.0
10	79.8
11	79.5
12	79.3
13	79.0
14	78.8
15	78.6
16	78.4
17	78.2
18	78.0
19	77.8
20	77.7
21	77.5

22	77.3
23	77.2
24	77.0
25	76.8
26	76.7
27	76.5
28	76.3
29	76.2
30	76.0
31	75.9
32	75.7
33	75.6
34	75.4
35	75.3
36	75.1
37	75.0
38	74.9
39	74.7
40	74.6
41	74.4
42	74.3
43	74.1
44	74.0
45	73.8
46	73.7
47	73.5
48	73.3
49	73.2
50	73.0
51	72.9
52	72.7
53	72.6
54	72.4
55	72.3

56	72.1
57	72.0
58	71.8
59	71.6
60	71.4
61	71.2
62	71.0
63	70.8
64	70.6
65	70.4
66	70.2
67	70.0
68	69.8
69	69.6
70	69.4
71	69.2
72	69.0
73	68.7
74	68.3
75	68.0
76	67.8
77	67.5
78	67.3
79	67.0
80	66.7
81	66.3
82	66.0
83	65.5
84	65.0
85	64.7
86	64.3
87	64.0
88	63.5
89	63.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

90	62.5
91	62.0
92	61.0
93	60.0
94	59.5
95	59.0
96	58.0
97	56.0
98	55.0
99	52.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	83.0
1	83.0
2	81.0
3	79.0
4	78.5
5	78.0
6	77.0
7	76.5
8	76.0
9	75.5
10	75.0
11	74.7
12	74.3
13	74.0
14	73.5
15	73.0
16	72.7
17	72.3
18	72.0
19	71.7

20	71.3
21	71.0
22	70.7
23	70.3
24	70.0
25	69.8
26	69.5
27	69.3
28	69.0
29	68.7
30	68.3
31	68.0
32	67.8
33	67.5
34	67.3
35	67.0
36	66.8
37	66.5
38	66.3
39	66.0
40	65.8
41	65.5
42	65.3
43	65.0
44	64.8
45	64.5
46	64.3
47	64.0
48	63.8
49	63.5
50	63.3
51	63.0
52	62.8
53	62.5

54	62.3
55	62.0
56	61.8
57	61.5
58	61.3
59	61.0
60	60.8
61	60.5
62	60.3
63	60.0
64	59.8
65	59.5
66	59.3
67	59.0
68	58.7
69	58.3
70	58.0
71	57.7
72	57.3
73	57.0
74	56.8
75	56.5
76	56.3
77	56.0
78	55.7
79	55.3
80	55.0
81	54.5
82	54.0
83	53.7
84	53.3
85	53.0
86	52.5
87	52.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

88	51.5
89	51.0
90	50.5
91	50.0
92	49.0
93	48.5
94	48.0
95	47.0
96	46.0
97	45.0
98	44.0
99	42.0

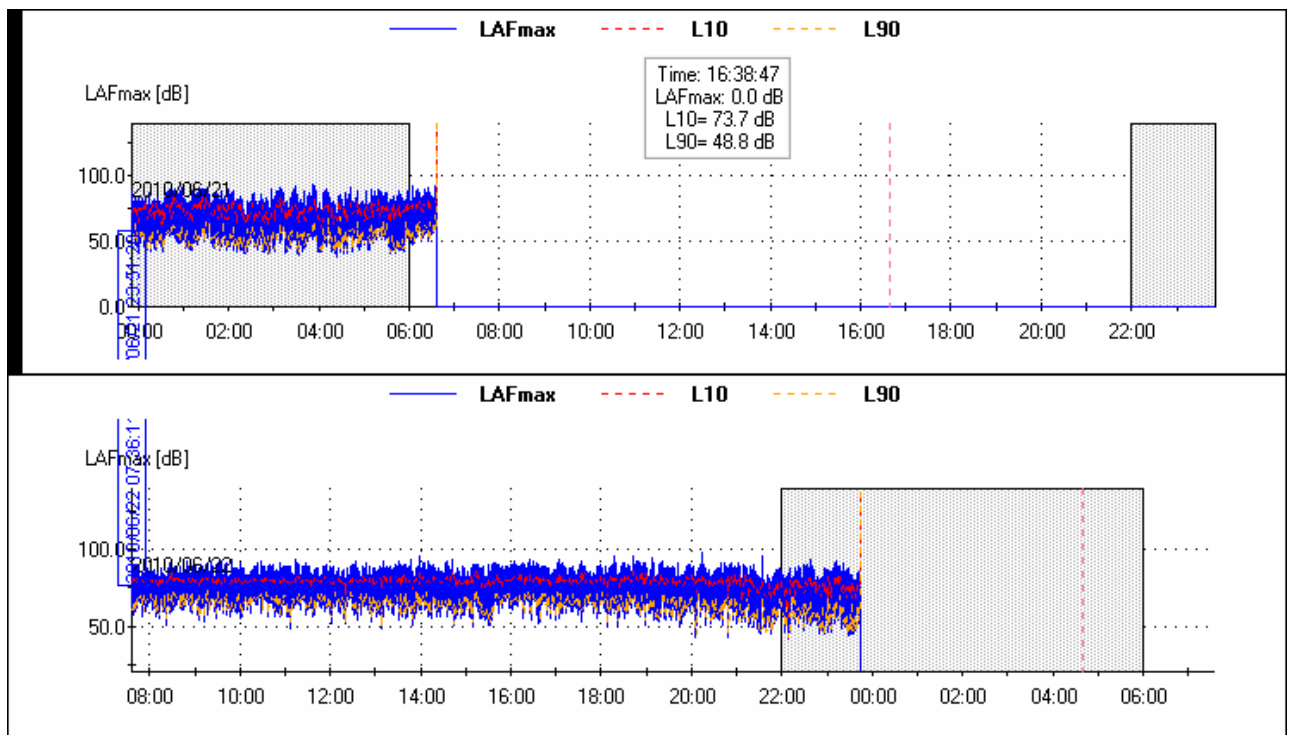
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LASp [dB]	LAFp [dB]
96.1	89.3	93.5
97.5	91.5	96
97.9	91	95.7
98.4	94.8	97.8
98.4	94.8	97.8

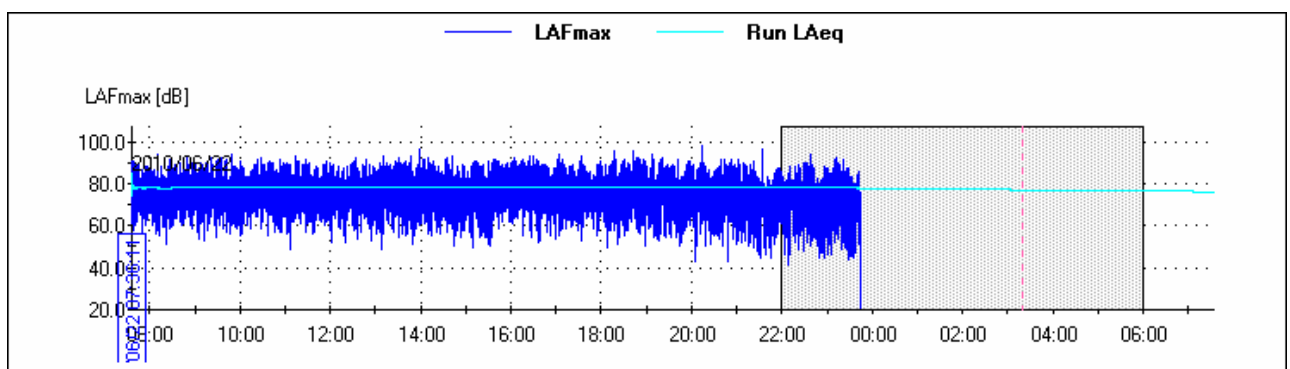
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LASp [dB]	LAFp [dB]
96	90.1	94
93.7	88.3	92
97.2	89.5	93.8
97.2	90.1	94.0

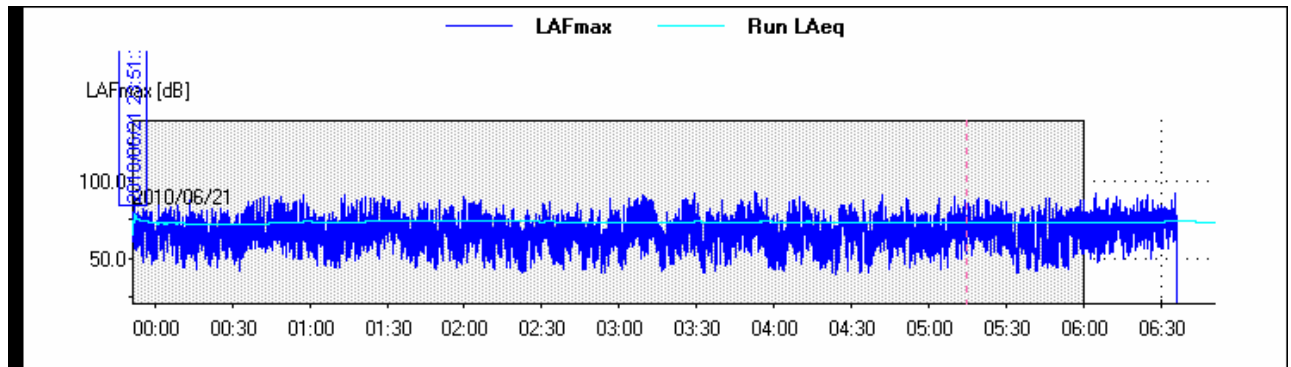
TIME HISTORY L10 – L90



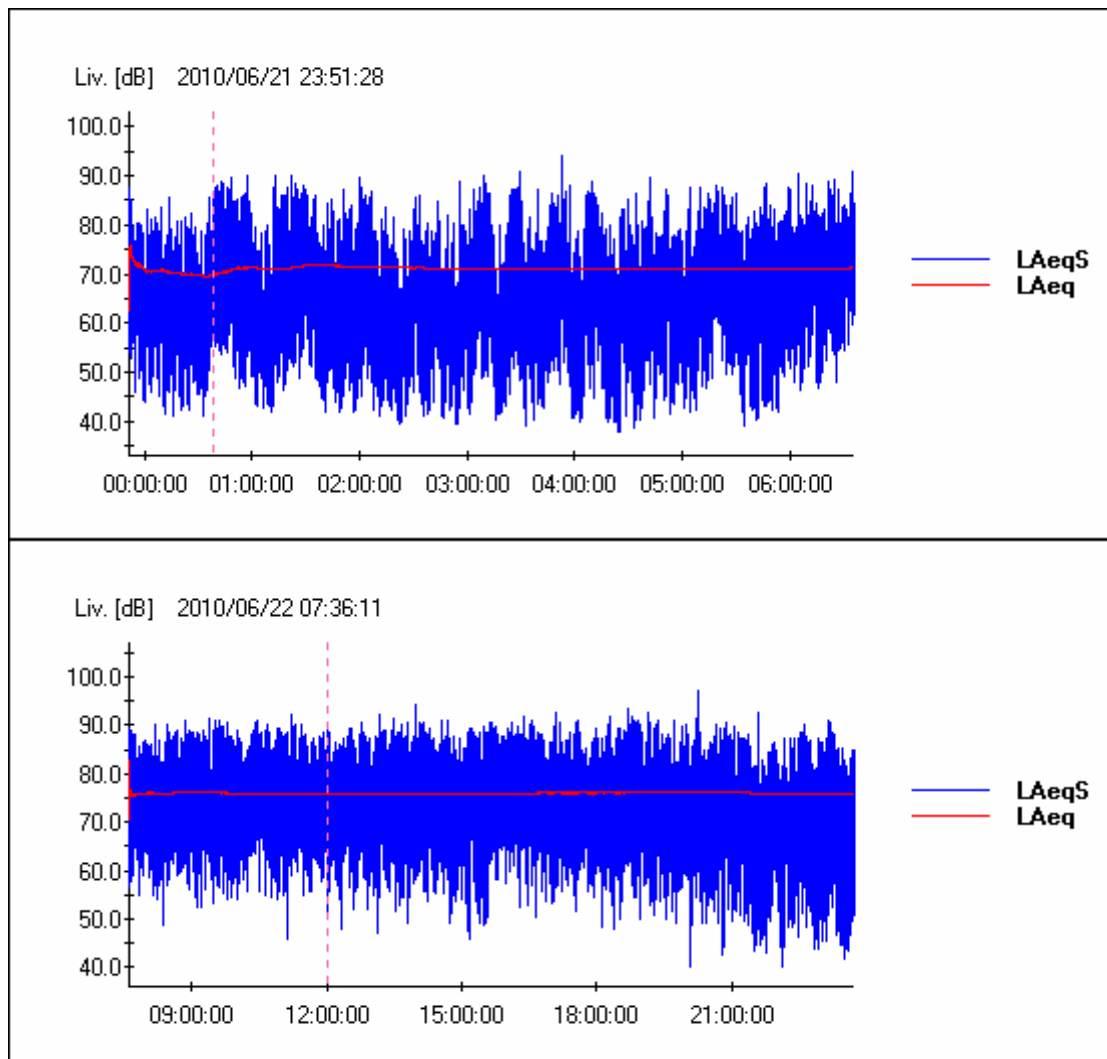
RUNNING Leq DIURNO



RUNNING Leq NOTTURNO

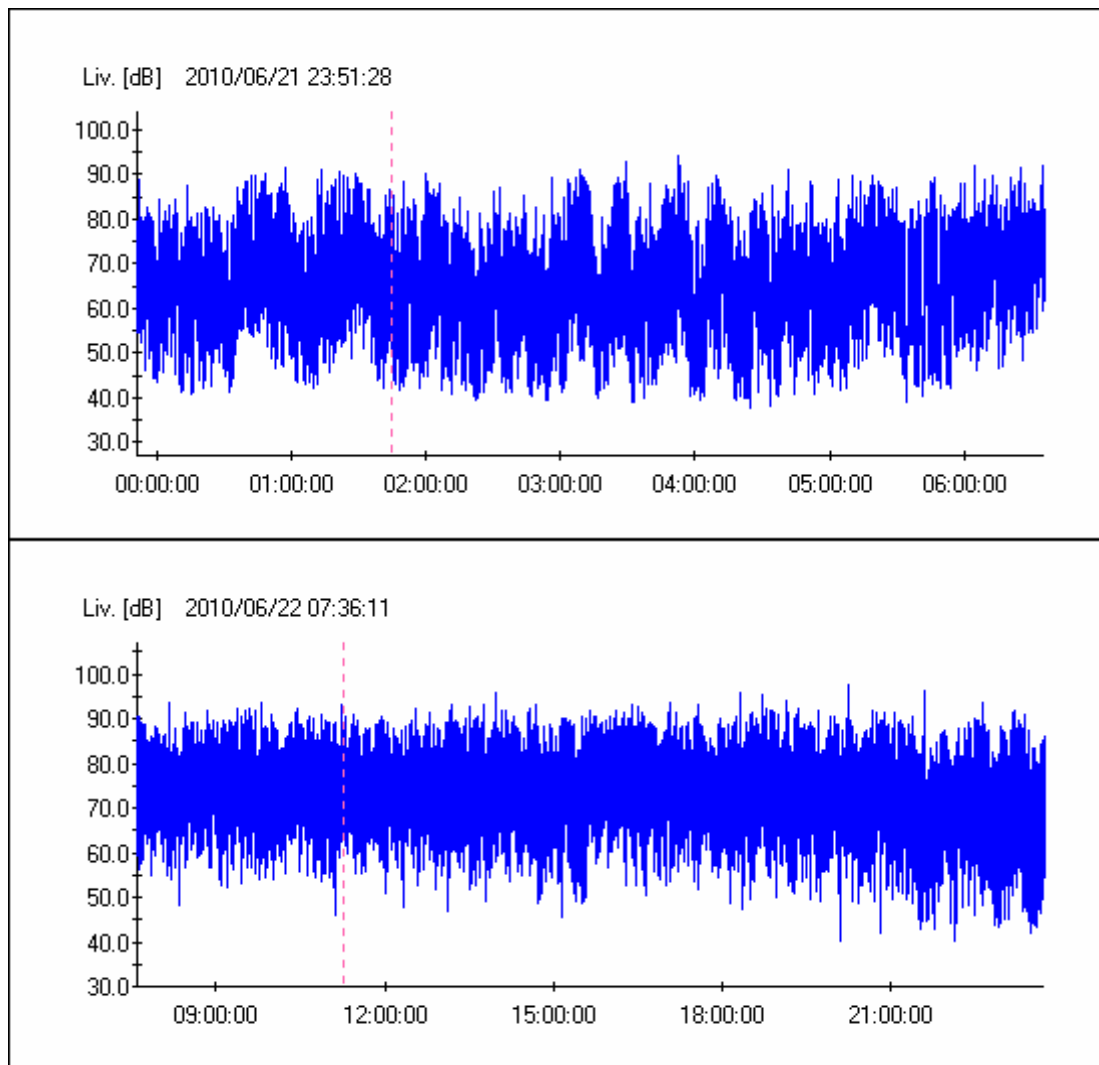


LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



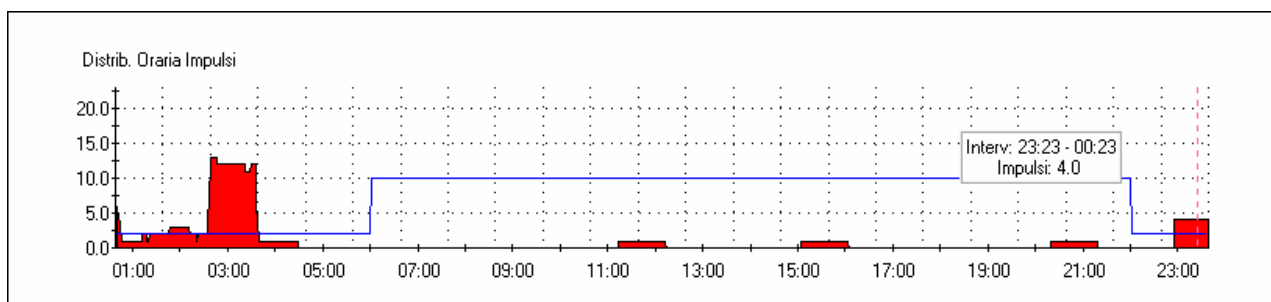
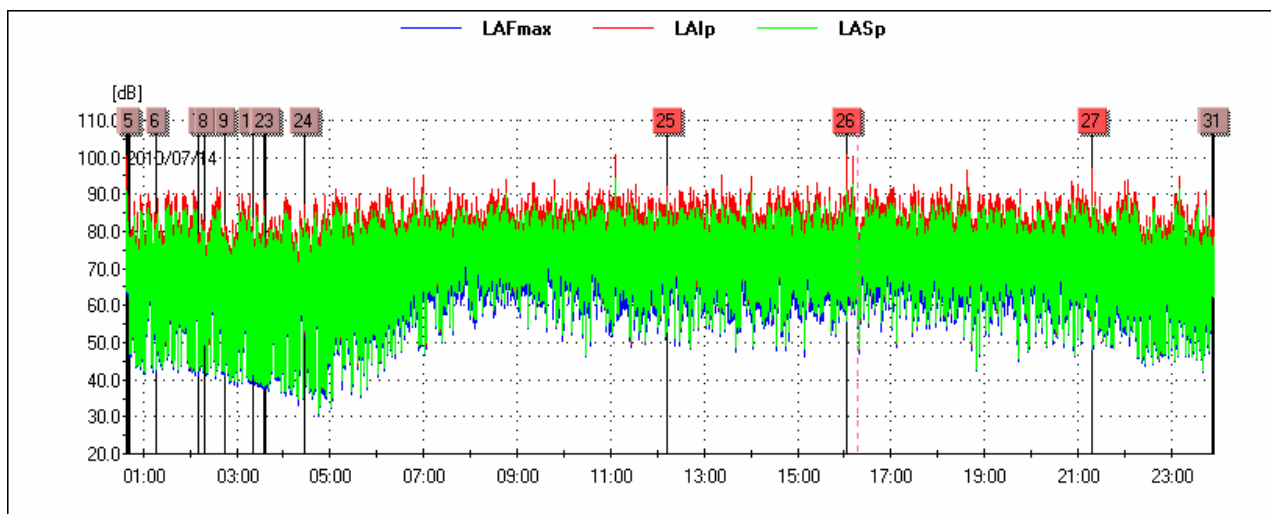
R_1_C 23/06/2010

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LA_{Imax} e LA_{Smax} superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LA_{Fmax} inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/14 00:38:46	0.750	97.9	9.2
2	2010/07/14 00:41:21	0.625	77.4	9.9
3	2010/07/14 00:41:55	0.750	71.5	7.3
4	2010/07/14 00:43:19	0.625	72.2	11.6
5	2010/07/14 00:43:28	1.000	57.5	8.7
6	2010/07/14 01:16:57	0.750	66.4	10.9
7	2010/07/14 02:10:48	0.750	60.7	7.3
8	2010/07/14 02:19:05	0.750	78.7	9.2
9	2010/07/14 02:45:32	1.000	69.4	8.8
10	2010/07/14 03:20:53	0.750	55.1	10.5
11	2010/07/14 03:34:07	0.875	61.0	12.1
12	2010/07/14 03:34:10	0.750	54.8	9.6
13	2010/07/14 03:34:16	0.500	63.9	11.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

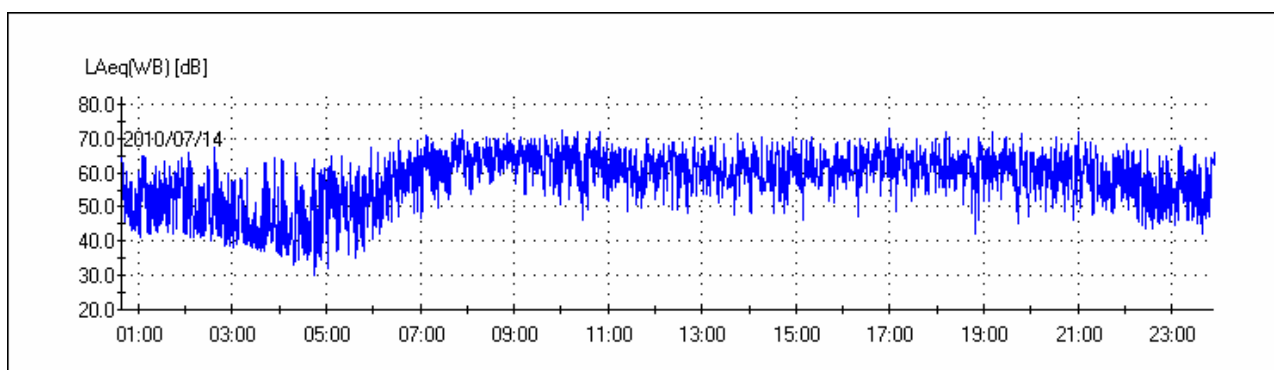
14	2010/07/14 03:34:17	0.625	61.7	8.6
15	2010/07/14 03:34:18	0.500	62.9	9.4
16	2010/07/14 03:34:19	0.625	60.5	8.3
17	2010/07/14 03:34:30	0.750	55.0	10.1
18	2010/07/14 03:36:17	0.625	65.3	9.9
19	2010/07/14 03:37:05	0.625	65.6	11.2
20	2010/07/14 03:37:05	0.625	66.9	10.2
21	2010/07/14 03:37:15	0.625	64.3	11.5
22	2010/07/14 03:37:15	0.625	64.2	9.3
23	2010/07/14 03:37:16	0.625	66.1	9.7
24	2010/07/14 04:27:04	0.625	68.2	11.0
25	2010/07/14 12:11:59	0.625	88.6	10.2
26	2010/07/14 16:02:19	0.625	98.4	9.7
27	2010/07/14 21:17:38	0.750	93.9	10.5
28	2010/07/14 23:53:17	0.625	77.4	12.6
29	2010/07/14 23:53:20	0.625	79.0	12.6
30	2010/07/14 23:53:32	0.750	79.1	11.2
31	2010/07/14 23:53:51	0.625	77.2	11.5

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 63	0.0
Freq: 80	0.0
Freq: 200	0.1
Freq: 250	0.1
Freq: 315	0.1
Freq: 400	0.2
Freq: 500	0.3
Freq: 630	0.2
Freq: 800	0.1
Freq: 2.5 k	0.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 3.15 k	6.2
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

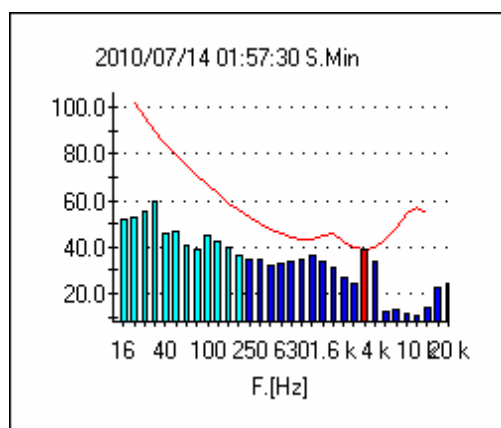
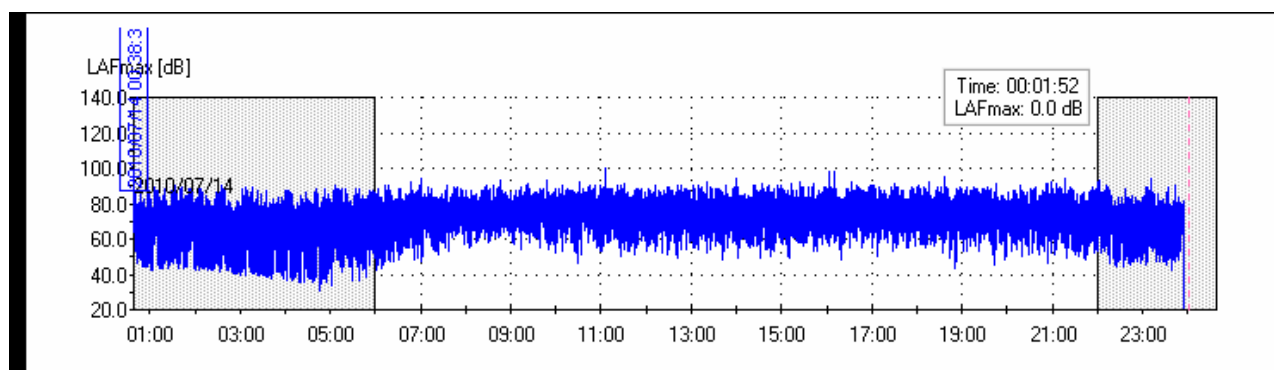
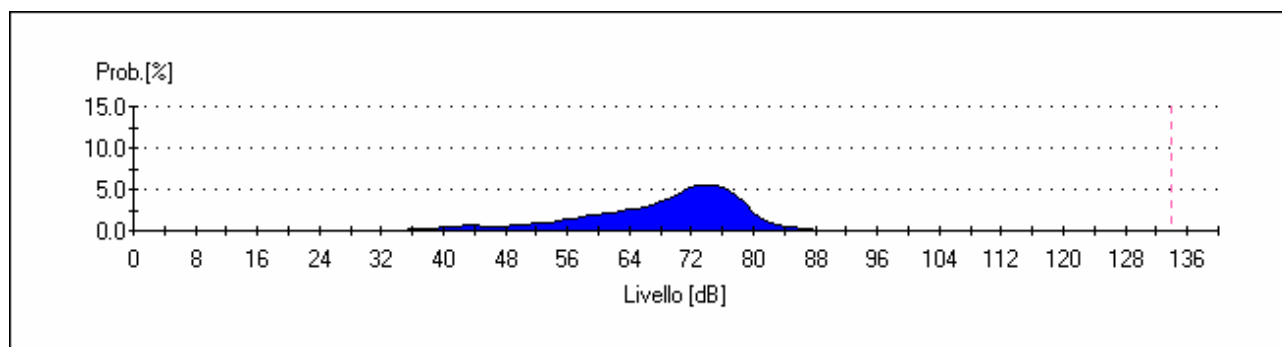


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

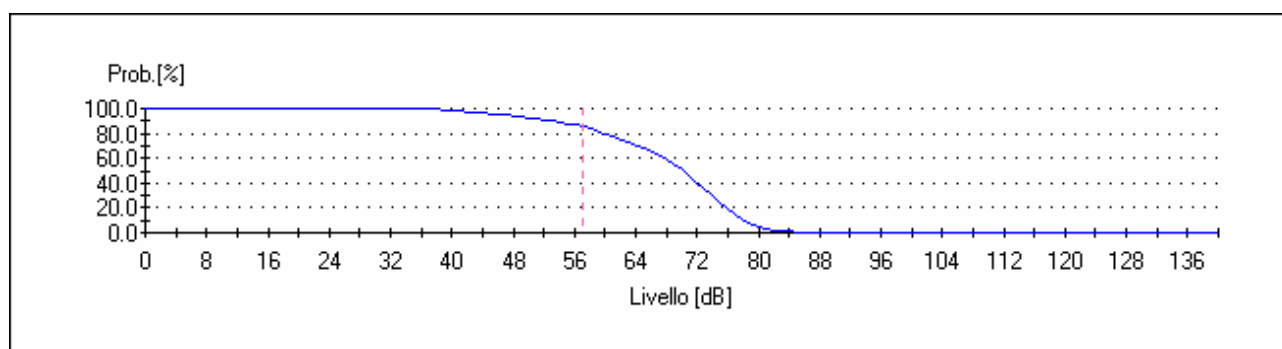
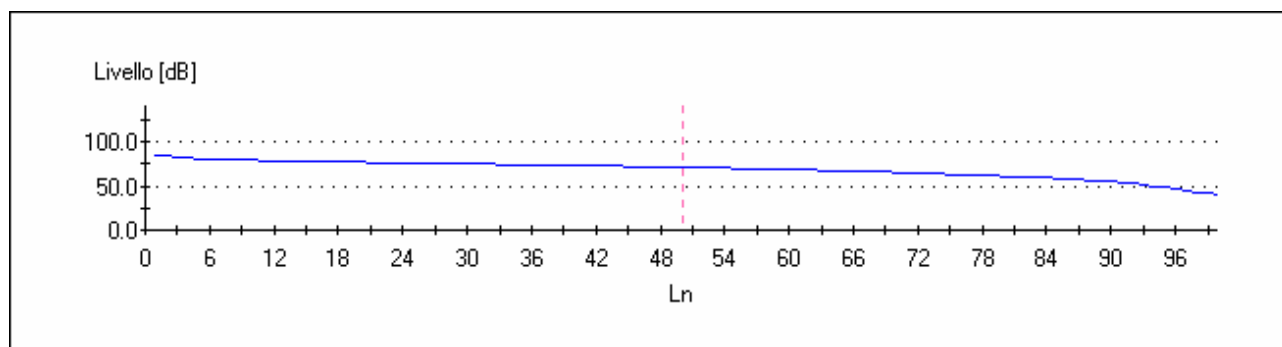


GRAFICO PERCENTILI



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	85.0
1	85.0
2	83.0
3	82.0
4	81.5
5	81.0
6	80.7
7	80.3
8	80.0
9	79.8
10	79.5
11	79.3
12	79.0
13	78.8
14	78.6
15	78.4
16	78.2
17	78.0
18	77.9
19	77.7
20	77.6
21	77.4
22	77.3
23	77.1
24	77.0
25	76.8
26	76.7
27	76.5
28	76.3
29	76.2
30	76.0

31	75.9
32	75.7
33	75.6
34	75.4
35	75.3
36	75.1
37	75.0
38	74.9
39	74.7
40	74.6
41	74.4
42	74.3
43	74.1
44	74.0
45	73.8
46	73.7
47	73.5
48	73.3
49	73.2
50	73.0
51	72.8
52	72.7
53	72.5
54	72.3
55	72.2
56	72.0
57	71.8
58	71.7
59	71.5
60	71.3
61	71.2
62	71.0
63	70.8
64	70.6

65	70.4
66	70.2
67	70.0
68	69.8
69	69.5
70	69.3
71	69.0
72	68.8
73	68.5
74	68.3
75	68.0
76	67.7
77	67.3
78	67.0
79	66.7
80	66.3
81	66.0
82	65.5
83	65.0
84	64.5
85	64.0
86	63.5
87	63.0
88	62.5
89	62.0
90	61.5
91	61.0
92	60.0
93	59.5
94	59.0
95	58.0
96	57.0
97	56.0
98	54.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

99	52.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	83.0
1	83.0
2	81.0
3	80.0
4	79.0
5	78.0
6	77.5
7	77.0
8	76.5
9	76.0
10	75.5
11	75.0
12	74.7
13	74.3
14	74.0
15	73.7
16	73.3
17	73.0
18	72.7
19	72.3
20	72.0
21	71.7
22	71.3
23	71.0
24	70.7
25	70.3
26	70.0
27	69.7

28	69.3
29	69.0
30	68.7
31	68.3
32	68.0
33	67.7
34	67.3
35	67.0
36	66.7
37	66.3
38	66.0
39	65.5
40	65.0
41	64.8
42	64.5
43	64.3
44	64.0
45	63.7
46	63.3
47	63.0
48	62.7
49	62.3
50	62.0
51	61.7
52	61.3
53	61.0
54	60.7
55	60.3
56	60.0
57	59.7
58	59.3
59	59.0
60	58.7
61	58.3

62	58.0
63	57.7
64	57.3
65	57.0
66	56.5
67	56.0
68	55.5
69	55.0
70	54.7
71	54.3
72	54.0
73	53.5
74	53.0
75	52.5
76	52.0
77	51.5
78	51.0
79	50.0
80	49.5
81	49.0
82	48.5
83	48.0
84	47.0
85	46.5
86	46.0
87	45.5
88	45.0
89	44.5
90	44.0
91	43.5
92	43.0
93	42.0
94	41.5
95	41.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

96	40.0
97	39.0
98	38.0
99	37.0

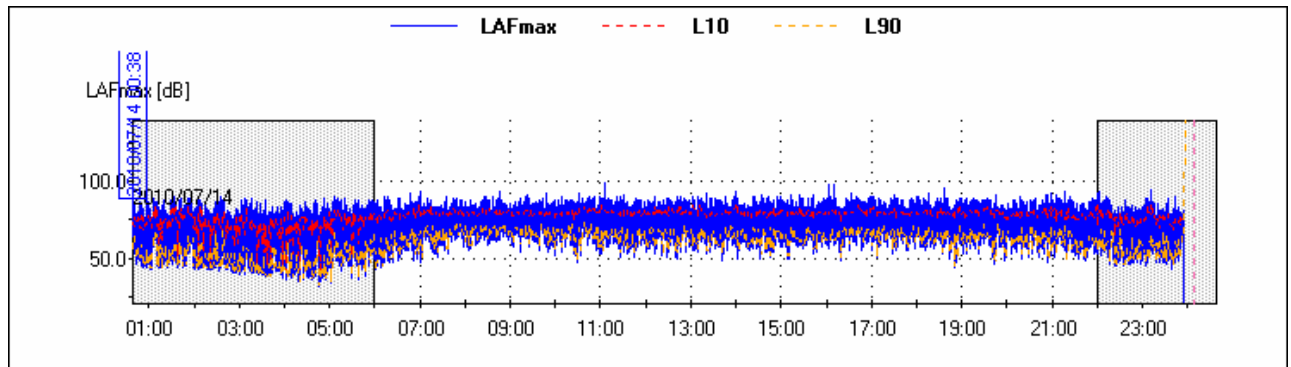
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
95.1	90.3	94
100.6	94.5	99.6
100.8	92.8	98.4
97.1	90.8	95.4
90.5	86.7	89.5
100.8	94.5	99.6

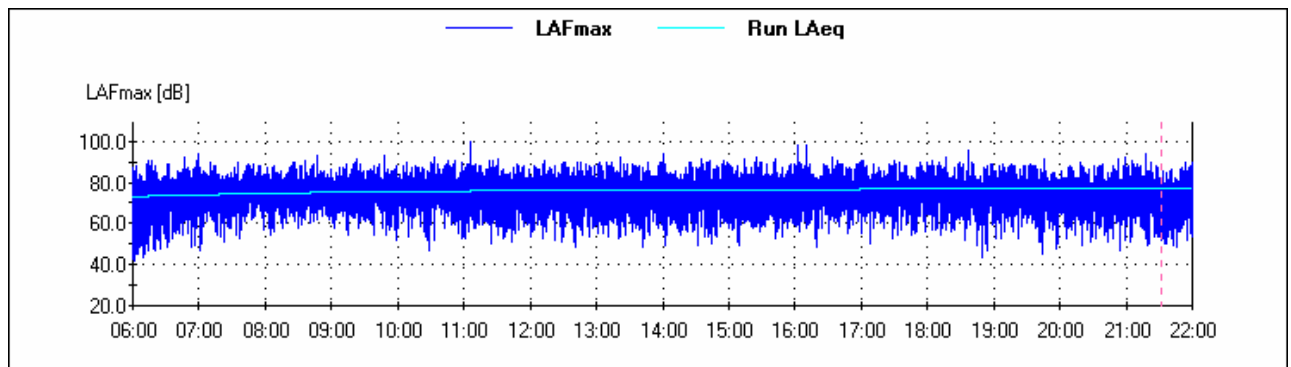
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
100.2	91	97.9
91.6	87.2	90.7
94.9	91.3	94.2
100.2	91.3	97.9

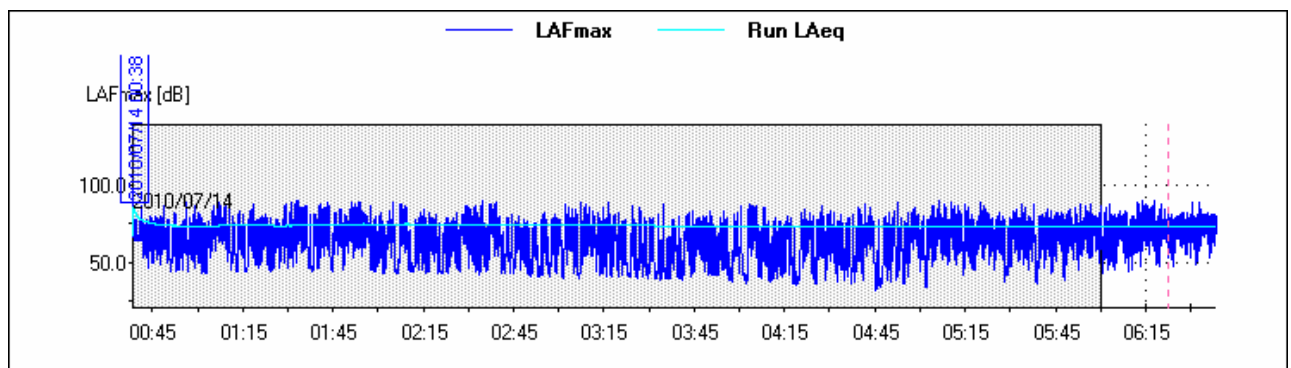
TIME HISTORY L10 – L90



RUNNING Leq DIURNO

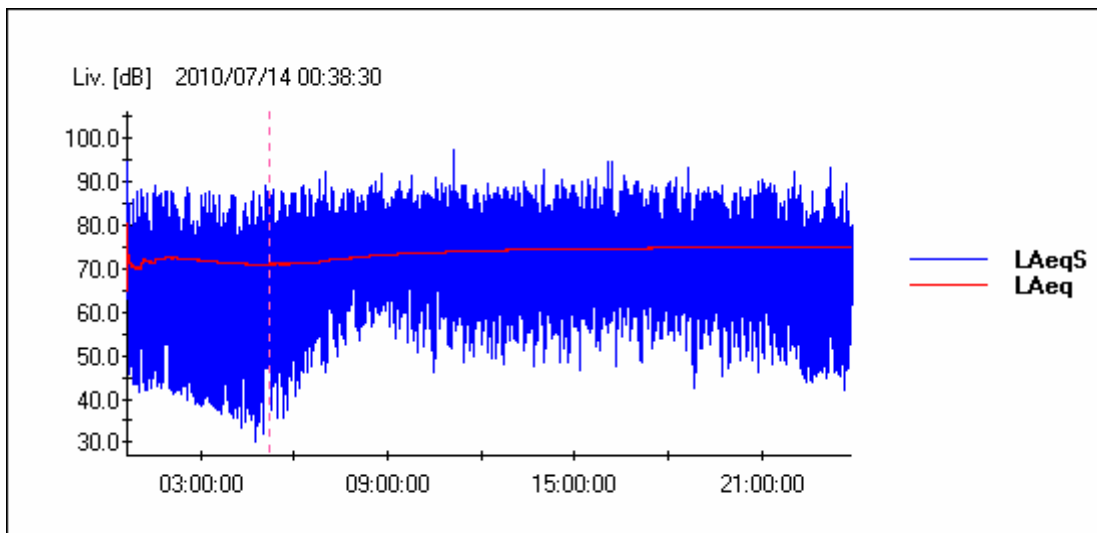


RUNNING Leq NOTTURNO

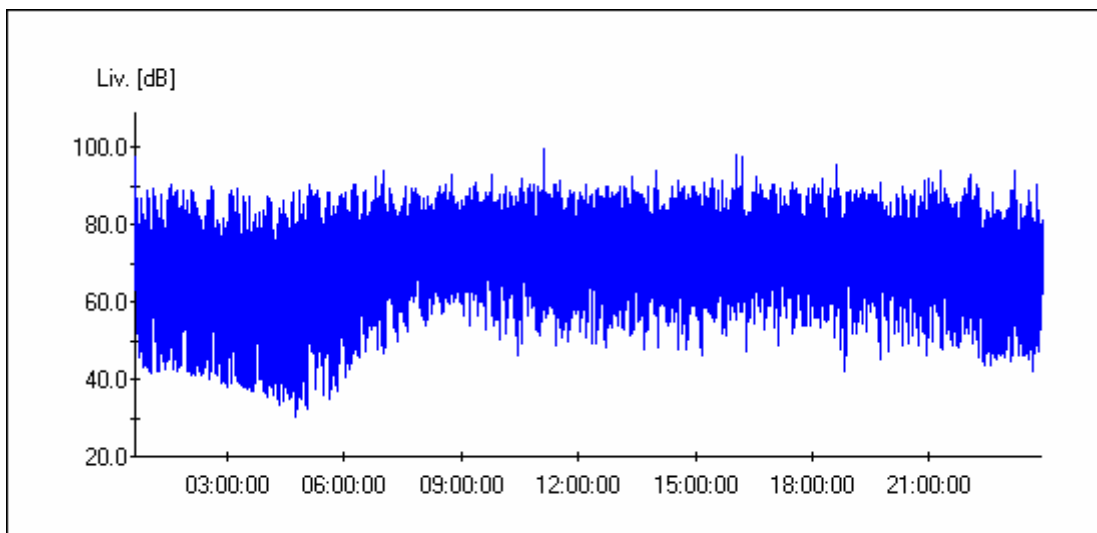


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



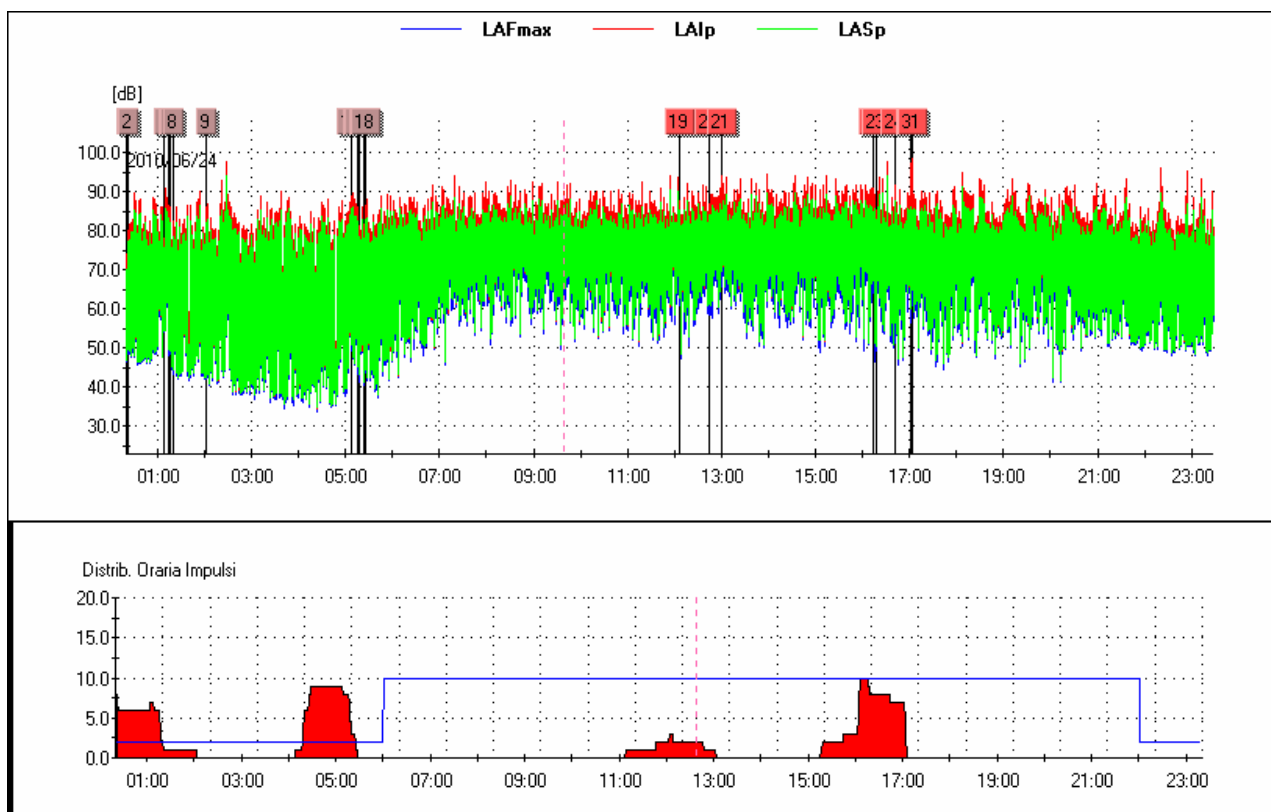
R_1_C 24/06/2010

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/06/24 00:20:38	0.500	70.2	12.1
2	2010/06/24 00:21:54	0.625	66.6	12.5
3	2010/06/24 01:07:36	0.750	70.0	11.0
4	2010/06/24 01:14:45	0.750	66.0	10.2

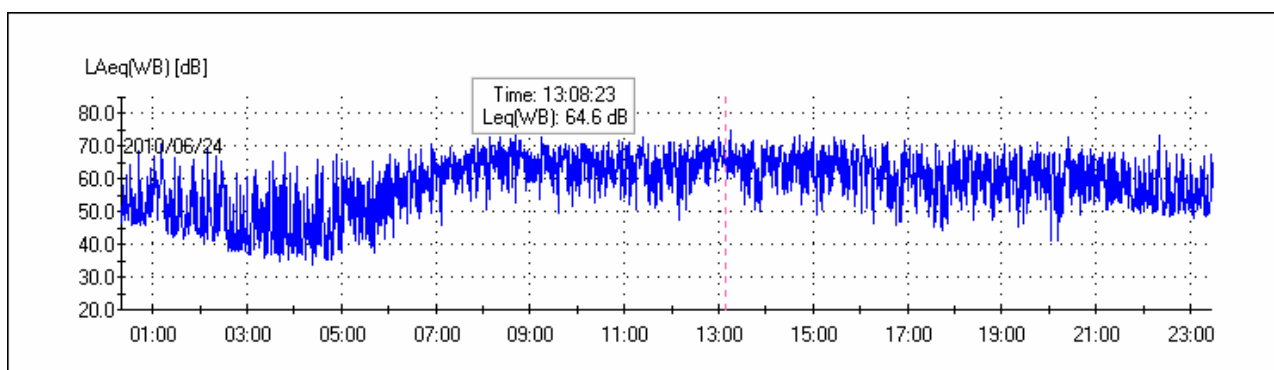
5	2010/06/24 01:15:10	0.625	70.7	11.8
6	2010/06/24 01:16:06	0.625	70.5	12.3
7	2010/06/24 01:16:36	0.500	70.0	12.2
8	2010/06/24 01:19:51	0.625	69.7	13.1
9	2010/06/24 02:02:57	0.875	68.7	8.8
10	2010/06/24 05:07:57	0.875	78.8	6.4
11	2010/06/24 05:15:32	0.625	72.5	13.2
12	2010/06/24 05:16:27	0.750	71.1	10.2
13	2010/06/24 05:17:21	0.750	72.3	10.5
14	2010/06/24 05:17:35	0.750	61.5	10.4
15	2010/06/24 05:17:56	0.875	59.3	9.2
16	2010/06/24 05:23:07	1.000	54.7	11.4
17	2010/06/24 05:24:15	0.625	66.5	10.6
18	2010/06/24 05:26:01	0.875	71.5	9.3
19	2010/06/24 12:06:30	0.875	78.3	9.5
20	2010/06/24 12:45:04	0.625	80.0	12.2
21	2010/06/24 13:01:13	0.750	91.7	8.8
22	2010/06/24 16:14:11	0.875	86.0	12.1
23	2010/06/24 16:16:43	0.625	65.7	10.5
24	2010/06/24 16:42:11	0.875	73.7	10.2
25	2010/06/24 17:01:30	0.625	92.4	13.6
26	2010/06/24 17:01:31	0.500	85.2	13.5
27	2010/06/24 17:02:09	1.000	92.3	12.9
28	2010/06/24 17:02:12	0.875	77.9	14.3
29	2010/06/24 17:03:08	0.625	81.5	12.0
30	2010/06/24 17:03:11	0.500	84.5	12.1
31	2010/06/24 17:03:15	0.625	93.8	13.0

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

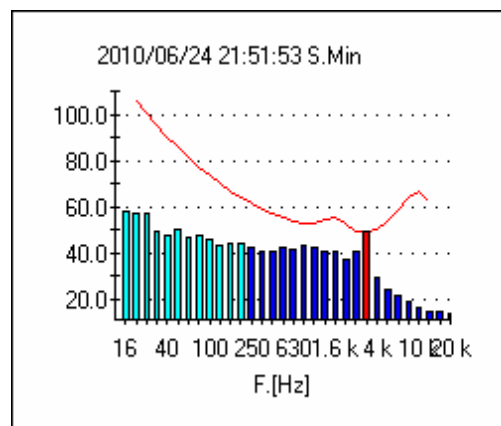
Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



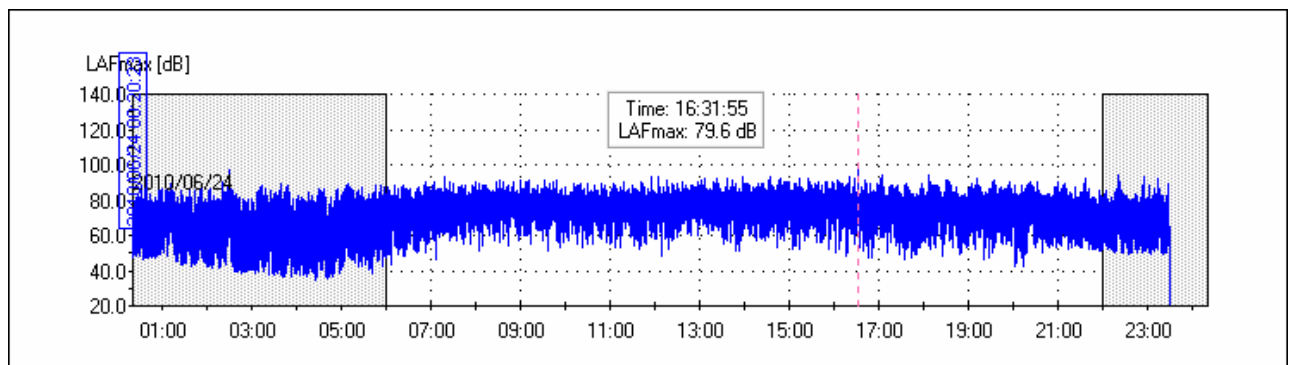
SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 63	0.0
Freq: 80	0.0
Freq: 100	0.0
Freq: 125	0.0
Freq: 160	0.0
Freq: 200	0.0
Freq: 250	0.1
Freq: 315	0.1
Freq: 400	0.2
Freq: 500	0.1
Freq: 630	0.1

Freq: 800	0.1
Freq: 2.5 k	0.0
Freq: 3.15 k	6.5
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

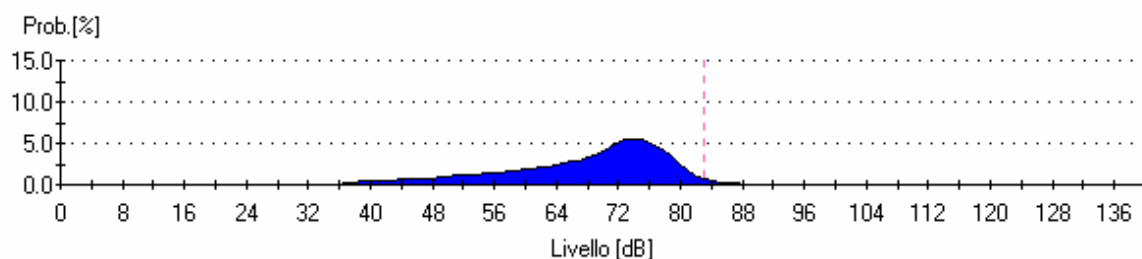
TIME ISTORY COMPONENTI TONALI



_CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

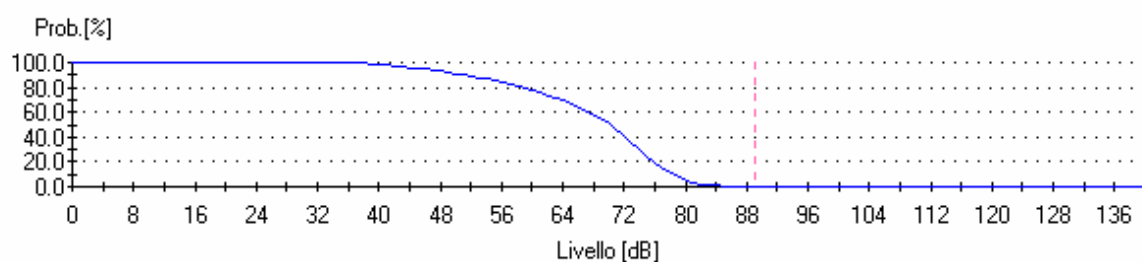
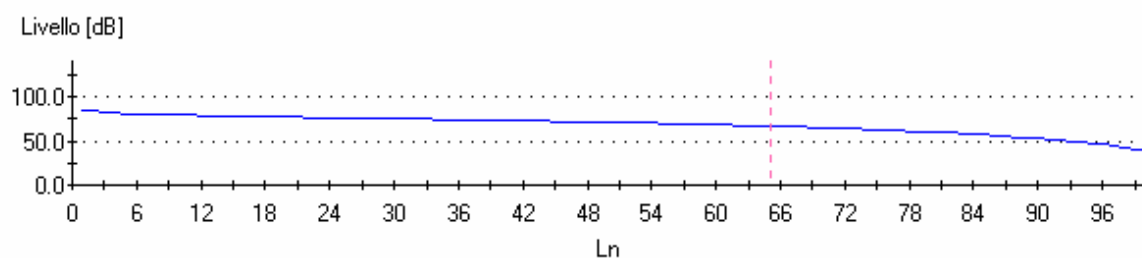


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Percentile	Leq.[dB]
0	85.0
1	85.0
2	83.0
3	82.0
4	81.7
5	81.3
6	81.0
7	80.7
8	80.3
9	80.0
10	79.8
11	79.5
12	79.3
13	79.0
14	78.8
15	78.7
16	78.5
17	78.3
18	78.2
19	78.0
20	77.8
21	77.7
22	77.5
23	77.3
24	77.2
25	77.0
26	76.8
27	76.7
28	76.5
29	76.3
30	76.2
31	76.0

32	75.9
33	75.7
34	75.6
35	75.4
36	75.3
37	75.1
38	75.0
39	74.9
40	74.7
41	74.6
42	74.4
43	74.3
44	74.1
45	74.0
46	73.9
47	73.7
48	73.6
49	73.4
50	73.3
51	73.1
52	73.0
53	72.8
54	72.7
55	72.5
56	72.3
57	72.2
58	72.0
59	71.8
60	71.6
61	71.4
62	71.2
63	71.0
64	70.8
65	70.6

66	70.4
67	70.2
68	70.0
69	69.8
70	69.5
71	69.3
72	69.0
73	68.7
74	68.3
75	68.0
76	67.7
77	67.3
78	67.0
79	66.7
80	66.3
81	66.0
82	65.7
83	65.3
84	65.0
85	64.5
86	64.0
87	63.5
88	63.0
89	62.0
90	61.5
91	61.0
92	60.0
93	59.5
94	59.0
95	58.0
96	57.0
97	55.0
98	54.0
99	52.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	82.0
1	82.0
2	80.0
3	79.0
4	78.0
5	77.0
6	76.5
7	76.0
8	75.5
9	75.0
10	74.7
11	74.3
12	74.0
13	73.5
14	73.0
15	72.7
16	72.3
17	72.0
18	71.7
19	71.3
20	71.0
21	70.5
22	70.0
23	69.7
24	69.3
25	69.0
26	68.5
27	68.0

28	67.7
29	67.3
30	67.0
31	66.7
32	66.3
33	66.0
34	65.5
35	65.0
36	64.7
37	64.3
38	64.0
39	63.7
40	63.3
41	63.0
42	62.5
43	62.0
44	61.7
45	61.3
46	61.0
47	60.7
48	60.3
49	60.0
50	59.5
51	59.0
52	58.7
53	58.3
54	58.0
55	57.7
56	57.3
57	57.0
58	56.5
59	56.0
60	55.7
61	55.3

62	55.0
63	54.5
64	54.0
65	53.7
66	53.3
67	53.0
68	52.5
69	52.0
70	51.7
71	51.3
72	51.0
73	50.7
74	50.3
75	50.0
76	49.7
77	49.3
78	49.0
79	48.5
80	48.0
81	47.5
82	47.0
83	46.5
84	46.0
85	45.5
86	45.0
87	44.7
88	44.3
89	44.0
90	43.5
91	43.0
92	42.0
93	41.5
94	41.0
95	40.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

96	40.0
97	39.0
98	38.5
99	38.0

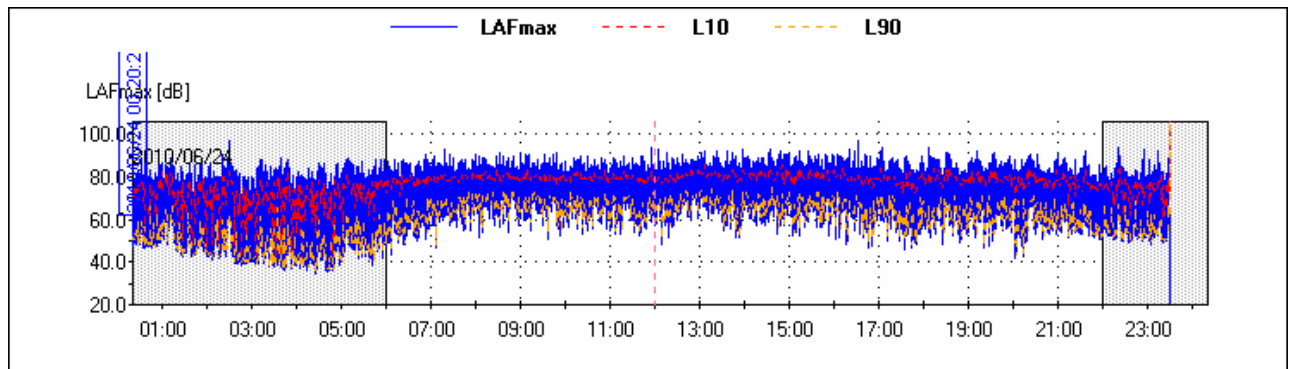
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
94	88,9	92,7
94,1	90,3	93,5
97,7	93,9	96,9
98,4	91,3	93,8
96	89,5	94
98,4	93,9	96,9

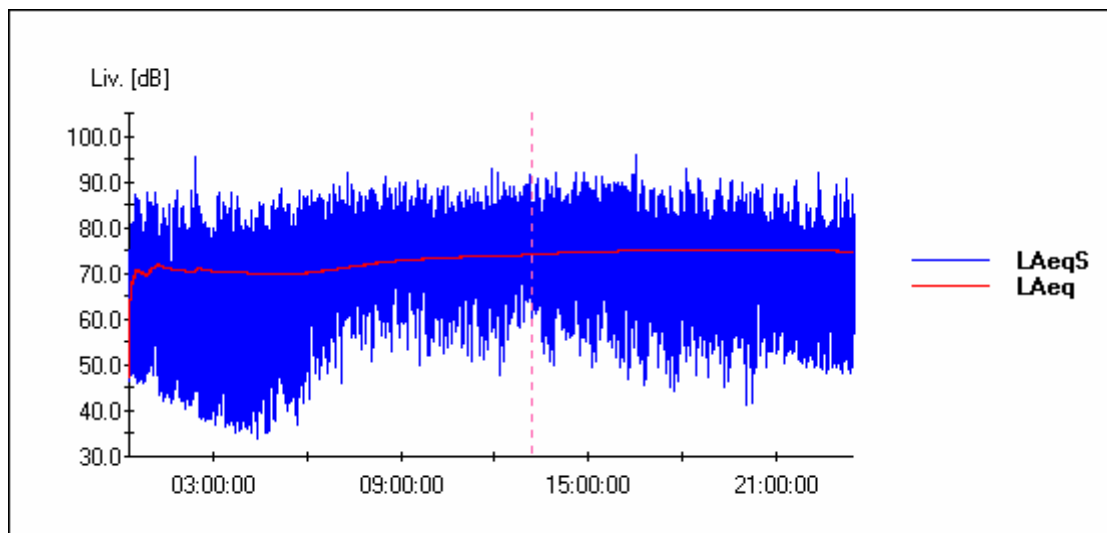
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
97,6	94	96,9
89,6	86	89,2
93,4	88,5	91,9
97,6	94	96,9

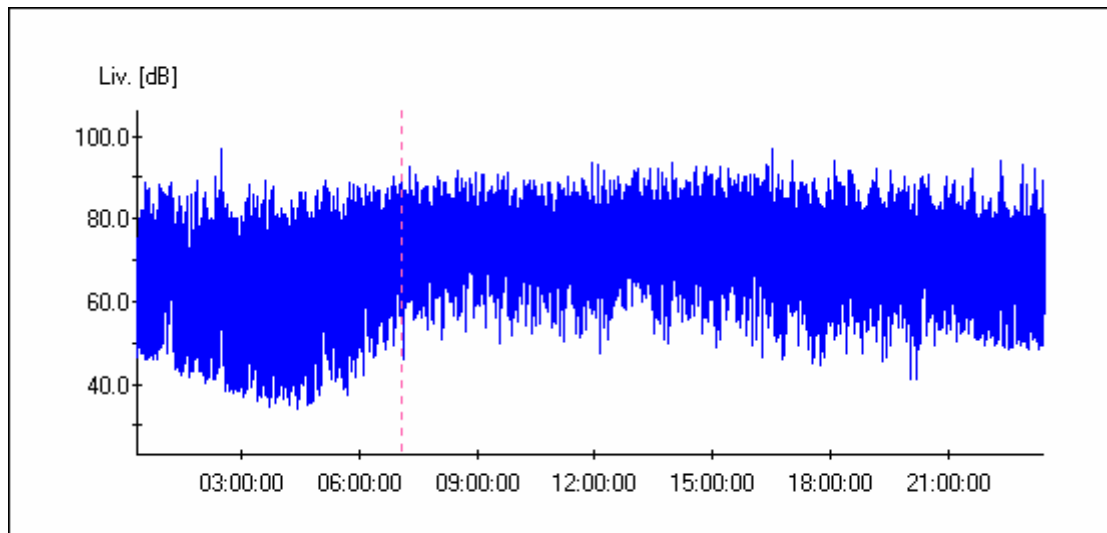
TIME HISTORY L10 – L90



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



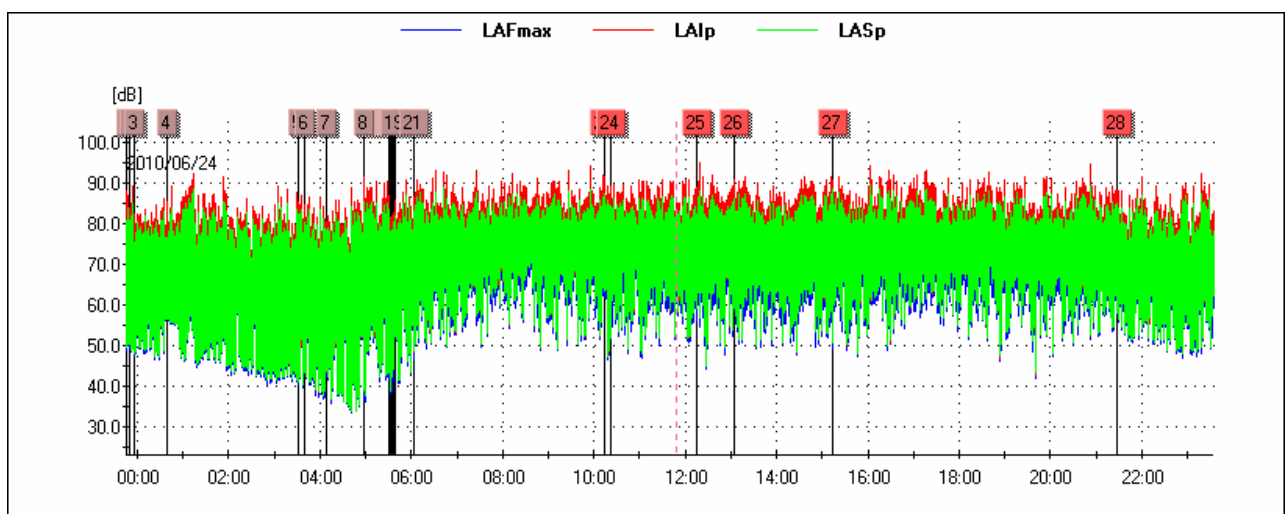
R_1_C 25/06/2010

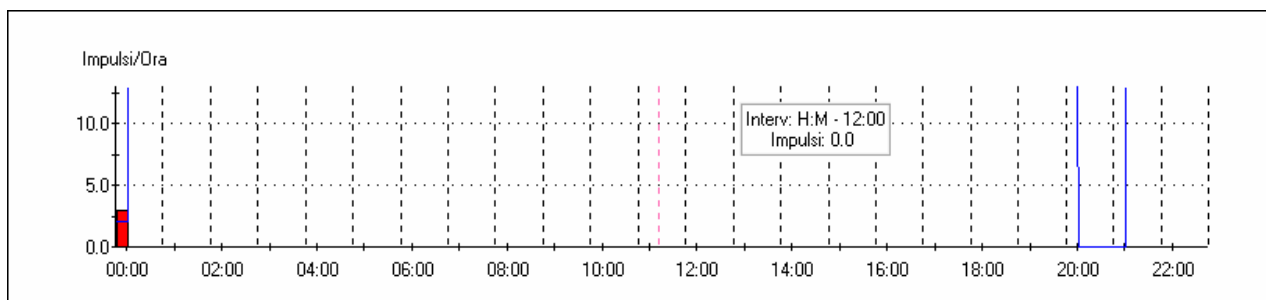
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAI_{max} e LAS_{max} superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAF_{max} inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.





Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/06/24 23:46:01	0.625	82.8	13.5
2	2010/06/24 23:49:09	1.000	65.5	8.7
3	2010/06/24 23:55:25	0.625	77.1	12.5
4	2010/06/25 00:39:40	0.625	82.6	10.6
5	2010/06/25 03:31:05	1.000	73.8	10.2
6	2010/06/25 03:39:22	0.750	72.3	9.2
7	2010/06/25 04:07:53	0.625	62.9	10.7
8	2010/06/25 04:56:42	1.000	90.7	6.2
9	2010/06/25 05:29:42	0.625	65.9	8.6
10	2010/06/25 05:29:56	1.000	62.9	6.2
11	2010/06/25 05:30:01	0.875	66.5	9.8
12	2010/06/25 05:33:16	0.500	75.7	13.2
13	2010/06/25 05:33:36	0.625	69.9	12.6
14	2010/06/25 05:35:06	0.625	63.0	12.4
15	2010/06/25 05:35:45	0.750	57.4	10.9
16	2010/06/25 05:36:21	0.750	70.3	8.3
17	2010/06/25 05:36:23	0.875	62.4	7.5
18	2010/06/25 05:37:52	0.625	82.2	8.0
19	2010/06/25 05:38:18	0.750	71.6	10.8
20	2010/06/25 06:03:01	0.750	58.3	10.3
21	2010/06/25 06:03:02	0.625	62.1	10.8
22	2010/06/25 10:14:36	0.625	81.6	12.1
23	2010/06/25 10:23:01	0.625	69.7	9.2
24	2010/06/25 10:23:05	0.750	78.8	8.3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

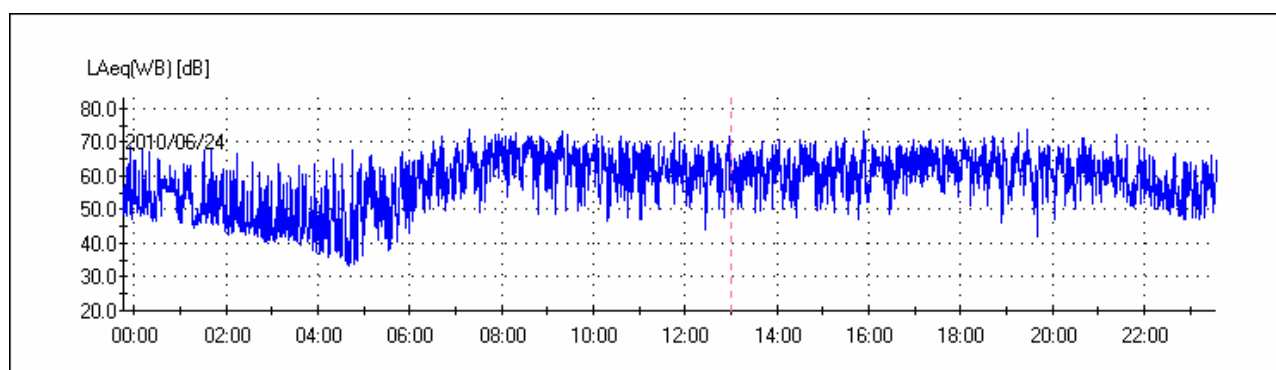
25	2010/06/25 12:15:51	0.625	84.4	10.8
26	2010/06/25 13:03:28	0.625	87.7	9.7
27	2010/06/25 15:13:48	0.750	63.4	9.7
28	2010/06/25 21:28:15	0.750	78.6	10.6

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.

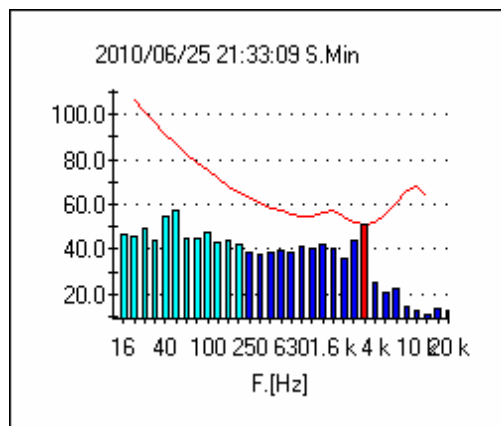


SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.1
Freq: 100	0.0
Freq: 200	0.1
Freq: 250	0.1

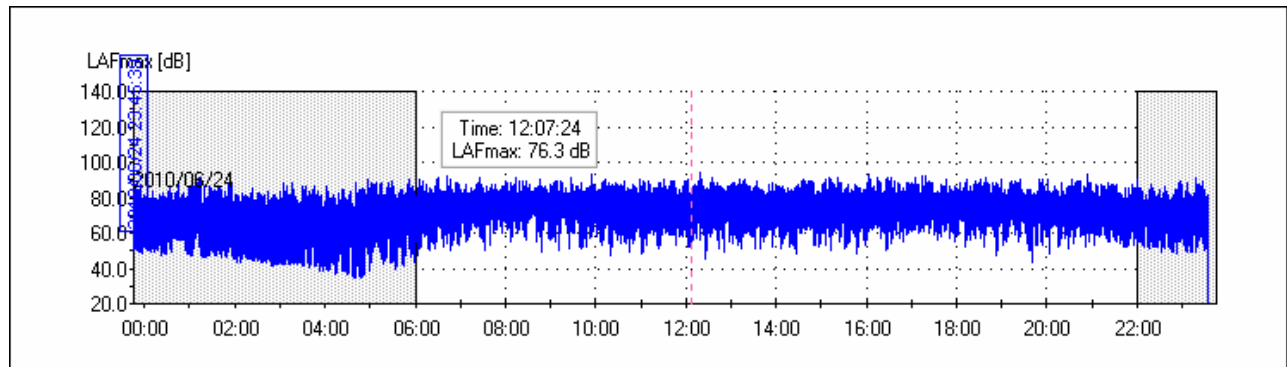
		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 315	0.0
Freq: 400	0.2
Freq: 500	0.1
Freq: 630	0.0
Freq: 800	0.1
Freq: 1 k	0.0
Freq: 3.15 k	4.7
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

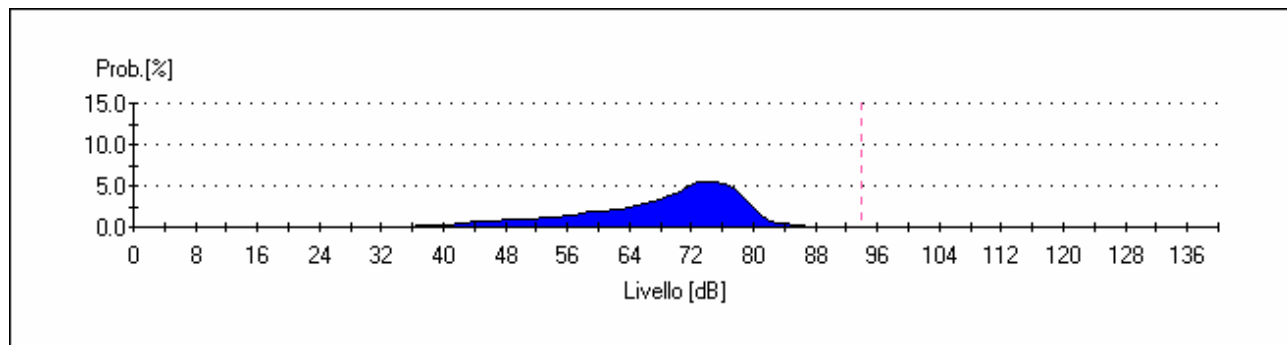
TIME ISTORY COMPONENTI TONALI



CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

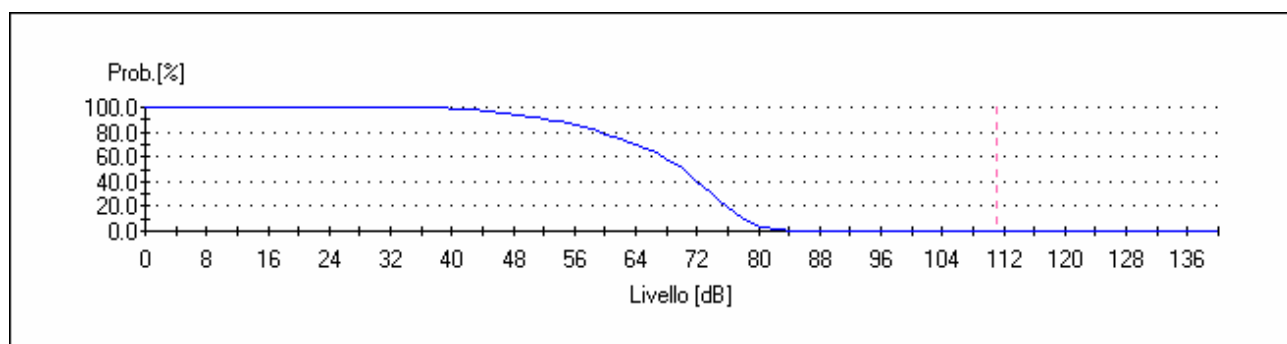
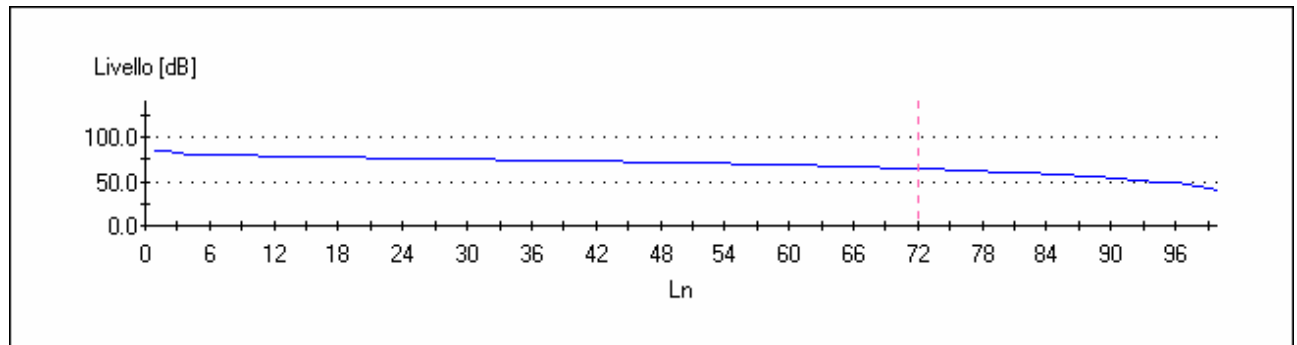


GRAFICO PERCENTILI

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	84.0
1	84.0
2	83.0
3	82.0
4	81.5
5	81.0
6	80.7
7	80.3
8	80.0
9	79.8
10	79.5
11	79.3
12	79.0
13	78.8
14	78.7
15	78.5
16	78.3
17	78.2
18	78.0
19	77.8
20	77.7

21	77.5
22	77.3
23	77.2
24	77.0
25	76.9
26	76.7
27	76.6
28	76.4
29	76.3
30	76.1
31	76.0
32	75.9
33	75.7
34	75.6
35	75.4
36	75.3
37	75.1
38	75.0
39	74.9
40	74.7
41	74.6
42	74.4
43	74.3
44	74.1
45	74.0
46	73.9
47	73.7
48	73.6
49	73.4
50	73.3
51	73.1
52	73.0
53	72.8
54	72.7

55	72.5
56	72.3
57	72.2
58	72.0
59	71.8
60	71.7
61	71.5
62	71.3
63	71.2
64	71.0
65	70.8
66	70.5
67	70.3
68	70.0
69	69.8
70	69.5
71	69.3
72	69.0
73	68.8
74	68.5
75	68.3
76	68.0
77	67.7
78	67.3
79	67.0
80	66.7
81	66.3
82	66.0
83	65.5
84	65.0
85	64.7
86	64.3
87	64.0
88	63.5

89	63.0
90	62.0
91	61.5
92	61.0
93	60.0
94	59.5
95	59.0
96	58.0
97	57.0
98	55.0
99	53.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	82.0
1	82.0
2	80.0
3	79.0
4	78.0
5	77.5
6	77.0
7	76.5
8	76.0
9	75.5
10	75.0
11	74.7
12	74.3
13	74.0
14	73.5
15	73.0
16	72.7
17	72.3
18	72.0

19	71.7
20	71.3
21	71.0
22	70.7
23	70.3
24	70.0
25	69.7
26	69.3
27	69.0
28	68.7
29	68.3
30	68.0
31	67.7
32	67.3
33	67.0
34	66.5
35	66.0
36	65.7
37	65.3
38	65.0
39	64.7
40	64.3
41	64.0
42	63.7
43	63.3
44	63.0
45	62.7
46	62.3
47	62.0
48	61.5
49	61.0
50	60.7
51	60.3
52	60.0

53	59.7
54	59.3
55	59.0
56	58.7
57	58.3
58	58.0
59	57.7
60	57.3
61	57.0
62	56.7
63	56.3
64	56.0
65	55.7
66	55.3
67	55.0
68	54.5
69	54.0
70	53.7
71	53.3
72	53.0
73	52.5
74	52.0
75	51.7
76	51.3
77	51.0
78	50.7
79	50.3
80	50.0
81	49.5
82	49.0
83	48.7
84	48.3
85	48.0
86	47.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

87	47.0
88	46.5
89	46.0
90	45.5
91	45.0
92	44.5
93	44.0
94	43.5
95	43.0
96	42.0
97	41.0
98	39.0
99	37.0

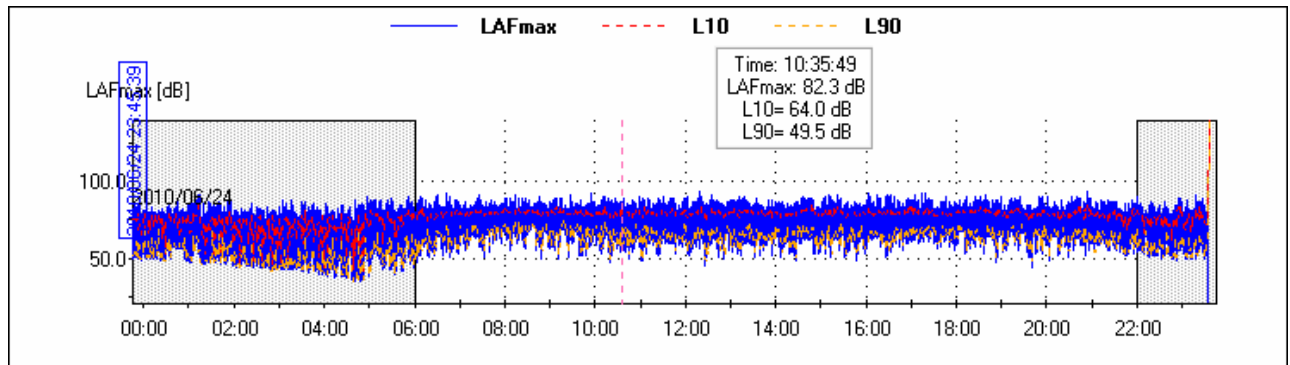
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
93,1	88,9	91,9
94,3	88,3	92,7
95,1	89,7	93,8
93,1	88,6	92,2
94,5	89,4	93,1
95,1	89,7	93,8

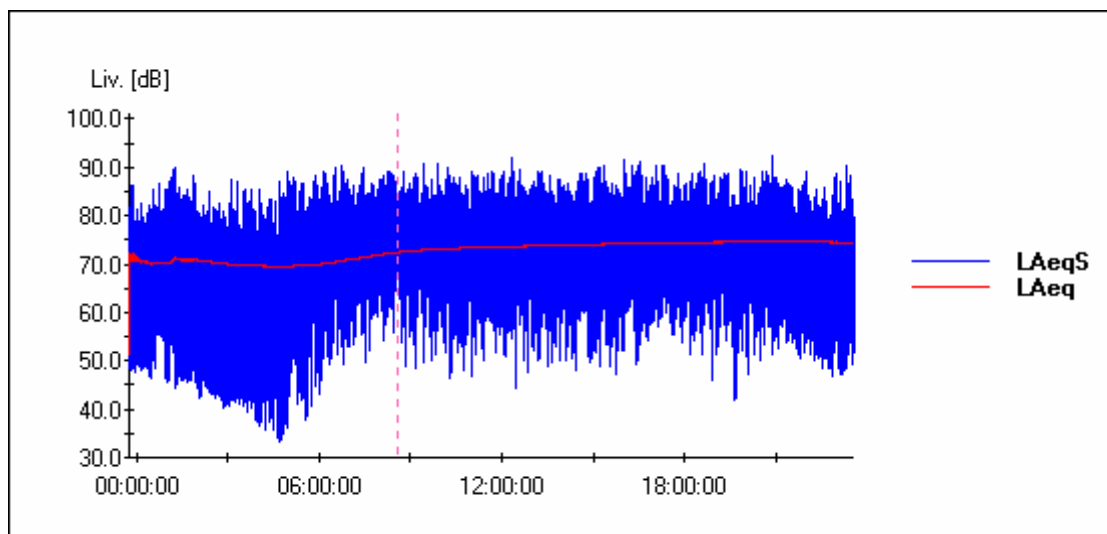
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
92,4	88,3	91,7
91,7	86,9	90,7
92,3	87,3	91,4
92,4	88,3	91,7

TIME HISTORY L10 – L90

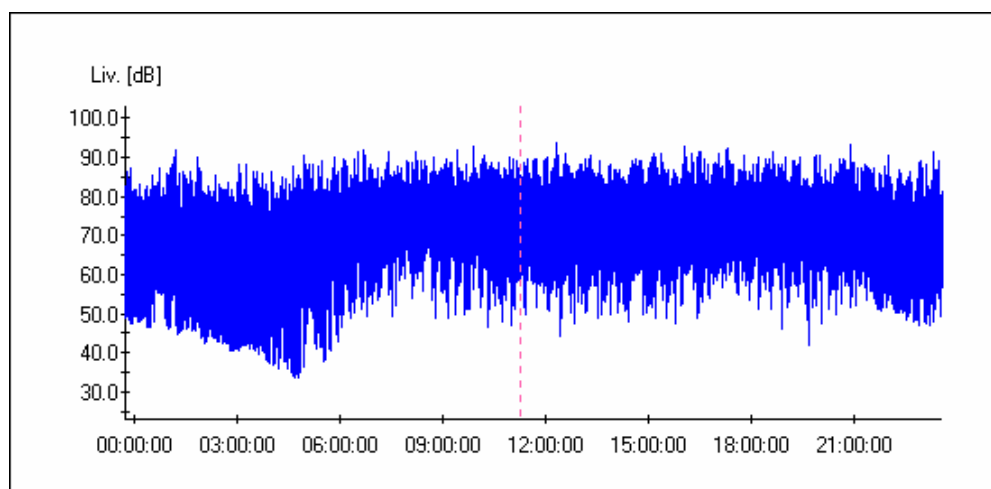


LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

R3 - MISURE DI 7 GIORNI CON POSTAZIONE FISSA		
Punto	Ricettore	Indirizzo
	R_2_C	A3
Descrizione del punto di misura		
L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sulla piazzola di servizio al Km 432+300 dell'autostrada A3 Salerno - Reggio Calabria in direzione Salerno ad una distanza di mt 4,50 dal ciglio stradale		

Caratterizzazione del punto di misura/ricettore				
Zonizzazione acustica e limiti diurni/notturni				
☐	Classe I	50 /40 dB(a)		
☐	Classe II	55 / 45 dB(a)		
☒	Classe III	60 / 50 dB(a)		
☐	Classe IV	65 / 55 dB(a)		
☐	Classe V	70 / 60 dB(a)		
☐	Classe VI	70 / 70 dB(a)		
Caratterizzazione delle sorgenti di rumore				
Tipologia CNR				
Pavimentazione	☒	Conglomerato bituminoso chiuso	☐	Fonoassorbente
	☐	Conglomerato bituminoso aperto	☐	altro
Note Eventuali				
Strumentazione adottata				
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826				

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Punto	Ricettore	Indirizzo
	R_2_C	A3

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)								
	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Data	28-giu	29-giu	30-giu	01-lug	02-lug	26-giu	27-giu	
Laeq 6-22h (grn) [dBA]	75.7	75.9	75.8	75.7	75.8	74.6	73.6	75.3
Laeq 22-6h (ntt) [dBA]	71.1	71.2	77.4	71.5	71.4	70.6	71.2	72.06

RISULTATI MISURE - periodo DIURNO (6/22h)								
Parametri	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Data	28-giu	29-giu	30-giu	01-lug	02-lug	26-giu	27-giu	
Note								
LAeq. TM [dBA]	75.7	75.9	75.8	75.7	75.8	74.6	73.6	75.30
L1 [dBA]	84.0	85.0	85.0	84.0	84.0	82.0	81.0	83.57
L5 [dBA]	80.7	81.0	80.7	80.7	80.7	79.7	79.0	80.36
L10 [dBA]	79.0	79.5	79.3	79.3	79.3	78.4	77.6	78.91
L50 [dBA]	72.7	72.8	72.8	73.0	73.0	71.6	70.4	72.33
L90 [dBA]	61.0	61.0	61.0	61.5	61.5	59.0	55.5	60.07
L95 [dBA]	57.0	57.0	58.0	58.0	58.0	56.0	51.0	56.43
L99 [dBA]	52.0	52.0	52.0	52.0	52.0	50.0	44.0	50.57
LI max [dBA]	101.2	102.3	100.0	97.8	103.1	104.8	96.1	100.76
LF max [dBA]	100.3	99.6	99.3	96.4	102.1	100.0	95.4	99.01
Ls max [dBA]	95.5	92.3	95.6	93.3	97.3	92.9	91.8	94.10
KI [dBA]	0	0	0	0	0	0	0	0
KT [dBA]	0	0	0	0	0	0	0	0
Laeq.TRC [dBA]	75.7	75.9	75.8	75.7	75.8	74.6	73.6	75.3

Note:

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Punto	Ricettore	Indirizzo
	R_2_C	A3

Data	28-giu	29-giu	30-giu	01-lug	02-lug	26-giu	27-giu	
Sorgente stradale REGGIO CALABRIA - SALERNO								
	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Veic. Leggeri/h	355	490	416	499	451	427	343	425.86
Veic. Pesanti/h	100	129	199	135	142	122	146	139
Motocicli/h	50	22	20	20	52	15	10	27
Sorgente stradale SALERNO - REGGIO CALABRIA								
	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Veic. Leggeri/h	443	418	430	436	428	388	400	420.43
Veic. Pesanti/h	149	157	160	161	29	112	76	120.57
Motocicli/h	12	12	11	10	18	11	11	12.143

Parametri meteorologici						
		6-9h	9-14h	14-19h	19-22h	Media
LUNEDI' 28-giu	Condizioni cielo	sereno	sereno	sereno	sereno	
	Temperatura	21.6	25	23.5	21	22.775
	Umidità relativa	38	38	49	61	46.5
	Velocità vento	0.6	1.1	2.9	0.7	1.325
	Direzione vento	W	N	W	N	
		6-9h	9-14h	14-19h	19-22h	Media
MARTEDI 29-giu	Condizioni cielo	sereno	sereno	sereno	sereno	
	Temperatura	21	25.4	26	24.1	24.125
	Umidità relativa	83	68	67	72	72.5
	Velocità vento	1.1	4.1	4.4	2.7	3.075
	Direzione vento	N-NE	N-NE	NE	N-NE	

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto	Ricettore R_2_C	Indirizzo A3

		6-9h	9-14h	14-19h	19-22h	Media
MERCOLEDI 30-giu	Condizioni cielo	sereno	sereno	sereno	sereno	
	Temperatura	24.4	26.2	26.6	23.6	25.2
	Umidità relativa	73	65	65	77	70
	Velocità vento	2.6	3.3	4.7	3.5	3.525
	Direzione vento	NE	N-NE	NE	NE	
		6-9h	9-14h	14-19h	19-22h	Media
GIOVEDÌ 01-lug	Condizioni cielo	sereno	sereno	sereno	sereno	
	Temperatura	21.4	26.4	26.7	24.2	24.675
	Umidità relativa	85	57	65	75	70.5
	Velocità vento	2.1	3.2	4.6	3	3.225
	Direzione vento	E-NE	N-NE	NE	NE	
		6-9h	9-14h	14-19h	19-22h	Media
VENERDÌ 2-lug	Condizioni cielo	sereno	sereno	sereno	sereno	
	Temperatura	21.4	26.6	27.5	24.6	25.025
	Umidità relativa	79	66	63	78	71.5
	Velocità vento	0.5	4.1	4.7	3.4	3.175
	Direzione vento	E-NE	N-NE	NE	N-NE	
		6-9h	9-14h	14-19h	19-22h	Media
SABATO 26-giu	Condizioni cielo	sereno	sereno	sereno	sereno	
	Temperatura	18.9	24.2	25	22.4	22.625
	Umidità relativa	84	63	60	72	69.75
	Velocità vento	0.3	2.5	4.4	2.3	2.375
	Direzione vento	E-NE	N-NE	NE	N-NE	
		6-9h	9-14h	14-19h	19-22h	Media
DOMENICA 27-giu	Condizioni cielo	sereno	sereno	sereno	sereno	
	Temperatura	20.6	26.4	26.9	22.8	24.175
	Umidità relativa	65	51	40	66	55.5
	Velocità vento	0.8	1.6	3.8	0.8	1.75
	Direzione vento	E-S E	N-N E	N-N E	S E	

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto	Ricettore	Indirizzo
	R_2_C	A3

RISULTATI MISURE - periodo NOTTURNO (22/6h)								
Parametri	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Data	28-giu	29-giu	30-giu	1-lug	2-lug	26-giu	27-giu	
Note								
LAeq. TM [dBA]	71.1	71.2	77.4	71.5	71.4	70.6	71.2	72.06
L1 [dBA]	82.0	83.0	83.0	83.0	82.0	81.0	81.0	82.14
L5 [dBA]	77.5	77.5	78.0	77.5	77.5	77.0	77.0	77.43
L10 [dBA]	75.0	75.0	75.0	75.3	75.3	74.5	75.0	75.01
L50 [dBA]	61.0	59.7	60.3	61.3	62.3	31.7	64.0	57.19
L90 [dBA]	47.0	44.3	47.0	46.7	47.3	45.5	48.5	46.61
L95 [dBA]	44.0	42.5	45.0	44.0	45.0	42.5	44.0	43.86
L99 [dBA]	40.0	38.0	41.0	41.0	39.0	37.0	39.0	39.29
Ll max [dBA]	96.1	93.6	115.8	95.5	98.3	98.3	98.5	99.44
LF max [dBA]	95.7	92.3	112.0	94.4	96.8	96.8	97.1	97.87
Ls max [dBA]	93.2	89.1	108.4	91.5	93.0	92.3	92.3	94.26
Kl [dBA]	0	0	0	0	0	0	0	0
KT [dBA]	0	0	0	0	0	0	0	0
KB [dBA]	0	0	0	0	0	0	0	0
Laeq.TRC [dBA]	71.1	71.2	77.4	71.5	71.4	70.6	71.2	72.06

Note:

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto	Ricettore	Indirizzo
	R_2_C	A3

Data	28-giu	29-giu	30-giu	1-lug	2-lug	0-gen	27-giu	
Sorgente stradale REGGIO CALABRIA - SALERNO								
	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Veic. Leggeri/h	50	36	35	49	151	47	62	430
Veic. Pesanti/h	75	102	112	128	49	139	144	749
Motocicli/h	16	11	14	14	12	7	10	84
Sorgente stradale SALERNO - REGGIO CALABRIA								
Veic. Leggeri/h	86	67	83	92	188	139	177	832
Veic. Pesanti/h	67	58	77	76	30	54	58	420
Motocicli/h	2	0	0	1	7	1	2	13

Parametri meteorologici					
		22-2h	2-6h	Media	
LUNEDI' 28-giu	Condizioni cielo	sereno	sereno	sereno	
	Temperatura	20.3	21.1	20.7	
	Umidità relativa	61	67	64	
	Velocità vento	0.9	0.3	0.6	
	Direzione vento	S-SW	W-NW		
		22-2h	2-6h	Media	
MARTEDI 29-giu	Condizioni cielo	sereno	sereno	sereno	
	Temperatura	20	19.7	19.85	
	Umidità relativa	66	68	67	
	Velocità vento	1.3	1.6	1.45	
	Direzione vento	NE	W		

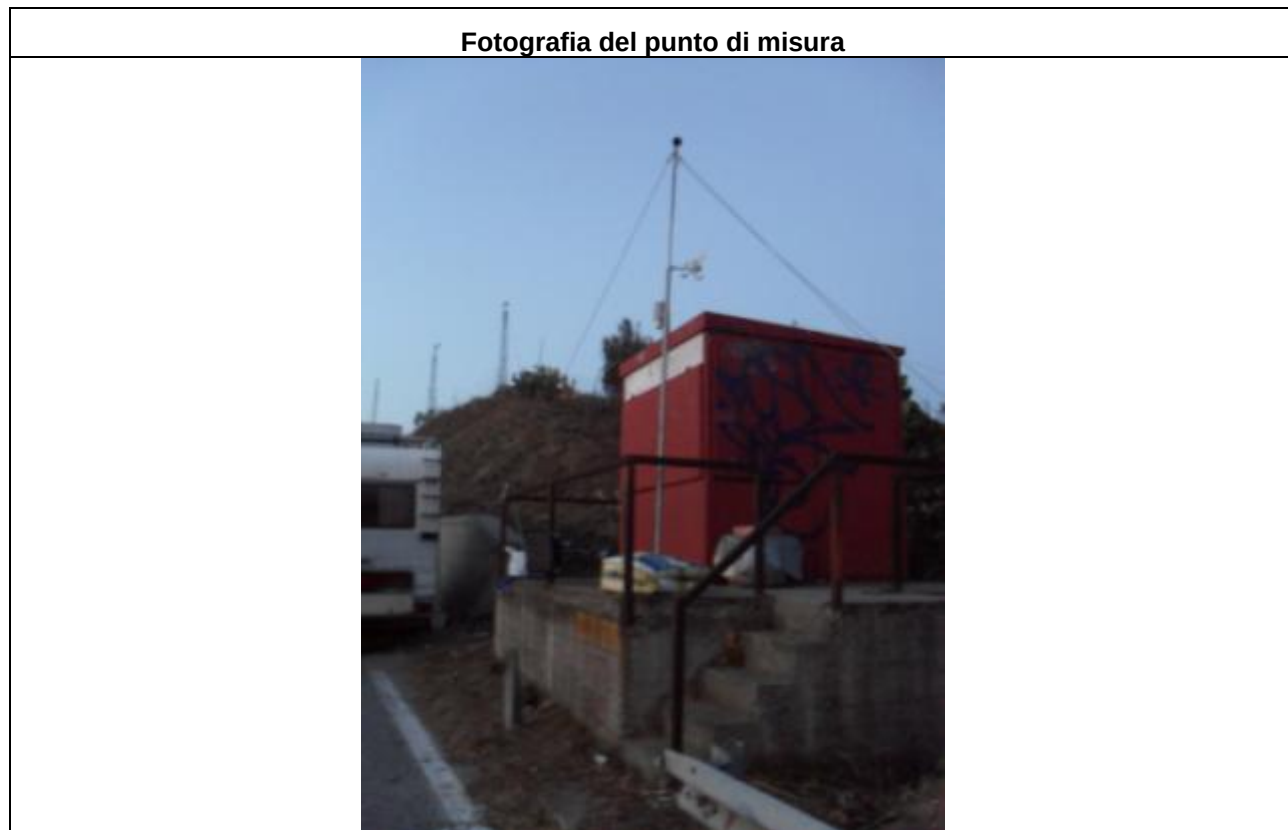
		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Punto	Ricettore R_2_C	Indirizzo A3

		22-2h	2-6h	Media
MERCOLEDI 30-giu	Condizioni cielo	sereno	sereno	sereno
	Temperatura	18.2	17.9	18.05
	Umidità relativa	81	83	82
	Velocità vento	0.2	1.4	0.8
	Direzione vento	N-NW	N-NE	
		22-2h	2-6h	Media
GIOVEDÌ 01-lug	Condizioni cielo	sereno	sereno	sereno
	Temperatura	19.9	19.2	19.55
	Umidità relativa	77	80	78.5
	Velocità vento	1.9	0.8	1.35
	Direzione vento	N	E-NE	
		22-2h	2-6h	Media
VENERDÌ 2-lug	Condizioni cielo	sereno	sereno	sereno
	Temperatura	20	19.4	19.7
	Umidità relativa	83	85	84
	Velocità vento	2.2	1.3	1.75
	Direzione vento	N-NE	NE	
		22-2h	2-6h	Media
SABATO 26-giu	Condizioni cielo	sereno	sereno	sereno
	Temperatura	20.9	18.6	19.75
	Umidità relativa	79	85	82
	Velocità vento	1.1	0.5	0.8
	Direzione vento	W	E-SE	
		22-2h	2-6h	Media
DOMENICA 27-giu	Condizioni cielo	sereno	sereno	sereno
	Temperatura	21.6	19	20.3
	Umidità relativa	70	78	74
	Velocità vento	0.8	0.3	0.55
	Direzione vento	N-NE	W-NW	

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto	Ricettore R_2_C	Indirizzo A3



MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO

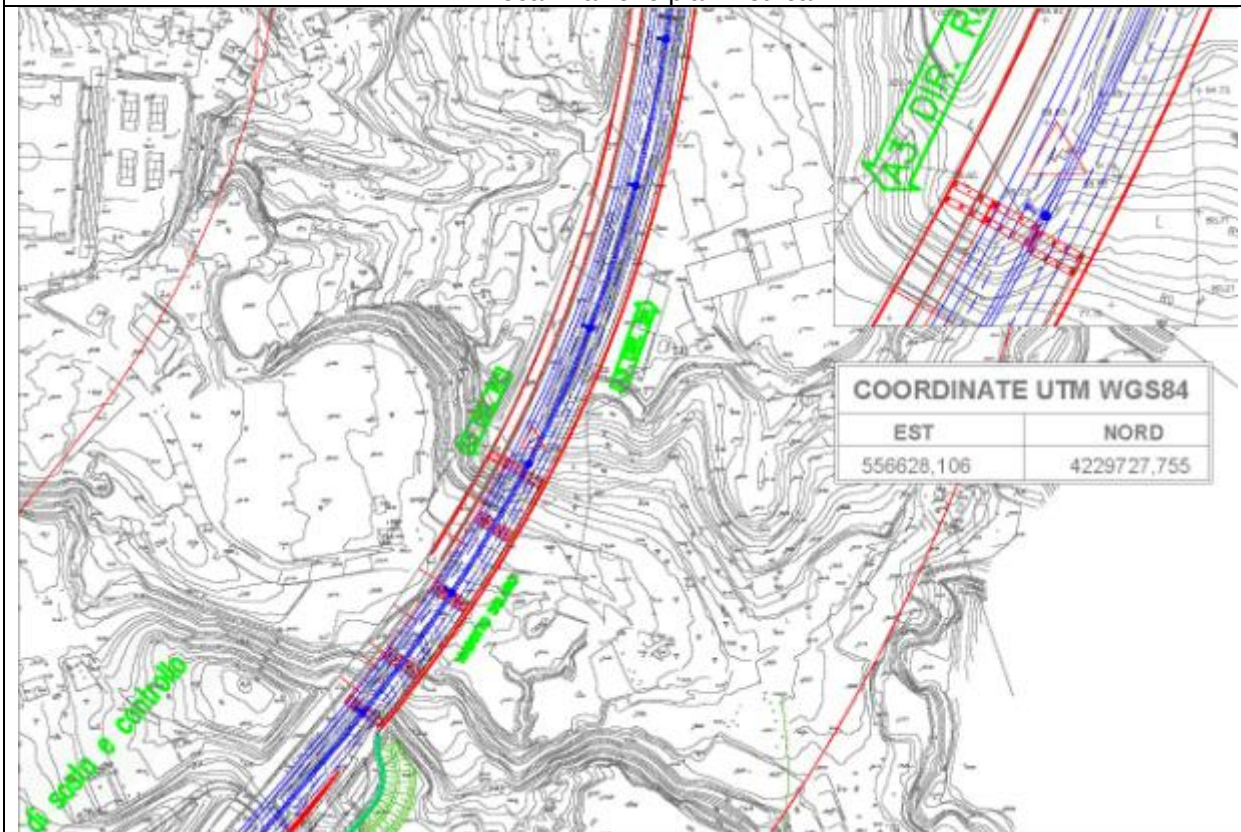
Codice documento
AC0053_F0.docx_F0

Rev
F0

Data
20/06/2011

Punto	Ricettore	Indirizzo
	R_2_C	A3

Localizzazione planimetrica



DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

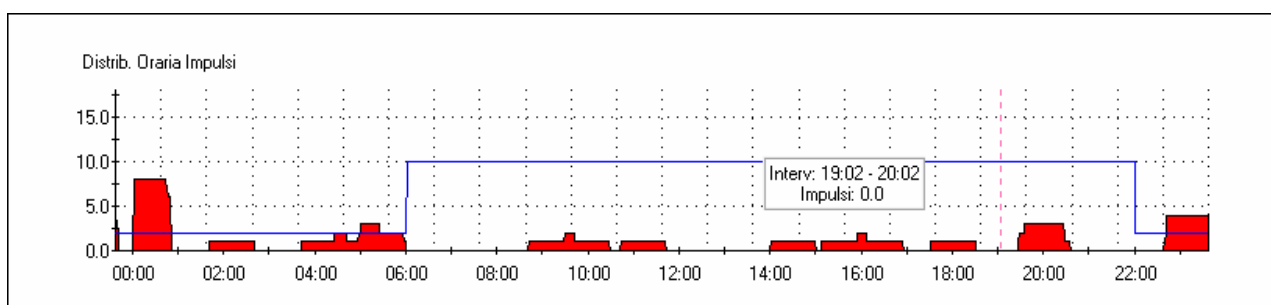
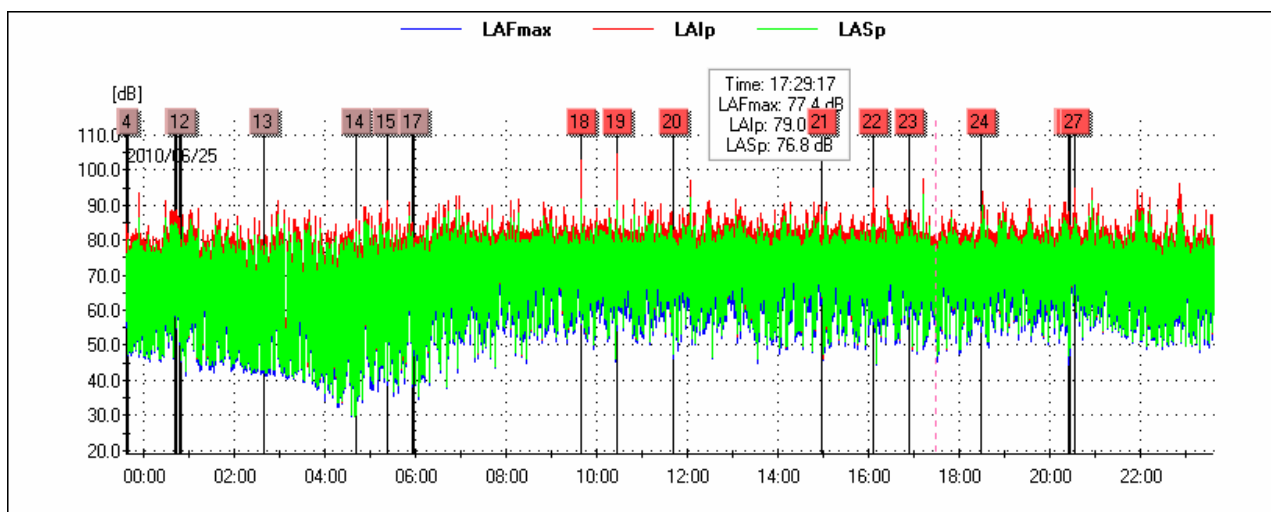
R_2_C 26/06/2010

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/06/25 23:37:57	0.625	79.9	13.1
2	2010/06/25 23:39:22	0.875	77.9	8.7
3	2010/06/25 23:40:25	0.750	73.3	12.0

4	2010/06/25 23:40:27	0.500	68.2	10.5
5	2010/06/26 00:42:25	0.750	74.6	8.9
6	2010/06/26 00:44:04	1.000	71.9	11.0
7	2010/06/26 00:48:55	0.500	67.7	11.8
8	2010/06/26 00:49:11	0.875	59.6	8.6
9	2010/06/26 00:49:20	1.000	57.2	9.4
10	2010/06/26 00:49:26	0.625	62.9	11.3
11	2010/06/26 00:49:49	0.625	74.3	9.7
12	2010/06/26 00:50:21	0.750	73.1	10.7
13	2010/06/26 02:39:33	0.750	64.0	7.8
14	2010/06/26 04:40:50	0.750	44.2	11.1
15	2010/06/26 05:23:12	0.750	89.3	8.6
16	2010/06/26 05:55:40	0.750	71.6	9.0
17	2010/06/26 05:58:32	0.625	73.8	10.2
18	2010/06/26 09:40:03	0.625	99.4	11.2
19	2010/06/26 10:27:59	0.500	100.0	13.7
20	2010/06/26 11:41:31	1.000	61.4	11.7
21	2010/06/26 14:58:06	0.750	82.8	10.5
22	2010/06/26 16:05:42	1.000	91.7	10.0
23	2010/06/26 16:53:35	0.625	71.7	9.7
24	2010/06/26 18:29:39	1.000	76.0	6.4
25	2010/06/26 20:25:52	0.750	58.9	9.5
26	2010/06/26 20:26:16	1.000	65.2	8.5
27	2010/06/26 20:33:43	0.625	92.2	9.3

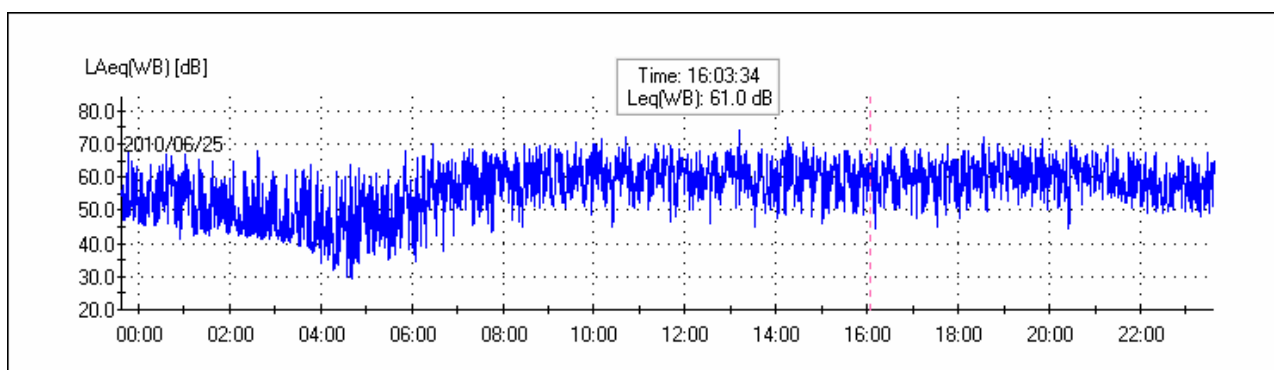
		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 100	0.0
Freq: 125	0.0
Freq: 200	0.1
Freq: 250	0.0
Freq: 315	0.1
Freq: 400	0.3
Freq: 500	0.3
Freq: 630	0.1
Freq: 800	0.1
Freq: 2 k	0.0
Freq: 2.5 k	0.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Freq: 3.15 k	3.8
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

TIME ISTORY COMPONENTI TONALI

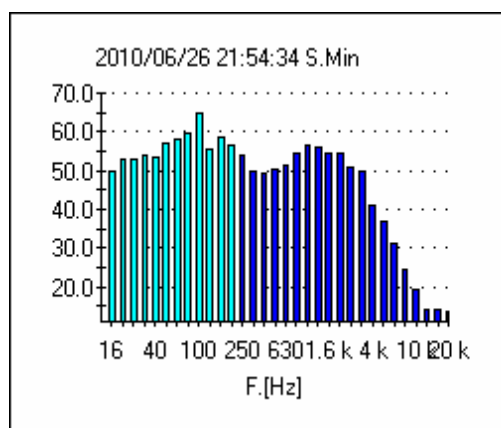
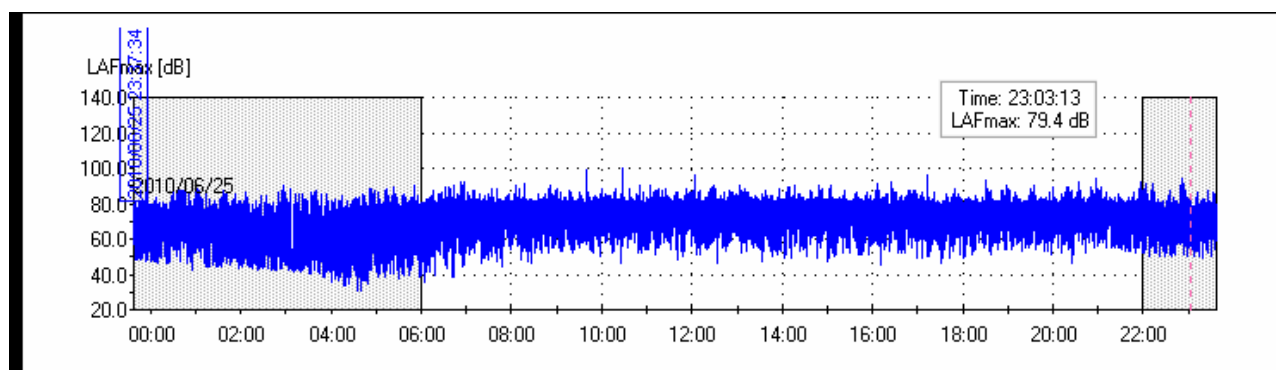
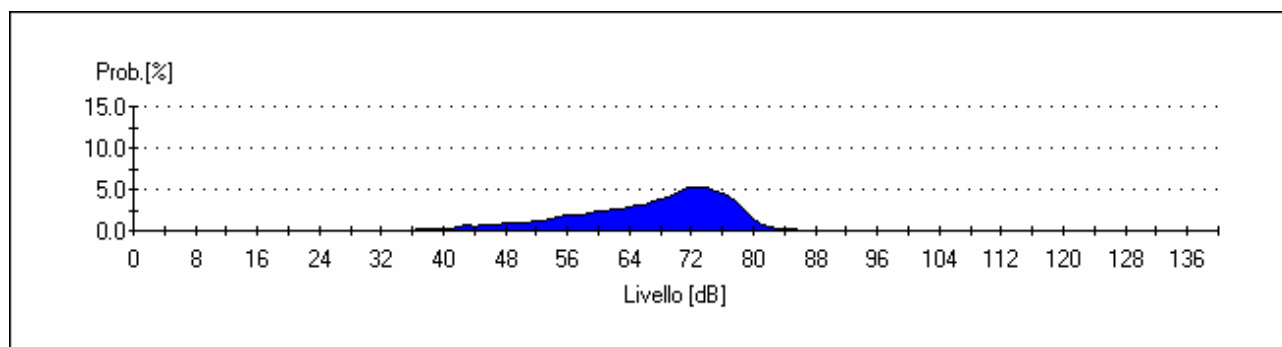


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

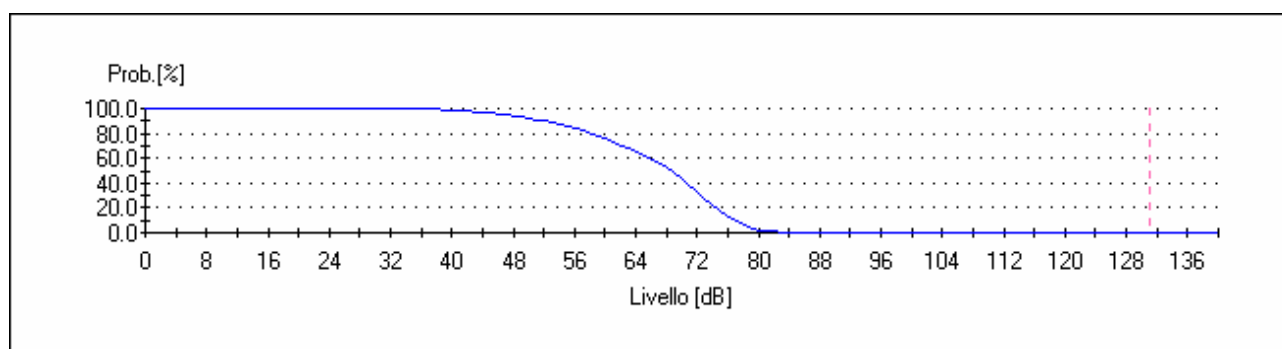
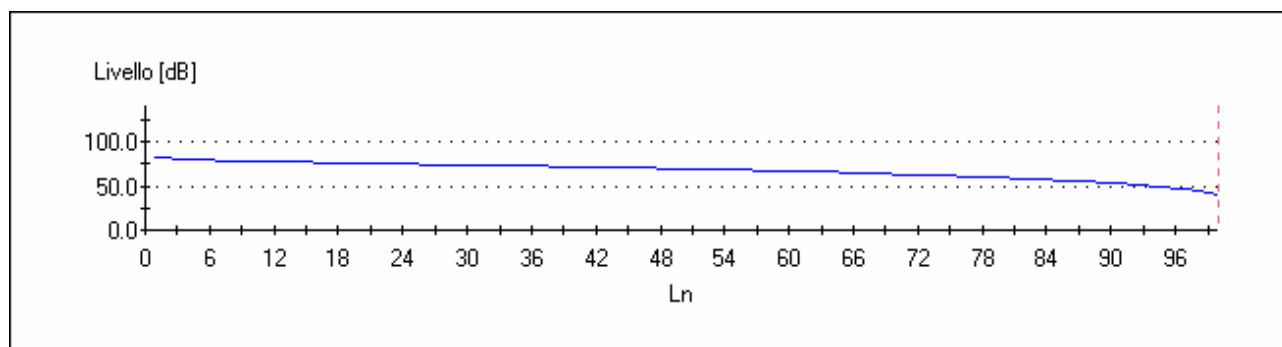


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	82.0
1	82.0
2	81.0
3	80.5
4	80.0
5	79.7
6	79.3
7	79.0
8	78.8
9	78.6
10	78.4
11	78.2
12	78.0
13	77.8
14	77.6
15	77.4
16	77.2
17	77.0
18	76.8
19	76.7
20	76.5
21	76.3
22	76.2
23	76.0
24	75.8
25	75.7
26	75.5
27	75.3
28	75.2
29	75.0
30	74.8
31	74.7

32	74.5
33	74.3
34	74.2
35	74.0
36	73.8
37	73.7
38	73.5
39	73.3
40	73.2
41	73.0
42	72.9
43	72.7
44	72.6
45	72.4
46	72.3
47	72.1
48	72.0
49	71.8
50	71.6
51	71.4
52	71.2
53	71.0
54	70.8
55	70.6
56	70.4
57	70.2
58	70.0
59	69.8
60	69.6
61	69.4
62	69.2
63	69.0
64	68.8
65	68.5

66	68.3
67	68.0
68	67.8
69	67.5
70	67.3
71	67.0
72	66.7
73	66.3
74	66.0
75	65.7
76	65.3
77	65.0
78	64.7
79	64.3
80	64.0
81	63.5
82	63.0
83	62.7
84	62.3
85	62.0
86	61.5
87	61.0
88	60.5
89	60.0
90	59.0
91	58.5
92	58.0
93	57.0
94	56.5
95	56.0
96	55.0
97	54.0
98	52.0
99	50.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	81.0
1	81.0
2	79.0
3	78.0
4	77.5
5	77.0
6	76.0
7	75.7
8	75.3
9	75.0
10	74.5
11	74.0
12	73.7
13	73.3
14	73.0
15	72.8
16	72.5
17	72.3
18	72.0
19	71.7
20	71.3
21	71.0
22	70.7
23	70.3
24	70.0
25	69.8
26	69.5
27	69.3
28	69.0

29	68.7
30	68.3
31	68.0
32	67.7
33	67.3
34	67.0
35	66.7
36	66.3
37	66.0
38	65.7
39	65.3
40	65.0
41	64.7
42	64.3
43	64.0
44	63.7
45	63.3
46	63.0
47	62.7
48	62.3
49	62.0
50	61.7
51	61.3
52	61.0
53	60.7
54	60.3
55	60.0
56	59.5
57	59.0
58	58.7
59	58.3
60	58.0
61	57.7
62	57.3

63	57.0
64	56.7
65	56.3
66	56.0
67	55.7
68	55.3
69	55.0
70	54.5
71	54.0
72	53.7
73	53.3
74	53.0
75	52.5
76	52.0
77	51.5
78	51.0
79	50.5
80	50.0
81	49.7
82	49.3
83	49.0
84	48.5
85	48.0
86	47.5
87	47.0
88	46.5
89	46.0
90	45.5
91	45.0
92	44.0
93	43.5
94	43.0
95	42.5
96	42.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

97	41.0
98	39.0
99	37.0

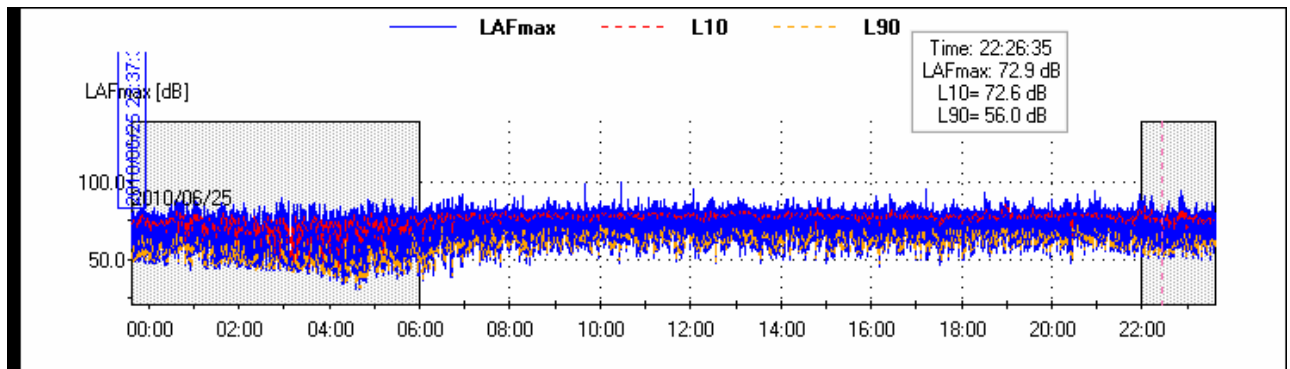
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA Sp [dB]	LAFp [dB]
92,7	88,5	92
104,8	92,3	100
94,7	88,1	91,7
97,3	92,9	96,4
94,7	91,2	94,2
104,8	92,9	100

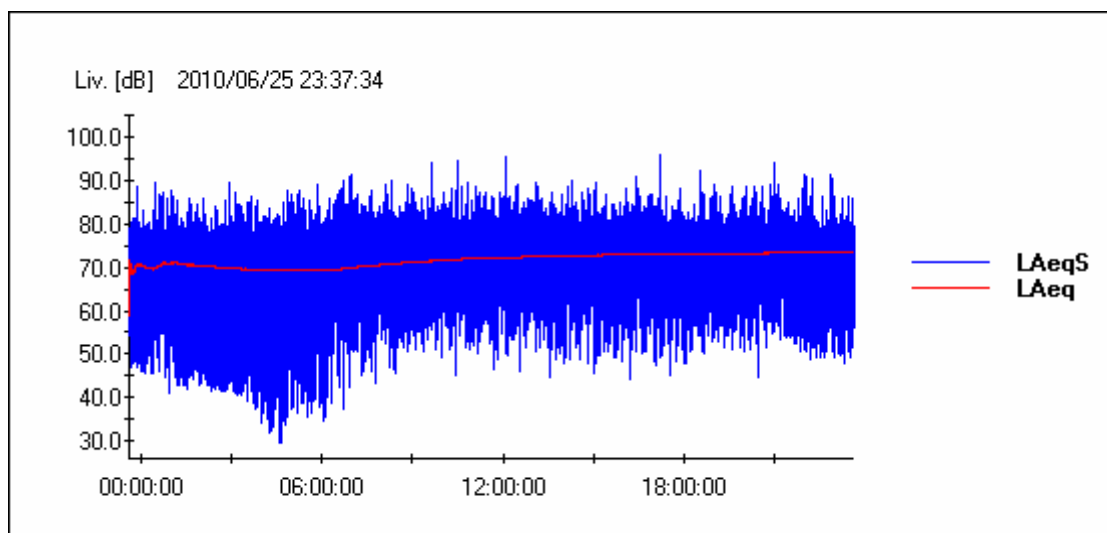
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LA Sp [dB]	LAFp [dB]
93,5	87,2	90,9
91,1	86,6	90,1
96	88,8	94,2
96	88,8	94,2

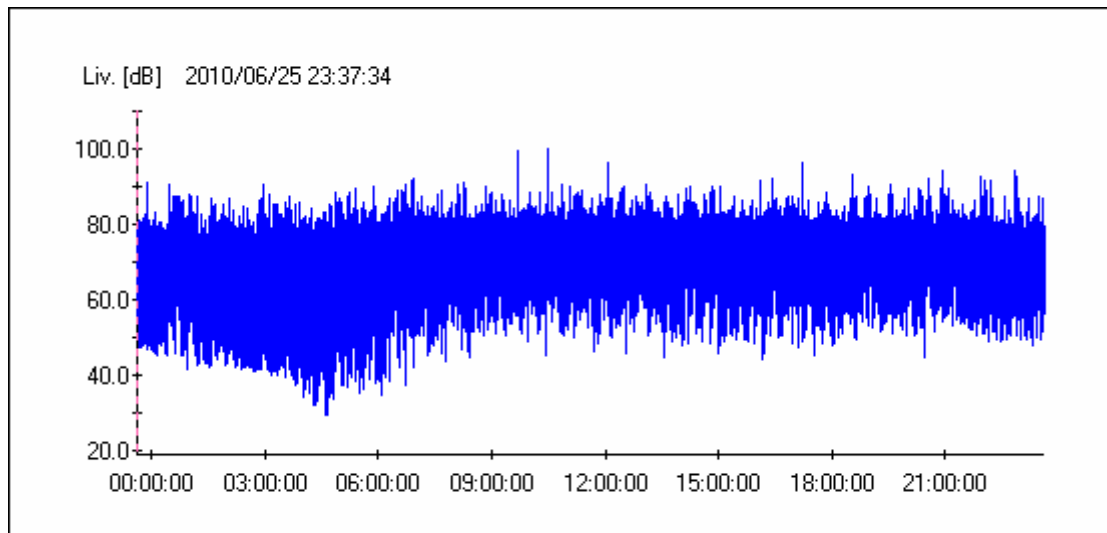
TIME HISTORY L10 – L90



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



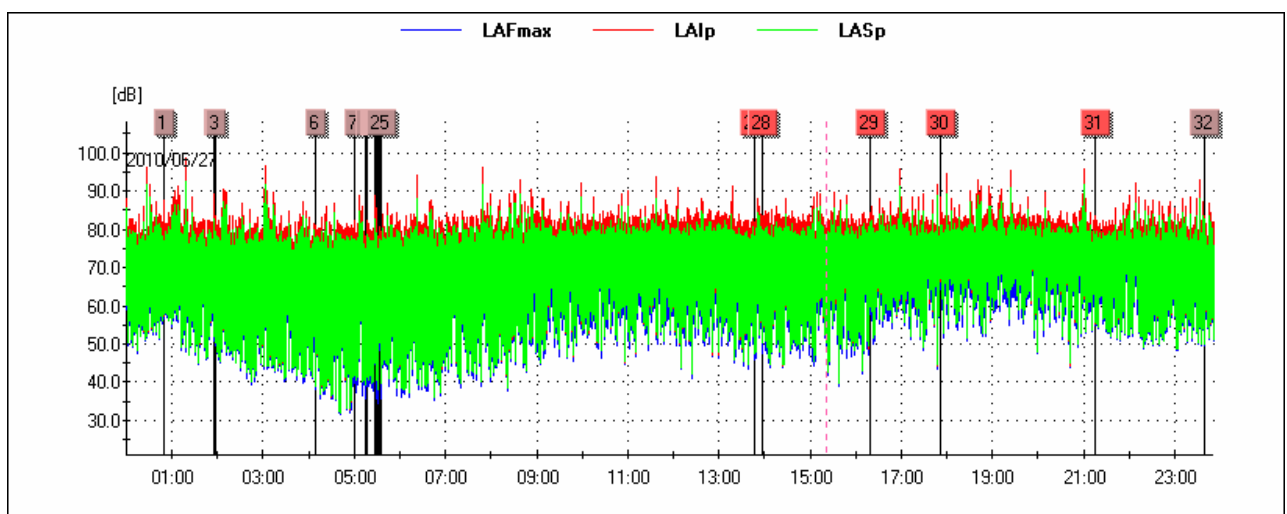
R_2_C 27/06/2010

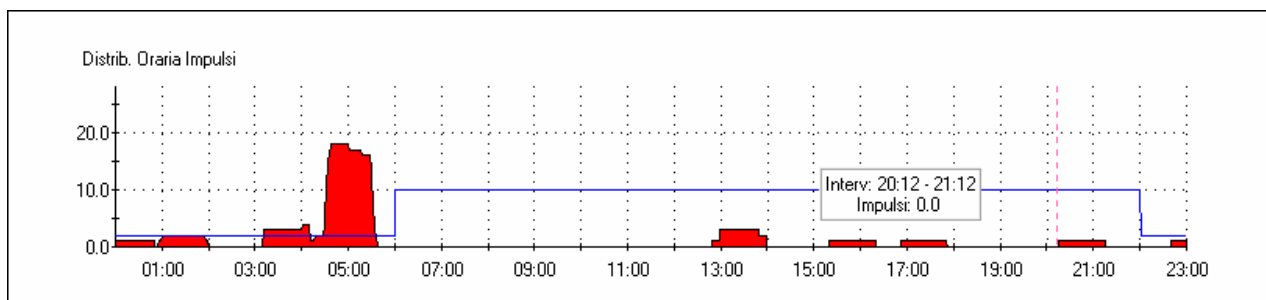
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAI_{max} e LAS_{max} superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAF_{max} inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.





Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAI max - LASmax [dB]
1	2010/06/27 00:49:40	0.625	84.4	10.7
2	2010/06/27 01:54:53	0.875	88.1	6.8
3	2010/06/27 01:58:13	0.625	75.7	8.7
4	2010/06/27 04:09:38	0.625	62.4	11.8
5	2010/06/27 04:09:40	0.750	56.8	10.0
6	2010/06/27 04:09:41	0.750	55.6	8.1
7	2010/06/27 04:59:53	0.750	78.0	8.9
8	2010/06/27 05:15:49	0.750	50.1	7.7
9	2010/06/27 05:27:18	0.875	82.1	8.2
10	2010/06/27 05:27:27	0.750	60.6	10.7
11	2010/06/27 05:28:47	0.625	54.9	8.7
12	2010/06/27 05:28:49	0.875	51.8	6.4
13	2010/06/27 05:28:49	0.750	52.5	7.9
14	2010/06/27 05:28:53	0.750	52.9	7.7
15	2010/06/27 05:29:19	0.625	69.2	12.2
16	2010/06/27 05:29:34	0.500	62.8	12.2
17	2010/06/27 05:30:36	0.750	54.9	11.2
18	2010/06/27 05:30:59	0.750	48.8	8.8
19	2010/06/27 05:31:08	0.750	48.0	8.6
20	2010/06/27 05:31:51	0.750	59.8	9.7
21	2010/06/27 05:31:58	0.625	65.4	11.9
22	2010/06/27 05:32:02	0.625	63.0	11.7
23	2010/06/27 05:33:22	1.000	64.0	9.6
24	2010/06/27 05:35:29	0.625	60.9	7.9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

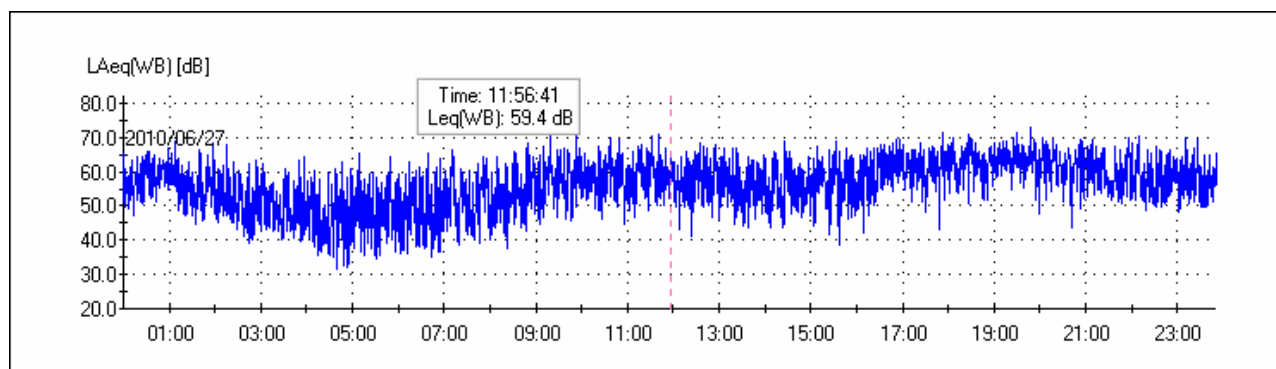
25	2010/06/27 05:35:35	0.625	61.5	8.2
26	2010/06/27 13:47:09	0.750	60.8	10.3
27	2010/06/27 13:57:12	0.750	78.6	9.3
28	2010/06/27 13:57:33	0.750	72.6	7.0
29	2010/06/27 16:18:59	0.625	74.6	8.4
30	2010/06/27 17:50:34	0.875	85.4	9.3
31	2010/06/27 21:14:48	0.875	78.7	10.5
32	2010/06/27 23:38:52	0.750	63.5	11.0

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 100	0.1
Freq: 125	0.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 160	0.1
Freq: 200	0.1
Freq: 250	0.1
Freq: 315	0.1
Freq: 400	0.1
Freq: 500	0.2
Freq: 630	0.1
Freq: 800	0.0
Freq: 1 k	0.0
Freq: 2.5 k	0.1
Freq: 3.15 k	7.7
Freq: 4 k	0.0
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

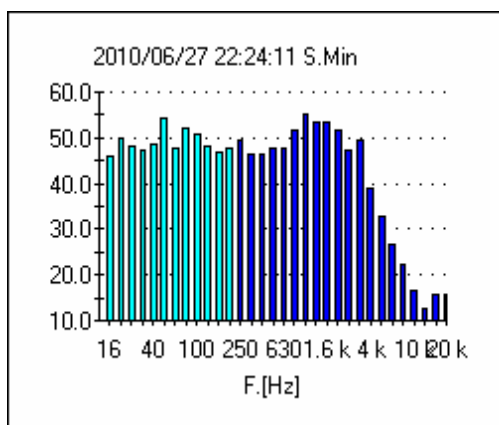
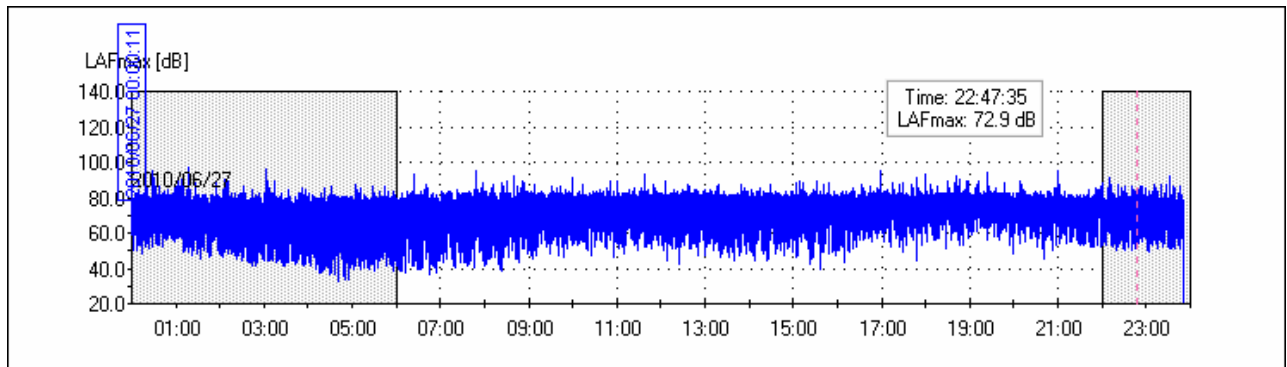
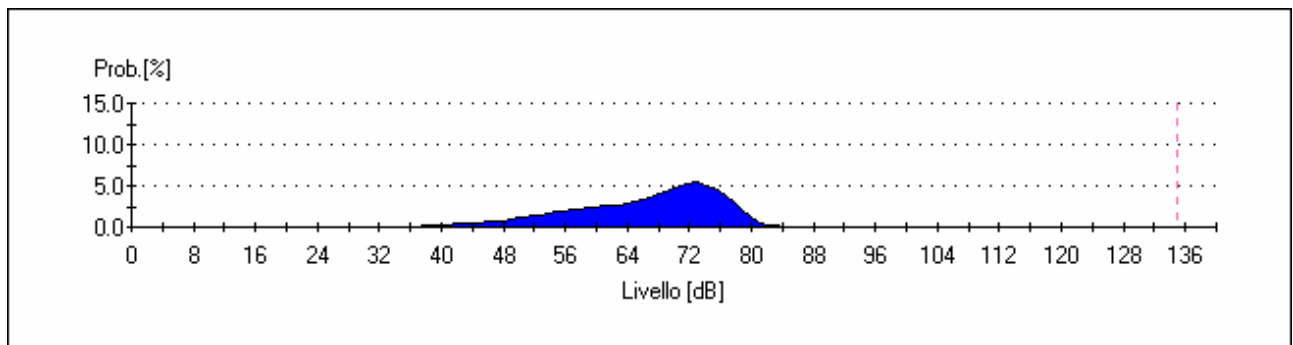


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

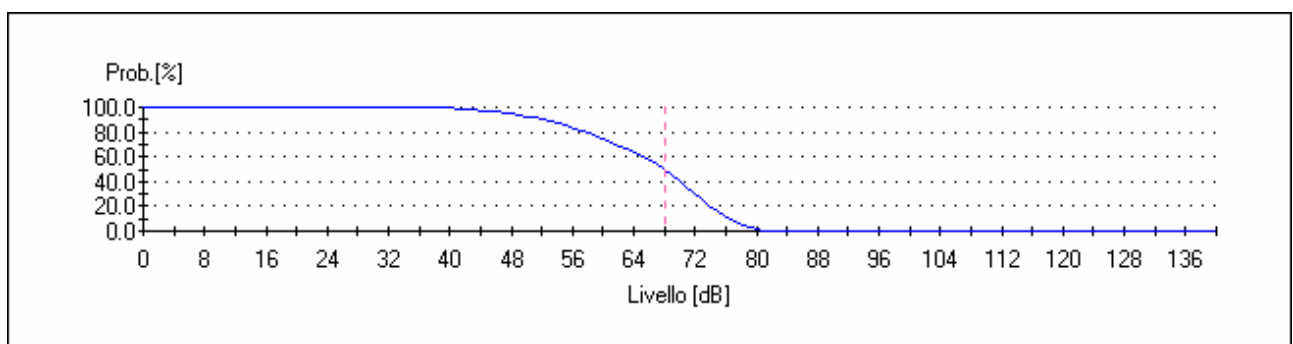
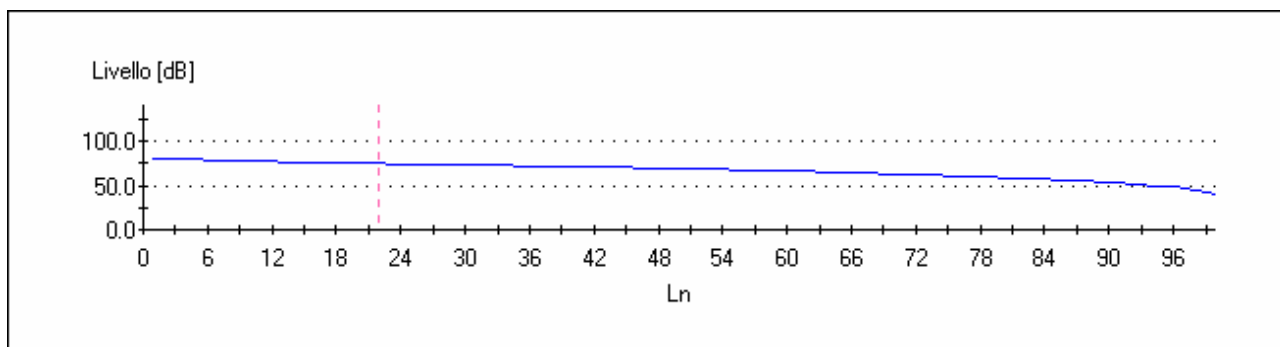


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	81.0
1	81.0
2	80.0
3	79.7
4	79.3
5	79.0
6	78.7
7	78.3
8	78.0
9	77.8
10	77.6
11	77.4
12	77.2
13	77.0
14	76.8
15	76.6
16	76.4
17	76.2
18	76.0
19	75.8
20	75.7
21	75.5

22	75.3
23	75.2
24	75.0
25	74.8
26	74.7
27	74.5
28	74.3
29	74.2
30	74.0
31	73.8
32	73.7
33	73.5
34	73.3
35	73.2
36	73.0
37	72.8
38	72.7
39	72.5
40	72.3
41	72.2
42	72.0
43	71.8
44	71.6
45	71.4
46	71.2
47	71.0
48	70.8
49	70.6
50	70.4
51	70.2
52	70.0
53	69.8
54	69.6
55	69.4

56	69.2
57	69.0
58	68.8
59	68.5
60	68.3
61	68.0
62	67.7
63	67.3
64	67.0
65	66.8
66	66.5
67	66.3
68	66.0
69	65.7
70	65.3
71	65.0
72	64.5
73	64.0
74	63.7
75	63.3
76	63.0
77	62.5
78	62.0
79	61.5
80	61.0
81	60.5
82	60.0
83	59.5
84	59.0
85	58.5
86	58.0
87	57.5
88	57.0
89	56.0

90	55.5
91	55.0
92	54.0
93	53.0
94	52.0
95	51.0
96	50.0
97	48.0
98	46.0
99	44.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	81.0
1	81.0
2	79.0
3	78.0
4	77.5
5	77.0
6	76.7
7	76.3
8	76.0
9	75.5
10	75.0
11	74.8
12	74.5
13	74.3
14	74.0
15	73.7
16	73.3
17	73.0
18	72.8
19	72.5

20	72.3
21	72.0
22	71.8
23	71.5
24	71.3
25	71.0
26	70.8
27	70.5
28	70.3
29	70.0
30	69.8
31	69.5
32	69.3
33	69.0
34	68.8
35	68.5
36	68.3
37	68.0
38	67.8
39	67.5
40	67.3
41	67.0
42	66.7
43	66.3
44	66.0
45	65.7
46	65.3
47	65.0
48	64.7
49	64.3
50	64.0
51	63.8
52	63.5
53	63.3

54	63.0
55	62.7
56	62.3
57	62.0
58	61.7
59	61.3
60	61.0
61	60.7
62	60.3
63	60.0
64	59.7
65	59.3
66	59.0
67	58.7
68	58.3
69	58.0
70	57.7
71	57.3
72	57.0
73	56.7
74	56.3
75	56.0
76	55.7
77	55.3
78	55.0
79	54.5
80	54.0
81	53.5
82	53.0
83	52.5
84	52.0
85	51.5
86	51.0
87	50.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

88	50.0
89	49.0
90	48.5
91	48.0
92	47.0
93	46.0
94	45.0
95	44.0
96	43.0
97	42.0
98	41.0
99	39.0

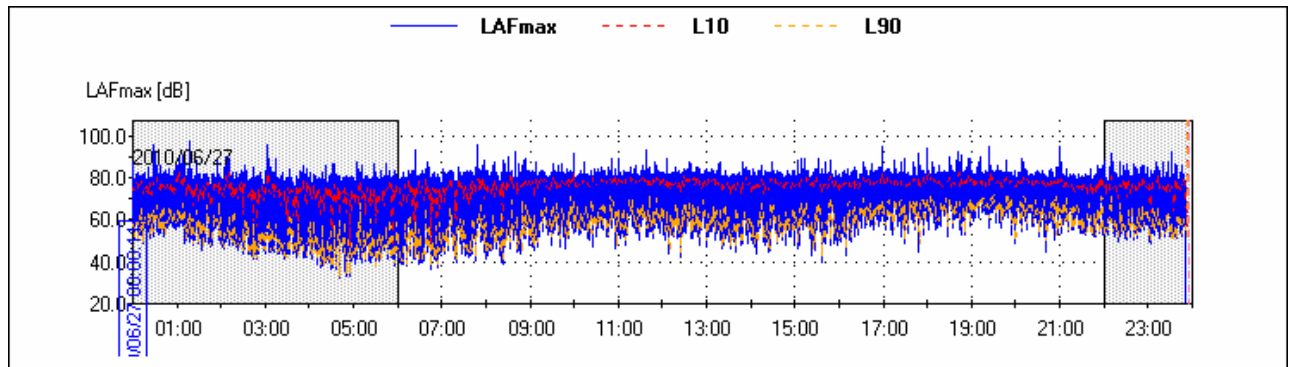
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LASp [dB]	LAFp [dB]
96,1	91,5	95,4
93,5	89,4	92,7
91,3	86,3	89,2
95,6	91,1	94,7
95,6	91,8	95
96,1	91,8	95,4

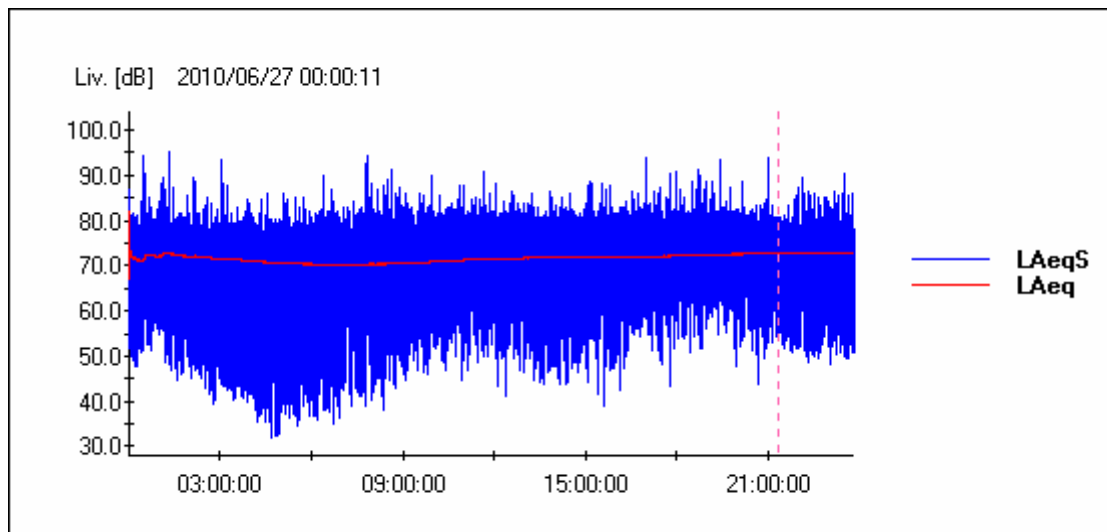
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LASp [dB]	LAFp [dB]
98,5	92,3	97,1
88,9	84,9	87,5
92,9	87,9	92,3
98,5	92,3	97,1

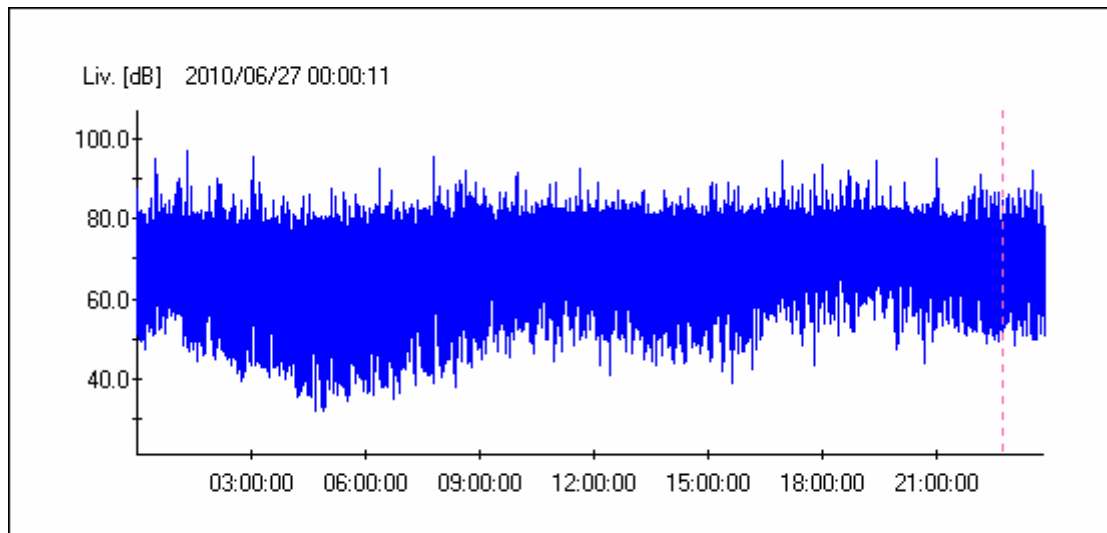
TIME HISTORY L10 – L90



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



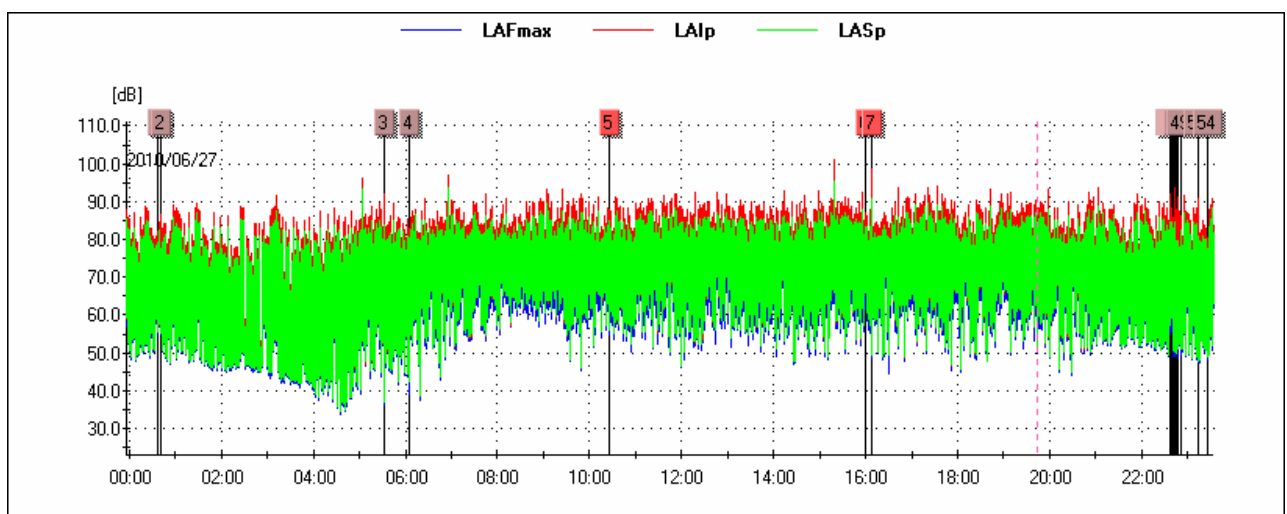
R_2_C 28/06/2010

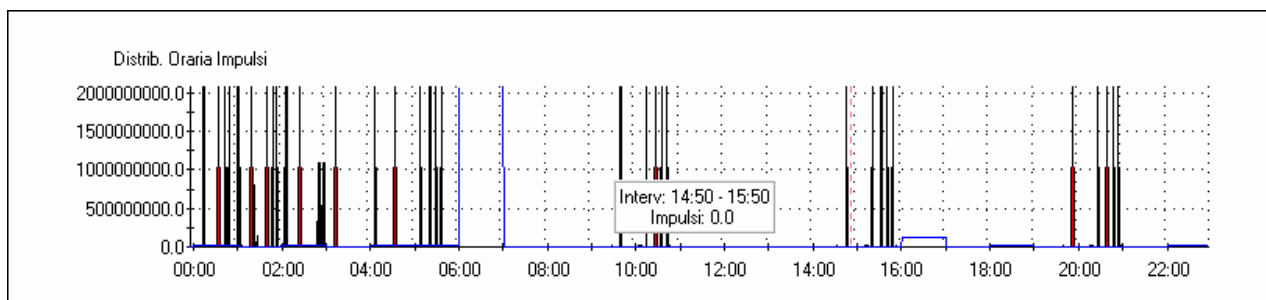
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAI_{max} e LAS_{max} superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAF_{max} inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.





Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAI _{max} - LAS _{max} [dB]
1	2010/06/28 00:36:19	0.750	78.6	10.3
2	2010/06/28 00:40:46	0.500	82.1	13.4
3	2010/06/28 05:32:02	0.750	90.3	8.2
4	2010/06/28 06:04:28	0.750	53.2	7.1
5	2010/06/28 10:25:31	0.625	79.9	10.7
6	2010/06/28 16:00:11	1.000	73.7	9.6
7	2010/06/28 16:07:26	0.750	96.5	8.2
8	2010/06/28 22:37:08	0.625	85.5	12.6
9	2010/06/28 22:37:09	0.625	87.0	10.5
10	2010/06/28 22:37:17	0.625	76.2	8.0
11	2010/06/28 22:37:19	0.625	78.8	10.7
12	2010/06/28 22:37:21	0.625	74.1	10.3
13	2010/06/28 22:37:23	0.625	70.9	11.1
14	2010/06/28 22:37:24	0.500	75.6	10.5
15	2010/06/28 22:37:27	0.625	71.5	9.2
16	2010/06/28 22:37:57	0.625	79.8	10.4
17	2010/06/28 22:40:14	1.000	74.3	9.3
18	2010/06/28 22:40:45	1.000	73.8	11.2
19	2010/06/28 22:40:46	0.625	74.3	10.0
20	2010/06/28 22:40:48	0.500	80.3	10.2
21	2010/06/28 22:40:49	0.625	74.1	10.0
22	2010/06/28 22:40:50	0.500	75.4	8.2
23	2010/06/28 22:43:09	0.500	80.7	11.0
24	2010/06/28 22:43:10	0.500	83.3	10.5

25	2010/06/28 22:43:13	0.500	85.5	12.1
26	2010/06/28 22:43:14	0.500	88.0	10.4
27	2010/06/28 22:43:15	0.500	88.2	8.8
28	2010/06/28 22:43:16	0.500	89.6	9.4
29	2010/06/28 22:45:48	0.500	77.8	12.2
30	2010/06/28 22:45:49	0.500	82.2	11.1
31	2010/06/28 22:45:53	0.625	80.2	11.3
32	2010/06/28 22:46:08	0.500	73.9	12.4
33	2010/06/28 22:46:09	1.000	83.3	11.1
34	2010/06/28 22:46:25	0.750	77.7	8.6
35	2010/06/28 22:46:40	0.500	76.4	13.0
36	2010/06/28 22:46:44	0.625	80.4	11.6
37	2010/06/28 22:46:50	0.625	86.9	11.7
38	2010/06/28 22:46:51	0.625	82.8	9.9
39	2010/06/28 22:46:54	1.000	70.7	10.9
40	2010/06/28 22:46:56	0.625	69.3	13.2
41	2010/06/28 22:46:57	0.625	80.4	12.1
42	2010/06/28 22:46:58	1.000	77.7	9.6
43	2010/06/28 22:47:02	0.625	77.2	12.8
44	2010/06/28 22:47:04	1.000	79.2	12.2
45	2010/06/28 22:47:09	0.500	80.9	12.1
46	2010/06/28 22:47:11	0.625	76.9	11.0
47	2010/06/28 22:50:54	1.000	67.7	9.0
48	2010/06/28 22:51:00	0.875	67.3	9.5
49	2010/06/28 22:51:34	0.625	66.2	11.4
50	2010/06/28 23:13:41	1.000	72.0	11.0
51	2010/06/28 23:14:16	0.500	82.4	11.3
52	2010/06/28 23:14:20	0.625	81.6	10.4
53	2010/06/28 23:14:21	0.500	82.5	9.7
54	2010/06/28 23:25:21	0.875	63.5	9.6

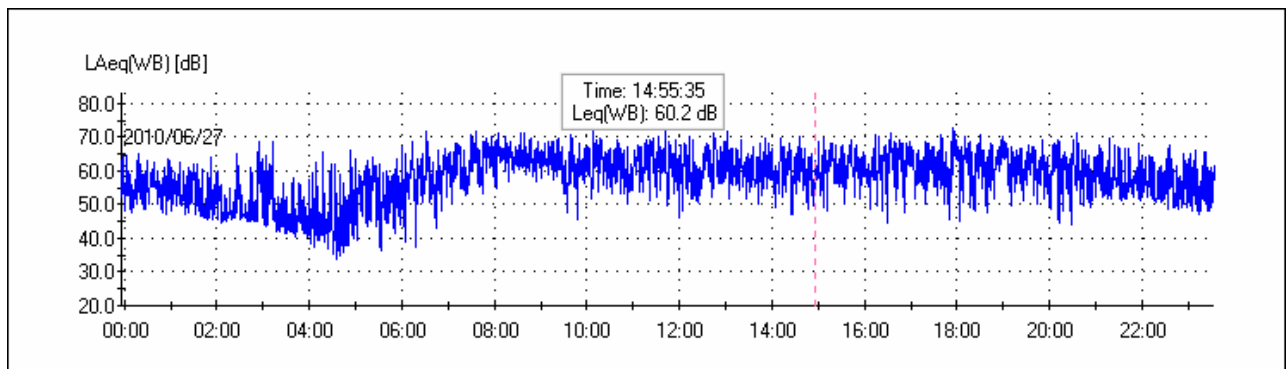
RICONOSCIMENTO COMPONENTI TONALI

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Al fine di individuare la presenza di Componenti Tonali (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.0
Freq: 125	0.0
Freq: 160	0.0
Freq: 200	0.0
Freq: 250	0.1
Freq: 315	0.1
Freq: 400	0.1
Freq: 500	0.2
Freq: 630	0.2
Freq: 800	0.1
Freq: 2.5 k	0.1
Freq: 3.15 k	21.6

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

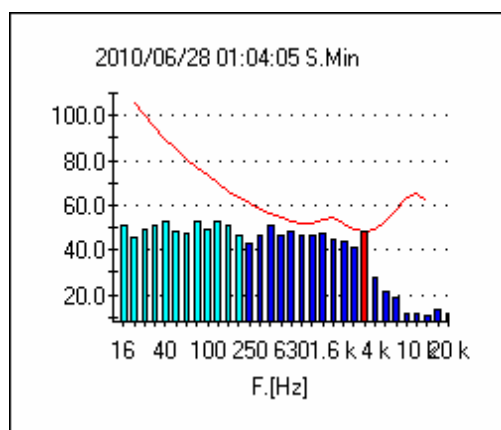
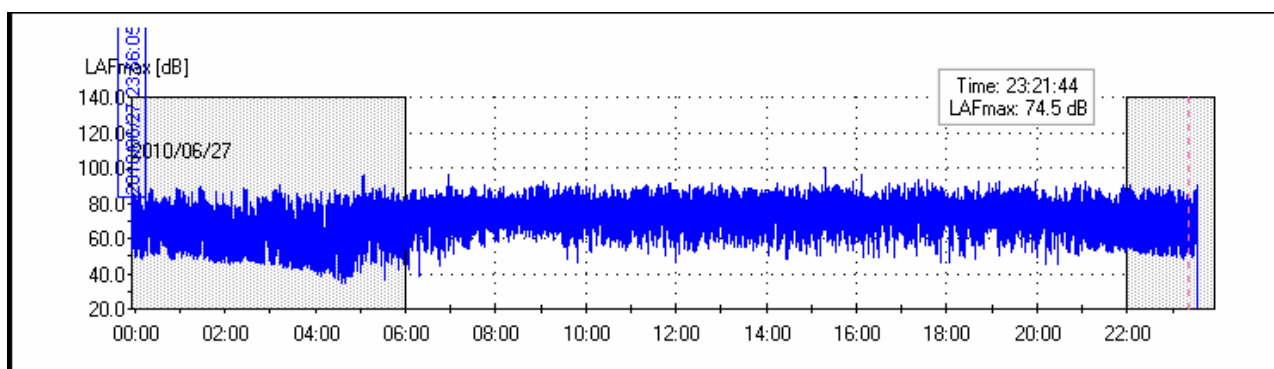
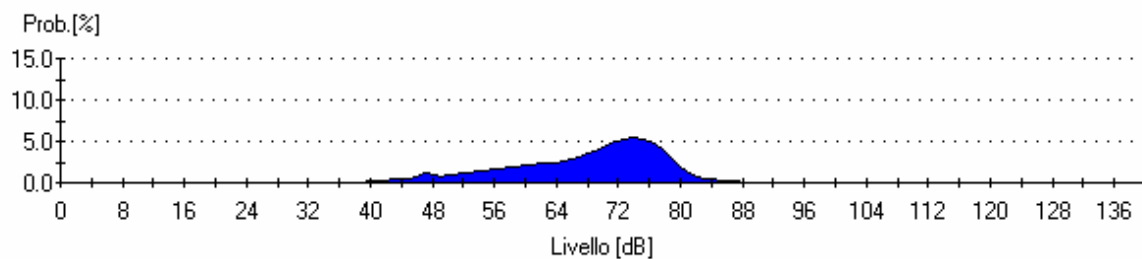


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

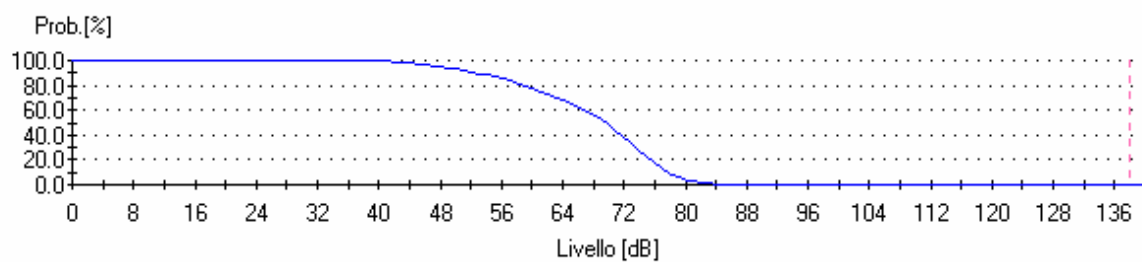
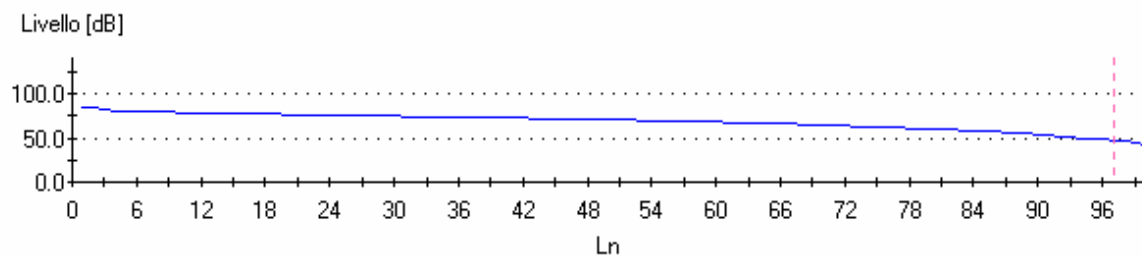


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	84.0
1	84.0
2	83.0
3	82.0
4	81.0
5	80.7
6	80.3
7	80.0
8	79.7
9	79.3
10	79.0
11	78.8
12	78.7
13	78.5
14	78.3
15	78.2
16	78.0
17	77.8
18	77.7
19	77.5
20	77.3
21	77.2
22	77.0
23	76.8
24	76.7
25	76.5
26	76.3
27	76.2
28	76.0
29	75.9
30	75.7
31	75.6

32	75.4
33	75.3
34	75.1
35	75.0
36	74.9
37	74.7
38	74.6
39	74.4
40	74.3
41	74.1
42	74.0
43	73.8
44	73.7
45	73.5
46	73.3
47	73.2
48	73.0
49	72.9
50	72.7
51	72.6
52	72.4
53	72.3
54	72.1
55	72.0
56	71.8
57	71.6
58	71.4
59	71.2
60	71.0
61	70.8
62	70.6
63	70.4
64	70.2
65	70.0

66	69.8
67	69.5
68	69.3
69	69.0
70	68.8
71	68.5
72	68.3
73	68.0
74	67.7
75	67.3
76	67.0
77	66.7
78	66.3
79	66.0
80	65.7
81	65.3
82	65.0
83	64.5
84	64.0
85	63.5
86	63.0
87	62.5
88	62.0
89	61.5
90	61.0
91	60.0
92	59.5
93	59.0
94	58.0
95	57.0
96	56.0
97	55.0
98	54.0
99	52.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	82.0
1	82.0
2	80.0
3	79.0
4	78.0
5	77.5
6	77.0
7	76.5
8	76.0
9	75.5
10	75.0
11	74.5
12	74.0
13	73.7
14	73.3
15	73.0
16	72.7
17	72.3
18	72.0
19	71.7
20	71.3
21	71.0
22	70.7
23	70.3
24	70.0
25	69.5
26	69.0
27	68.7
28	68.3
29	68.0

30	67.7
31	67.3
32	67.0
33	66.7
34	66.3
35	66.0
36	65.7
37	65.3
38	65.0
39	64.7
40	64.3
41	64.0
42	63.7
43	63.3
44	63.0
45	62.7
46	62.3
47	62.0
48	61.7
49	61.3
50	61.0
51	60.7
52	60.3
53	60.0
54	59.7
55	59.3
56	59.0
57	58.7
58	58.3
59	58.0
60	57.7
61	57.3
62	57.0
63	56.7

64	56.3
65	56.0
66	55.7
67	55.3
68	55.0
69	54.7
70	54.3
71	54.0
72	53.7
73	53.3
74	53.0
75	52.5
76	52.0
77	51.7
78	51.3
79	51.0
80	50.5
81	50.0
82	49.7
83	49.3
84	49.0
85	48.5
86	48.0
87	47.8
88	47.5
89	47.3
90	47.0
91	46.5
92	46.0
93	45.0
94	44.5
95	44.0
96	43.0
97	42.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

98	41.0
99	40.0

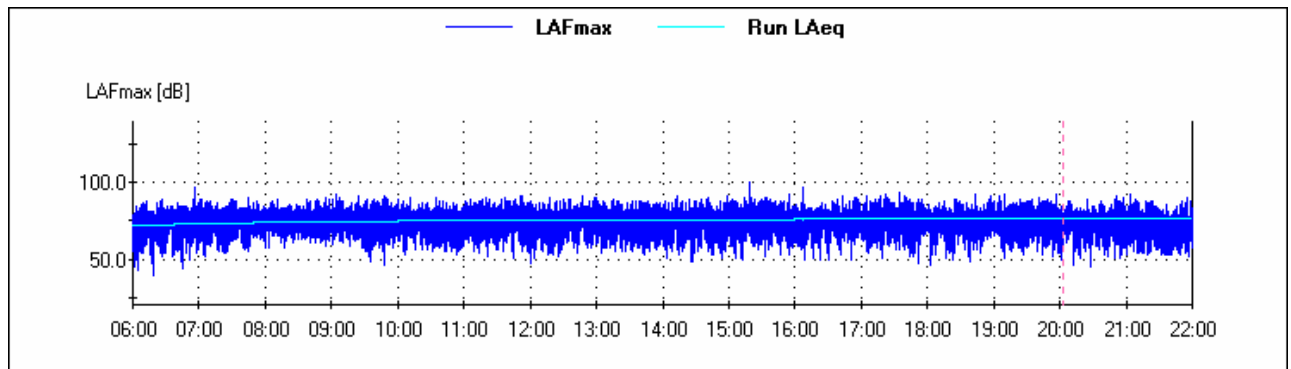
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
96,9	93,7	96,5
93,4	89,7	92,3
101,2	95,5	100,3
94,1	89,5	93,2
93,7	88,6	92
101,2	95,5	100,3

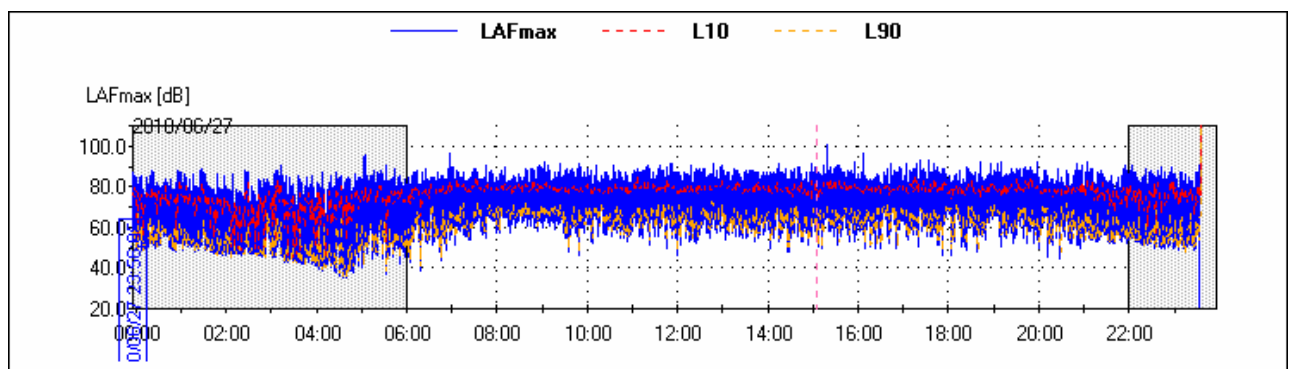
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
91,4	87,5	90,4
96,1	93,2	95,7
93,8	88,2	90,3
96,1	93,2	95,7

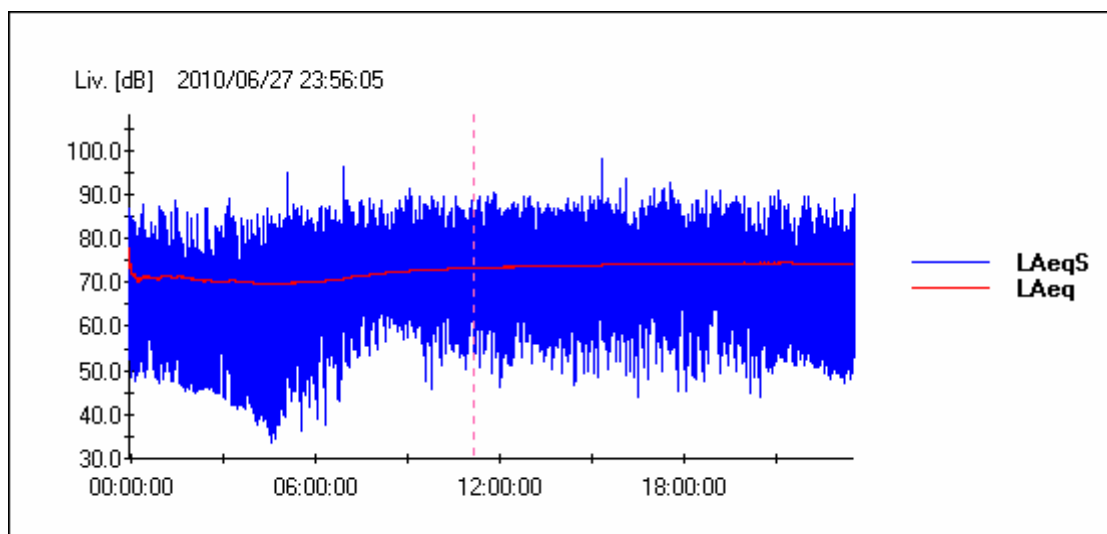
Running Leg DIURNO



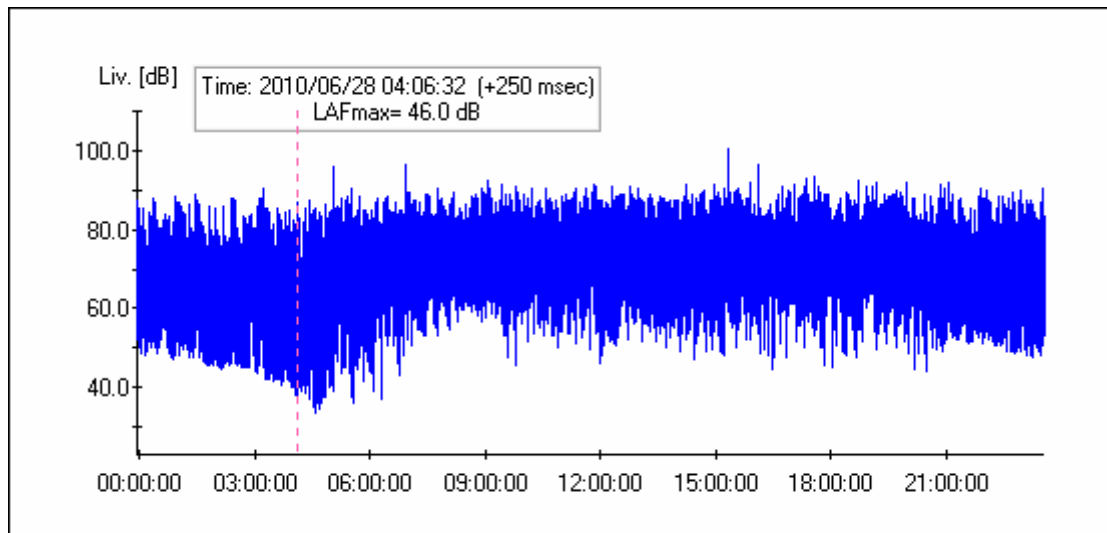
TIME HISTORY L10 – L90



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



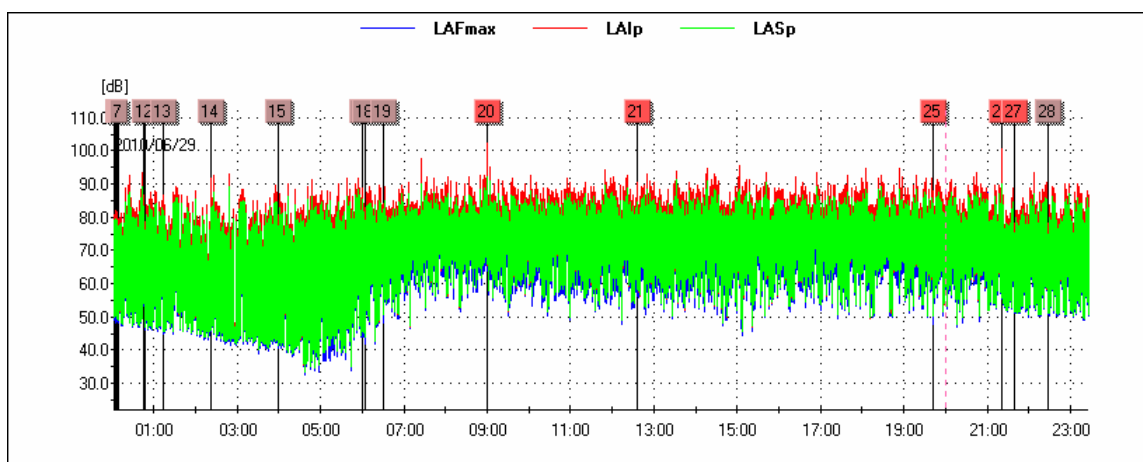
R_2_C 29/06/2010

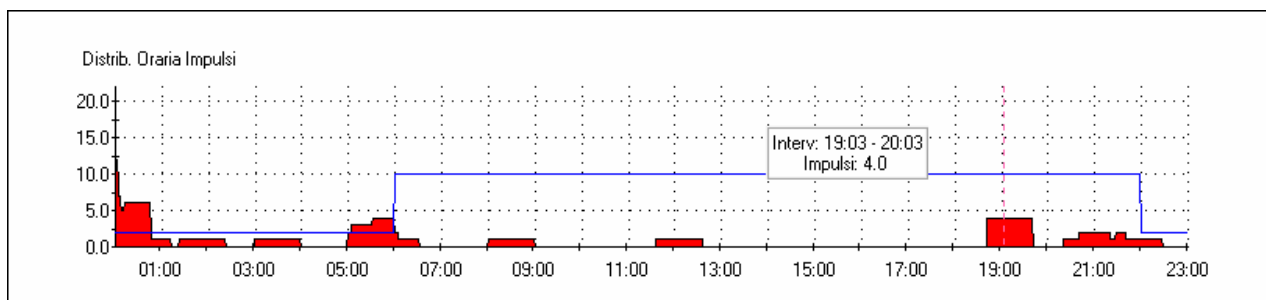
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.





Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAI _{max} - LAS _{max} [dB]
1	2010/06/29 00:03:42	0.750	73.2	9.5
2	2010/06/29 00:04:59	0.875	63.8	8.4
3	2010/06/29 00:05:09	0.500	73.4	11.9
4	2010/06/29 00:05:11	0.750	67.3	10.9
5	2010/06/29 00:05:25	1.000	63.4	10.2
6	2010/06/29 00:07:17	0.875	67.4	8.1
7	2010/06/29 00:08:53	0.750	62.4	10.5
8	2010/06/29 00:45:37	1.000	68.6	6.6
9	2010/06/29 00:46:14	0.875	68.1	6.5
10	2010/06/29 00:46:55	0.750	63.1	7.8
11	2010/06/29 00:47:11	0.625	64.4	9.6
12	2010/06/29 00:47:26	0.625	60.6	10.6
13	2010/06/29 01:12:52	0.750	83.9	9.4
14	2010/06/29 02:22:38	0.750	89.3	9.8
15	2010/06/29 03:59:51	1.000	62.0	10.0
16	2010/06/29 05:59:46	0.875	68.5	9.0
17	2010/06/29 05:59:50	0.750	74.1	9.4
18	2010/06/29 06:04:42	0.875	64.8	10.5
19	2010/06/29 06:31:16	0.750	76.5	7.7
20	2010/06/29 09:00:38	0.625	99.6	10.0
21	2010/06/29 12:36:36	0.875	88.0	8.9
22	2010/06/29 19:41:48	0.875	61.9	10.1
23	2010/06/29 19:41:50	0.625	79.1	11.6
24	2010/06/29 19:41:54	0.625	65.0	12.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

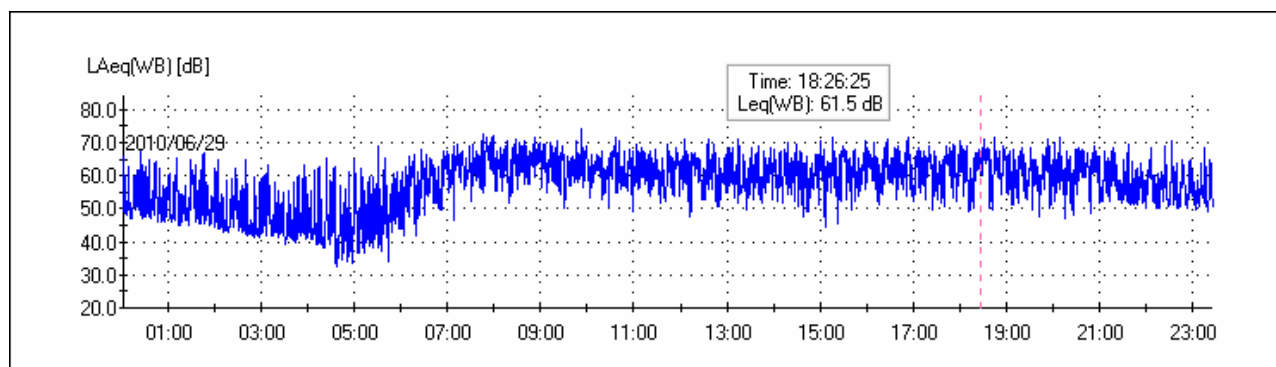
25	2010/06/29 19:41:57	0.750	62.8	10.2
26	2010/06/29 21:20:21	0.625	97.5	10.8
27	2010/06/29 21:40:00	0.875	70.8	10.3
28	2010/06/29 22:27:43	0.750	68.2	8.3

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.0
Freq: 100	0.0
Freq: 200	0.2
Freq: 250	0.2
Freq: 315	0.2
Freq: 400	0.3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 500	0.1
Freq: 630	0.1
Freq: 800	0.1
Freq: 1 k	0.0
Freq: 3.15 k	20.3
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

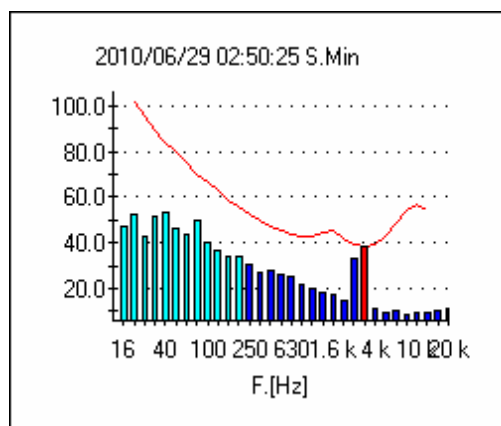
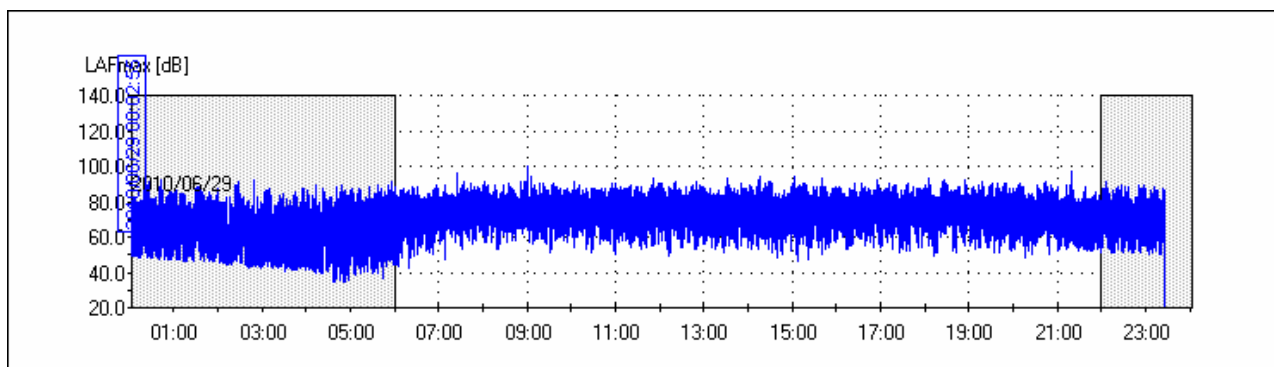
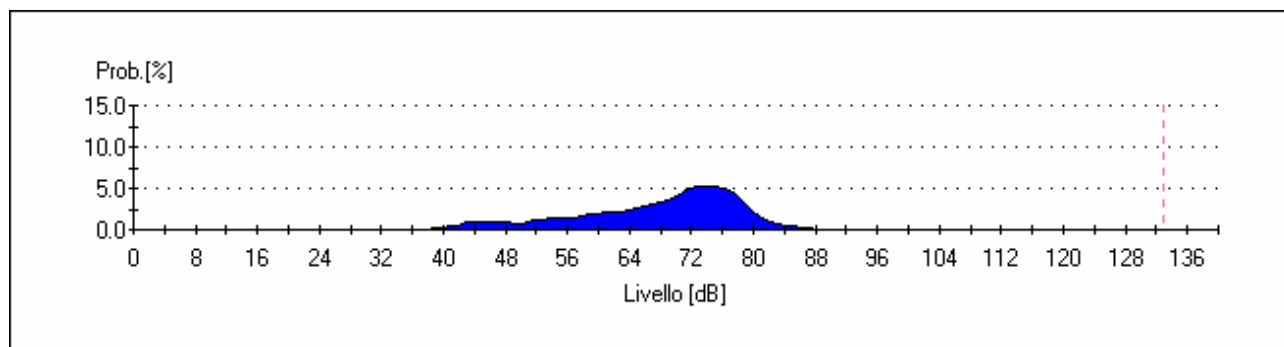


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

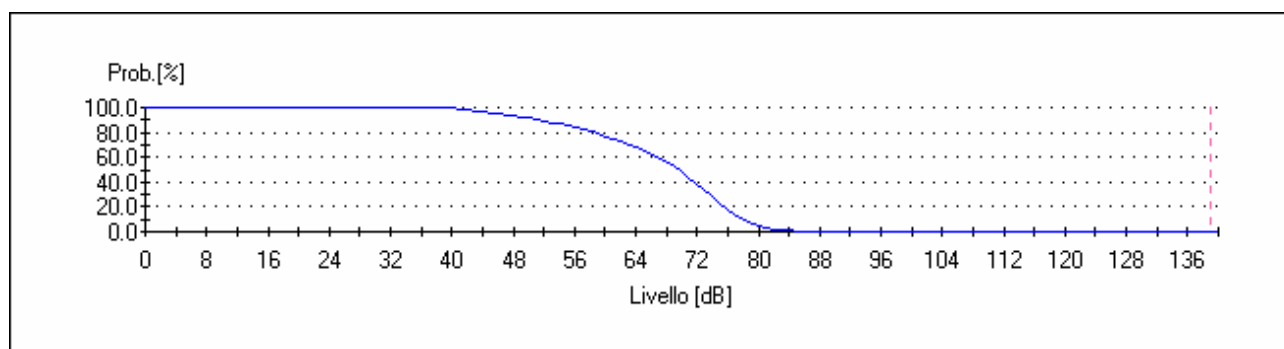
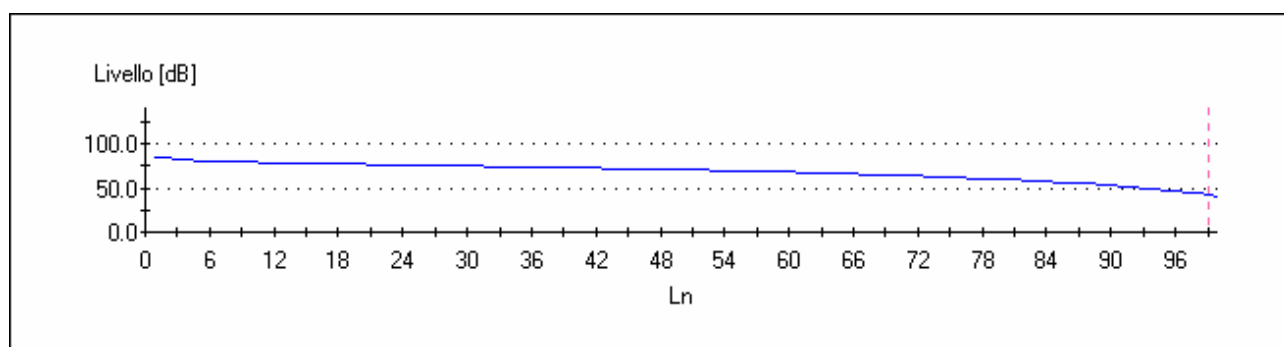


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	85.0
1	85.0
2	83.0
3	82.0
4	81.5
5	81.0
6	80.7
7	80.3
8	80.0
9	79.8
10	79.5
11	79.3
12	79.0
13	78.8
14	78.6
15	78.4
16	78.2
17	78.0
18	77.8
19	77.7
20	77.5
21	77.3
22	77.2
23	77.0
24	76.8
25	76.7
26	76.5
27	76.3
28	76.2
29	76.0
30	75.9
31	75.7

32	75.6
33	75.4
34	75.3
35	75.1
36	75.0
37	74.9
38	74.7
39	74.6
40	74.4
41	74.3
42	74.1
43	74.0
44	73.8
45	73.7
46	73.5
47	73.3
48	73.2
49	73.0
50	72.8
51	72.7
52	72.5
53	72.3
54	72.2
55	72.0
56	71.8
57	71.7
58	71.5
59	71.3
60	71.2
61	71.0
62	70.8
63	70.6
64	70.4
65	70.2

66	70.0
67	69.8
68	69.5
69	69.3
70	69.0
71	68.8
72	68.5
73	68.3
74	68.0
75	67.7
76	67.3
77	67.0
78	66.7
79	66.3
80	66.0
81	65.5
82	65.0
83	64.7
84	64.3
85	64.0
86	63.5
87	63.0
88	62.5
89	62.0
90	61.0
91	60.5
92	60.0
93	59.0
94	58.0
95	57.0
96	56.0
97	55.0
98	54.0
99	52.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	83.0
1	83.0
2	81.0
3	79.0
4	78.0
5	77.5
6	77.0
7	76.5
8	76.0
9	75.5
10	75.0
11	74.5
12	74.0
13	73.5
14	73.0
15	72.7
16	72.3
17	72.0
18	71.5
19	71.0
20	70.7
21	70.3
22	70.0
23	69.7
24	69.3
25	69.0
26	68.5
27	68.0
28	67.7
29	67.3

30	67.0
31	66.7
32	66.3
33	66.0
34	65.5
35	65.0
36	64.7
37	64.3
38	64.0
39	63.5
40	63.0
41	62.7
42	62.3
43	62.0
44	61.7
45	61.3
46	61.0
47	60.7
48	60.3
49	60.0
50	59.7
51	59.3
52	59.0
53	58.7
54	58.3
55	58.0
56	57.5
57	57.0
58	56.7
59	56.3
60	56.0
61	55.7
62	55.3
63	55.0

64	54.5
65	54.0
66	53.7
67	53.3
68	53.0
69	52.7
70	52.3
71	52.0
72	51.5
73	51.0
74	50.5
75	50.0
76	49.7
77	49.3
78	49.0
79	48.5
80	48.0
81	47.7
82	47.3
83	47.0
84	46.7
85	46.3
86	46.0
87	45.5
88	45.0
89	44.7
90	44.3
91	44.0
92	43.7
93	43.3
94	43.0
95	42.5
96	42.0
97	41.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

98	40.0
99	38.0

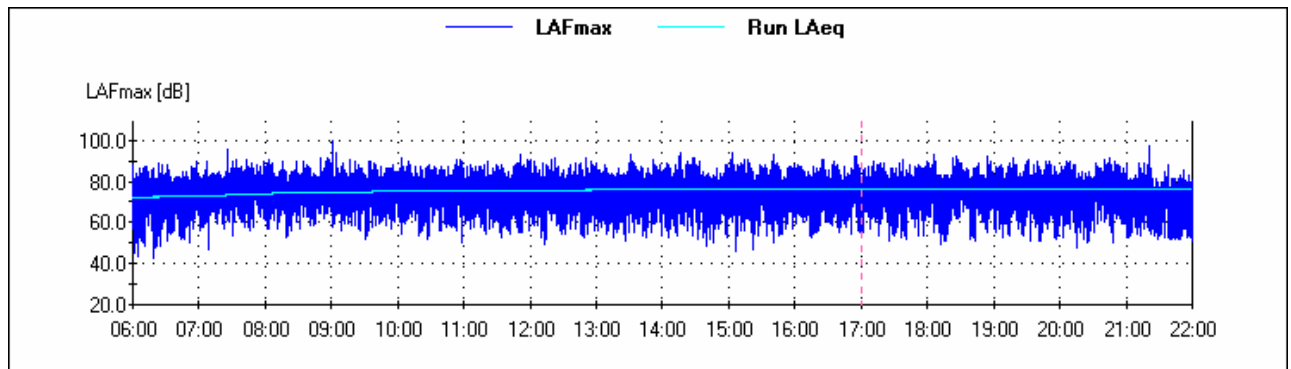
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LASp [dB]	LAFp [dB]
97,5	90,2	95,9
102,3	92,3	99,6
95,6	91,1	94,3
94,7	89,1	93
100,7	89,9	97,5
102,3	92,3	99,6

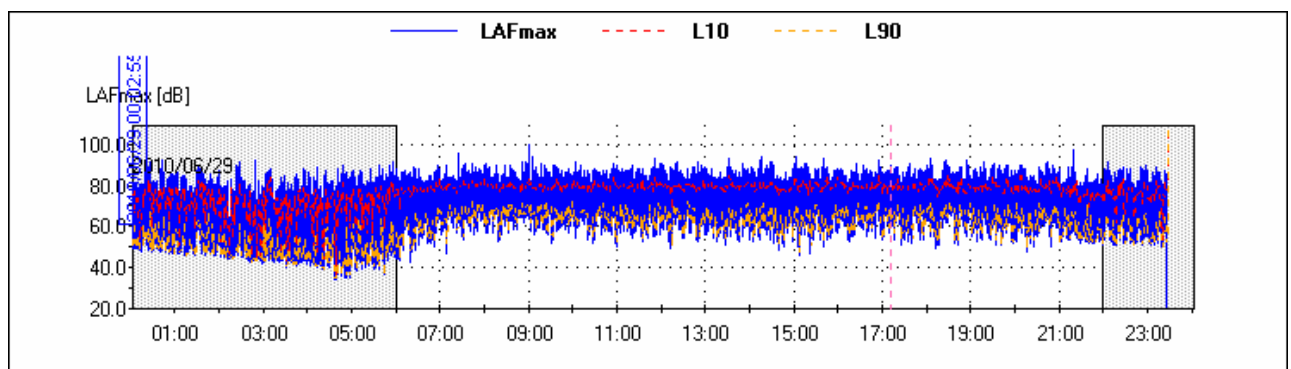
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LASp [dB]	LAFp [dB]
93,2	89,1	92,3
91,8	88,3	91,2
93,6	87,1	91,3
93,6	89,1	92,3

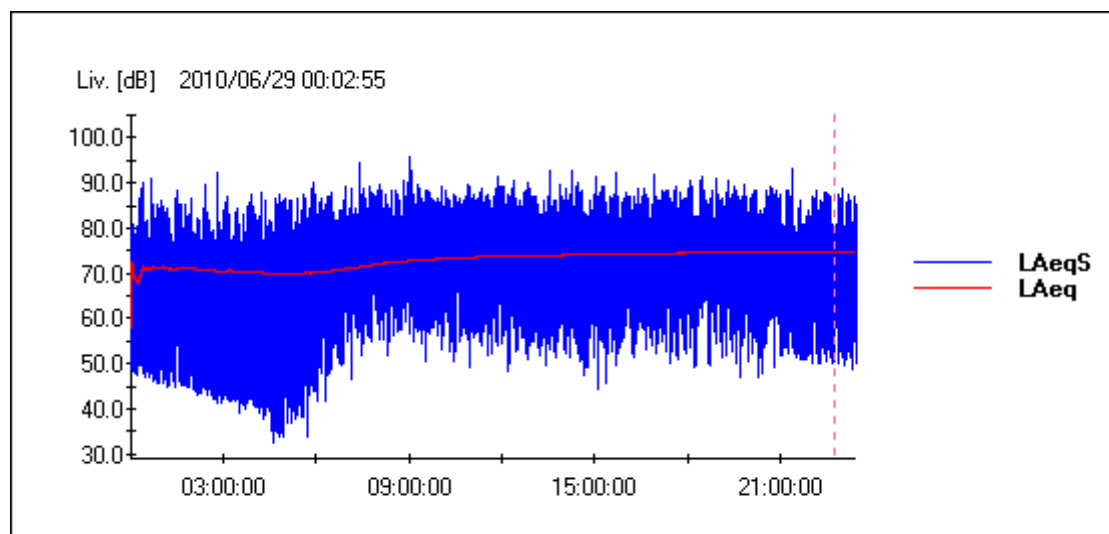
Running Leg DIURNO



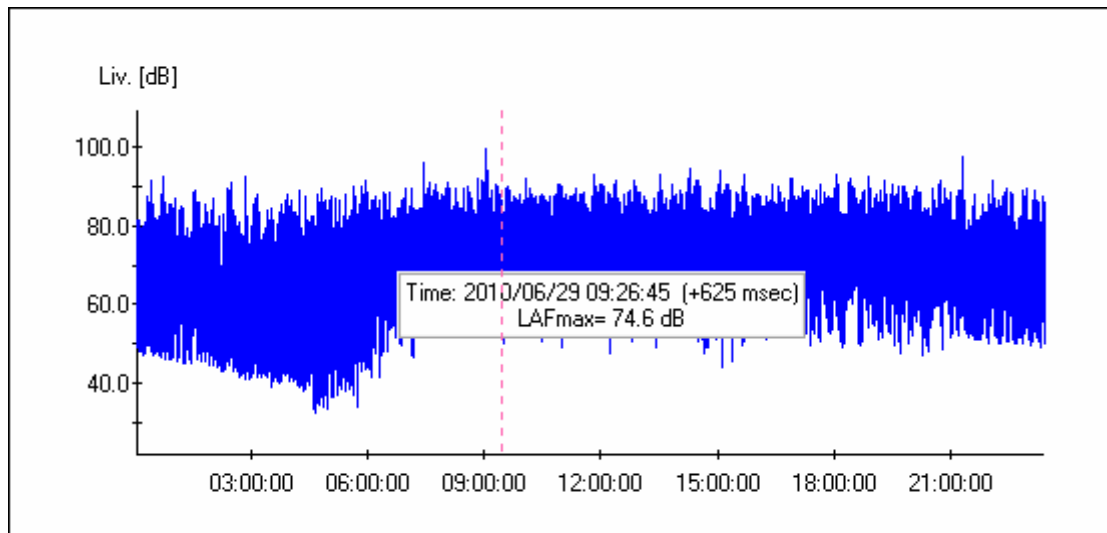
TIME HISTORY L10 – L90



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



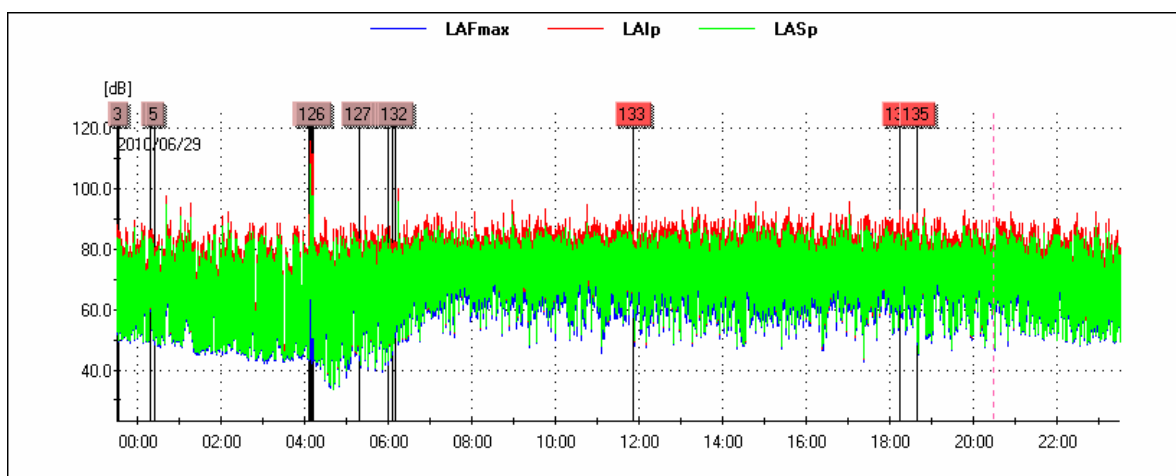
R_2_C 30/06/2010

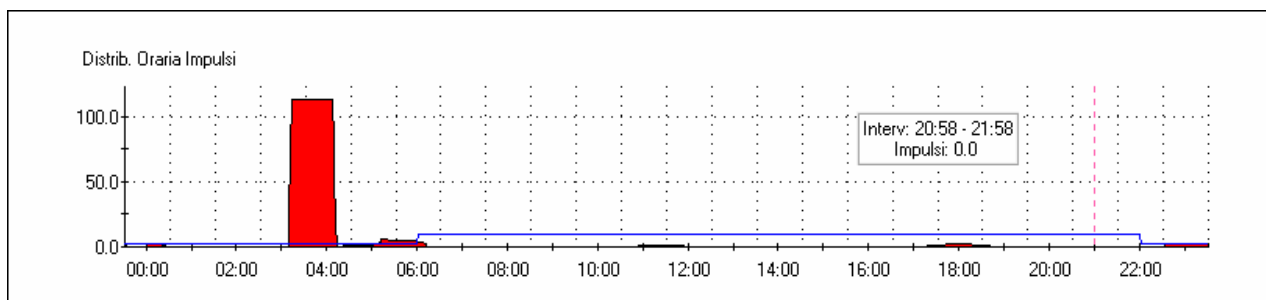
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.





Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAlmax - LASmax [dB]
1	2010/06/29 23:32:06	0.625	78.9	12.2
2	2010/06/29 23:32:59	0.750	61.9	11.7
3	2010/06/29 23:33:16	0.750	62.5	11.4
4	2010/06/30 00:19:57	0.750	77.3	10.6
5	2010/06/30 00:24:44	0.625	65.6	11.7
6	2010/06/30 04:07:09	0.625	84.8	11.9
7	2010/06/30 04:07:10	0.625	84.4	11.9
8	2010/06/30 04:07:13	0.625	81.2	10.9
9	2010/06/30 04:07:18	1.000	84.0	10.9
10	2010/06/30 04:07:20	1.000	82.3	10.3
11	2010/06/30 04:07:22	0.625	79.6	9.7
12	2010/06/30 04:07:23	0.875	80.9	10.6
13	2010/06/30 04:07:24	1.000	81.5	10.0
14	2010/06/30 04:07:25	0.500	85.6	12.8
15	2010/06/30 04:07:26	1.000	85.0	11.6
16	2010/06/30 04:07:27	0.500	80.9	12.0
17	2010/06/30 04:07:28	0.500	82.7	10.5
18	2010/06/30 04:07:29	0.875	82.1	9.2
19	2010/06/30 04:07:30	0.500	85.3	12.1
20	2010/06/30 04:07:31	0.500	84.2	11.5
21	2010/06/30 04:07:32	0.750	81.1	9.3
22	2010/06/30 04:07:34	0.750	81.9	12.0
23	2010/06/30 04:07:35	0.625	82.9	11.8
24	2010/06/30 04:07:37	0.625	84.0	11.4

25	2010/06/30 04:07:38	0.625	83.0	10.9
26	2010/06/30 04:07:39	0.500	80.9	10.3
27	2010/06/30 04:07:40	0.875	82.9	11.9
28	2010/06/30 04:07:44	0.500	84.6	11.9
29	2010/06/30 04:07:48	0.500	80.8	10.4
30	2010/06/30 04:07:49	0.750	82.6	9.4
31	2010/06/30 04:07:51	0.500	84.7	11.3
32	2010/06/30 04:07:53	0.500	85.8	12.6
33	2010/06/30 04:07:54	0.625	86.0	11.4
34	2010/06/30 04:07:55	0.875	85.3	11.1
35	2010/06/30 04:07:56	0.500	85.3	12.0
36	2010/06/30 04:07:57	0.500	85.7	11.8
37	2010/06/30 04:07:58	0.500	86.9	12.1
38	2010/06/30 04:07:58	0.500	86.1	11.1
39	2010/06/30 04:08:01	0.500	85.4	10.3
40	2010/06/30 04:08:02	0.500	84.9	11.5
41	2010/06/30 04:08:02	0.500	85.2	11.4
42	2010/06/30 04:08:03	1.000	87.0	11.7
43	2010/06/30 04:08:05	0.500	86.8	12.0
44	2010/06/30 04:08:05	0.625	84.7	10.9
45	2010/06/30 04:08:06	1.000	84.3	10.3
46	2010/06/30 04:08:08	0.500	85.7	11.3
47	2010/06/30 04:08:09	0.500	84.7	10.8
48	2010/06/30 04:08:10	1.000	85.0	10.6
49	2010/06/30 04:08:12	0.500	86.3	11.6
50	2010/06/30 04:08:12	0.500	88.6	12.2
51	2010/06/30 04:08:13	0.500	88.8	12.3
52	2010/06/30 04:08:14	0.500	89.2	12.0
53	2010/06/30 04:08:15	0.500	94.8	13.4
54	2010/06/30 04:08:16	0.500	89.0	12.8
55	2010/06/30 04:08:18	1.000	88.0	10.8
56	2010/06/30 04:08:19	0.500	88.7	11.5
57	2010/06/30 04:08:20	1.000	90.0	11.0
58	2010/06/30 04:08:21	0.750	90.9	11.5

59	2010/06/30 04:08:22	0.500	104.7	14.0
60	2010/06/30 04:08:29	0.750	86.3	14.7
61	2010/06/30 04:08:31	0.500	87.5	10.7
62	2010/06/30 04:08:32	0.500	86.6	10.4
63	2010/06/30 04:08:32	0.500	87.8	11.1
64	2010/06/30 04:08:34	0.500	89.1	10.6
65	2010/06/30 04:08:35	0.500	90.1	11.1
66	2010/06/30 04:08:36	0.500	91.7	11.8
67	2010/06/30 04:08:36	0.500	92.3	11.7
68	2010/06/30 04:08:37	0.500	92.4	11.3
69	2010/06/30 04:08:38	0.500	105.6	13.8
70	2010/06/30 04:08:50	0.625	88.3	10.7
71	2010/06/30 04:08:53	0.500	89.6	10.2
72	2010/06/30 04:08:54	0.500	91.2	10.5
73	2010/06/30 04:08:55	0.500	91.5	10.8
74	2010/06/30 04:08:56	0.875	93.7	10.1
75	2010/06/30 04:08:58	1.000	102.4	12.1
76	2010/06/30 04:09:01	0.500	107.5	13.4
77	2010/06/30 04:09:02	0.500	106.7	12.0
78	2010/06/30 04:09:02	0.500	106.7	11.8
79	2010/06/30 04:09:04	0.500	106.6	12.7
80	2010/06/30 04:09:05	1.000	107.6	12.3
81	2010/06/30 04:09:06	0.500	103.9	11.9
82	2010/06/30 04:09:15	0.625	108.3	8.1
83	2010/06/30 04:09:17	0.625	106.4	11.9
84	2010/06/30 04:09:19	0.500	106.4	13.0
85	2010/06/30 04:09:21	0.500	106.4	13.5
86	2010/06/30 04:09:22	0.500	106.7	12.7
87	2010/06/30 04:09:23	0.625	106.6	12.2
88	2010/06/30 04:09:24	0.500	106.5	12.4
89	2010/06/30 04:09:27	0.500	106.6	13.7
90	2010/06/30 04:09:28	0.625	106.7	13.0
91	2010/06/30 04:09:30	0.500	106.6	13.0
92	2010/06/30 04:09:32	0.500	106.6	13.5

93	2010/06/30 04:09:32	0.500	108.0	12.7
94	2010/06/30 04:09:36	0.625	106.6	13.9
95	2010/06/30 04:09:38	0.625	106.6	13.6
96	2010/06/30 04:09:44	0.500	106.6	14.2
97	2010/06/30 04:09:46	0.500	106.4	13.3
98	2010/06/30 04:09:49	0.500	106.6	13.9
99	2010/06/30 04:09:53	0.625	106.6	14.1
100	2010/06/30 04:09:58	0.500	106.6	14.1
101	2010/06/30 04:10:01	0.500	106.5	13.8
102	2010/06/30 04:10:04	0.500	106.6	14.0
103	2010/06/30 04:10:08	0.500	106.7	14.1
104	2010/06/30 04:10:11	0.500	106.6	13.9
105	2010/06/30 04:10:15	0.500	106.6	13.8
106	2010/06/30 04:10:18	0.500	106.7	13.9
107	2010/06/30 04:10:21	0.625	106.5	13.8
108	2010/06/30 04:10:26	0.625	106.7	14.0
109	2010/06/30 04:10:30	0.500	106.6	14.0
110	2010/06/30 04:10:34	0.500	106.6	14.1
111	2010/06/30 04:10:39	0.500	106.6	14.2
112	2010/06/30 04:10:44	0.500	106.6	14.1
113	2010/06/30 04:10:50	0.625	106.6	14.0
114	2010/06/30 04:10:55	0.500	106.4	13.8
115	2010/06/30 04:11:19	0.625	106.6	14.1
116	2010/06/30 04:11:27	0.500	106.7	14.1
117	2010/06/30 04:11:33	0.500	106.6	14.2
118	2010/06/30 04:11:42	0.625	106.4	13.4
119	2010/06/30 04:11:49	0.500	106.6	14.1
120	2010/06/30 04:11:58	0.625	106.4	13.4
121	2010/06/30 04:12:05	0.625	106.4	13.9
122	2010/06/30 04:12:14	0.625	106.6	14.1
123	2010/06/30 04:12:24	0.500	106.6	14.2
124	2010/06/30 04:12:35	0.500	106.6	14.2
125	2010/06/30 04:12:45	0.625	106.7	14.2
126	2010/06/30 04:12:59	0.625	106.6	14.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

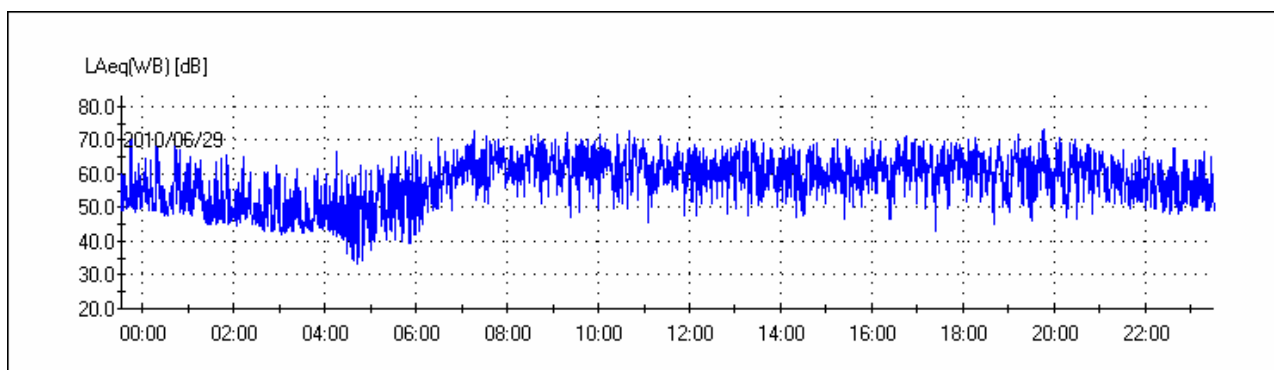
127	2010/06/30 05:19:45	1.000	56.8	9.2
128	2010/06/30 05:59:48	0.750	54.7	10.3
129	2010/06/30 06:07:38	0.750	68.7	8.9
130	2010/06/30 06:07:46	0.750	72.3	10.5
131	2010/06/30 06:10:24	0.625	66.1	10.3
132	2010/06/30 06:10:40	0.875	66.2	10.2
133	2010/06/30 11:52:30	0.750	81.4	9.6
134	2010/06/30 18:15:41	1.000	88.7	11.9
135	2010/06/30 18:40:29	1.000	71.7	6.4

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.0
Freq: 160	0.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 250	0.1
Freq: 315	0.2
Freq: 400	0.3
Freq: 500	0.2
Freq: 630	0.2
Freq: 800	0.1
Freq: 1 k	0.0
Freq: 2 k	0.0
Freq: 2.5 k	0.1
Freq: 3.15 k	23.1
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

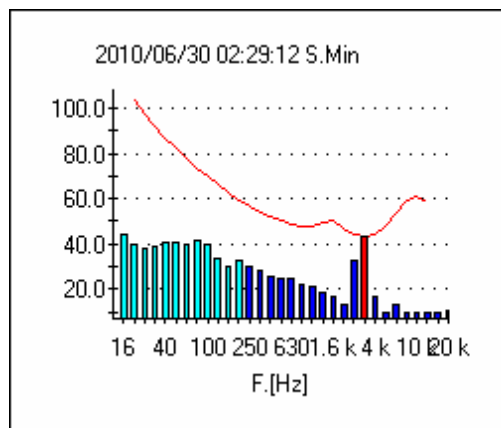
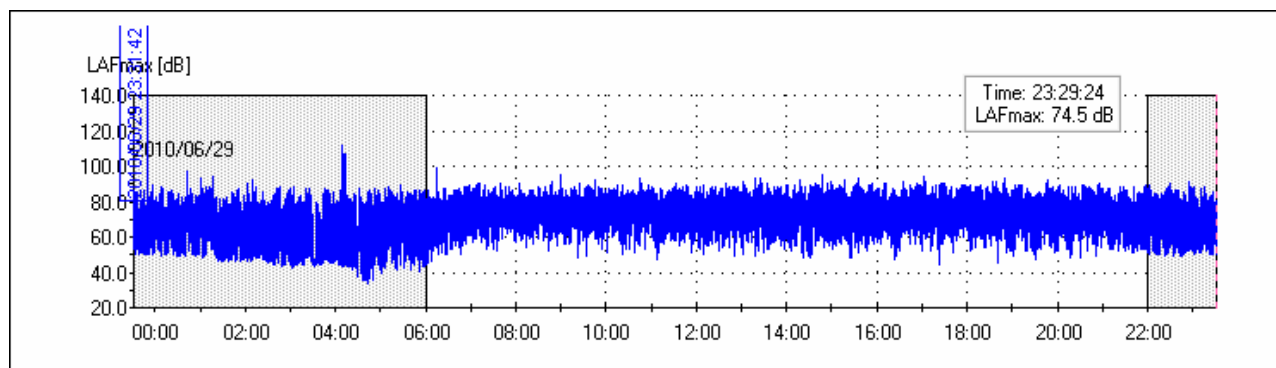
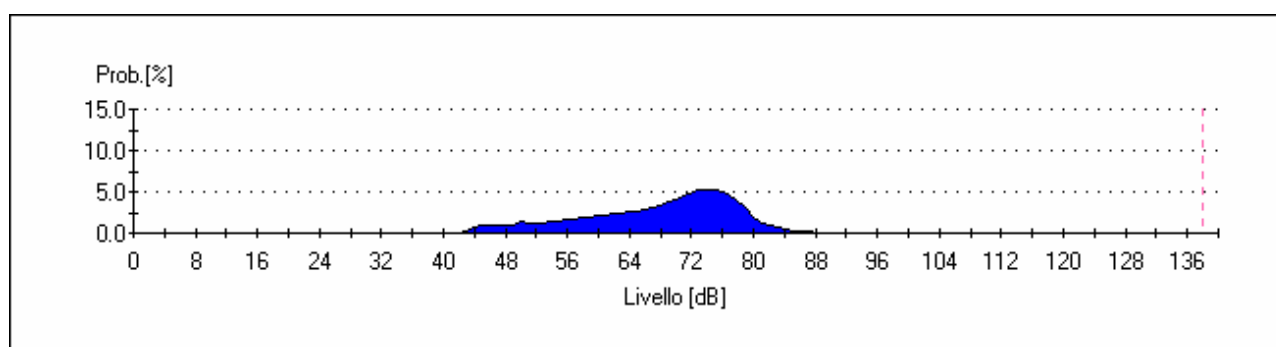


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

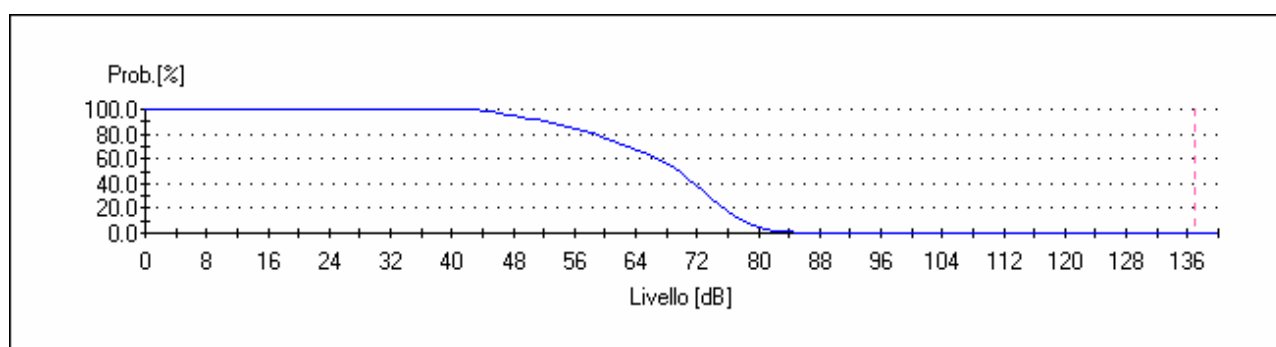
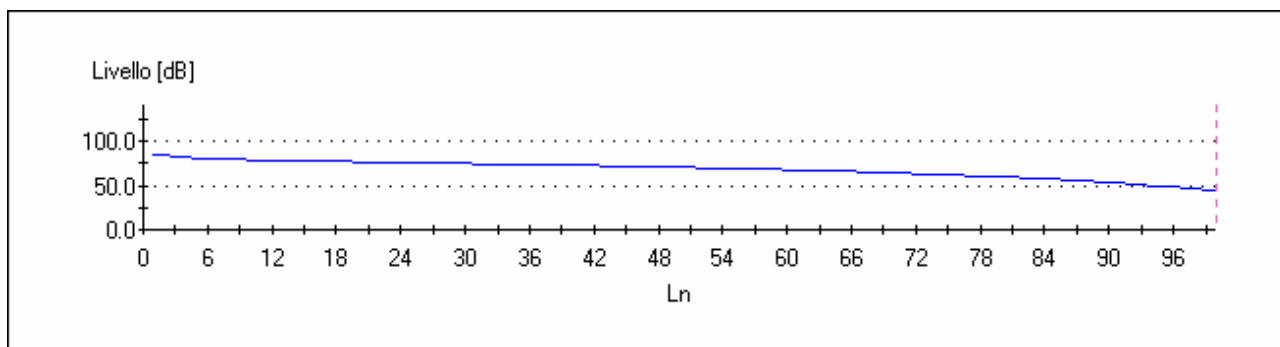


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	85.0
1	85.0
2	83.0
3	82.0
4	81.0
5	80.7
6	80.3
7	80.0
8	79.8
9	79.5
10	79.3
11	79.0
12	78.8
13	78.6
14	78.4
15	78.2
16	78.0
17	77.8
18	77.7
19	77.5
20	77.3
21	77.2

22	77.0
23	76.9
24	76.7
25	76.6
26	76.4
27	76.3
28	76.1
29	76.0
30	75.9
31	75.7
32	75.6
33	75.4
34	75.3
35	75.1
36	75.0
37	74.8
38	74.7
39	74.5
40	74.3
41	74.2
42	74.0
43	73.9
44	73.7
45	73.6
46	73.4
47	73.3
48	73.1
49	73.0
50	72.8
51	72.7
52	72.5
53	72.3
54	72.2
55	72.0

56	71.8
57	71.6
58	71.4
59	71.2
60	71.0
61	70.8
62	70.6
63	70.4
64	70.2
65	70.0
66	69.8
67	69.5
68	69.3
69	69.0
70	68.8
71	68.5
72	68.3
73	68.0
74	67.7
75	67.3
76	67.0
77	66.7
78	66.3
79	66.0
80	65.7
81	65.3
82	65.0
83	64.5
84	64.0
85	63.5
86	63.0
87	62.5
88	62.0
89	61.5

90	61.0
91	60.5
92	60.0
93	59.0
94	58.5
95	58.0
96	57.0
97	56.0
98	54.0
99	52.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	83.0
1	83.0
2	81.0
3	79.0
4	78.5
5	78.0
6	77.0
7	76.5
8	76.0
9	75.5
10	75.0
11	74.7
12	74.3
13	74.0
14	73.5
15	73.0
16	72.7
17	72.3
18	72.0
19	71.7

20	71.3
21	71.0
22	70.5
23	70.0
24	69.7
25	69.3
26	69.0
27	68.7
28	68.3
29	68.0
30	67.5
31	67.0
32	66.7
33	66.3
34	66.0
35	65.7
36	65.3
37	65.0
38	64.7
39	64.3
40	64.0
41	63.5
42	63.0
43	62.7
44	62.3
45	62.0
46	61.7
47	61.3
48	61.0
49	60.7
50	60.3
51	60.0
52	59.7
53	59.3

54	59.0
55	58.7
56	58.3
57	58.0
58	57.7
59	57.3
60	57.0
61	56.7
62	56.3
63	56.0
64	55.7
65	55.3
66	55.0
67	54.7
68	54.3
69	54.0
70	53.7
71	53.3
72	53.0
73	52.7
74	52.3
75	52.0
76	51.7
77	51.3
78	51.0
79	50.8
80	50.5
81	50.3
82	50.0
83	49.5
84	49.0
85	48.7
86	48.3
87	48.0

88	47.7
89	47.3
90	47.0
91	46.7
92	46.3
93	46.0
94	45.5
95	45.0
96	44.5
97	44.0
98	43.0
99	41.0

LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

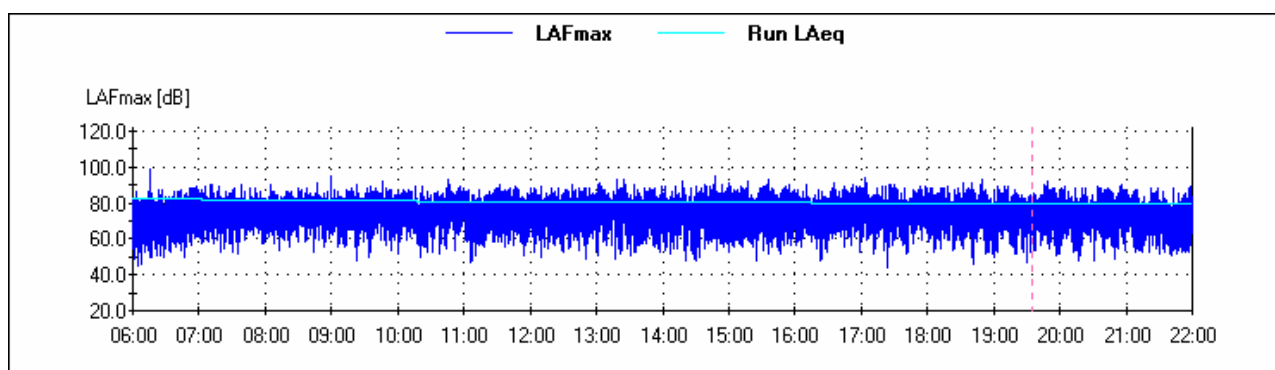
**LIVELLI DI IMPULS- FAST E SLOW
MAX DIURNI**

LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
100	95,6	99,3
96,5	91,6	95
95,8	91,9	95,2
95,7	91,4	94,2
92,6	87,5	90,7
100	95,6	99,3

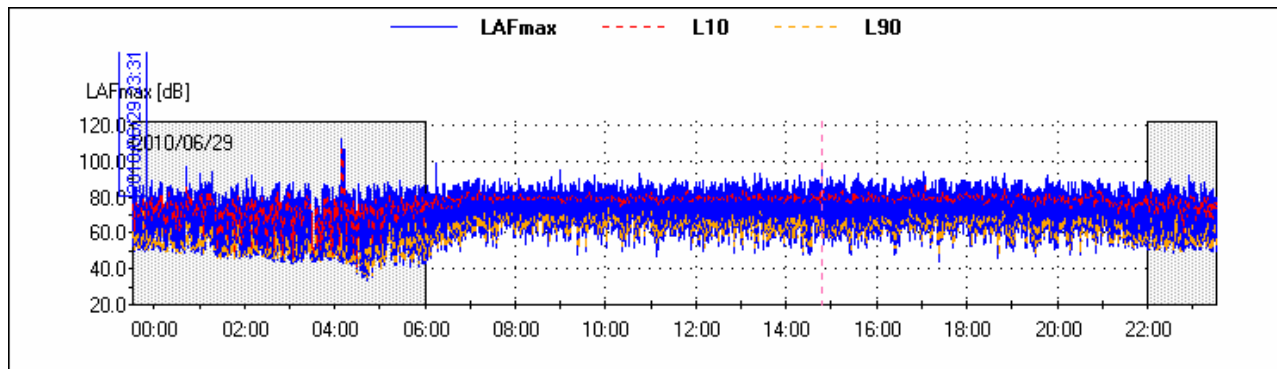
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

**LIVELLI DI IMPULS- FAST E SLOW
MAX NOTTURNI**

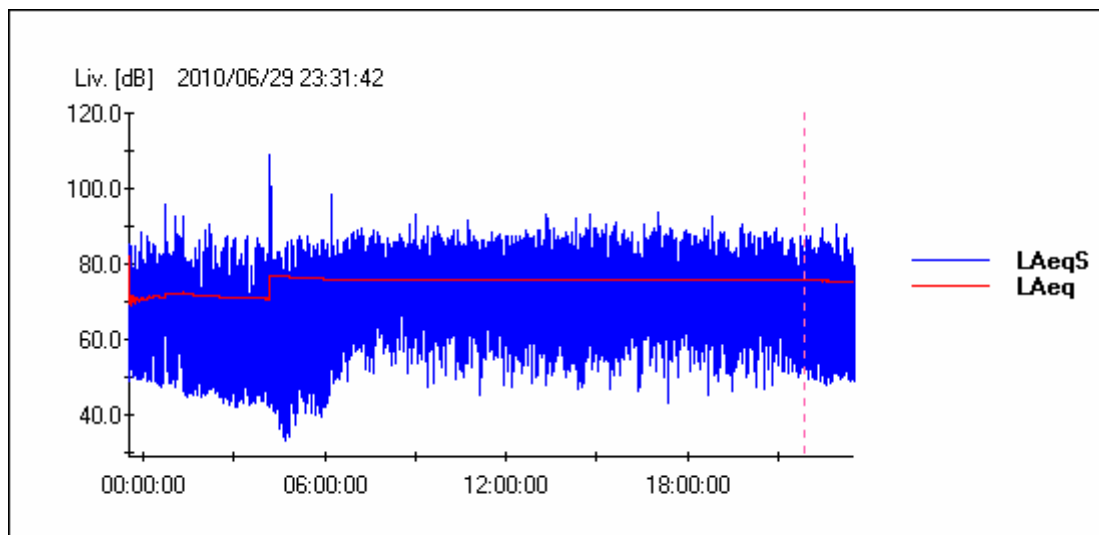
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
97,6	94,7	97,1
115,8	108,4	112
92,6	87,7	91,7
115,8	108,4	112

Running Leg. DIURNO


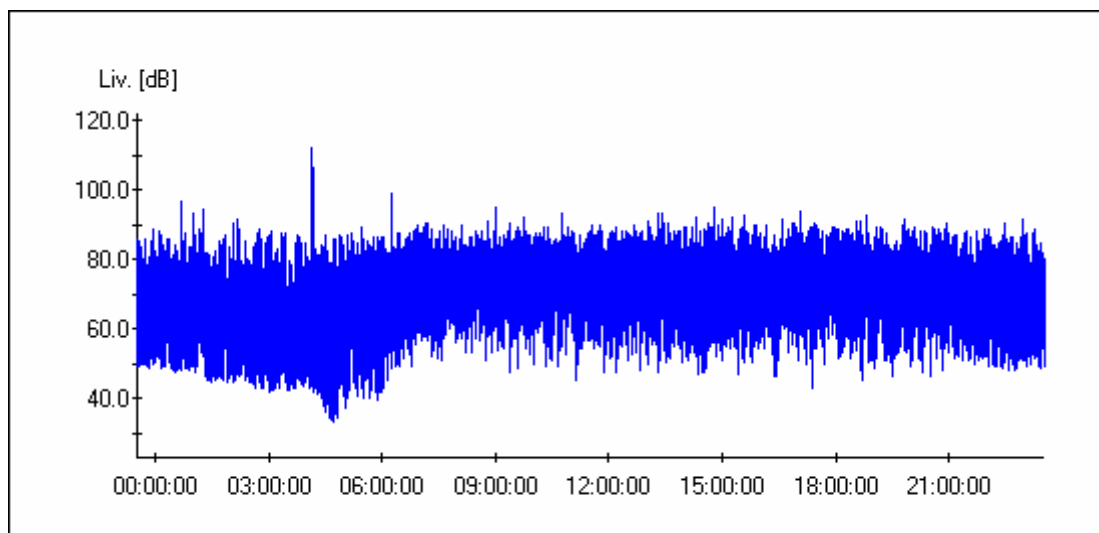
TIME HISTORY L10 – L90



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



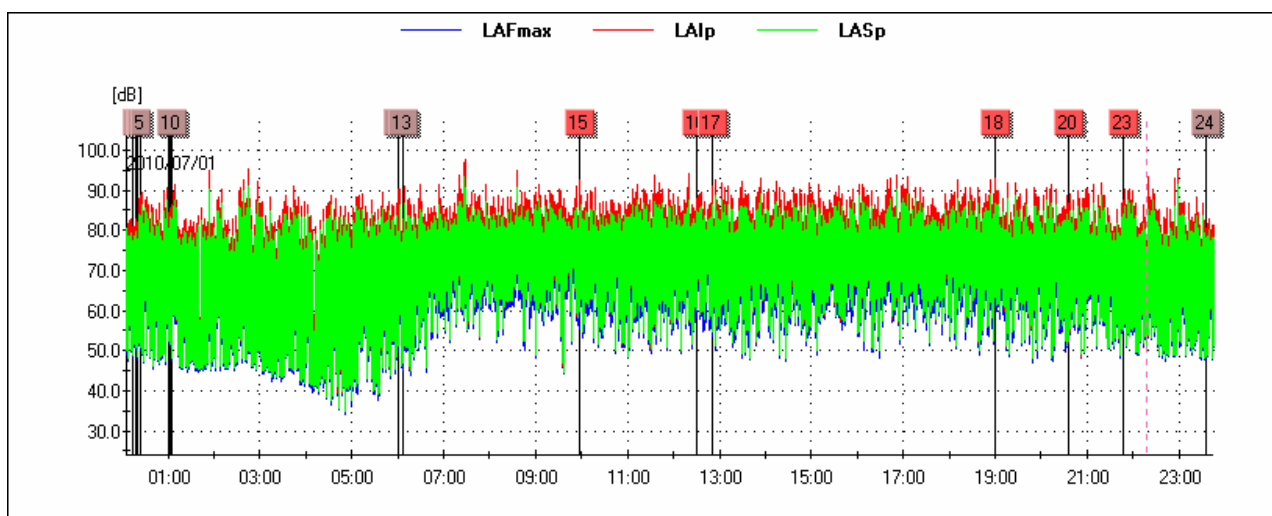
R_2_C 01/07/2010

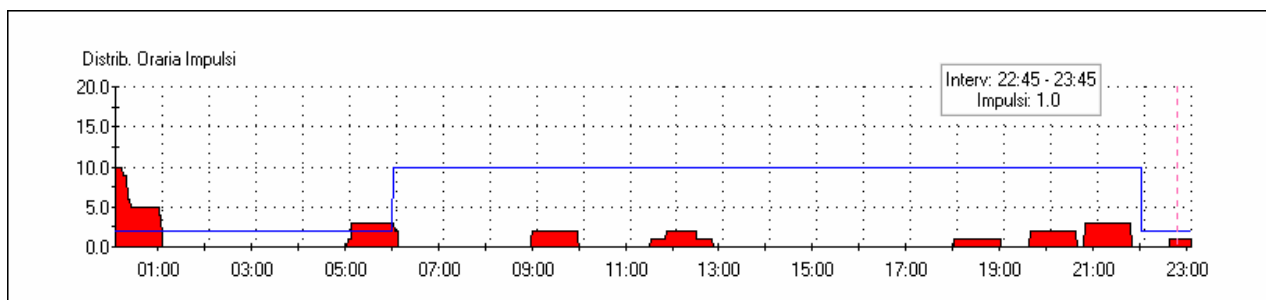
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAI_{max} e LAS_{max} superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAF_{max} inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.





Lista degli impulsi nelle 24 ore

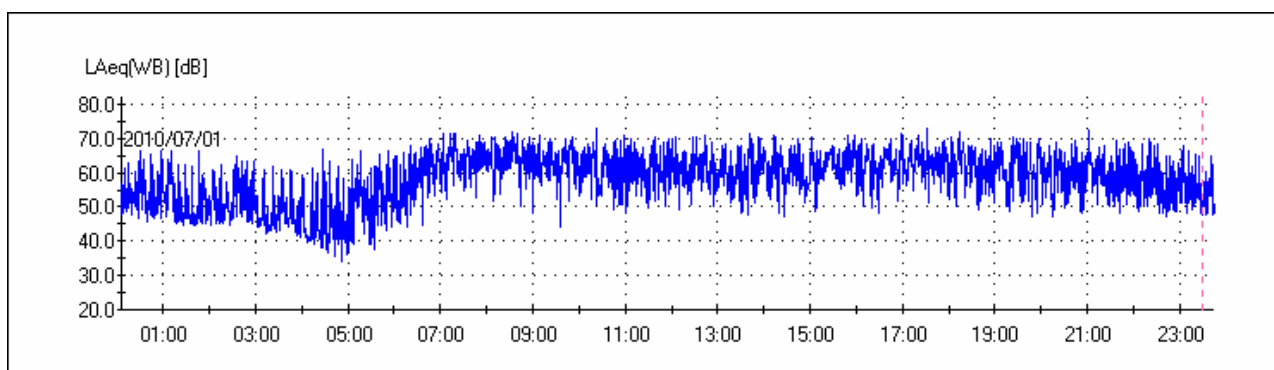
Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAI _{max} - LAS _{max} [dB]
1	2010/07/01 00:13:08	0.750	66.4	8.8
2	2010/07/01 00:19:08	0.625	64.5	11.5
3	2010/07/01 00:19:17	0.500	77.0	13.9
4	2010/07/01 00:19:18	0.500	77.2	12.4
5	2010/07/01 00:23:21	0.750	77.3	9.8
6	2010/07/01 01:00:20	0.625	78.3	11.7
7	2010/07/01 01:03:09	0.750	66.3	10.4
8	2010/07/01 01:03:15	1.000	66.1	7.4
9	2010/07/01 01:03:17	0.875	69.6	7.5
10	2010/07/01 01:04:10	0.625	70.5	12.1
11	2010/07/01 06:01:25	0.750	86.1	10.6
12	2010/07/01 06:06:54	0.625	71.5	11.5
13	2010/07/01 06:06:56	0.625	68.6	12.3
14	2010/07/01 09:56:46	0.750	90.7	8.5
15	2010/07/01 09:57:05	0.875	82.8	10.8
16	2010/07/01 12:29:49	0.750	77.0	12.9
17	2010/07/01 12:50:29	1.000	88.8	8.7
18	2010/07/01 18:59:56	0.750	91.3	7.8
19	2010/07/01 20:36:25	0.625	76.3	10.4
20	2010/07/01 20:36:28	0.625	77.2	11.8
21	2010/07/01 21:46:18	0.750	78.4	9.4
22	2010/07/01 21:46:35	0.750	70.9	11.2
23	2010/07/01 21:46:43	0.625	69.0	10.1
24	2010/07/01 23:35:32	0.750	64.8	8.8

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.0
Freq: 100	0.1
Freq: 160	0.0
Freq: 200	0.1
Freq: 250	0.1
Freq: 315	0.1
Freq: 400	0.3
Freq: 500	0.2
Freq: 630	0.3
Freq: 800	0.1
Freq: 3.15 k	21.0

PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME HISTORY COMPONENTI TONALI

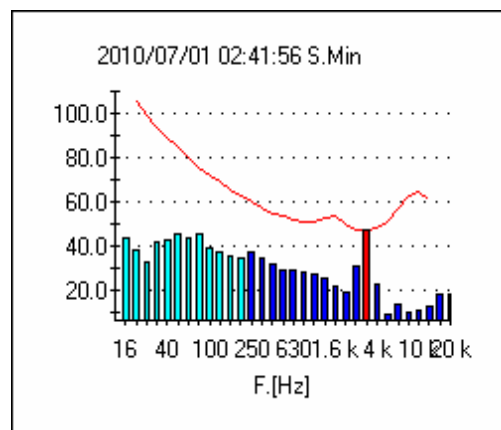
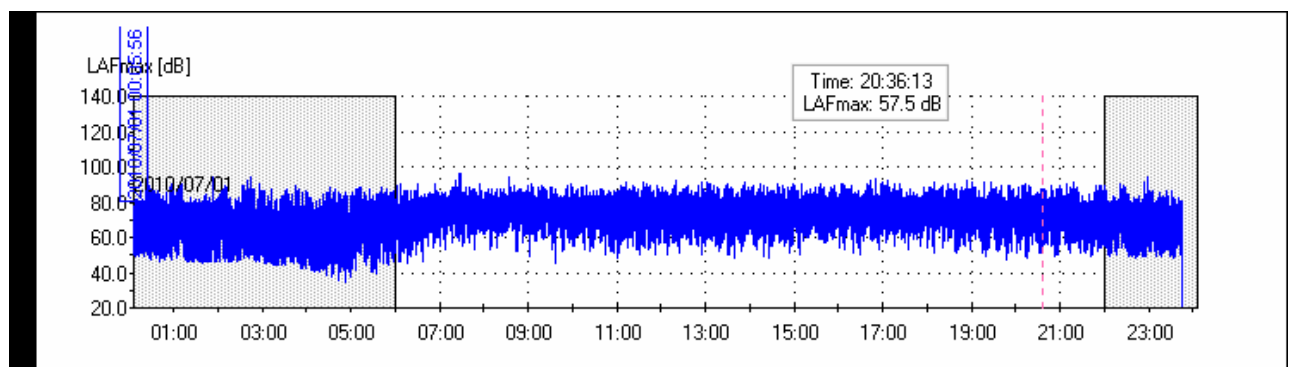
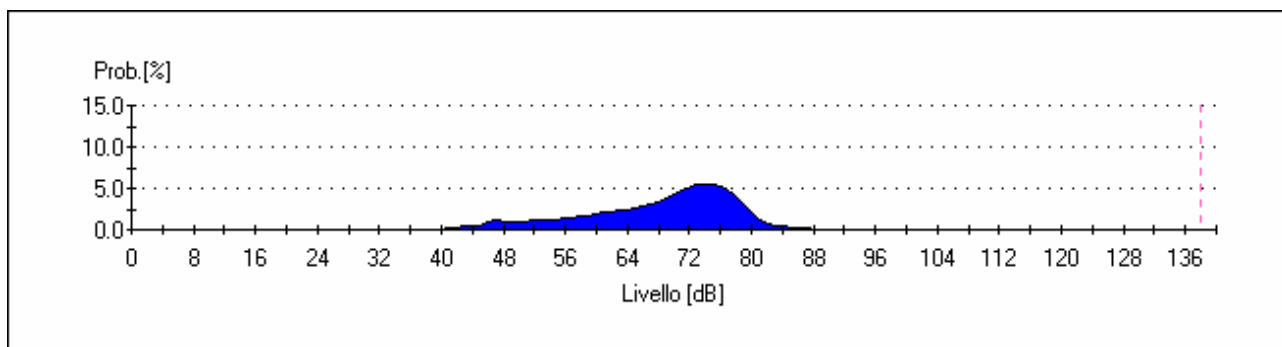


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

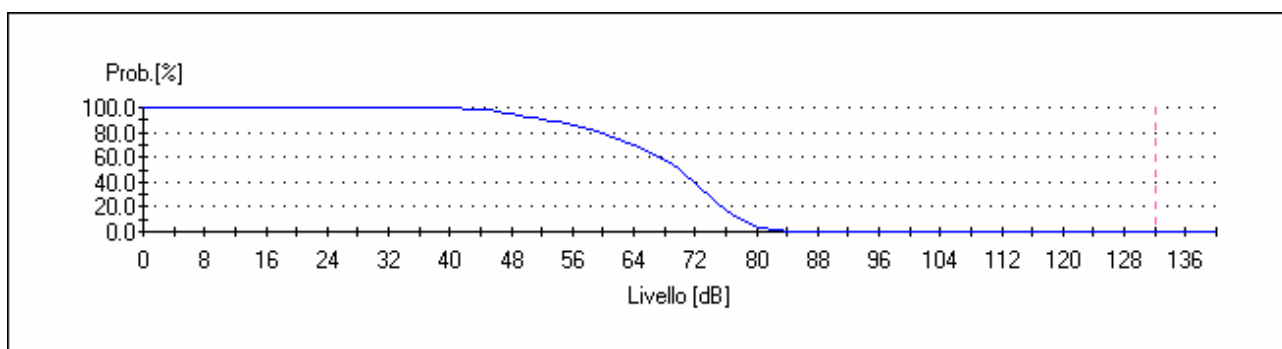
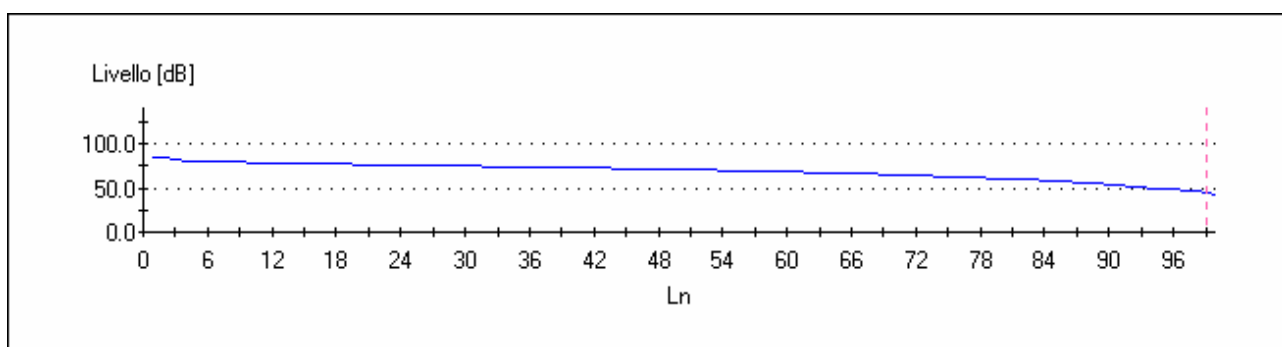


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	84.0
1	84.0
2	83.0
3	82.0
4	81.0
5	80.7
6	80.3
7	80.0
8	79.8
9	79.5
10	79.3
11	79.0
12	78.8
13	78.6
14	78.4
15	78.2
16	78.0
17	77.9
18	77.7
19	77.6
20	77.4
21	77.3
22	77.1
23	77.0
24	76.8
25	76.7
26	76.5
27	76.3
28	76.2
29	76.0
30	75.9
31	75.7

32	75.6
33	75.4
34	75.3
35	75.1
36	75.0
37	74.9
38	74.7
39	74.6
40	74.4
41	74.3
42	74.1
43	74.0
44	73.9
45	73.7
46	73.6
47	73.4
48	73.3
49	73.1
50	73.0
51	72.8
52	72.7
53	72.5
54	72.3
55	72.2
56	72.0
57	71.8
58	71.6
59	71.4
60	71.2
61	71.0
62	70.8
63	70.6
64	70.4
65	70.2

66	70.0
67	69.8
68	69.5
69	69.3
70	69.0
71	68.8
72	68.5
73	68.3
74	68.0
75	67.7
76	67.3
77	67.0
78	66.7
79	66.3
80	66.0
81	65.7
82	65.3
83	65.0
84	64.5
85	64.0
86	63.5
87	63.0
88	62.5
89	62.0
90	61.5
91	61.0
92	60.0
93	59.5
94	59.0
95	58.0
96	57.0
97	56.0
98	54.0
99	52.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	83.0
1	83.0
2	80.0
3	79.0
4	78.0
5	77.5
6	77.0
7	76.5
8	76.0
9	75.7
10	75.3
11	75.0
12	74.5
13	74.0
14	73.7
15	73.3
16	73.0
17	72.7
18	72.3
19	72.0
20	71.7
21	71.3
22	71.0
23	70.7
24	70.3
25	70.0
26	69.7
27	69.3
28	69.0
29	68.7

30	68.3
31	68.0
32	67.7
33	67.3
34	67.0
35	66.7
36	66.3
37	66.0
38	65.7
39	65.3
40	65.0
41	64.7
42	64.3
43	64.0
44	63.7
45	63.3
46	63.0
47	62.5
48	62.0
49	61.7
50	61.3
51	61.0
52	60.7
53	60.3
54	60.0
55	59.7
56	59.3
57	59.0
58	58.7
59	58.3
60	58.0
61	57.5
62	57.0
63	56.7

64	56.3
65	56.0
66	55.5
67	55.0
68	54.7
69	54.3
70	54.0
71	53.7
72	53.3
73	53.0
74	52.5
75	52.0
76	51.7
77	51.3
78	51.0
79	50.5
80	50.0
81	49.7
82	49.3
83	49.0
84	48.7
85	48.3
86	48.0
87	47.7
88	47.3
89	47.0
90	46.7
91	46.3
92	46.0
93	45.5
94	45.0
95	44.0
96	43.5
97	43.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

98	42.0
99	41.0

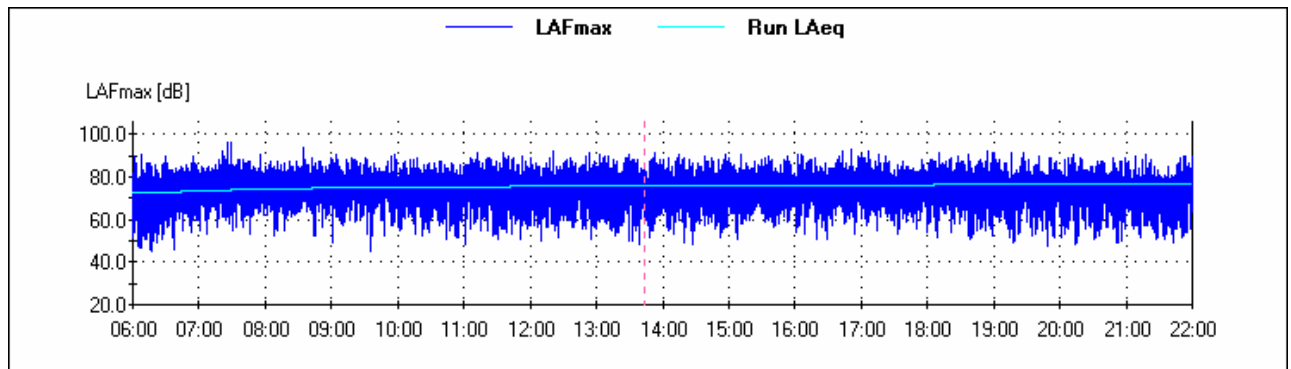
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
97,8	93,3	96,4
95,1	90,6	94,1
93,1	89,2	92,2
93,9	90,4	93,1
91,7	88,5	90,9
97,8	93,3	96,4

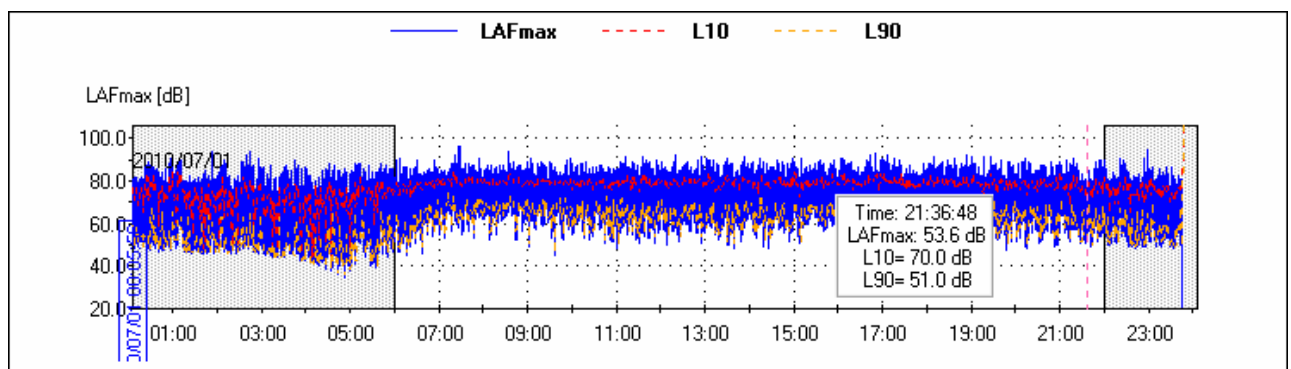
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
95,2	90,9	93,9
89,5	86,4	88,5
95,5	91,5	94,4
95,5	91,5	94,4

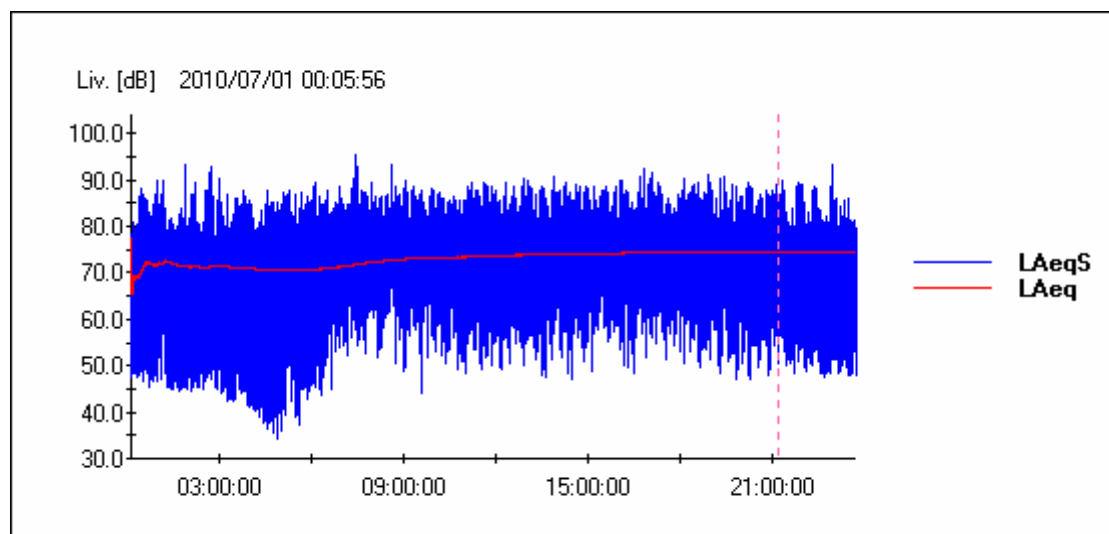
Running Leg DIURNO



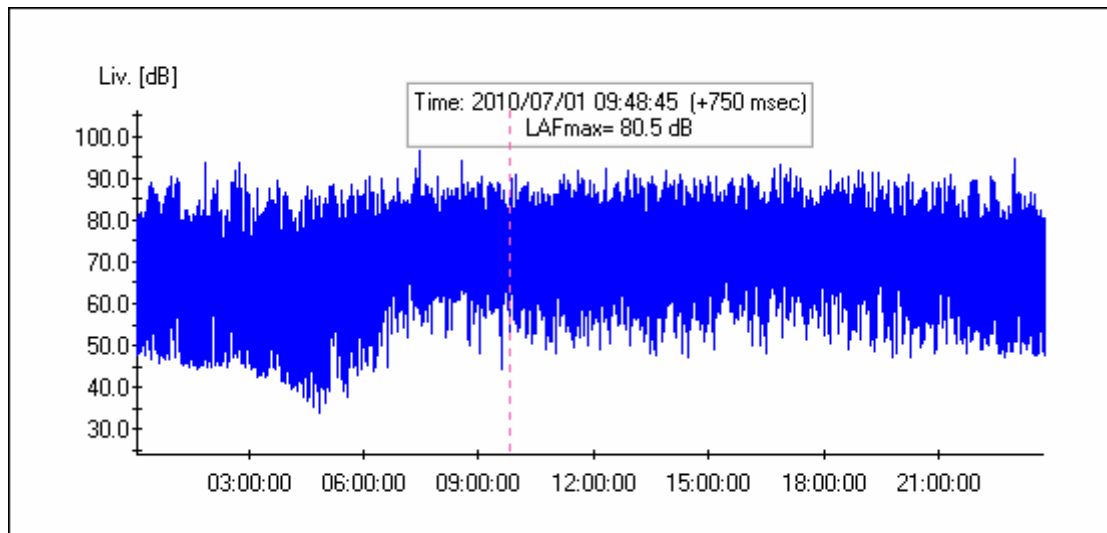
TIME HISTORY L10 – L90



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



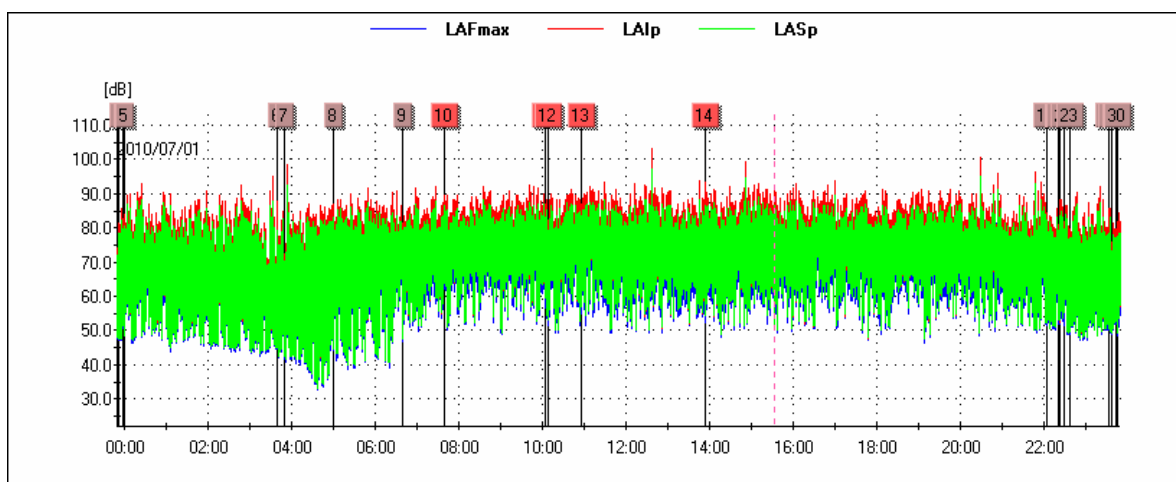
R_2_C 02/07/2010

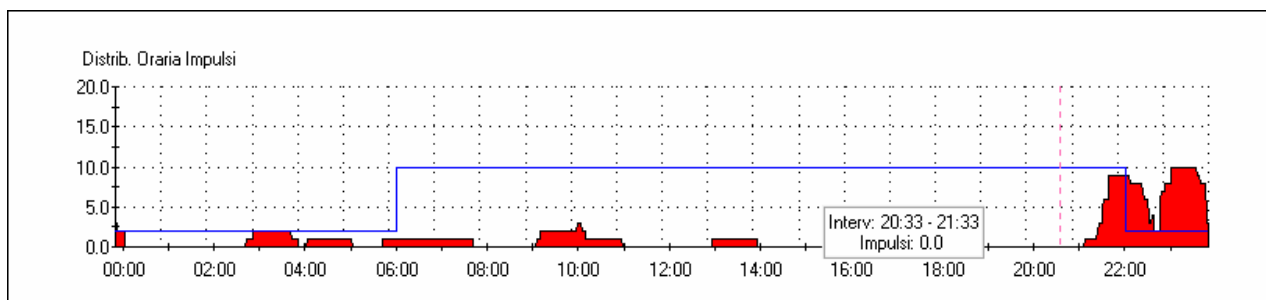
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.





Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAI _{max} - LA _S max [dB]
1	2010/07/01 23:51:30	0.625	65.9	11.1
2	2010/07/01 23:59:12	0.875	76.0	11.1
3	2010/07/01 23:59:57	0.625	69.7	9.1
4	2010/07/02 00:01:16	1.000	60.5	10.0
5	2010/07/02 00:01:22	0.625	63.2	10.9
6	2010/07/02 03:40:44	0.875	84.9	8.6
7	2010/07/02 03:49:39	0.875	66.0	10.7
8	2010/07/02 05:00:04	0.875	85.6	7.2
9	2010/07/02 06:40:35	0.750	63.1	11.6
10	2010/07/02 07:40:26	0.750	81.1	8.8
11	2010/07/02 10:03:54	0.750	73.5	10.6
12	2010/07/02 10:08:45	0.750	71.9	6.5
13	2010/07/02 10:56:44	0.625	68.2	10.6
14	2010/07/02 13:54:47	1.000	91.3	8.3
15	2010/07/02 22:05:46	0.750	68.6	8.2
16	2010/07/02 22:21:06	0.875	68.0	9.0
17	2010/07/02 22:23:09	0.750	67.2	9.3
18	2010/07/02 22:29:19	0.875	74.0	10.9
19	2010/07/02 22:29:43	0.625	70.4	11.8
20	2010/07/02 22:30:01	1.000	64.9	8.4
21	2010/07/02 22:37:00	0.625	64.0	11.6
22	2010/07/02 22:37:20	0.500	65.1	12.7
23	2010/07/02 22:37:22	0.625	61.1	9.3
24	2010/07/02 23:33:30	0.750	84.1	7.6

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

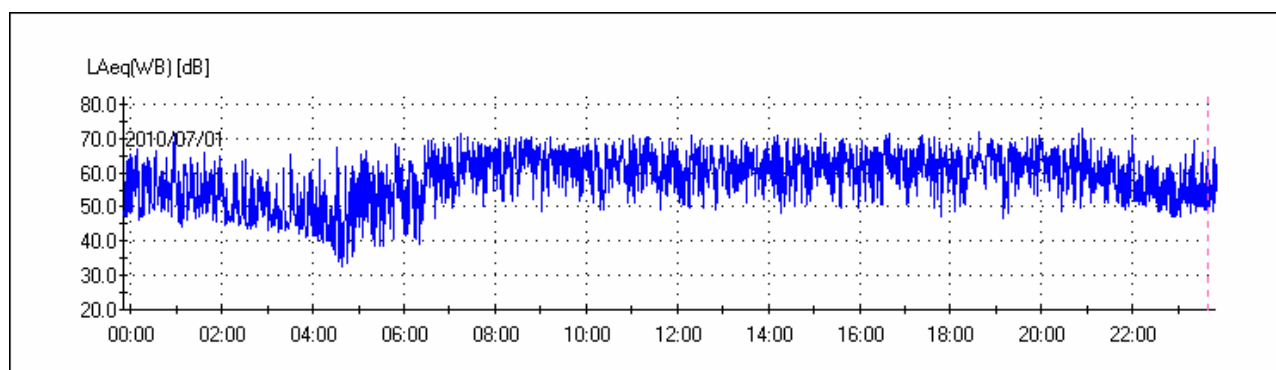
25	2010/07/02 23:37:58	0.625	64.7	10.6
26	2010/07/02 23:45:11	1.000	68.6	9.3
27	2010/07/02 23:45:37	0.625	76.7	12.6
28	2010/07/02 23:45:38	0.625	76.6	12.5
29	2010/07/02 23:45:58	0.875	61.7	8.6
30	2010/07/02 23:46:09	0.625	64.7	11.2

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 160	0.0
Freq: 200	0.0
Freq: 250	0.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 315	0.1
Freq: 400	0.2
Freq: 500	0.2
Freq: 630	0.0
Freq: 2.5 k	0.0
Freq: 3.15 k	21.3
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

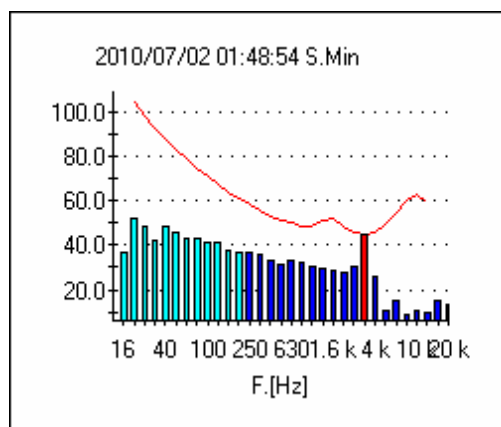
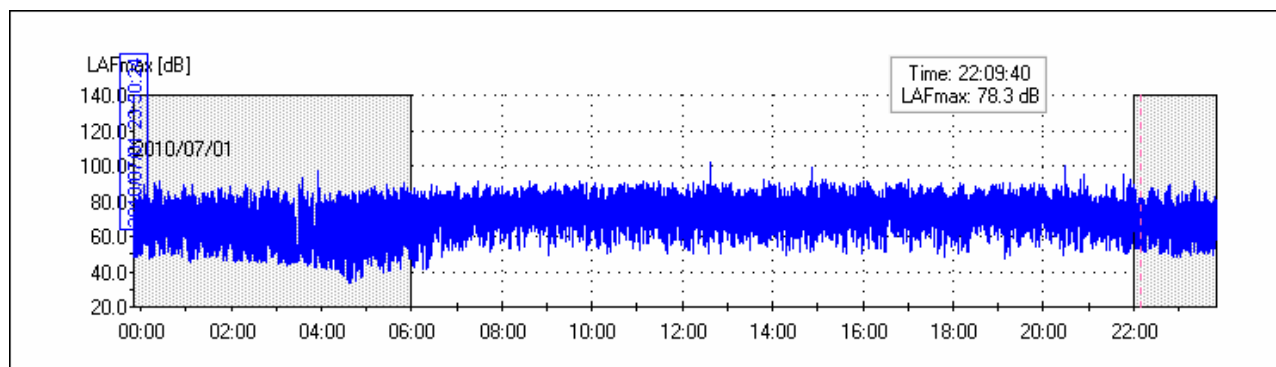
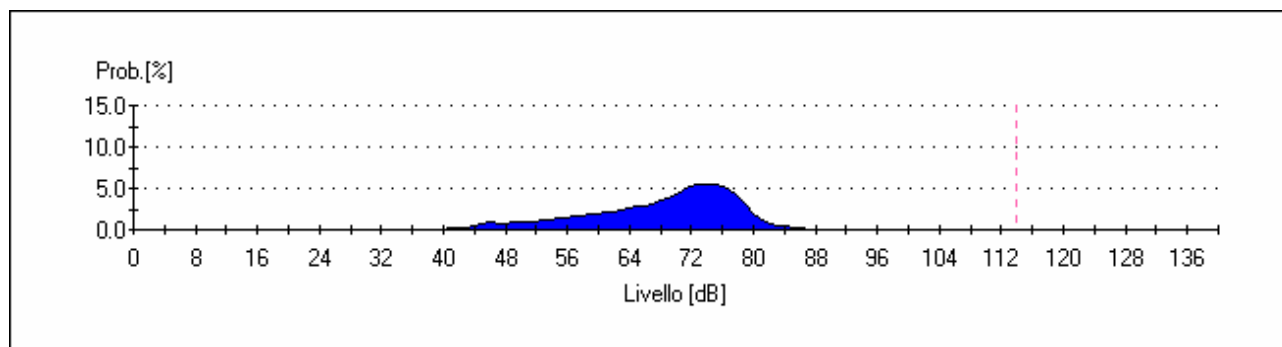


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

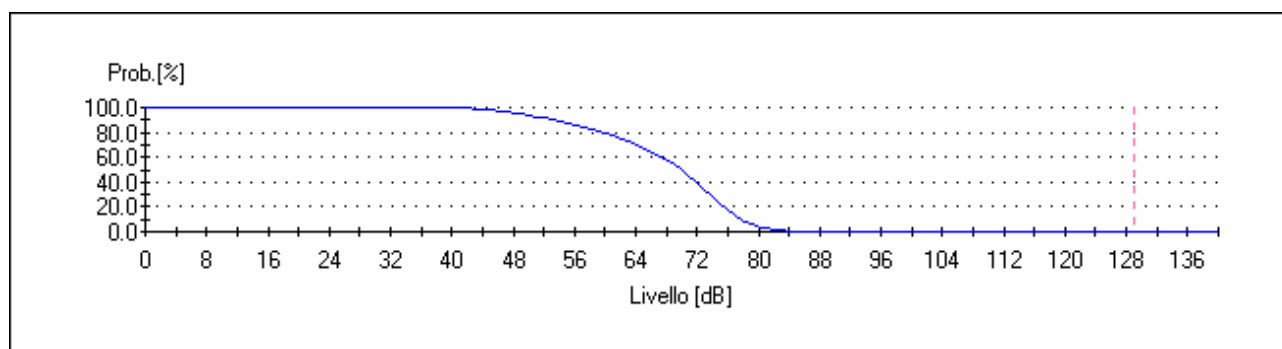
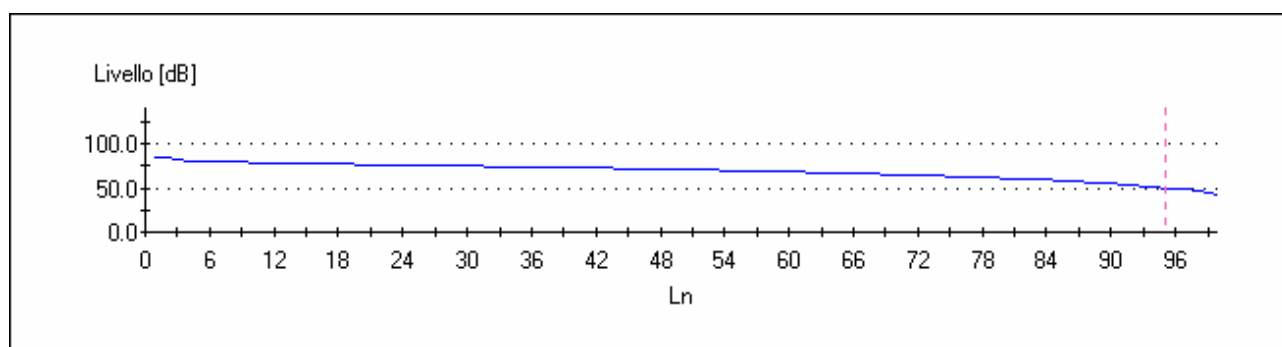


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	84.0
1	84.0
2	83.0
3	82.0
4	81.0
5	80.7
6	80.3
7	80.0
8	79.8
9	79.5
10	79.3
11	79.0
12	78.8
13	78.6
14	78.4
15	78.2
16	78.0
17	77.9
18	77.7
19	77.6
20	77.4
21	77.3
22	77.1
23	77.0
24	76.8
25	76.7
26	76.5
27	76.3
28	76.2
29	76.0
30	75.9
31	75.7

32	75.6
33	75.4
34	75.3
35	75.1
36	75.0
37	74.9
38	74.7
39	74.6
40	74.4
41	74.3
42	74.1
43	74.0
44	73.9
45	73.7
46	73.6
47	73.4
48	73.3
49	73.1
50	73.0
51	72.8
52	72.7
53	72.5
54	72.3
55	72.2
56	72.0
57	71.8
58	71.7
59	71.5
60	71.3
61	71.2
62	71.0
63	70.8
64	70.6
65	70.4

66	70.2
67	70.0
68	69.8
69	69.5
70	69.3
71	69.0
72	68.8
73	68.5
74	68.3
75	68.0
76	67.7
77	67.3
78	67.0
79	66.7
80	66.3
81	66.0
82	65.5
83	65.0
84	64.7
85	64.3
86	64.0
87	63.5
88	63.0
89	62.0
90	61.5
91	61.0
92	60.5
93	60.0
94	59.0
95	58.0
96	57.0
97	56.0
98	54.0
99	52.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	82.0
1	82.0
2	80.0
3	79.0
4	78.0
5	77.5
6	77.0
7	76.5
8	76.0
9	75.7
10	75.3
11	75.0
12	74.5
13	74.0
14	73.7
15	73.3
16	73.0
17	72.7
18	72.3
19	72.0
20	71.7
21	71.3
22	71.0
23	70.8
24	70.5
25	70.3
26	70.0
27	69.7
28	69.3

29	69.0
30	68.7
31	68.3
32	68.0
33	67.7
34	67.3
35	67.0
36	66.7
37	66.3
38	66.0
39	65.7
40	65.3
41	65.0
42	64.7
43	64.3
44	64.0
45	63.8
46	63.5
47	63.3
48	63.0
49	62.7
50	62.3
51	62.0
52	61.7
53	61.3
54	61.0
55	60.7
56	60.3
57	60.0
58	59.7
59	59.3
60	59.0
61	58.7
62	58.3

63	58.0
64	57.7
65	57.3
66	57.0
67	56.7
68	56.3
69	56.0
70	55.7
71	55.3
72	55.0
73	54.5
74	54.0
75	53.7
76	53.3
77	53.0
78	52.5
79	52.0
80	51.7
81	51.3
82	51.0
83	50.5
84	50.0
85	49.5
86	49.0
87	48.5
88	48.0
89	47.7
90	47.3
91	47.0
92	46.5
93	46.0
94	45.5
95	45.0
96	44.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

97	43.0
98	42.0
99	39.0

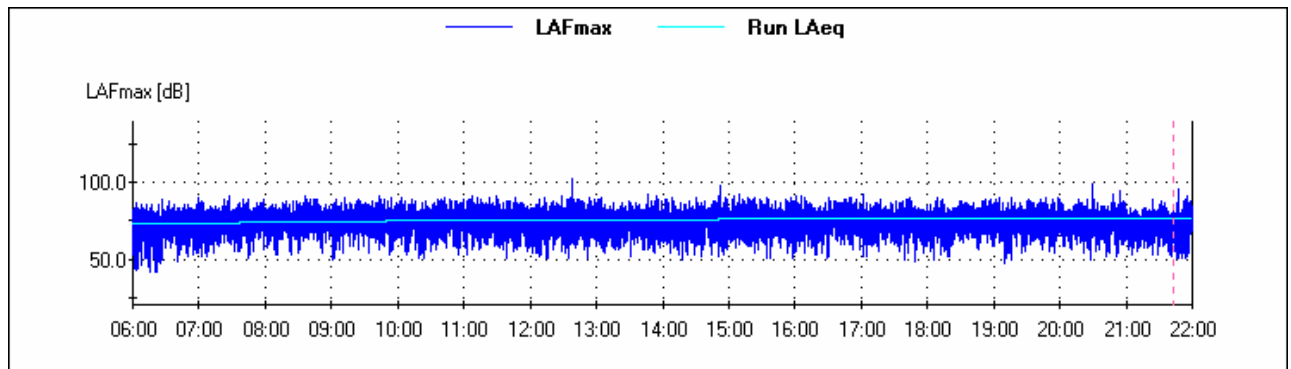
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LA Sp [dB]	LAFp [dB]
91,9	87,7	90,8
93,3	88,1	91,7
103,1	97,3	102,1
100,4	95,2	99,7
96,3	93	95,4
103,1	97,3	102,1

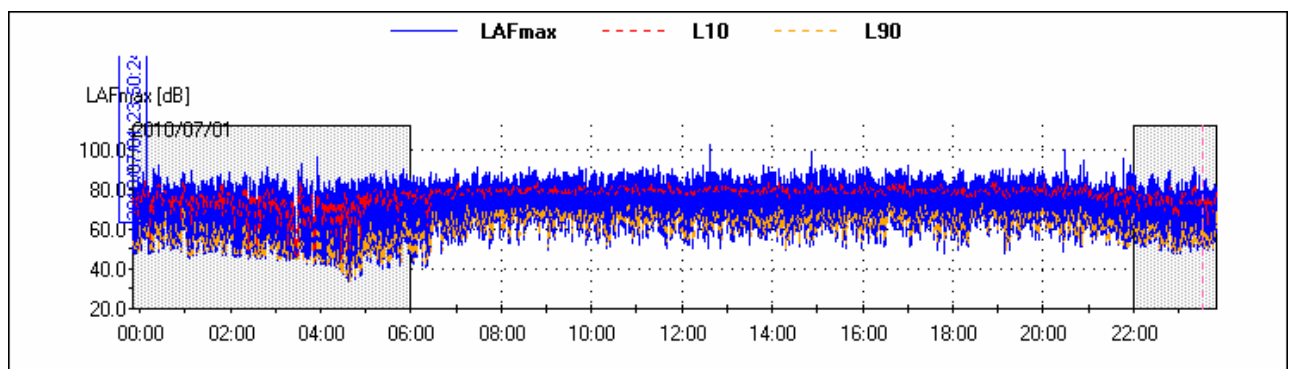
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LA Sp [dB]	LAFp [dB]
98,3	92,5	96,8
91,7	87,2	90,6
92,1	87,4	90,8
98,3	92,5	96,8

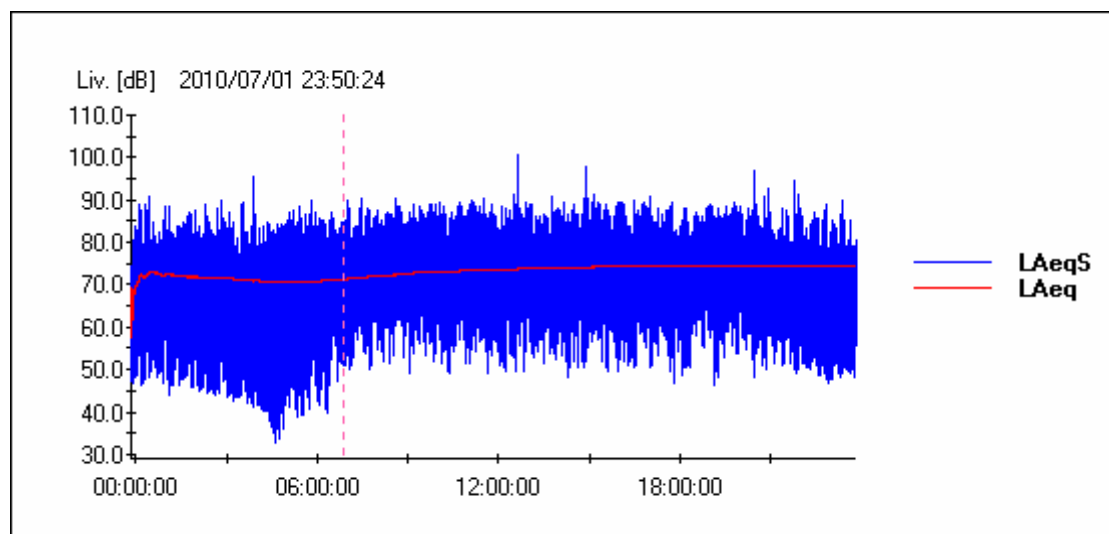
Running Leg DIURNO



TIME HISTORY L10 – L90



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"

MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO*Codice documento*

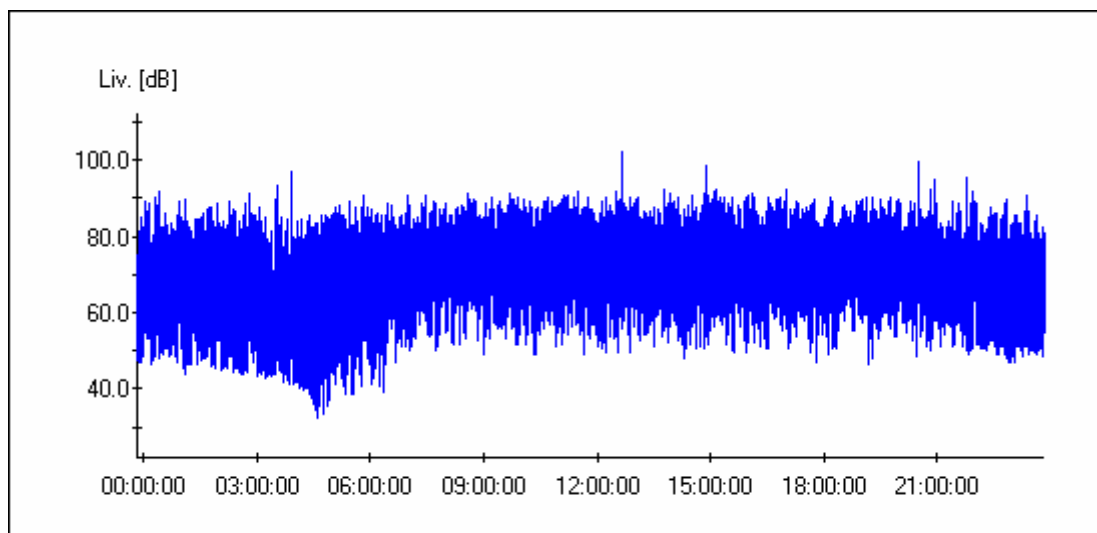
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Rev

F0

Data

20/06/2011

**R2 - MISURE DI 24 ORE CON POSTAZIONE SEMI-FISSE**

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Punto	Ricettore R 3 C	Indirizzo SS 118
Descrizione del punto di misura/ricettore <i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sul marciapiede adiacente la carreggiata stradale ad una distanza di mt 1 dal muro del fabbricato adiacente</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 / 40 dB(a)
☐	Classe II	55 / 45 dB(a)
☐	Classe III	60 / 50 dB(a)
☒	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826		
Punto	Ricettore R 3 C	Indirizzo SS 118

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

<i>Periodo</i>	<i>TR</i>	<i>Data</i>	<i>L_{AeqTR}</i> [dBA]	<i>K_I</i> [dBA]	<i>K_T</i> [dBA]	<i>K_B</i> [dBA]	<i>L_{AeqTRC}</i> [dBA]	<i>L_{lim}</i> [dBA]
Giorno	6-22h	10/07/10	64.1	0	0		64.1	70
Notte	22-6h	10/07/10	60.6	0	0	0	60.6	60

RISULTATI MISURE	
Codice misura	R 3 C
Data inizio	10/07/2010
Ora inizio	0.39.23
Note	

Parametri		24 ore	Giorno (T _R = 6/22)	Notte (T _R = 22/6)
L _{AeqTR}	[dBA]	63.2	64.1	60.6
L ₁	[dBA]	73.0	74.0	71.0
L ₅	[dBA]	68.0	69.0	65.5
L ₁₀	[dBA]	66.0	67.0	63.0
L ₅₀	[dBA]	58.7	60.0	54.2
L ₉₀	[dBA]	50.0	53.7	46.7
L ₉₅	[dBA]	47.5	52.0	45.0
L ₉₉	[dBA]	44.0	48.0	42.0
L _I max	[dBA]	98.8	92.1	98.8
L _F max	[dBA]	95.7	89.2	95.7
L _S max	[dBA]	88.0	83.3	88.0
K _I	[dBA]	0	0	0
K _T	[dBA]	0	0	0
K _B	[dBA]	0	0	0
L _{AeqTRC}		63.2	64.1	60.6

Note:		
Punto	Ricettore	Indirizzo
	R 3 C	SS 118

Sorgente stradale:

	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	52	36	51	76	53.75	65	35	50
Veic. Pesanti / 10'	0	0	0	0	0	0	0	0
Motocicli / 10'	3	8	15	7	8.25	6	2	4
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	28	27.5	25	23	25.88	23	22	22.5
Umidità relativa	79	68	71	72	72.5	73	65	69
Velocità vento	4.5	4.8	3.2	0.3	3.2	0.7	1.2	0.95
Direzione vento	N N E	N	N N E	N E		S E	S E	

Fotografia del punto di misura


Punto	Ricettore	Indirizzo
	R_3_C	SS 118

MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO*Codice documento*

AC0053_F0.docx_F0

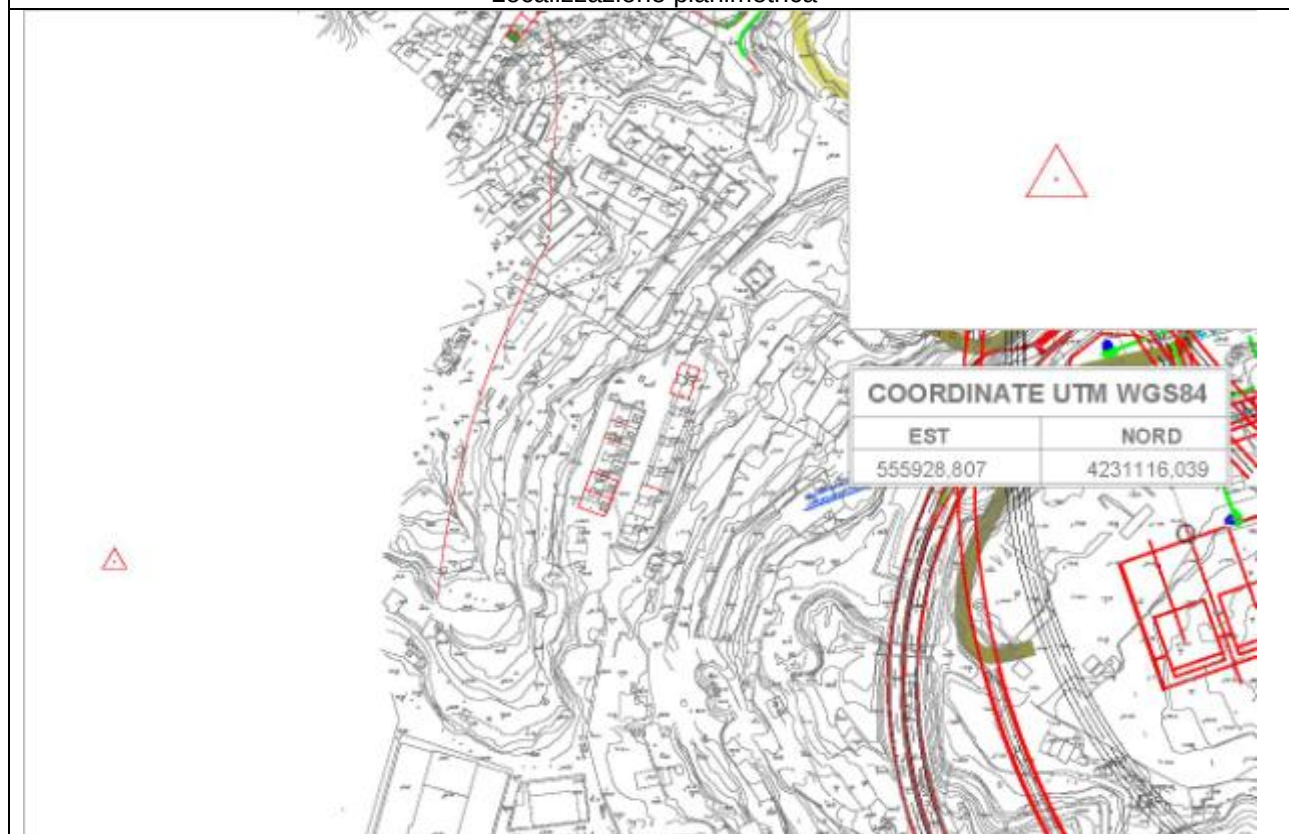
Rev

F0

Data

20/06/2011

Localizzazione planimetrica

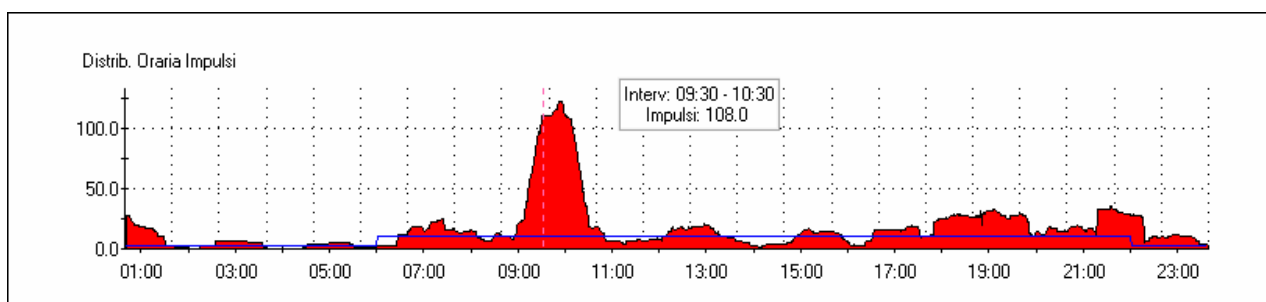
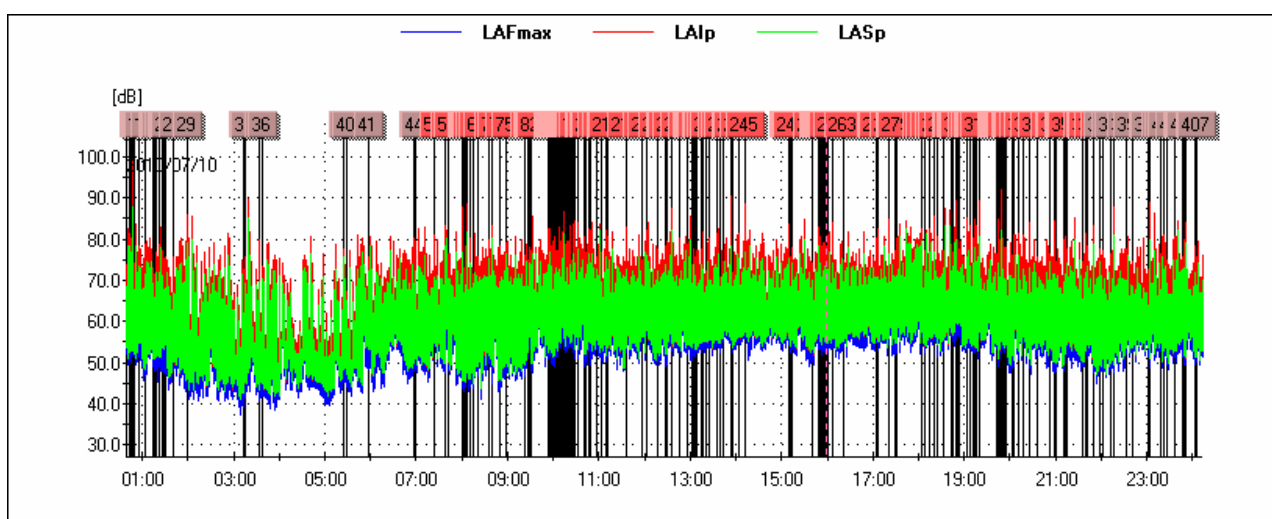


RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/10 00:43:13	0.625	76.6	11.9
2	2010/07/10 00:43:54	0.625	72.0	12.0
3	2010/07/10 00:44:57	0.875	68.0	7.9
4	2010/07/10 00:45:30	0.750	67.8	8.9
5	2010/07/10 00:46:10	1.000	71.8	6.6
6	2010/07/10 00:47:52	0.750	65.0	11.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

7	2010/07/10 00:48:23	0.625	76.0	14.3
8	2010/07/10 00:49:12	0.625	66.7	11.2
9	2010/07/10 00:55:37	0.750	64.4	8.6
10	2010/07/10 00:55:40	0.875	69.0	8.0
11	2010/07/10 01:03:24	0.875	76.6	8.7
12	2010/07/10 01:03:43	1.000	67.9	9.2
13	2010/07/10 01:13:47	0.875	68.1	9.0
14	2010/07/10 01:15:31	0.875	62.6	10.6
15	2010/07/10 01:15:37	0.625	64.7	10.9
16	2010/07/10 01:18:50	0.750	64.4	8.7
17	2010/07/10 01:19:17	1.000	60.9	7.2
18	2010/07/10 01:19:21	0.875	66.8	8.0
19	2010/07/10 01:23:08	1.000	65.2	7.8
20	2010/07/10 01:27:35	0.875	67.5	6.2
21	2010/07/10 01:27:38	1.000	69.6	6.8
22	2010/07/10 01:28:04	0.625	69.2	12.7
23	2010/07/10 01:29:14	0.750	62.8	8.3
24	2010/07/10 01:29:48	0.875	67.6	9.3
25	2010/07/10 01:30:48	0.875	70.6	8.8
26	2010/07/10 01:30:57	1.000	71.2	6.7
27	2010/07/10 01:31:32	0.750	72.3	6.9
28	2010/07/10 01:40:52	0.625	71.3	12.9
29	2010/07/10 01:58:39	1.000	64.7	8.2
30	2010/07/10 03:12:28	0.625	69.7	10.8
31	2010/07/10 03:14:55	1.000	62.6	8.3
32	2010/07/10 03:33:24	1.000	76.4	10.4
33	2010/07/10 03:33:35	0.500	72.4	11.6
34	2010/07/10 03:33:41	0.625	71.4	11.8
35	2010/07/10 03:33:48	0.875	68.0	10.7
36	2010/07/10 03:38:49	0.875	61.0	7.3
37	2010/07/10 05:24:21	0.875	61.3	8.7
38	2010/07/10 05:29:30	0.875	56.8	8.0
39	2010/07/10 05:29:42	0.750	57.2	8.2
40	2010/07/10 05:29:46	0.750	56.2	7.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

41	2010/07/10 05:57:50	1.000	72.3	9.8
42	2010/07/10 06:56:48	0.625	76.1	12.1
43	2010/07/10 06:58:09	0.750	76.6	10.1
44	2010/07/10 06:58:14	0.750	70.5	8.6
45	2010/07/10 07:24:06	0.750	76.4	10.7
46	2010/07/10 07:24:08	0.875	77.8	10.2
47	2010/07/10 07:24:10	0.625	74.8	8.6
48	2010/07/10 07:24:13	0.875	73.1	8.8
49	2010/07/10 07:24:19	0.625	76.0	9.1
50	2010/07/10 07:24:24	0.625	74.4	9.1
51	2010/07/10 07:24:30	0.625	75.6	10.8
52	2010/07/10 07:24:34	0.750	75.3	10.0
53	2010/07/10 07:24:39	0.625	76.5	9.6
54	2010/07/10 07:38:30	0.750	79.8	10.6
55	2010/07/10 07:38:39	0.750	68.8	6.9
56	2010/07/10 07:38:40	0.625	77.5	10.3
57	2010/07/10 07:38:44	0.625	75.8	10.9
58	2010/07/10 07:42:04	0.750	73.9	10.0
59	2010/07/10 07:42:56	0.750	60.9	7.6
60	2010/07/10 08:00:59	0.500	84.6	11.0
61	2010/07/10 08:02:14	0.750	59.4	9.5
62	2010/07/10 08:05:00	0.625	74.0	10.5
63	2010/07/10 08:06:00	0.625	75.3	10.4
64	2010/07/10 08:06:01	0.625	77.3	9.5
65	2010/07/10 08:06:21	0.750	77.2	8.4
66	2010/07/10 08:06:23	0.750	75.5	8.7
67	2010/07/10 08:11:13	0.625	61.1	11.0
68	2010/07/10 08:15:09	0.750	61.0	9.5
69	2010/07/10 08:20:20	0.625	71.3	11.8
70	2010/07/10 08:35:55	0.500	74.8	12.3
71	2010/07/10 08:38:49	0.750	61.6	9.6
72	2010/07/10 08:39:12	0.750	60.7	9.6
73	2010/07/10 08:48:56	0.875	63.5	6.4
74	2010/07/10 08:50:52	0.750	76.2	9.1

75	2010/07/10 08:57:15	0.750	68.5	8.8
76	2010/07/10 09:23:34	0.875	65.0	8.3
77	2010/07/10 09:26:30	1.000	70.8	6.2
78	2010/07/10 09:26:31	1.000	71.9	8.5
79	2010/07/10 09:28:34	0.875	68.7	7.9
80	2010/07/10 09:29:43	0.750	68.7	7.4
81	2010/07/10 09:29:44	0.750	68.9	8.2
82	2010/07/10 09:30:42	1.000	64.4	7.7
83	2010/07/10 09:54:07	0.625	67.2	9.3
84	2010/07/10 09:54:48	1.000	80.6	6.9
85	2010/07/10 09:55:53	0.750	66.4	8.5
86	2010/07/10 09:56:41	0.625	71.2	8.8
87	2010/07/10 09:56:55	0.625	70.7	10.9
88	2010/07/10 09:56:56	0.625	68.6	8.2
89	2010/07/10 09:56:57	0.625	68.0	7.7
90	2010/07/10 09:57:02	1.000	67.4	7.4
91	2010/07/10 09:57:20	0.625	73.5	10.6
92	2010/07/10 09:57:22	0.875	68.8	8.6
93	2010/07/10 09:57:23	0.625	72.3	10.4
94	2010/07/10 09:57:25	1.000	74.2	9.2
95	2010/07/10 09:57:27	0.750	70.7	9.6
96	2010/07/10 09:58:15	0.750	71.6	9.1
97	2010/07/10 10:00:24	0.625	75.8	11.8
98	2010/07/10 10:02:01	0.750	72.8	9.3
99	2010/07/10 10:03:44	1.000	73.4	8.9
100	2010/07/10 10:06:36	0.750	69.9	7.4
101	2010/07/10 10:07:26	0.625	74.0	9.0
102	2010/07/10 10:07:27	0.625	73.9	8.2
103	2010/07/10 10:07:31	0.625	79.5	10.1
104	2010/07/10 10:07:32	0.625	77.8	7.7
105	2010/07/10 10:07:39	0.750	77.0	8.3
106	2010/07/10 10:07:40	0.625	74.2	8.2
107	2010/07/10 10:07:43	1.000	76.8	9.5
108	2010/07/10 10:07:47	0.750	73.7	9.6

109	2010/07/10 10:08:04	0.750	78.2	8.6
110	2010/07/10 10:09:16	0.625	74.8	10.6
111	2010/07/10 10:09:17	0.625	75.8	9.3
112	2010/07/10 10:09:18	0.625	75.8	9.2
113	2010/07/10 10:09:20	0.625	73.8	8.7
114	2010/07/10 10:09:20	0.750	72.0	7.1
115	2010/07/10 10:09:23	0.750	74.3	9.7
116	2010/07/10 10:11:23	0.750	77.4	7.9
117	2010/07/10 10:11:35	0.750	78.6	7.8
118	2010/07/10 10:11:37	0.750	77.9	7.4
119	2010/07/10 10:11:39	0.625	74.1	6.6
120	2010/07/10 10:11:39	0.750	78.0	8.9
121	2010/07/10 10:11:41	1.000	74.1	7.3
122	2010/07/10 10:11:47	0.625	77.0	6.7
123	2010/07/10 10:11:52	0.625	74.7	6.6
124	2010/07/10 10:11:53	0.750	71.6	6.3
125	2010/07/10 10:11:56	0.625	77.6	9.4
126	2010/07/10 10:11:56	1.000	72.3	8.3
127	2010/07/10 10:11:58	0.750	76.7	9.0
128	2010/07/10 10:12:04	0.750	76.2	9.5
129	2010/07/10 10:12:19	0.625	78.1	10.0
130	2010/07/10 10:13:43	0.625	69.0	9.1
131	2010/07/10 10:13:44	0.750	70.3	9.9
132	2010/07/10 10:13:50	0.625	73.3	9.1
133	2010/07/10 10:13:51	0.625	72.7	8.4
134	2010/07/10 10:14:01	0.625	71.9	10.4
135	2010/07/10 10:14:02	0.625	72.6	9.4
136	2010/07/10 10:14:03	0.750	72.5	8.9
137	2010/07/10 10:14:06	0.625	72.6	10.3
138	2010/07/10 10:14:07	0.875	72.2	9.3
139	2010/07/10 10:15:15	0.750	72.6	9.2
140	2010/07/10 10:15:16	0.750	75.5	10.0
141	2010/07/10 10:15:53	0.625	71.6	8.7
142	2010/07/10 10:16:20	0.625	72.2	10.7

143	2010/07/10 10:16:21	0.625	71.3	8.8
144	2010/07/10 10:16:25	0.625	72.8	10.9
145	2010/07/10 10:16:26	0.625	71.9	8.2
146	2010/07/10 10:17:06	0.750	71.7	9.0
147	2010/07/10 10:17:07	0.875	71.2	8.5
148	2010/07/10 10:17:18	0.625	73.8	8.8
149	2010/07/10 10:18:11	0.625	75.0	7.6
150	2010/07/10 10:18:14	0.625	74.9	10.4
151	2010/07/10 10:18:15	0.625	71.2	8.5
152	2010/07/10 10:19:05	0.875	75.2	8.4
153	2010/07/10 10:19:06	0.875	77.0	7.2
154	2010/07/10 10:19:39	0.625	71.1	9.6
155	2010/07/10 10:19:42	0.750	67.4	9.0
156	2010/07/10 10:19:43	0.750	68.0	8.5
157	2010/07/10 10:19:48	0.625	70.9	10.4
158	2010/07/10 10:19:51	0.625	75.4	10.3
159	2010/07/10 10:20:01	0.625	70.7	9.2
160	2010/07/10 10:20:05	1.000	67.1	7.5
161	2010/07/10 10:20:07	0.875	68.3	7.1
162	2010/07/10 10:20:23	0.625	74.4	9.5
163	2010/07/10 10:20:32	0.625	75.5	11.0
164	2010/07/10 10:20:47	0.875	72.1	6.2
165	2010/07/10 10:21:25	0.625	75.1	9.9
166	2010/07/10 10:22:08	0.875	72.8	8.7
167	2010/07/10 10:22:39	0.875	74.3	8.0
168	2010/07/10 10:22:45	0.875	69.3	8.3
169	2010/07/10 10:22:50	0.625	75.5	10.5
170	2010/07/10 10:22:57	0.875	73.3	9.6
171	2010/07/10 10:23:00	0.750	78.3	9.3
172	2010/07/10 10:23:02	0.875	77.9	8.5
173	2010/07/10 10:23:04	0.750	79.9	10.1
174	2010/07/10 10:23:05	0.625	79.9	9.1
175	2010/07/10 10:23:10	0.750	72.9	9.0
176	2010/07/10 10:24:53	0.875	70.9	6.1

177	2010/07/10 10:25:37	0.875	82.2	7.1
178	2010/07/10 10:27:02	0.625	78.2	11.3
179	2010/07/10 10:27:03	1.000	77.1	9.2
180	2010/07/10 10:27:05	0.625	77.7	8.5
181	2010/07/10 10:27:09	0.875	78.8	9.9
182	2010/07/10 10:27:13	0.625	76.4	9.4
183	2010/07/10 10:27:18	0.625	75.9	10.4
184	2010/07/10 10:27:23	0.750	77.6	9.9
185	2010/07/10 10:27:25	0.625	78.4	9.4
186	2010/07/10 10:27:30	0.750	78.4	10.1
187	2010/07/10 10:27:39	0.875	75.3	7.7
188	2010/07/10 10:27:42	0.625	77.7	8.9
189	2010/07/10 10:27:46	0.750	76.2	6.4
190	2010/07/10 10:27:50	0.750	78.0	9.2
191	2010/07/10 10:28:14	0.750	75.2	8.0
192	2010/07/10 10:28:31	1.000	81.2	9.9
193	2010/07/10 10:28:35	0.750	77.2	7.7
194	2010/07/10 10:31:43	0.625	78.0	11.3
195	2010/07/10 10:31:54	0.750	76.4	10.3
196	2010/07/10 10:41:34	0.625	76.7	10.3
197	2010/07/10 10:41:37	0.625	73.7	11.1
198	2010/07/10 10:42:59	0.625	68.1	9.2
199	2010/07/10 10:43:16	1.000	65.6	7.6
200	2010/07/10 10:43:18	0.875	66.7	8.4
201	2010/07/10 10:45:58	0.750	79.9	9.5
202	2010/07/10 10:48:02	0.875	77.2	9.8
203	2010/07/10 10:48:18	0.625	76.4	11.5
204	2010/07/10 10:49:32	0.750	71.3	9.8
205	2010/07/10 10:49:33	0.750	69.8	8.0
206	2010/07/10 10:49:34	0.625	70.8	8.2
207	2010/07/10 10:49:36	0.625	71.1	9.3
208	2010/07/10 10:49:40	0.875	67.8	8.7
209	2010/07/10 10:57:27	1.000	73.4	8.1
210	2010/07/10 11:02:33	1.000	72.8	7.5

211	2010/07/10 11:09:48	0.750	79.4	10.0
212	2010/07/10 11:12:05	0.750	66.7	7.7
213	2010/07/10 11:35:18	0.875	71.7	9.0
214	2010/07/10 11:35:49	0.750	69.4	9.1
215	2010/07/10 11:57:03	0.750	72.3	7.1
216	2010/07/10 12:01:54	0.625	78.7	10.4
217	2010/07/10 12:16:41	0.750	67.4	7.7
218	2010/07/10 12:16:45	0.750	66.7	8.8
219	2010/07/10 12:27:04	0.750	71.9	9.5
220	2010/07/10 12:30:30	0.750	75.6	10.2
221	2010/07/10 12:36:14	0.875	83.7	7.5
222	2010/07/10 12:45:12	1.000	75.3	11.4
223	2010/07/10 12:56:43	0.875	71.3	7.1
224	2010/07/10 13:02:13	1.000	67.4	9.9
225	2010/07/10 13:02:49	0.750	66.1	11.8
226	2010/07/10 13:03:17	0.625	65.9	11.0
227	2010/07/10 13:04:57	0.750	65.2	11.1
228	2010/07/10 13:07:13	0.875	72.9	8.7
229	2010/07/10 13:08:44	0.750	73.1	9.1
230	2010/07/10 13:09:01	0.750	66.2	8.8
231	2010/07/10 13:09:10	0.875	73.8	9.0
232	2010/07/10 13:13:55	0.750	67.2	8.0
233	2010/07/10 13:13:59	0.875	66.8	7.1
234	2010/07/10 13:15:55	0.875	75.3	7.2
235	2010/07/10 13:20:40	1.000	68.8	8.0
236	2010/07/10 13:24:10	0.625	77.4	10.5
237	2010/07/10 13:34:29	0.625	75.5	8.8
238	2010/07/10 13:35:21	0.875	66.5	8.8
239	2010/07/10 13:39:53	0.875	67.4	8.1
240	2010/07/10 13:44:03	0.625	70.4	10.5
241	2010/07/10 13:53:00	0.625	86.4	12.2
242	2010/07/10 13:54:59	1.000	65.9	7.4
243	2010/07/10 13:55:10	0.875	66.6	8.1
244	2010/07/10 14:04:07	0.625	77.8	11.4

245	2010/07/10 14:12:29	0.750	83.8	11.7
246	2010/07/10 15:09:44	0.875	81.7	7.8
247	2010/07/10 15:11:16	1.000	66.8	8.1
248	2010/07/10 15:14:39	0.625	74.9	10.4
249	2010/07/10 15:14:41	0.625	73.5	10.0
250	2010/07/10 15:41:26	0.875	63.9	9.1
251	2010/07/10 15:47:45	1.000	68.5	7.2
252	2010/07/10 15:50:02	0.875	70.5	8.6
253	2010/07/10 15:50:17	0.875	79.6	6.7
254	2010/07/10 15:50:59	1.000	71.4	7.2
255	2010/07/10 15:52:49	0.625	74.8	11.1
256	2010/07/10 15:55:48	0.750	74.7	7.3
257	2010/07/10 15:55:57	0.750	73.9	8.9
258	2010/07/10 15:58:33	0.875	76.9	6.9
259	2010/07/10 16:00:05	1.000	67.0	7.6
260	2010/07/10 16:01:30	0.625	74.8	10.0
261	2010/07/10 16:01:31	1.000	74.0	6.7
262	2010/07/10 16:07:19	0.750	81.5	10.1
263	2010/07/10 16:21:32	0.750	74.0	7.0
264	2010/07/10 17:04:18	1.000	70.2	7.2
265	2010/07/10 17:06:54	0.625	78.5	11.6
266	2010/07/10 17:20:36	1.000	70.8	9.0
267	2010/07/10 17:20:38	0.750	80.8	8.7
268	2010/07/10 17:21:04	0.875	67.4	8.7
269	2010/07/10 17:21:08	0.875	73.9	6.8
270	2010/07/10 17:28:38	0.625	70.6	11.4
271	2010/07/10 17:28:54	0.750	69.6	9.5
272	2010/07/10 17:29:24	0.875	76.0	6.7
273	2010/07/10 17:30:00	1.000	69.0	7.9
274	2010/07/10 17:30:08	0.875	72.5	9.0
275	2010/07/10 17:30:54	0.750	71.5	11.3
276	2010/07/10 17:31:16	0.625	75.5	11.9
277	2010/07/10 17:31:24	0.625	76.2	12.2
278	2010/07/10 17:31:27	0.750	76.8	8.3

279	2010/07/10 17:31:34	0.750	76.6	6.8
280	2010/07/10 18:04:48	0.750	75.8	6.8
281	2010/07/10 18:07:49	0.875	71.9	10.0
282	2010/07/10 18:13:23	0.625	80.5	9.0
283	2010/07/10 18:13:26	0.625	78.5	10.1
284	2010/07/10 18:19:50	0.875	81.6	7.1
285	2010/07/10 18:19:54	0.875	82.3	7.7
286	2010/07/10 18:20:57	0.500	78.4	12.2
287	2010/07/10 18:21:00	0.625	77.4	11.4
288	2010/07/10 18:24:08	0.625	77.5	9.7
289	2010/07/10 18:32:11	0.750	71.5	8.3
290	2010/07/10 18:42:49	1.000	74.4	9.5
291	2010/07/10 18:44:36	1.000	70.1	7.9
292	2010/07/10 18:48:19	0.750	87.1	9.5
293	2010/07/10 18:48:21	0.625	83.8	9.8
294	2010/07/10 18:48:22	0.625	79.9	9.1
295	2010/07/10 18:48:23	0.750	80.3	6.7
296	2010/07/10 18:48:26	0.875	80.7	8.1
297	2010/07/10 18:48:28	0.750	77.0	7.9
298	2010/07/10 18:48:31	0.750	79.0	9.4
299	2010/07/10 18:48:34	0.625	81.5	10.4
300	2010/07/10 18:48:38	0.750	79.6	10.8
301	2010/07/10 18:48:39	0.875	73.0	9.3
302	2010/07/10 18:48:46	0.875	78.2	11.0
303	2010/07/10 18:51:04	1.000	72.5	8.8
304	2010/07/10 18:53:01	1.000	72.0	6.2
305	2010/07/10 19:03:03	0.625	82.6	9.4
306	2010/07/10 19:06:51	0.625	71.8	9.5
307	2010/07/10 19:07:42	0.875	80.2	9.8
308	2010/07/10 19:08:41	0.750	79.6	8.6
309	2010/07/10 19:12:05	0.625	75.4	9.8
310	2010/07/10 19:12:37	0.750	79.2	7.5
311	2010/07/10 19:13:31	0.750	77.6	8.9
312	2010/07/10 19:16:15	0.625	81.6	8.8

313	2010/07/10 19:19:37	0.750	73.0	8.0
314	2010/07/10 19:20:09	1.000	84.8	6.3
315	2010/07/10 19:20:47	0.750	87.2	8.7
316	2010/07/10 19:41:45	0.750	73.2	7.7
317	2010/07/10 19:43:49	0.750	69.1	8.9
318	2010/07/10 19:45:04	0.625	81.8	10.7
319	2010/07/10 19:46:25	0.875	70.0	8.3
320	2010/07/10 19:47:44	0.750	75.9	8.9
321	2010/07/10 19:47:45	0.625	74.1	6.2
322	2010/07/10 19:47:55	0.750	78.1	9.9
323	2010/07/10 19:49:24	0.625	74.3	6.2
324	2010/07/10 19:49:28	0.625	75.2	6.7
325	2010/07/10 19:49:36	0.750	89.2	10.5
326	2010/07/10 19:49:38	0.750	75.6	8.5
327	2010/07/10 19:49:40	1.000	79.1	7.4
328	2010/07/10 19:49:48	1.000	73.6	6.7
329	2010/07/10 19:49:57	0.750	75.3	6.9
330	2010/07/10 19:50:00	0.875	75.8	8.5
331	2010/07/10 19:50:01	0.625	77.2	8.5
332	2010/07/10 19:50:07	0.875	74.4	8.0
333	2010/07/10 19:52:27	0.750	70.0	8.0
334	2010/07/10 19:54:41	1.000	74.9	8.5
335	2010/07/10 19:54:45	0.750	73.7	8.8
336	2010/07/10 20:02:10	0.625	73.0	8.7
337	2010/07/10 20:02:38	1.000	64.3	7.2
338	2010/07/10 20:04:25	0.625	77.8	10.8
339	2010/07/10 20:12:11	0.750	77.6	9.4
340	2010/07/10 20:17:19	0.625	79.1	8.3
341	2010/07/10 20:25:26	0.875	80.9	11.1
342	2010/07/10 20:25:38	0.625	64.6	8.6
343	2010/07/10 20:26:16	1.000	67.8	10.3
344	2010/07/10 20:36:04	0.875	67.7	10.7
345	2010/07/10 20:51:38	1.000	66.6	8.8
346	2010/07/10 20:57:38	0.625	66.8	11.2

347	2010/07/10 20:57:42	0.500	69.1	11.5
348	2010/07/10 20:57:43	0.500	80.1	12.8
349	2010/07/10 20:58:01	0.625	73.8	11.5
350	2010/07/10 21:00:15	0.875	62.4	8.4
351	2010/07/10 21:10:14	0.625	76.9	10.9
352	2010/07/10 21:11:35	0.750	76.4	9.8
353	2010/07/10 21:11:56	0.750	69.2	8.8
354	2010/07/10 21:12:42	0.625	75.4	10.0
355	2010/07/10 21:12:59	1.000	72.4	9.5
356	2010/07/10 21:14:44	0.875	70.7	7.3
357	2010/07/10 21:14:48	0.750	72.0	9.8
358	2010/07/10 21:35:37	0.875	71.3	8.2
359	2010/07/10 21:35:54	1.000	66.1	9.4
360	2010/07/10 21:40:13	0.750	70.6	9.5
361	2010/07/10 21:40:20	0.750	79.0	9.4
362	2010/07/10 21:42:21	0.750	68.0	7.0
363	2010/07/10 21:42:31	1.000	65.2	6.4
364	2010/07/10 21:49:54	0.750	74.2	10.7
365	2010/07/10 21:58:16	0.875	63.7	7.6
366	2010/07/10 22:02:21	0.625	65.0	10.1
367	2010/07/10 22:03:00	1.000	73.2	9.2
368	2010/07/10 22:12:31	0.875	67.9	10.7
369	2010/07/10 22:12:33	0.875	69.8	7.7
370	2010/07/10 22:15:38	0.875	74.7	7.9
371	2010/07/10 22:15:40	0.750	76.3	9.5
372	2010/07/10 22:15:44	0.750	76.2	8.6
373	2010/07/10 22:15:45	1.000	76.2	8.5
374	2010/07/10 22:15:47	0.625	79.6	9.2
375	2010/07/10 22:15:48	0.625	78.0	8.2
376	2010/07/10 22:15:49	0.625	78.7	8.4
377	2010/07/10 22:15:52	0.750	76.5	8.5
378	2010/07/10 22:15:54	0.875	74.4	8.0
379	2010/07/10 22:15:56	0.875	70.5	6.6
380	2010/07/10 22:15:57	0.750	71.0	6.7

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

381	2010/07/10 22:15:58	0.750	74.7	9.4
382	2010/07/10 22:15:59	0.625	72.2	7.7
383	2010/07/10 22:16:01	0.750	77.2	9.9
384	2010/07/10 22:16:02	0.625	76.6	9.4
385	2010/07/10 22:16:03	0.625	75.9	8.5
386	2010/07/10 22:16:07	0.750	76.7	10.6
387	2010/07/10 22:16:09	0.625	74.5	8.8
388	2010/07/10 22:16:11	0.750	75.8	9.2
389	2010/07/10 22:16:12	0.750	73.9	7.4
390	2010/07/10 22:16:14	1.000	85.8	8.4
391	2010/07/10 22:32:20	0.875	68.6	9.8
392	2010/07/10 22:32:21	1.000	71.1	6.9
393	2010/07/10 22:41:36	0.750	66.7	10.2
394	2010/07/10 23:01:59	0.875	69.8	8.7
395	2010/07/10 23:04:08	0.750	87.0	8.9
396	2010/07/10 23:17:35	0.875	72.1	6.6
397	2010/07/10 23:21:26	0.875	66.0	9.0
398	2010/07/10 23:22:23	1.000	69.4	6.5
399	2010/07/10 23:22:41	0.750	68.5	8.9
400	2010/07/10 23:26:11	0.750	65.6	7.5
401	2010/07/10 23:26:53	0.875	70.5	7.4
402	2010/07/10 23:37:05	0.875	71.4	10.7
403	2010/07/10 23:46:35	0.750	67.3	10.3
404	2010/07/10 23:48:11	0.750	77.1	6.2
405	2010/07/10 23:51:46	0.875	69.5	8.8
406	2010/07/11 00:04:00	0.500	74.9	11.1
407	2010/07/11 00:05:52	0.875	74.1	6.5

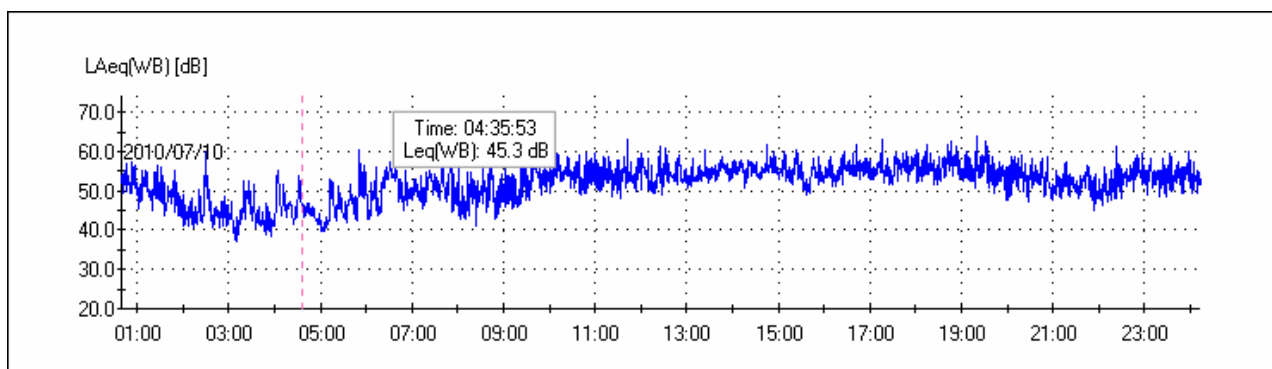
RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi

spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.0
Freq: 100	0.3
Freq: 125	0.5
Freq: 160	0.1
Freq: 200	0.3
Freq: 250	0.4
Freq: 315	0.2
Freq: 400	0.1
Freq: 500	0.3
Freq: 630	0.2
Freq: 800	0.1
Freq: 1 k	0.4
Freq: 1.25 k	0.1
Freq: 2 k	0.1
Freq: 3.15 k	0.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Freq: 4 k	0.1
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

TIME ISTORY COMPONENTI TONALI

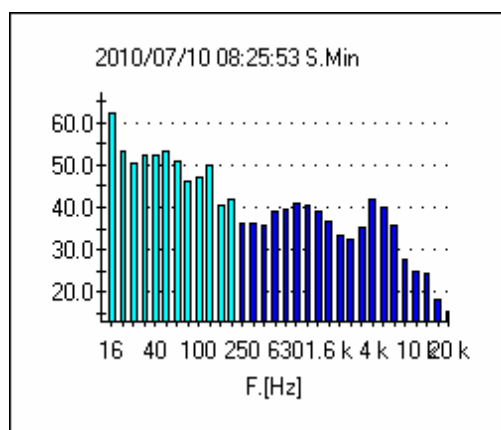
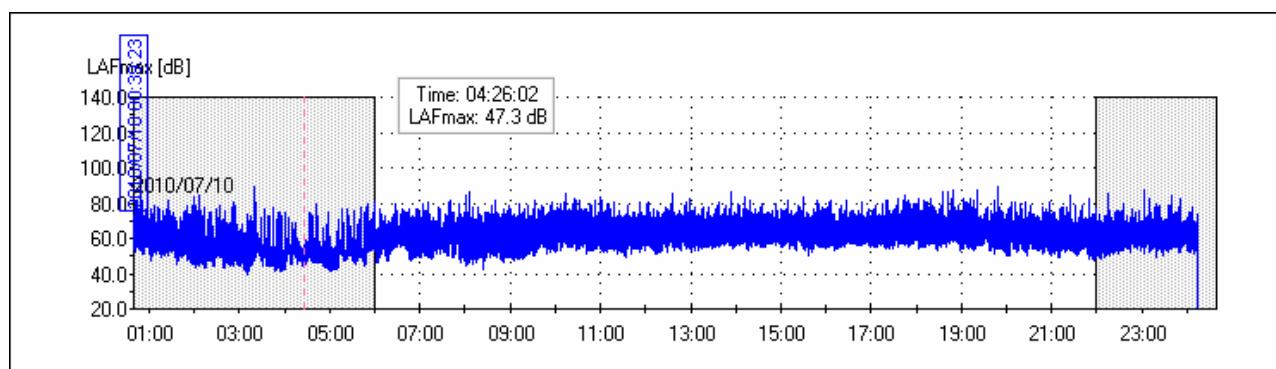
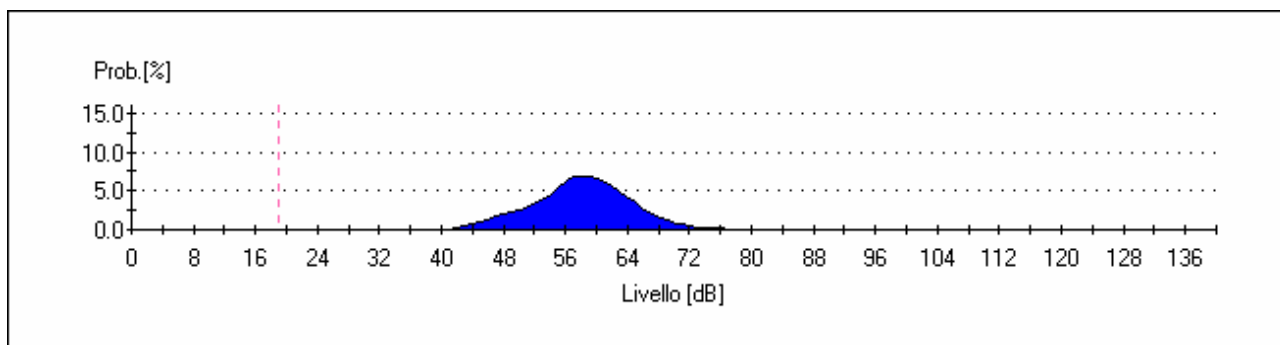


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

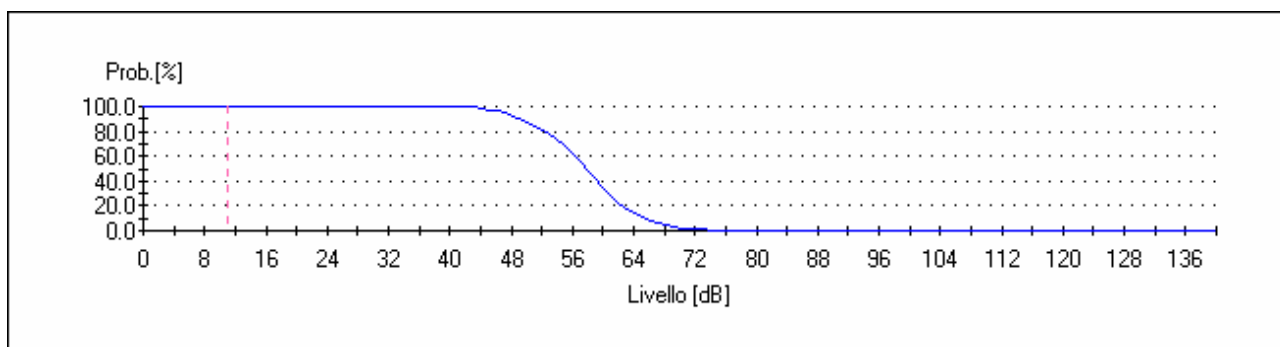
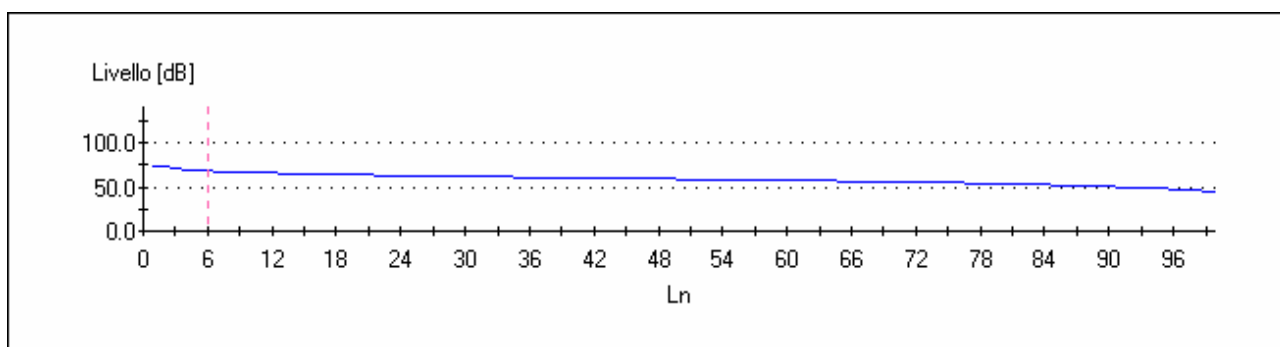


GRAFICO PERCENTILI



Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile

Leq.[dB]

0	73.0
1	73.0
2	71.0
3	70.0
4	69.0
5	68.0
6	67.5
7	67.0
8	66.7
9	66.3
10	66.0
11	65.8
12	65.5
13	65.3
14	65.0
15	64.8
16	64.5
17	64.3
18	64.0
19	63.8
20	63.5
21	63.3
22	63.0
23	62.8
24	62.7
25	62.5
26	62.3
27	62.2
28	62.0
29	61.8
30	61.7
31	61.5
32	61.3
33	61.2

34	61.0
35	60.9
36	60.7
37	60.6
38	60.4
39	60.3
40	60.1
41	60.0
42	59.9
43	59.7
44	59.6
45	59.4
46	59.3
47	59.1
48	59.0
49	58.9
50	58.7
51	58.6
52	58.4
53	58.3
54	58.1
55	58.0
56	57.8
57	57.7
58	57.5
59	57.3
60	57.2
61	57.0
62	56.8
63	56.7
64	56.5
65	56.3
66	56.2
67	56.0

68	55.8
69	55.7
70	55.5
71	55.3
72	55.2
73	55.0
74	54.8
75	54.5
76	54.3
77	54.0
78	53.8
79	53.5
80	53.3
81	53.0
82	52.7
83	52.3
84	52.0
85	51.7
86	51.3
87	51.0
88	50.7
89	50.3
90	50.0
91	49.5
92	49.0
93	48.5
94	48.0
95	47.5
96	47.0
97	46.0
98	45.0
99	44.0

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	74.0
1	74.0
2	72.0
3	70.0
4	69.5
5	69.0
6	68.5
7	68.0
8	67.7
9	67.3
10	67.0
11	66.7
12	66.3
13	66.0
14	65.8
15	65.5
16	65.3
17	65.0
18	64.8
19	64.6
20	64.4
21	64.2
22	64.0
23	63.8
24	63.7
25	63.5
26	63.3
27	63.2
28	63.0
29	62.9
30	62.7
31	62.6

32	62.4
33	62.3
34	62.1
35	62.0
36	61.9
37	61.7
38	61.6
39	61.4
40	61.3
41	61.1
42	61.0
43	60.9
44	60.8
45	60.6
46	60.5
47	60.4
48	60.3
49	60.1
50	60.0
51	59.9
52	59.8
53	59.6
54	59.5
55	59.4
56	59.3
57	59.1
58	59.0
59	58.9
60	58.8
61	58.6
62	58.5
63	58.4
64	58.3
65	58.1

66	58.0
67	57.9
68	57.7
69	57.6
70	57.4
71	57.3
72	57.1
73	57.0
74	56.9
75	56.7
76	56.6
77	56.4
78	56.3
79	56.1
80	56.0
81	55.8
82	55.6
83	55.4
84	55.2
85	55.0
86	54.8
87	54.5
88	54.3
89	54.0
90	53.7
91	53.3
92	53.0
93	52.7
94	52.3
95	52.0
96	51.0
97	50.0
98	49.0
99	48.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	71.0
1	71.0
2	68.0
3	67.0
4	66.0
5	65.5
6	65.0
7	64.5
8	64.0
9	63.5
10	63.0
11	62.8
12	62.5
13	62.3
14	62.0
15	61.8
16	61.5
17	61.3
18	61.0
19	60.8
20	60.5
21	60.3
22	60.0
23	59.8
24	59.5
25	59.3
26	59.0
27	58.8
28	58.6
29	58.4

30	58.2
31	58.0
32	57.8
33	57.6
34	57.4
35	57.2
36	57.0
37	56.8
38	56.6
39	56.4
40	56.2
41	56.0
42	55.8
43	55.6
44	55.4
45	55.2
46	55.0
47	54.8
48	54.6
49	54.4
50	54.2
51	54.0
52	53.8
53	53.7
54	53.5
55	53.3
56	53.2
57	53.0
58	52.8
59	52.6
60	52.4
61	52.2
62	52.0
63	51.8

64	51.7
65	51.5
66	51.3
67	51.2
68	51.0
69	50.8
70	50.7
71	50.5
72	50.3
73	50.2
74	50.0
75	49.8
76	49.6
77	49.4
78	49.2
79	49.0
80	48.8
81	48.6
82	48.4
83	48.2
84	48.0
85	47.8
86	47.6
87	47.4
88	47.2
89	47.0
90	46.7
91	46.3
92	46.0
93	45.7
94	45.3
95	45.0
96	44.5
97	44.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

98	43.0
99	42.0

LIVELLI DI IMPULS- FAST E SLOW MAX NELLE 24 ORE		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
98.8	88	95.7
88.7	81.9	86.8
87.3	82.3	85.8
90.4	80	86.4
92.1	83.3	89.2
88.9	82.2	87
98.8	88	95.7

LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

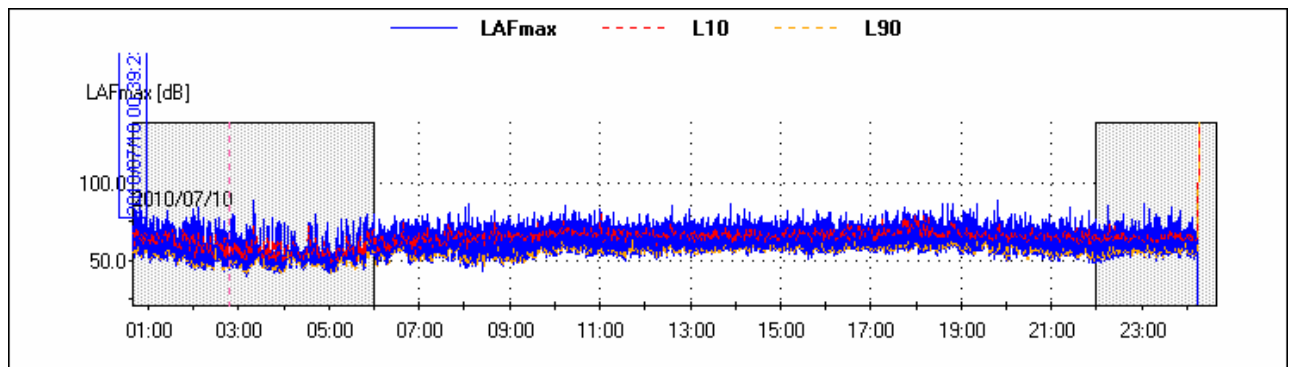
LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
88.7	81.9	86.8
87.3	82.3	85.8
90.4	80	86.4
92.1	83.3	89.2
83.3	78.8	82.1
92.1	83.3	89.2

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

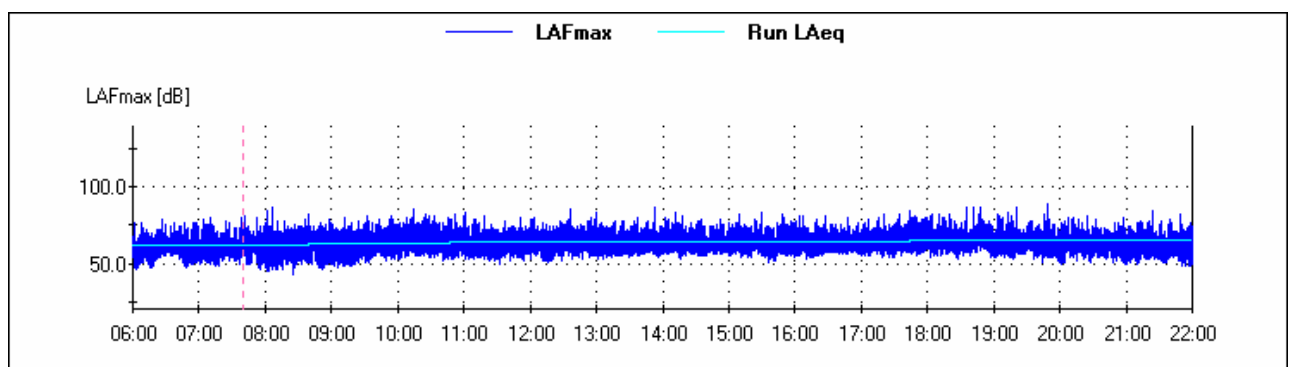
LIVELLI DI IMPULS- FAST E SLOW

MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
98.8	88	95.7
80.9	78.2	80.4
88.9	82.2	87
98.8	88	95.7

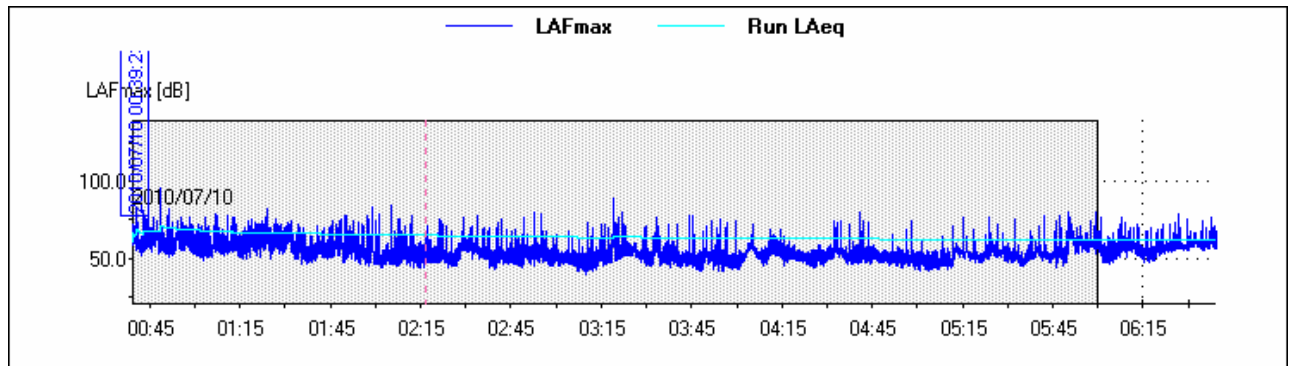
TIME HISTORY L10 – L90



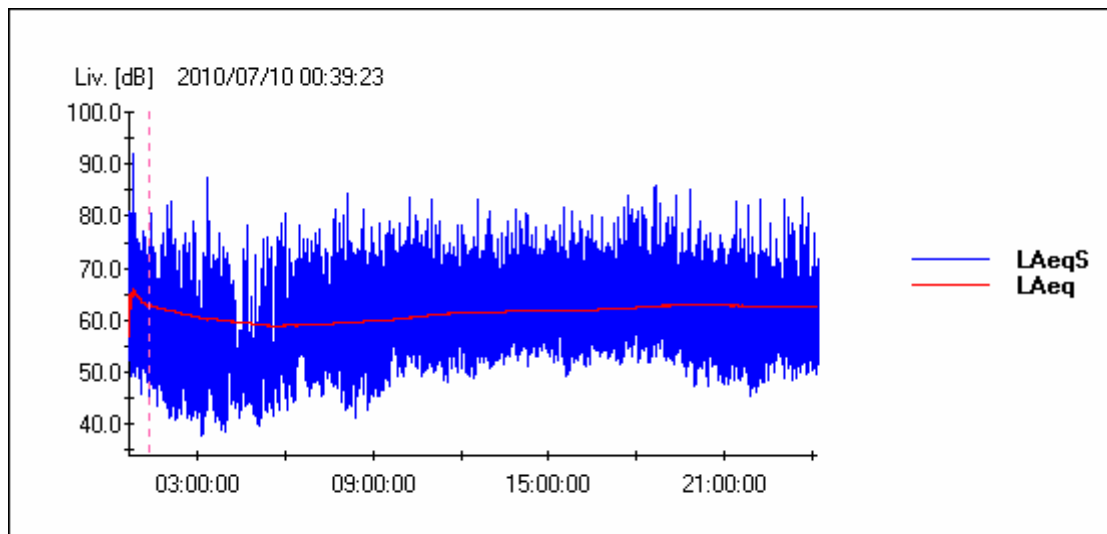
RUNNING Leq DIURNO



RUNNING Leq NOTTURNO



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"

MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO*Codice documento*

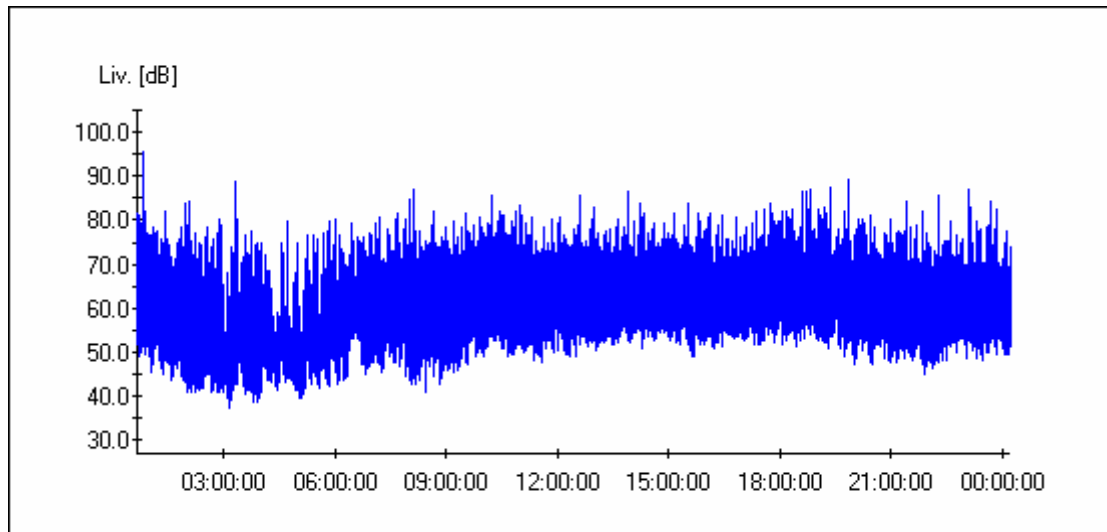
AC0053_F0.docx_F0

Rev

F0

Data

20/06/2011



DATA

Tecnico competente: Studio tecnico ing. Giovanni Chiovetta

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

	geom. Antonino Campione	Ing. Giovanni Chiovetta
R2 - MISURE DI 24 ORE CON POSTAZIONE SEMI-FISSE		
Punto	Ricettore R_4_C	Indirizzo SS 118
Descrizione del punto di misura/ricettore		
<i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sul fronte opposto del fabbricato esistente adiacente la carreggiata stradale ad una distanza di mt 7 dal prospetto del fabbricato stesso</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 / 40 dB(a)
☐	Classe II	55 / 45 dB(a)
☒	Classe III	60 / 50 dB(a)
☐	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P,		

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

- microfono MK 221, numero di serie 34111
 - Calibratore HD 2020 Classe 1 090 29826

Punto	Ricettore R_4_C	Indirizzo SS 118

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)								
Periodo	TR	Data	L_{AeqTR} [dBA]	K_I [dBA]	K_T [dBA]	K_B [dBA]	L_{AeqTRC} [dBA]	L_{lim} [dBA]
Giorno	6-22h	12/07/10	65.1	0	0		65.1	60
Notte	22-6h	12/07/10	59.9	0	0	0	59.9	50

RISULTATI MISURE	
Codice misura	R_3_C
Data inizio	12/07/2010
Ora inizio	1.03.24
Note	

Parametri		24 ore	Giorno (T_R = 6/22)	Notte (T_R = 22/6)
LAeqTR	[dBA]	64.1	65.1	59.9
L1	[dBA]	73.0	73.0	70.0
L5	[dBA]	68.0	68.5	64.5
L10	[dBA]	65.7	66.7	62.3
L50	[dBA]	57.8	59.2	52.3
L90	[dBA]	48.0	53.3	43.3
L95	[dBA]	45.0	51.5	41.5
L99	[dBA]	40.0	47.0	39.0
Llmax	[dBA]	107.3	107.3	95.7
LFmax	[dBA]	106.5	106.5	94.5
LSmax	[dBA]	102.7	102.7	89.0
KI	[dBA]	0	0	0
KT	[dBA]	0	0	0
KB	[dBA]	0	0	0
L _{AeqTRC}		64.1	65.1	59.9

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Note:

Punto

Ricettore

R_4_C

Indirizzo

SS 118

Sorgente stradale:

	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	52	36	51	76	53.75	65	35	50
Veic. Pesanti / 10'	0	0	0	0	0	0	0	0
Motocicli / 10'	3	8	15	7	8.25	6	2	4
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	28	27.5	25	23	25.88	23	22	22.5
Umidità relativa	79	68	71	72	72.5	73	65	69
Velocità vento	4.5	4.8	3.2	0.3	3.2	0.7	1.2	0.95
Direzione vento	N N E	N	N N E	N E		S E	S E	

Fotografia del punto di misura



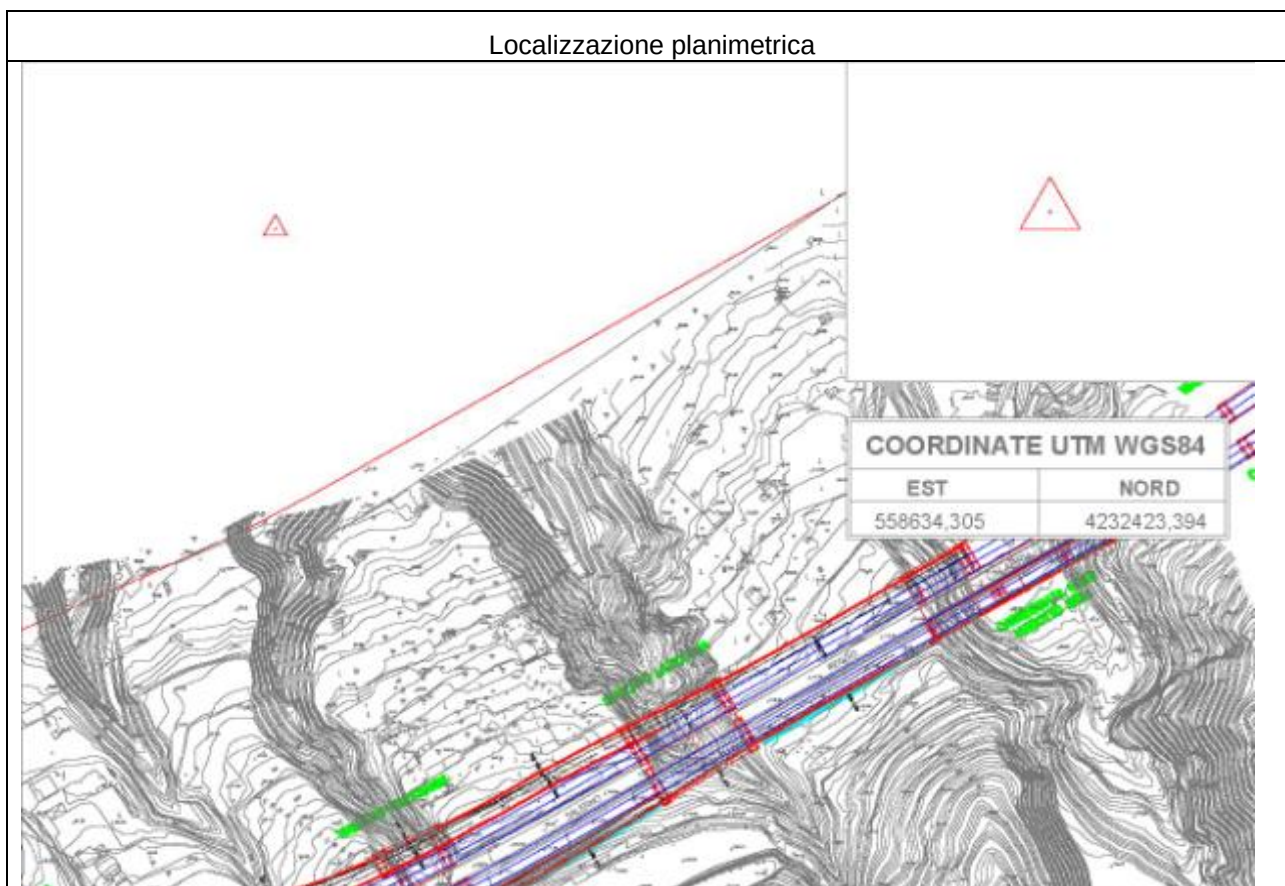
MONITORAGGIO EMISSIONI DI RUMORE PER LA
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Punto	Ricettore	Indirizzo
	R_4_C	SS 118



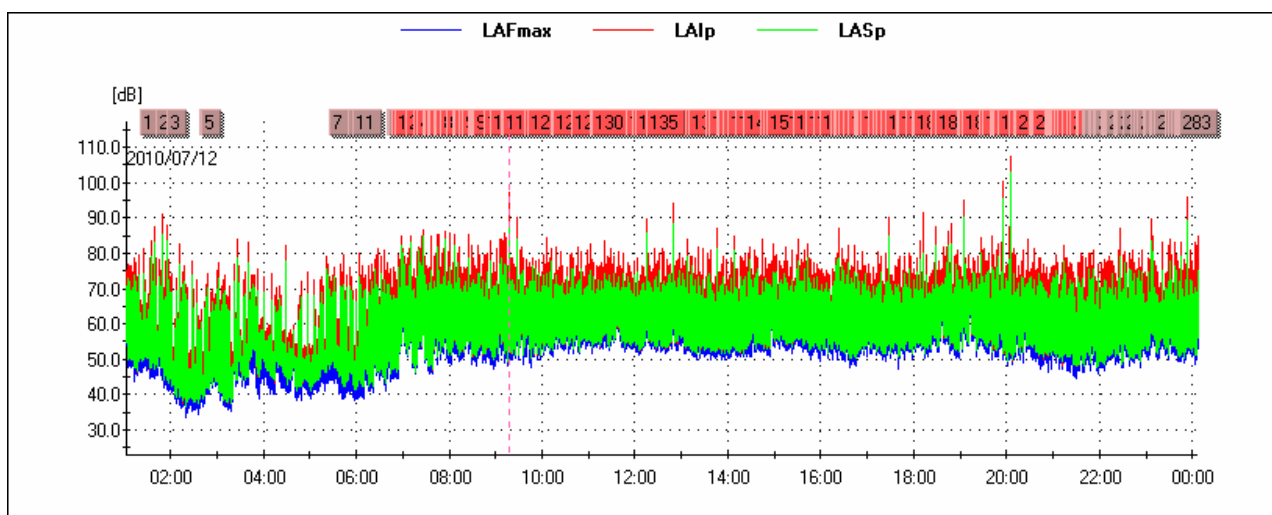
DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/12 01:34:22	0.625	75.8	10.4
2	2010/07/12 01:52:54	0.625	74.4	10.4
3	2010/07/12 02:07:41	0.750	58.6	9.1
4	2010/07/12 02:51:09	0.625	56.4	9.9
5	2010/07/12 02:51:53	0.750	63.4	9.2
6	2010/07/12 05:36:54	0.750	56.1	7.7
7	2010/07/12 05:37:50	0.750	54.7	6.3
8	2010/07/12 06:06:04	0.875	57.2	8.8
9	2010/07/12 06:08:00	0.625	59.6	10.8

10	2010/07/12 06:08:04	0.750	59.5	11.1
11	2010/07/12 06:14:21	0.750	54.8	7.3
12	2010/07/12 06:58:53	0.875	74.0	9.3
13	2010/07/12 06:58:54	0.625	74.7	8.9
14	2010/07/12 06:58:55	0.750	73.8	7.8
15	2010/07/12 06:58:59	0.750	72.9	8.6
16	2010/07/12 06:59:09	0.750	78.0	8.0
17	2010/07/12 06:59:41	0.750	76.2	8.8
18	2010/07/12 07:03:55	0.625	67.4	9.7
19	2010/07/12 07:08:54	0.625	74.8	9.1
20	2010/07/12 07:21:53	0.750	76.0	8.9
21	2010/07/12 07:32:28	1.000	63.8	10.1
22	2010/07/12 07:35:52	0.625	75.7	10.4
23	2010/07/12 07:36:24	0.625	77.8	7.3
24	2010/07/12 07:36:25	0.625	76.7	6.2
25	2010/07/12 07:36:25	0.750	78.3	7.2
26	2010/07/12 07:36:26	0.625	81.0	9.8
27	2010/07/12 07:36:27	0.625	77.4	9.7
28	2010/07/12 07:36:28	0.625	78.7	9.0
29	2010/07/12 07:36:31	0.750	74.0	7.0
30	2010/07/12 07:36:32	0.750	72.3	6.7
31	2010/07/12 07:36:32	0.625	74.4	7.2
32	2010/07/12 07:36:33	0.750	75.2	7.3
33	2010/07/12 07:36:34	0.750	76.2	6.7
34	2010/07/12 07:36:35	0.750	76.3	7.6
35	2010/07/12 07:36:39	0.625	78.3	7.2
36	2010/07/12 07:36:39	0.750	75.3	6.1
37	2010/07/12 07:36:40	0.625	76.8	6.9
38	2010/07/12 07:36:45	0.625	76.2	7.9
39	2010/07/12 07:36:46	0.750	75.8	7.7
40	2010/07/12 07:36:47	0.750	77.1	8.2
41	2010/07/12 07:36:48	0.625	76.3	7.4
42	2010/07/12 07:36:51	0.750	77.5	8.6
43	2010/07/12 07:36:54	0.750	77.7	9.6

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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44	2010/07/12 07:36:54	0.750	75.2	7.3
45	2010/07/12 07:36:56	0.625	76.1	9.5
46	2010/07/12 07:37:03	0.625	68.8	10.5
47	2010/07/12 07:37:42	1.000	59.1	6.7
48	2010/07/12 07:44:46	0.625	82.3	10.3
49	2010/07/12 07:45:01	0.625	73.8	8.6
50	2010/07/12 07:45:03	0.625	76.1	10.6
51	2010/07/12 07:47:06	0.625	75.7	10.5
52	2010/07/12 07:47:09	0.625	76.7	7.7
53	2010/07/12 07:47:20	0.750	74.7	8.8
54	2010/07/12 07:50:59	0.875	70.7	9.2
55	2010/07/12 07:51:02	0.875	69.6	8.1
56	2010/07/12 07:51:03	1.000	70.5	7.0
57	2010/07/12 07:51:06	0.750	70.6	8.3
58	2010/07/12 07:51:07	0.750	75.4	9.6
59	2010/07/12 07:51:11	0.750	77.2	9.9
60	2010/07/12 07:51:12	0.750	72.3	8.6
61	2010/07/12 07:51:14	0.750	74.3	7.6
62	2010/07/12 07:51:20	1.000	76.6	10.1
63	2010/07/12 07:51:23	0.750	74.4	8.3
64	2010/07/12 07:51:38	0.875	73.2	7.8
65	2010/07/12 07:51:40	0.875	68.8	6.8
66	2010/07/12 07:51:46	0.625	75.3	10.4
67	2010/07/12 07:51:47	0.750	73.3	7.7
68	2010/07/12 07:51:50	0.750	74.9	9.4
69	2010/07/12 07:53:45	0.875	78.3	10.1
70	2010/07/12 07:53:48	1.000	78.1	8.9
71	2010/07/12 07:58:31	0.750	68.0	9.0
72	2010/07/12 07:58:32	0.625	76.9	9.7
73	2010/07/12 07:58:41	0.625	72.8	9.0
74	2010/07/12 07:58:42	0.625	75.4	9.0
75	2010/07/12 07:58:43	0.625	75.7	7.8
76	2010/07/12 07:58:45	1.000	69.2	6.3
77	2010/07/12 07:58:49	0.625	76.7	10.8

78	2010/07/12 07:58:57	0.625	69.3	9.6
79	2010/07/12 07:58:58	0.625	70.2	8.4
80	2010/07/12 08:00:47	0.625	83.1	9.9
81	2010/07/12 08:00:56	0.750	69.0	9.0
82	2010/07/12 08:01:27	1.000	77.1	9.8
83	2010/07/12 08:06:11	0.750	72.9	7.2
84	2010/07/12 08:06:18	0.875	77.0	8.7
85	2010/07/12 08:06:21	0.875	78.0	9.5
86	2010/07/12 08:14:23	0.750	68.4	9.3
87	2010/07/12 08:23:39	0.875	74.4	7.2
88	2010/07/12 08:25:20	0.875	84.1	6.8
89	2010/07/12 08:30:38	0.875	72.2	9.0
90	2010/07/12 08:35:26	0.750	70.7	9.6
91	2010/07/12 08:43:22	0.750	64.8	8.3
92	2010/07/12 08:46:00	0.625	73.1	12.3
93	2010/07/12 08:46:47	0.625	69.8	10.4
94	2010/07/12 08:47:04	0.625	76.2	11.5
95	2010/07/12 08:47:07	0.875	72.3	11.2
96	2010/07/12 08:48:35	0.625	74.8	11.3
97	2010/07/12 09:07:51	1.000	67.7	8.7
98	2010/07/12 09:09:00	0.750	78.1	8.4
99	2010/07/12 09:09:07	0.750	76.1	7.4
100	2010/07/12 09:09:08	0.625	79.4	8.5
101	2010/07/12 09:09:09	0.750	78.4	7.7
102	2010/07/12 09:09:13	0.625	75.3	10.4
103	2010/07/12 09:09:15	0.625	75.1	8.8
104	2010/07/12 09:09:16	0.750	80.4	9.6
105	2010/07/12 09:09:19	1.000	76.2	8.5
106	2010/07/12 09:09:20	1.000	77.1	9.2
107	2010/07/12 09:09:23	0.625	75.7	9.6
108	2010/07/12 09:09:25	0.750	72.8	8.4
109	2010/07/12 09:09:26	0.625	76.9	9.9
110	2010/07/12 09:09:27	0.750	78.8	8.6
111	2010/07/12 09:09:33	0.750	76.7	8.5

112	2010/07/12 09:09:35	0.750	73.2	7.2
113	2010/07/12 09:09:41	0.750	75.1	8.3
114	2010/07/12 09:09:42	1.000	74.7	7.3
115	2010/07/12 09:09:46	0.750	79.9	11.0
116	2010/07/12 09:09:48	0.750	75.1	8.5
117	2010/07/12 09:17:48	0.750	94.7	9.9
118	2010/07/12 09:31:19	0.875	78.7	7.2
119	2010/07/12 09:33:56	0.875	77.5	11.2
120	2010/07/12 10:02:13	0.625	76.9	9.3
121	2010/07/12 10:05:52	0.875	69.3	7.3
122	2010/07/12 10:06:55	0.750	72.9	9.2
123	2010/07/12 10:07:00	0.625	81.7	10.0
124	2010/07/12 10:36:35	0.625	75.8	11.0
125	2010/07/12 10:37:38	1.000	68.8	7.9
126	2010/07/12 11:01:54	0.750	74.2	6.6
127	2010/07/12 11:02:30	0.875	74.6	8.3
128	2010/07/12 11:03:06	0.750	81.3	7.6
129	2010/07/12 11:27:39	0.875	73.7	9.5
130	2010/07/12 11:27:45	0.750	78.8	9.4
131	2010/07/12 12:13:08	0.750	68.1	9.2
132	2010/07/12 12:21:52	1.000	66.8	9.6
133	2010/07/12 12:25:20	0.625	77.7	11.1
134	2010/07/12 12:25:24	0.625	75.6	11.3
135	2010/07/12 12:39:47	0.625	69.3	10.3
136	2010/07/12 13:30:35	0.625	65.9	11.1
137	2010/07/12 13:33:08	0.625	67.2	10.3
138	2010/07/12 13:33:11	0.750	72.9	12.4
139	2010/07/12 13:33:18	0.625	77.1	10.9
140	2010/07/12 13:56:38	1.000	67.5	8.3
141	2010/07/12 14:00:26	0.750	70.2	8.8
142	2010/07/12 14:09:49	0.875	70.9	10.7
143	2010/07/12 14:12:33	0.750	70.9	7.8
144	2010/07/12 14:17:48	1.000	75.9	8.8
145	2010/07/12 14:24:22	0.750	70.5	7.7

146	2010/07/12 14:35:14	0.625	78.7	9.4
147	2010/07/12 14:43:31	1.000	79.5	12.0
148	2010/07/12 15:05:42	1.000	72.1	7.7
149	2010/07/12 15:10:15	1.000	69.8	8.3
150	2010/07/12 15:15:08	1.000	74.0	10.1
151	2010/07/12 15:15:34	1.000	78.3	8.9
152	2010/07/12 15:48:28	1.000	65.9	8.3
153	2010/07/12 16:05:46	0.875	70.0	7.8
154	2010/07/12 16:15:23	1.000	67.1	7.2
155	2010/07/12 16:23:50	0.750	85.3	8.5
156	2010/07/12 16:36:35	1.000	67.0	9.2
157	2010/07/12 16:37:27	0.750	66.5	8.2
158	2010/07/12 16:37:55	0.750	65.0	9.8
159	2010/07/12 16:42:06	1.000	70.6	7.9
160	2010/07/12 16:42:08	1.000	67.7	6.2
161	2010/07/12 16:42:10	0.625	65.7	8.4
162	2010/07/12 16:43:43	0.875	66.1	7.9
163	2010/07/12 16:47:55	0.750	74.6	7.6
164	2010/07/12 16:54:27	0.750	78.6	8.4
165	2010/07/12 16:59:22	1.000	67.6	6.8
166	2010/07/12 17:06:39	0.750	73.9	8.5
167	2010/07/12 17:08:21	1.000	69.7	6.6
168	2010/07/12 17:09:31	1.000	68.0	6.5
169	2010/07/12 17:12:26	0.750	64.6	8.3
170	2010/07/12 17:16:00	1.000	70.9	7.0
171	2010/07/12 17:25:33	0.750	69.2	8.4
172	2010/07/12 17:31:00	1.000	70.1	10.6
173	2010/07/12 17:35:49	0.750	69.2	8.9
174	2010/07/12 17:41:28	0.625	74.7	11.6
175	2010/07/12 17:42:18	0.875	65.8	7.7
176	2010/07/12 17:47:52	0.875	68.5	8.4
177	2010/07/12 18:01:07	0.875	65.3	8.0
178	2010/07/12 18:04:18	1.000	76.6	9.1
179	2010/07/12 18:15:07	1.000	66.5	7.5

180	2010/07/12 18:21:27	0.750	72.6	7.9
181	2010/07/12 18:25:14	0.750	72.0	7.7
182	2010/07/12 18:46:10	0.750	68.6	7.6
183	2010/07/12 18:53:00	0.625	75.4	10.4
184	2010/07/12 19:20:36	0.875	67.4	10.9
185	2010/07/12 19:22:27	0.625	75.7	10.6
186	2010/07/12 19:26:43	1.000	76.5	8.8
187	2010/07/12 19:49:14	0.750	63.4	8.4
188	2010/07/12 19:52:14	0.625	76.7	11.1
189	2010/07/12 19:52:17	0.750	74.2	9.0
190	2010/07/12 19:52:18	0.875	75.4	8.4
191	2010/07/12 19:52:30	0.750	77.5	7.2
192	2010/07/12 19:52:47	0.875	70.4	7.4
193	2010/07/12 19:53:02	0.750	77.1	9.5
194	2010/07/12 19:53:11	0.875	75.2	7.5
195	2010/07/12 19:53:41	0.625	72.2	9.9
196	2010/07/12 20:02:13	1.000	85.2	9.5
197	2010/07/12 20:05:42	0.625	84.5	11.0
198	2010/07/12 20:07:23	0.750	75.9	12.1
199	2010/07/12 20:14:07	1.000	69.7	7.9
200	2010/07/12 20:28:05	0.625	79.7	12.5
201	2010/07/12 20:28:08	0.500	76.7	11.9
202	2010/07/12 20:33:27	0.875	74.3	7.9
203	2010/07/12 20:35:08	0.625	75.2	12.1
204	2010/07/12 20:35:12	0.500	77.4	12.2
205	2010/07/12 20:53:09	0.750	68.6	8.6
206	2010/07/12 20:55:09	0.750	69.6	9.1
207	2010/07/12 20:57:11	0.750	69.0	9.0
208	2010/07/12 20:57:14	0.750	72.0	10.6
209	2010/07/12 21:13:07	0.875	68.1	8.1
210	2010/07/12 21:14:10	0.875	66.8	8.5
211	2010/07/12 21:15:25	0.750	66.8	9.8
212	2010/07/12 21:15:32	0.750	69.3	10.2
213	2010/07/12 21:16:18	0.875	68.0	8.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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214	2010/07/12 21:17:37	1.000	73.9	10.7
215	2010/07/12 21:18:25	0.750	67.1	9.9
216	2010/07/12 21:18:29	0.625	69.7	10.4
217	2010/07/12 21:18:30	0.750	66.5	8.1
218	2010/07/12 21:20:42	0.750	65.4	9.3
219	2010/07/12 21:20:58	0.750	64.2	9.2
220	2010/07/12 21:24:58	0.750	63.1	8.3
221	2010/07/12 21:25:52	0.750	66.7	9.7
222	2010/07/12 21:25:55	0.625	66.5	9.3
223	2010/07/12 21:29:17	0.750	67.2	10.5
224	2010/07/12 21:35:56	0.625	75.0	10.7
225	2010/07/12 21:35:57	0.625	76.7	9.9
226	2010/07/12 21:41:35	0.625	74.4	12.0
227	2010/07/12 21:45:54	1.000	66.5	8.3
228	2010/07/12 21:54:16	0.875	68.1	11.0
229	2010/07/12 21:55:42	0.875	63.5	6.6
230	2010/07/12 22:02:04	1.000	68.5	10.1
231	2010/07/12 22:02:14	0.875	68.7	9.8
232	2010/07/12 22:02:29	0.625	74.5	10.3
233	2010/07/12 22:04:18	0.875	73.6	8.6
234	2010/07/12 22:10:27	0.625	74.5	9.0
235	2010/07/12 22:11:34	0.875	64.5	8.7
236	2010/07/12 22:16:14	0.750	70.7	9.5
237	2010/07/12 22:17:42	0.750	71.2	9.6
238	2010/07/12 22:18:25	0.750	74.0	8.7
239	2010/07/12 22:25:59	0.750	66.5	7.5
240	2010/07/12 22:26:34	0.875	85.2	7.7
241	2010/07/12 22:28:40	1.000	66.4	7.3
242	2010/07/12 22:30:02	0.750	71.9	8.8
243	2010/07/12 22:30:32	1.000	66.7	6.1
244	2010/07/12 22:30:34	0.750	76.7	10.1
245	2010/07/12 22:32:24	0.625	73.2	9.7
246	2010/07/12 22:43:06	0.625	77.9	10.1
247	2010/07/12 22:44:51	0.750	66.9	10.0

248	2010/07/12 22:47:30	1.000	72.1	9.8
249	2010/07/12 22:53:58	0.625	69.5	11.9
250	2010/07/12 23:05:06	0.625	75.1	9.7
251	2010/07/12 23:09:29	0.875	79.2	6.8
252	2010/07/12 23:12:22	0.750	74.2	8.4
253	2010/07/12 23:21:30	1.000	80.4	7.1
254	2010/07/12 23:23:43	0.750	67.0	8.0
255	2010/07/12 23:28:52	0.875	79.3	10.3
256	2010/07/12 23:28:54	0.625	66.9	11.5
257	2010/07/12 23:28:58	0.875	65.4	7.3
258	2010/07/12 23:31:45	0.750	74.2	6.3
259	2010/07/12 23:34:02	0.750	68.6	9.2
260	2010/07/12 23:48:42	0.625	75.0	10.6
261	2010/07/12 23:52:08	0.875	94.5	6.4
262	2010/07/12 23:56:26	0.625	69.1	9.8
263	2010/07/12 23:56:30	0.750	70.2	9.9
264	2010/07/13 00:00:29	0.625	70.6	12.3
265	2010/07/13 00:02:38	0.625	77.3	12.4
266	2010/07/13 00:02:49	0.500	67.6	13.0
267	2010/07/13 00:03:36	0.500	78.8	13.0
268	2010/07/13 00:04:03	1.000	67.7	6.5
269	2010/07/13 00:04:53	0.750	63.4	10.9
270	2010/07/13 00:05:27	0.625	75.0	11.7
271	2010/07/13 00:05:36	1.000	70.1	8.0
272	2010/07/13 00:05:37	1.000	71.1	8.4
273	2010/07/13 00:05:59	0.500	77.8	13.0
274	2010/07/13 00:06:05	0.750	70.2	9.9
275	2010/07/13 00:06:09	0.750	70.2	9.2
276	2010/07/13 00:06:22	0.750	71.0	8.0
277	2010/07/13 00:06:31	0.625	75.0	10.1
278	2010/07/13 00:06:33	0.625	73.7	10.8
279	2010/07/13 00:06:35	0.625	70.0	11.2
280	2010/07/13 00:06:39	0.500	76.1	13.5
281	2010/07/13 00:06:39	0.625	76.8	12.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

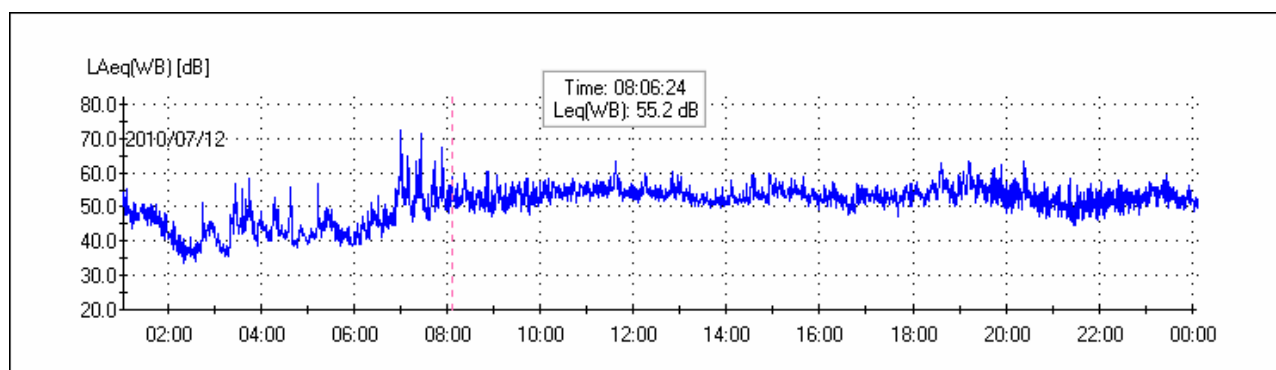
282	2010/07/13 00:06:42	0.625	72.7	9.3
283	2010/07/13 00:06:47	0.750	72.6	11.8
284	2010/07/13 00:07:13	0.375	81.6	11.6

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.1
Freq: 100	0.1
Freq: 125	0.6
Freq: 200	0.2
Freq: 250	0.2
Freq: 315	0.1
Freq: 400	0.3
Freq: 500	0.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Freq: 630	0.1
Freq: 800	0.0
Freq: 1 k	0.1
Freq: 1.25 k	0.1
Freq: 2 k	0.1
Freq: 2.5 k	0.0
Freq: 3.15 k	0.0
Freq: 4 k	0.1
Freq: 5 k	0.0
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

TIME ISTORY COMPONENTI TONALI

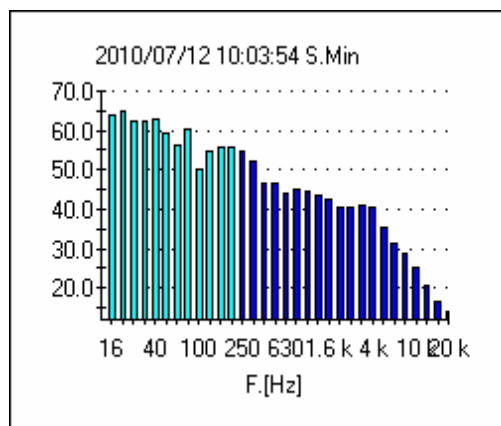
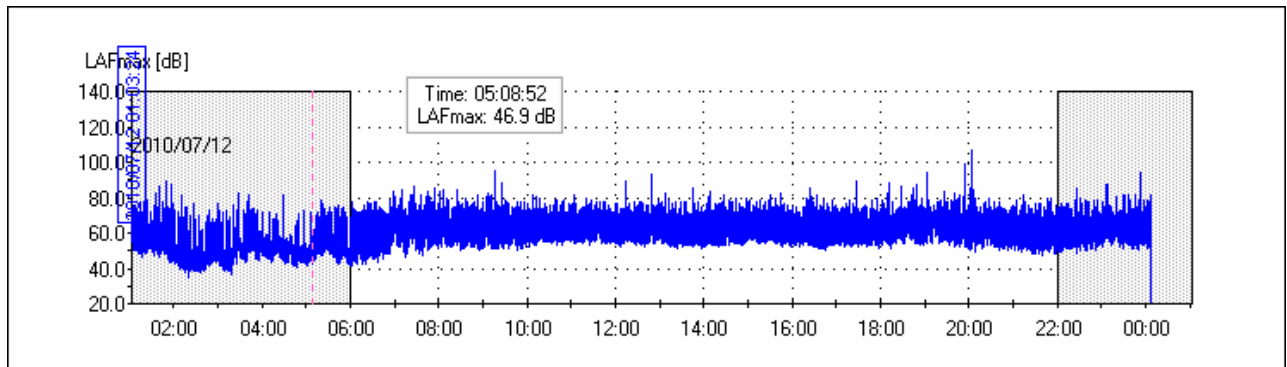
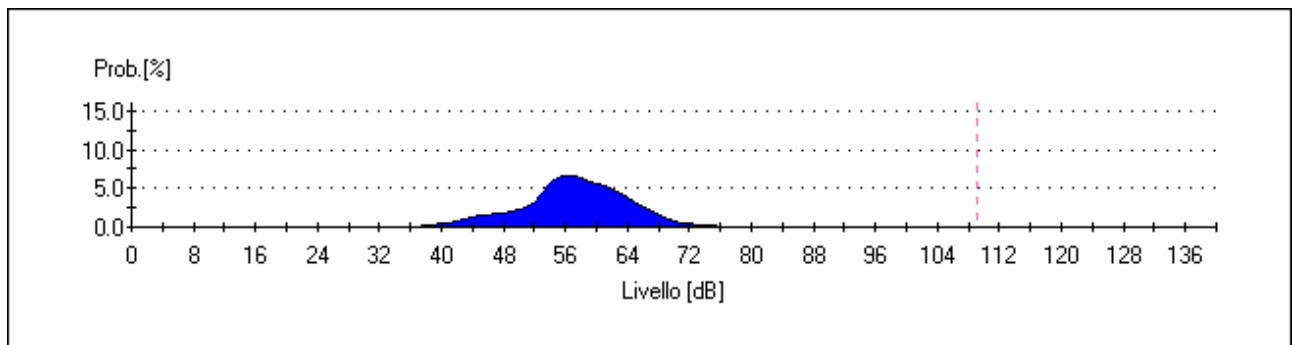


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

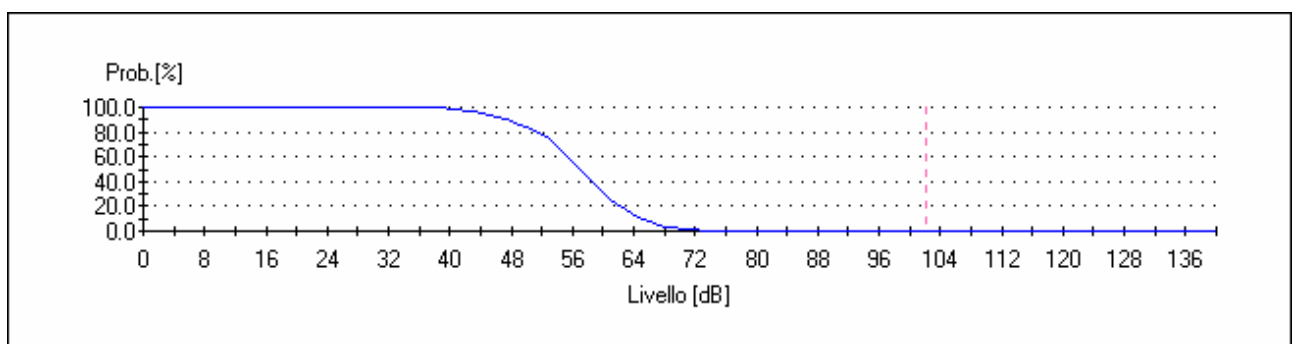
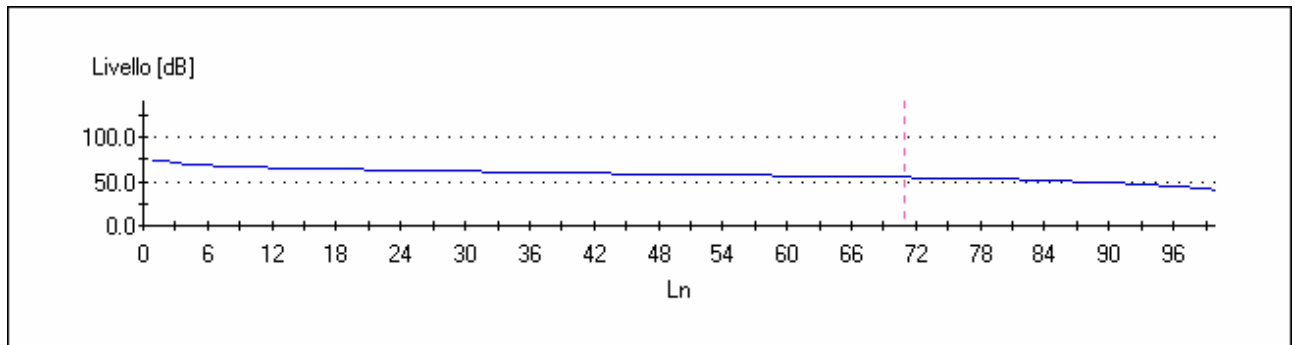


GRAFICO PERCENTILI


Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile	Leq.[dB]
0	73.0
1	73.0
2	71.0
3	69.0
4	68.5
5	68.0
6	67.5
7	67.0
8	66.5
9	66.0
10	65.7
11	65.3
12	65.0
13	64.8
14	64.5
15	64.3
16	64.0
17	63.8
18	63.6
19	63.4
20	63.2

21	63.0
22	62.8
23	62.5
24	62.3
25	62.0
26	61.8
27	61.7
28	61.5
29	61.3
30	61.2
31	61.0
32	60.8
33	60.6
34	60.4
35	60.2
36	60.0
37	59.8
38	59.7
39	59.5
40	59.3
41	59.2
42	59.0
43	58.9
44	58.7
45	58.6
46	58.4
47	58.3
48	58.1
49	58.0
50	57.8
51	57.7
52	57.5
53	57.3
54	57.2

55	57.0
56	56.9
57	56.7
58	56.6
59	56.4
60	56.3
61	56.1
62	56.0
63	55.8
64	55.7
65	55.5
66	55.3
67	55.2
68	55.0
69	54.8
70	54.6
71	54.4
72	54.2
73	54.0
74	53.8
75	53.6
76	53.4
77	53.2
78	53.0
79	52.7
80	52.3
81	52.0
82	51.5
83	51.0
84	50.7
85	50.3
86	50.0
87	49.5
88	49.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

89	48.5
90	48.0
91	47.5
92	47.0
93	46.0
94	45.5
95	45.0
96	44.0
97	43.0
98	42.0
99	40.0

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	73.0
1	73.0
2	71.0
3	70.0
4	69.0
5	68.5
6	68.0
7	67.7
8	67.3
9	67.0
10	66.7
11	66.3
12	66.0
13	65.8
14	65.5
15	65.3
16	65.0
17	64.8
18	64.6

19	64.4
20	64.2
21	64.0
22	63.8
23	63.6
24	63.4
25	63.2
26	63.0
27	62.8
28	62.7
29	62.5
30	62.3
31	62.2
32	62.0
33	61.8
34	61.7
35	61.5
36	61.3
37	61.2
38	61.0
39	60.9
40	60.7
41	60.6
42	60.4
43	60.3
44	60.1
45	60.0
46	59.8
47	59.7
48	59.5
49	59.3
50	59.2
51	59.0
52	58.9

53	58.8
54	58.6
55	58.5
56	58.4
57	58.3
58	58.1
59	58.0
60	57.9
61	57.7
62	57.6
63	57.4
64	57.3
65	57.1
66	57.0
67	56.9
68	56.8
69	56.6
70	56.5
71	56.4
72	56.3
73	56.1
74	56.0
75	55.9
76	55.7
77	55.6
78	55.4
79	55.3
80	55.1
81	55.0
82	54.8
83	54.7
84	54.5
85	54.3
86	54.2

87	54.0
88	53.8
89	53.5
90	53.3
91	53.0
92	52.7
93	52.3
94	52.0
95	51.5
96	51.0
97	50.0
98	48.0
99	47.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	70.0
1	70.0
2	67.0
3	66.0
4	65.0
5	64.5
6	64.0
7	63.5
8	63.0
9	62.7
10	62.3
11	62.0
12	61.7
13	61.3
14	61.0
15	60.8
16	60.5

17	60.3
18	60.0
19	59.7
20	59.3
21	59.0
22	58.8
23	58.5
24	58.3
25	58.0
26	57.8
27	57.6
28	57.4
29	57.2
30	57.0
31	56.8
32	56.5
33	56.3
34	56.0
35	55.8
36	55.5
37	55.3
38	55.0
39	54.8
40	54.5
41	54.3
42	54.0
43	53.8
44	53.6
45	53.4
46	53.2
47	53.0
48	52.8
49	52.5
50	52.3

51	52.0
52	51.8
53	51.6
54	51.4
55	51.2
56	51.0
57	50.8
58	50.6
59	50.4
60	50.2
61	50.0
62	49.8
63	49.6
64	49.4
65	49.2
66	49.0
67	48.8
68	48.6
69	48.4
70	48.2
71	48.0
72	47.8
73	47.6
74	47.4
75	47.2
76	47.0
77	46.8
78	46.5
79	46.3
80	46.0
81	45.8
82	45.5
83	45.3
84	45.0

85	44.8
86	44.5
87	44.3
88	44.0
89	43.7
90	43.3
91	43.0
92	42.7
93	42.3
94	42.0
95	41.5
96	41.0
97	40.0
98	39.5
99	39.0

LIVELLI DI IMPULS- FAST E SLOW MAX NELLE 24 ORE		
LAIp [dB]	LASp [dB]	LAFp [dB]
90.8	85.3	89.7
97.1	87.2	94.7
93.9	88.3	92.9
90.1	84.8	89.3
107.3	102.7	106.5
95.7	89	94.5
107.3	102.7	106.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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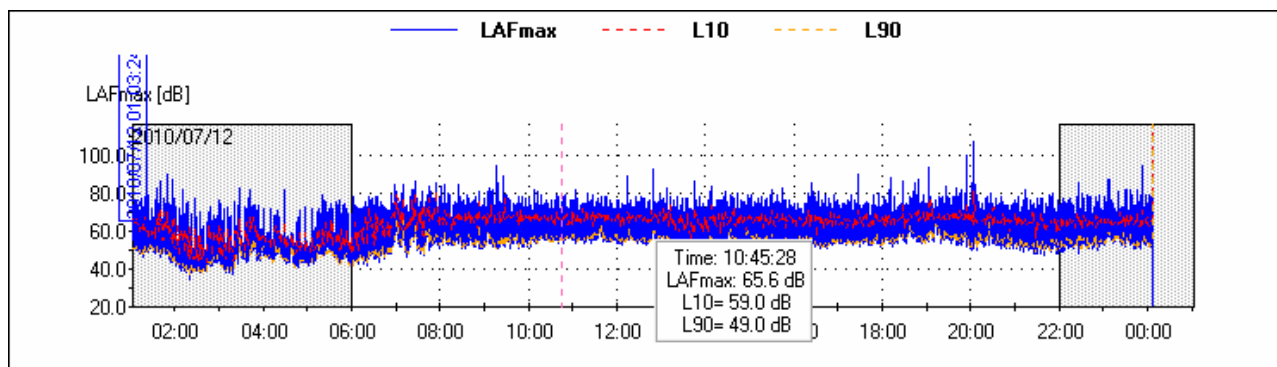
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
97.1	87.2	94.7
93.9	88.3	92.9
90.1	84.8	89.3
107.3	102.7	106.5
77	72.9	75.7
107.3	102.7	106.5

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

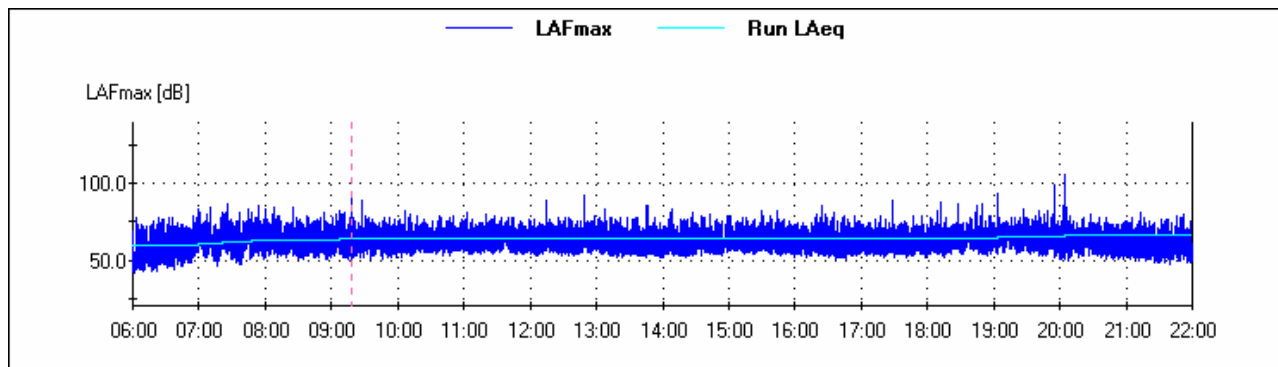
LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
90.8	85.3	89.7
79.3	75.7	78.5
95.7	89	94.5
95.7	89	94.5

TIME HISTORY L10 – L90

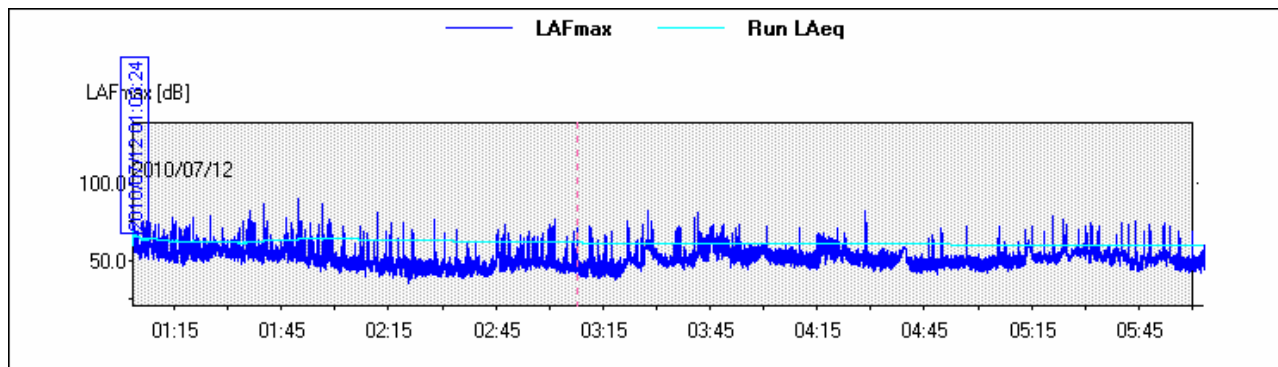


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

RUNNING Leq DIURNO

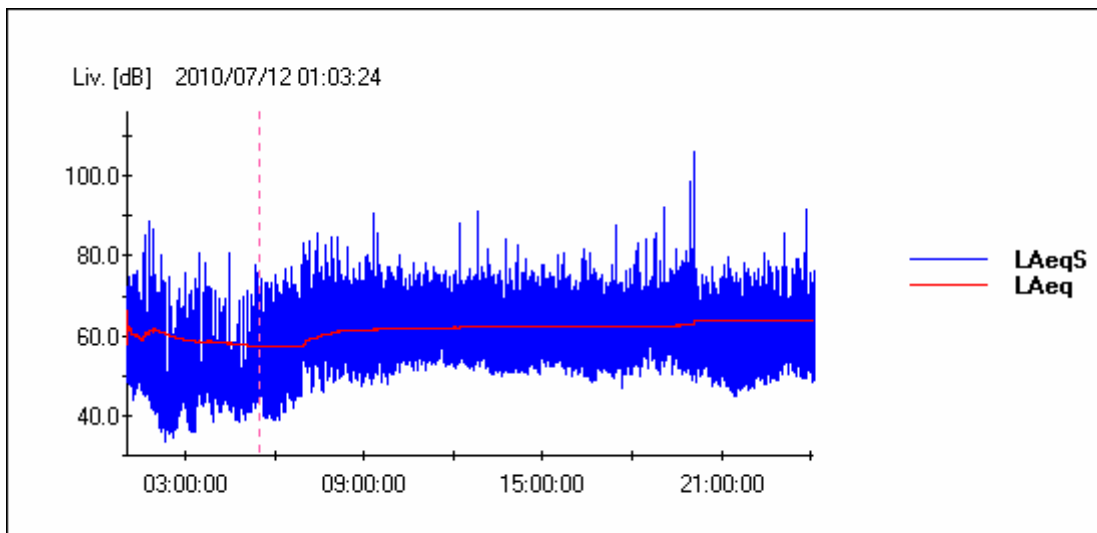


RUNNING Leq NOTTURNO

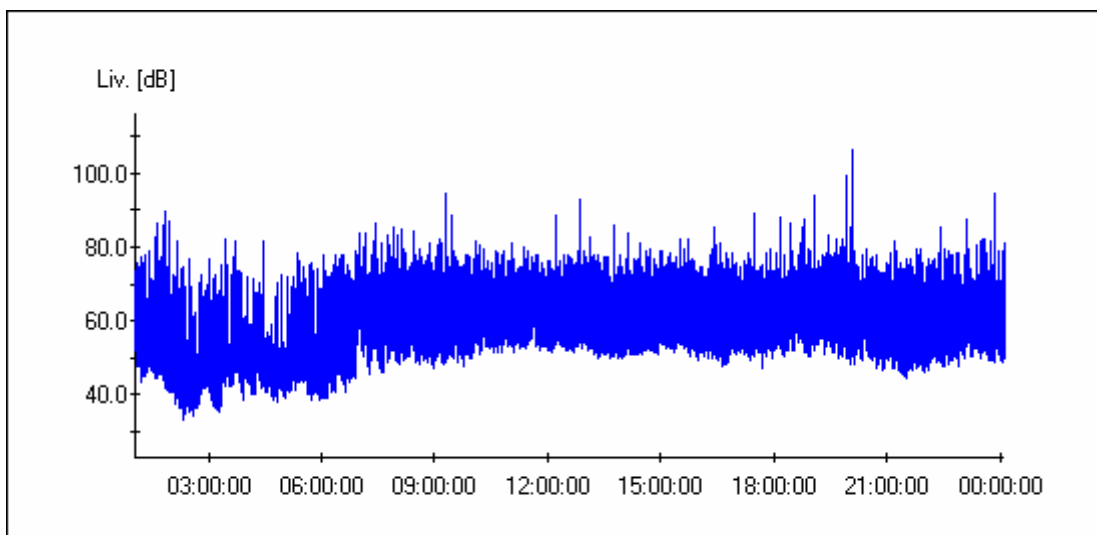


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

R2 - MISURE DI 24 ORE CON POSTAZIONE SEMI-FISSE		
Punto	Ricettore R_5_C	Indirizzo LUNGOMARE
Descrizione del punto di misura/ricettore		
<i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sul marciapiede adiacente la carreggiata stradale ad una distanza di mt 7 dalla recinzione del fabbricato adiacente</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 / 40 dB(a)
☐	Classe II	55 / 45 dB(a)
☐	Classe III	60 / 50 dB(a)
☒	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826		

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Punto	Ricettore R_5_C	Indirizzo LUNGOMARE

<i>Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)</i>								
Periodo	TR	Data	L_{AeqTR} [dBA]	K_I [dBA]	K_T [dBA]	K_B [dBA]	L_{AeqTRC} [dBA]	L_{lim} [dBA]
Giorno	6-22h	23/07/10	64.2	0	0		64.2	65
Notte	22-6h	23/07/10	59.4	0	0	0	59.4	55

RISULTATI MISURE	
Codice misura	R_5_C
Data inizio	23/07/2010
Ora inizio	0.32.13
Note	

Parametri		24 ore	Giorno (T_R = 6/22)	Notte (T_R = 22/6)
LAeqTR	[dBA]	63.2	64.2	59.4
L1	[dBA]	73.0	74.0	70.0
L5	[dBA]	68.0	69.5	65.0
L10	[dBA]	66.0	67.0	62.5
L50	[dBA]	58.4	59.8	54.2
L90	[dBA]	49.0	53.3	44.0
L95	[dBA]	45.0	51.0	41.5
L99	[dBA]	40.0	47.0	39.0
Llmax	[dBA]	95.2	95.2	85.7
LFmax	[dBA]	93.6	93.6	83.5
LSmax	[dBA]	89.9	89.9	79.5
KI	[dBA]	0	0	0
KT	[dBA]	0	0	0
KB	[dBA]	0	0	0
L _{AeqTRC}		63.2	64.2	59.4

**MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO**
Codice documento

AC0053_F0.docx_F0

Rev

F0

Data

20/06/2011

Note:

Punto	Ricettore	Indirizzo
	R_5_C	LUNGOMARE

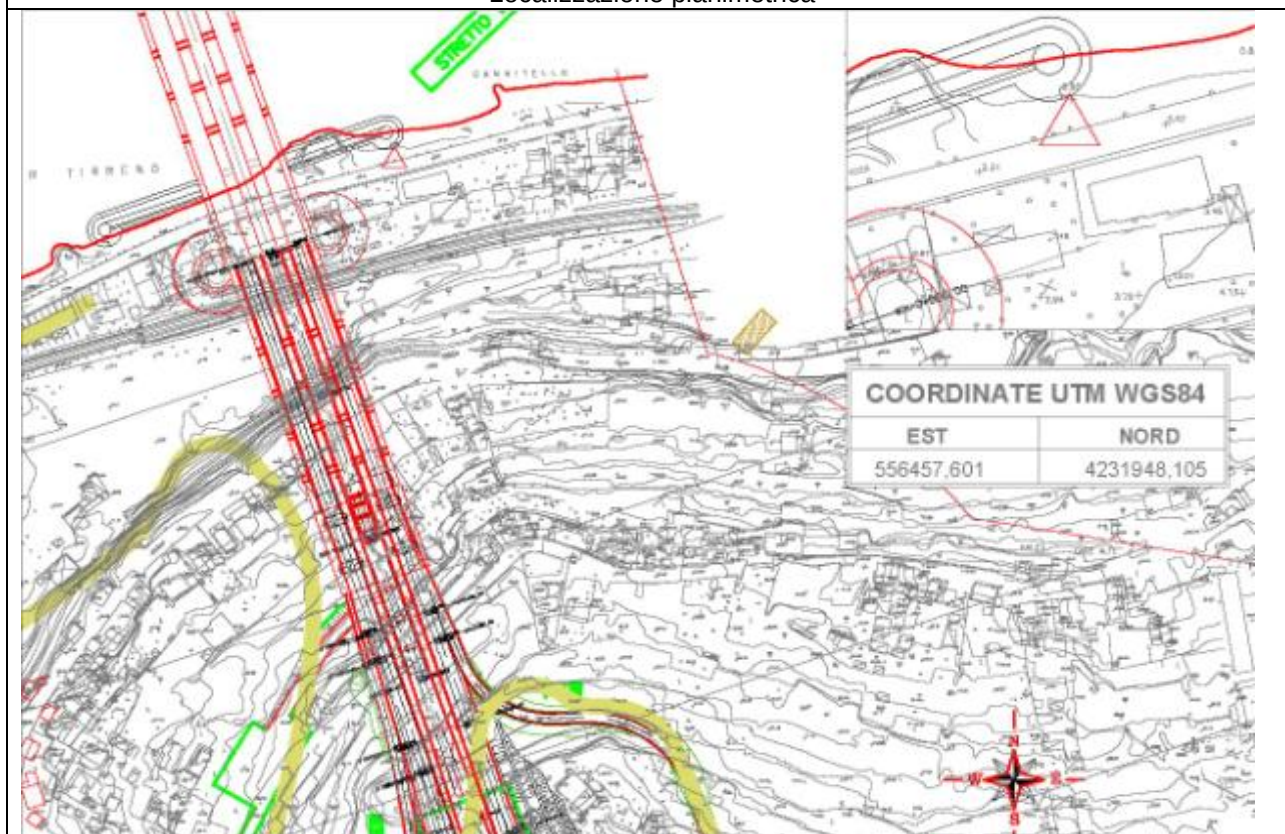
Sorgente stradale:

	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	49	31	35	32	36.75	20	6	13
Veic. Pesanti / 10'	0	4	6	0	2.5	0	0	0
Motocicli / 10'	8	3	8	1	5	3	1	2
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	25	30	31	25.5	27.88	27	23	25
Umidità relativa	85	69	68	70	73	61	65	63
Velocità vento	4.5	4.3	4.8	4.9	4.625	3.5	3.8	3.65
Direzione vento	E	N W	N N W	S		S	S	

Fotografia del punto di misura


Punto	Ricettore	Indirizzo
	R_5_C	LUNGOMARE

Localizzazione planimetrica



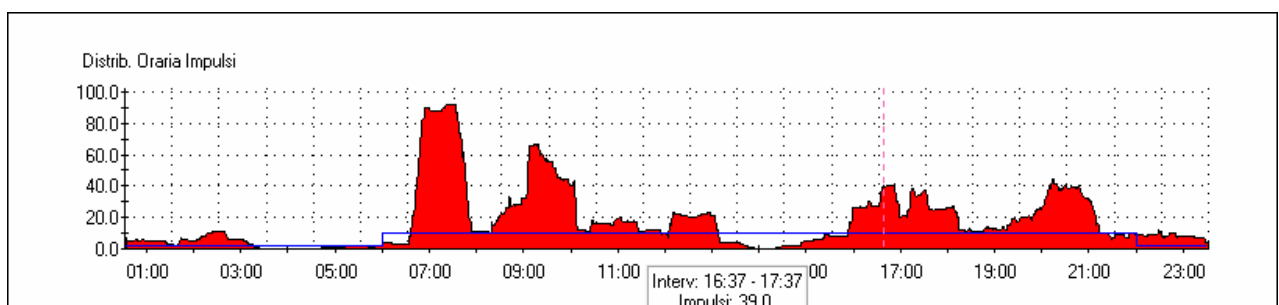
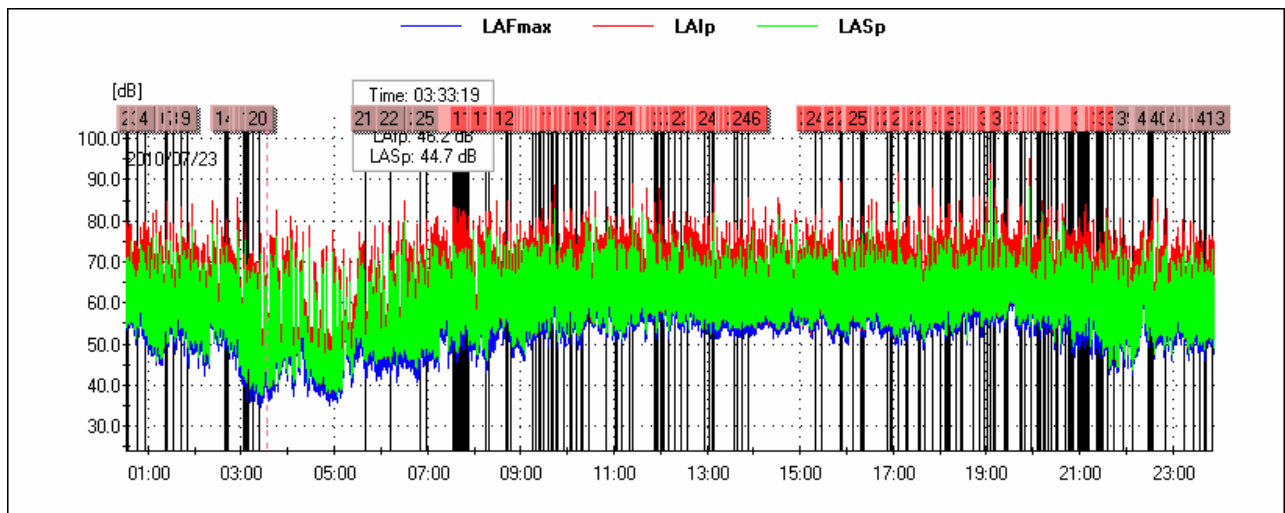
DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAI _{max} - LAS _{max} [dB]
1	2010/07/23 00:33:09	0.875	75.3	11.5
2	2010/07/23 00:33:18	0.625	74.6	9.5
3	2010/07/23 00:46:50	0.625	68.4	11.7
4	2010/07/23 00:55:53	1.000	75.6	9.9

5	2010/07/23 01:22:48	0.875	72.1	8.2
6	2010/07/23 01:24:17	0.875	64.2	7.9
7	2010/07/23 01:32:41	0.625	72.6	11.5
8	2010/07/23 01:43:37	0.625	74.3	9.4
9	2010/07/23 01:51:10	1.000	63.7	10.3
10	2010/07/23 02:39:55	0.750	64.3	6.2
11	2010/07/23 02:39:58	0.875	72.3	8.8
12	2010/07/23 02:39:59	0.750	70.5	7.3
13	2010/07/23 02:41:05	0.625	68.6	9.5
14	2010/07/23 02:42:00	0.750	67.5	8.1
15	2010/07/23 03:02:48	0.750	60.7	9.4
16	2010/07/23 03:06:09	0.750	62.3	10.0
17	2010/07/23 03:08:38	0.750	61.0	8.1
18	2010/07/23 03:15:24	0.625	55.8	10.0
19	2010/07/23 03:15:35	0.750	55.4	11.2
20	2010/07/23 03:22:38	0.625	55.3	10.1
21	2010/07/23 05:40:36	0.625	55.8	9.3
22	2010/07/23 06:11:47	1.000	60.5	10.7
23	2010/07/23 06:50:17	0.875	59.9	8.0
24	2010/07/23 06:58:57	0.750	77.0	10.6
25	2010/07/23 06:59:14	0.875	64.9	6.8
26	2010/07/23 07:32:13	0.625	78.5	7.0
27	2010/07/23 07:32:14	0.750	74.7	7.6
28	2010/07/23 07:32:15	0.750	77.2	7.3
29	2010/07/23 07:32:23	0.750	72.1	8.8
30	2010/07/23 07:32:26	0.750	73.6	9.7
31	2010/07/23 07:35:04	0.750	77.6	6.5
32	2010/07/23 07:35:09	0.625	75.9	6.4
33	2010/07/23 07:35:11	0.750	76.5	6.6
34	2010/07/23 07:35:12	0.750	75.2	7.1
35	2010/07/23 07:35:16	0.625	68.5	9.9
36	2010/07/23 07:35:18	0.625	78.5	9.6
37	2010/07/23 07:35:19	0.625	78.1	8.7
38	2010/07/23 07:35:27	0.750	77.7	7.4

39	2010/07/23 07:35:37	0.750	75.3	9.9
40	2010/07/23 07:35:43	0.625	78.0	10.3
41	2010/07/23 07:35:56	0.625	79.4	10.7
42	2010/07/23 07:36:15	0.625	76.0	10.3
43	2010/07/23 07:36:24	0.625	74.7	11.2
44	2010/07/23 07:39:00	0.750	76.2	9.6
45	2010/07/23 07:39:12	0.625	75.6	9.7
46	2010/07/23 07:39:14	0.625	76.8	8.8
47	2010/07/23 07:39:15	0.625	75.6	7.1
48	2010/07/23 07:39:18	0.750	71.2	8.5
49	2010/07/23 07:39:20	0.750	73.8	8.9
50	2010/07/23 07:40:03	0.750	75.9	9.5
51	2010/07/23 07:40:10	0.625	76.8	9.2
52	2010/07/23 07:40:11	0.750	78.1	9.3
53	2010/07/23 07:40:18	0.625	79.7	10.8
54	2010/07/23 07:40:19	0.625	75.0	10.2
55	2010/07/23 07:40:28	0.625	75.2	9.9
56	2010/07/23 07:40:45	0.625	77.2	9.9
57	2010/07/23 07:40:46	0.625	74.2	8.6
58	2010/07/23 07:40:55	0.625	78.7	8.5
59	2010/07/23 07:41:25	0.625	73.7	10.4
60	2010/07/23 07:41:26	0.625	76.8	10.4
61	2010/07/23 07:42:09	0.625	72.9	10.1
62	2010/07/23 07:43:02	0.625	76.1	9.9
63	2010/07/23 07:43:06	0.625	77.1	10.1
64	2010/07/23 07:43:13	0.750	77.9	10.0
65	2010/07/23 07:43:14	0.625	78.5	8.8
66	2010/07/23 07:43:17	0.625	78.3	9.4
67	2010/07/23 07:43:20	0.625	78.0	10.0
68	2010/07/23 07:43:24	0.625	75.8	10.1
69	2010/07/23 07:43:25	0.625	75.8	8.5
70	2010/07/23 07:43:33	0.750	73.7	9.3
71	2010/07/23 07:43:37	0.625	77.7	9.9
72	2010/07/23 07:43:38	0.750	77.1	8.0

73	2010/07/23 07:43:45	0.625	78.7	9.9
74	2010/07/23 07:43:46	0.625	75.7	8.5
75	2010/07/23 07:43:53	0.625	77.4	9.9
76	2010/07/23 07:44:51	0.750	77.3	9.7
77	2010/07/23 07:45:18	0.875	79.5	9.5
78	2010/07/23 07:45:21	0.625	76.8	8.5
79	2010/07/23 07:45:22	0.625	75.2	7.5
80	2010/07/23 07:45:24	0.750	77.0	8.4
81	2010/07/23 07:45:26	0.750	76.0	8.4
82	2010/07/23 07:45:34	0.625	78.0	9.7
83	2010/07/23 07:45:36	0.625	75.8	9.9
84	2010/07/23 07:45:48	0.625	73.9	9.2
85	2010/07/23 07:46:09	0.625	77.4	11.1
86	2010/07/23 07:46:10	0.625	75.6	8.9
87	2010/07/23 07:46:24	0.625	78.5	10.8
88	2010/07/23 07:46:34	0.875	76.8	9.8
89	2010/07/23 07:47:15	0.750	76.2	10.1
90	2010/07/23 07:47:16	0.625	75.9	8.8
91	2010/07/23 07:47:18	0.750	77.2	8.6
92	2010/07/23 07:47:20	0.625	75.4	8.2
93	2010/07/23 07:47:23	0.625	79.1	10.5
94	2010/07/23 07:47:26	0.625	77.6	10.4
95	2010/07/23 07:47:30	0.750	77.2	10.0
96	2010/07/23 07:47:34	0.750	76.8	9.0
97	2010/07/23 07:47:47	0.750	73.4	9.5
98	2010/07/23 07:47:53	0.625	75.2	9.7
99	2010/07/23 07:48:10	0.625	74.1	9.2
100	2010/07/23 07:48:49	1.000	77.8	9.1
101	2010/07/23 07:48:52	0.750	74.7	7.3
102	2010/07/23 07:48:53	0.750	75.4	8.3
103	2010/07/23 07:48:56	0.625	78.8	9.6
104	2010/07/23 07:48:59	0.625	75.9	10.0
105	2010/07/23 07:49:00	0.625	75.9	9.7
106	2010/07/23 07:50:26	0.625	74.8	9.5

107	2010/07/23 07:51:39	0.625	73.1	9.8
108	2010/07/23 07:52:10	0.625	78.8	9.6
109	2010/07/23 07:52:12	0.625	76.5	9.5
110	2010/07/23 07:52:18	0.625	76.8	6.5
111	2010/07/23 07:52:20	0.625	74.9	7.1
112	2010/07/23 07:52:21	0.750	76.6	8.4
113	2010/07/23 07:52:22	0.625	77.5	8.1
114	2010/07/23 08:14:37	1.000	55.2	6.7
115	2010/07/23 08:15:08	0.875	54.8	7.4
116	2010/07/23 08:19:30	0.625	76.5	13.0
117	2010/07/23 08:19:47	0.625	71.5	11.7
118	2010/07/23 08:41:18	0.750	70.6	10.4
119	2010/07/23 08:42:22	0.625	78.1	11.7
120	2010/07/23 08:42:23	0.625	82.1	10.0
121	2010/07/23 08:42:25	0.750	72.1	9.7
122	2010/07/23 08:42:53	0.750	78.8	9.5
123	2010/07/23 08:42:58	0.750	77.4	10.1
124	2010/07/23 08:47:39	0.750	71.3	10.4
125	2010/07/23 09:15:09	0.625	74.3	10.9
126	2010/07/23 09:18:31	1.000	76.8	7.4
127	2010/07/23 09:18:36	0.625	77.7	8.9
128	2010/07/23 09:18:37	0.625	77.5	8.5
129	2010/07/23 09:18:38	0.625	76.2	6.8
130	2010/07/23 09:18:45	0.750	76.7	8.8
131	2010/07/23 09:18:46	0.750	77.2	8.2
132	2010/07/23 09:18:54	1.000	75.4	7.8
133	2010/07/23 09:22:32	0.875	68.8	7.2
134	2010/07/23 09:23:13	0.750	67.4	7.3
135	2010/07/23 09:24:43	0.625	66.1	10.6
136	2010/07/23 09:26:15	0.875	72.7	7.8
137	2010/07/23 09:26:20	0.750	74.9	10.0
138	2010/07/23 09:28:34	1.000	72.1	10.5
139	2010/07/23 09:29:29	0.750	72.0	11.1
140	2010/07/23 09:35:20	0.625	76.0	10.8

141	2010/07/23 09:35:25	0.750	71.6	10.7
142	2010/07/23 09:36:06	0.750	74.1	8.7
143	2010/07/23 09:36:22	0.750	65.6	9.6
144	2010/07/23 09:40:13	0.625	76.8	8.9
145	2010/07/23 09:40:16	1.000	76.5	6.5
146	2010/07/23 09:40:19	0.750	77.0	7.9
147	2010/07/23 09:40:26	0.875	77.1	7.3
148	2010/07/23 09:40:30	0.625	76.1	9.5
149	2010/07/23 09:40:33	0.625	76.4	6.6
150	2010/07/23 09:40:37	1.000	76.8	8.4
151	2010/07/23 09:45:23	1.000	65.3	9.3
152	2010/07/23 09:48:02	0.625	64.1	10.1
153	2010/07/23 09:56:27	0.750	70.1	10.4
154	2010/07/23 09:56:29	0.625	76.9	9.6
155	2010/07/23 09:56:31	0.625	75.7	8.3
156	2010/07/23 09:56:38	0.625	78.8	10.4
157	2010/07/23 10:03:42	0.750	79.0	9.3
158	2010/07/23 10:03:48	0.875	76.0	9.0
159	2010/07/23 10:03:54	0.625	78.3	8.9
160	2010/07/23 10:03:58	0.625	77.3	10.4
161	2010/07/23 10:03:59	0.625	77.3	9.8
162	2010/07/23 10:04:00	0.625	78.0	9.2
163	2010/07/23 10:04:01	0.750	74.2	8.4
164	2010/07/23 10:04:03	0.750	75.3	8.5
165	2010/07/23 10:04:15	0.750	75.7	8.1
166	2010/07/23 10:04:18	0.625	76.2	9.1
167	2010/07/23 10:04:19	1.000	75.0	8.0
168	2010/07/23 10:04:28	0.625	78.5	10.6
169	2010/07/23 10:04:29	0.625	75.8	9.0
170	2010/07/23 10:04:39	0.750	76.1	9.0
171	2010/07/23 10:04:45	0.750	76.3	8.7
172	2010/07/23 10:04:46	0.750	75.8	8.2
173	2010/07/23 10:04:48	0.750	72.9	7.3
174	2010/07/23 10:04:49	0.625	77.2	9.3

175	2010/07/23 10:04:51	0.625	76.4	8.1
176	2010/07/23 10:05:27	0.875	77.0	8.0
177	2010/07/23 10:05:28	1.000	79.0	8.6
178	2010/07/23 10:05:31	0.750	76.1	8.5
179	2010/07/23 10:05:32	0.875	77.9	9.0
180	2010/07/23 10:05:37	0.750	72.5	10.0
181	2010/07/23 10:05:41	0.875	77.0	9.0
182	2010/07/23 10:05:43	0.625	76.4	8.9
183	2010/07/23 10:05:44	0.625	76.3	8.5
184	2010/07/23 10:05:57	0.875	78.9	10.5
185	2010/07/23 10:05:59	0.625	77.3	9.2
186	2010/07/23 10:06:00	0.625	76.8	7.7
187	2010/07/23 10:06:01	0.625	74.8	6.6
188	2010/07/23 10:06:02	0.750	74.2	7.0
189	2010/07/23 10:06:21	0.875	75.3	8.6
190	2010/07/23 10:06:24	0.750	74.2	8.5
191	2010/07/23 10:11:56	0.750	67.2	7.4
192	2010/07/23 10:17:59	0.875	64.2	7.1
193	2010/07/23 10:19:42	1.000	77.9	9.2
194	2010/07/23 10:27:12	0.625	80.9	9.0
195	2010/07/23 10:27:49	0.750	75.1	8.2
196	2010/07/23 10:49:28	1.000	75.9	6.2
197	2010/07/23 11:01:56	0.875	79.2	8.1
198	2010/07/23 11:02:37	0.625	73.6	11.5
199	2010/07/23 11:02:45	0.750	71.4	10.4
200	2010/07/23 11:03:31	0.875	70.6	7.5
201	2010/07/23 11:04:43	1.000	70.0	9.6
202	2010/07/23 11:04:53	0.625	73.8	11.5
203	2010/07/23 11:11:03	0.625	66.9	10.5
204	2010/07/23 11:19:54	0.750	74.8	9.5
205	2010/07/23 11:24:15	0.625	79.6	8.9
206	2010/07/23 11:24:16	0.875	76.5	8.0
207	2010/07/23 11:24:21	0.750	74.0	9.3
208	2010/07/23 11:24:22	0.750	76.7	9.2

209	2010/07/23 11:24:34	0.750	80.2	10.0
210	2010/07/23 11:24:48	0.750	81.5	10.3
211	2010/07/23 11:24:50	0.750	79.1	8.5
212	2010/07/23 11:53:12	0.625	80.2	12.7
213	2010/07/23 11:54:25	0.625	76.3	11.0
214	2010/07/23 11:54:52	0.750	73.3	8.2
215	2010/07/23 11:56:48	0.750	74.2	9.4
216	2010/07/23 12:00:43	0.875	74.2	7.4
217	2010/07/23 12:01:07	0.625	82.2	10.4
218	2010/07/23 12:02:07	0.875	76.0	9.2
219	2010/07/23 12:04:41	0.750	69.4	9.0
220	2010/07/23 12:10:59	0.750	78.1	9.1
221	2010/07/23 12:18:47	0.750	69.8	7.9
222	2010/07/23 12:27:13	0.750	68.6	9.3
223	2010/07/23 12:34:05	0.625	72.9	10.9
224	2010/07/23 12:56:44	0.750	74.9	9.8
225	2010/07/23 12:56:49	0.750	71.0	9.3
226	2010/07/23 13:03:04	0.750	68.5	9.2
227	2010/07/23 13:03:06	0.625	70.1	9.1
228	2010/07/23 13:03:20	0.625	68.1	9.8
229	2010/07/23 13:03:21	0.875	68.5	8.5
230	2010/07/23 13:03:22	0.625	67.9	7.9
231	2010/07/23 13:03:25	0.625	69.6	10.5
232	2010/07/23 13:03:33	0.625	70.4	10.9
233	2010/07/23 13:03:38	0.625	74.5	11.6
234	2010/07/23 13:03:39	0.500	73.8	11.1
235	2010/07/23 13:06:53	0.625	74.2	12.2
236	2010/07/23 13:07:34	1.000	78.7	10.1
237	2010/07/23 13:07:39	0.750	77.6	8.0
238	2010/07/23 13:07:41	0.625	78.6	8.3
239	2010/07/23 13:07:45	0.625	74.8	8.9
240	2010/07/23 13:07:46	0.750	77.7	9.3
241	2010/07/23 13:07:57	0.875	78.8	8.6
242	2010/07/23 13:08:52	0.750	70.4	10.4

243	2010/07/23 13:34:07	0.625	75.9	11.4
244	2010/07/23 13:39:12	1.000	75.3	8.8
245	2010/07/23 13:44:41	0.625	72.4	10.2
246	2010/07/23 13:52:41	0.875	81.1	10.9
247	2010/07/23 15:19:22	0.625	72.3	11.4
248	2010/07/23 15:27:36	0.750	80.6	9.4
249	2010/07/23 15:52:09	0.625	87.1	9.6
250	2010/07/23 15:52:14	0.625	74.2	9.8
251	2010/07/23 15:54:09	0.875	71.4	8.3
252	2010/07/23 16:07:25	0.625	74.7	11.0
253	2010/07/23 16:18:12	0.750	63.0	7.9
254	2010/07/23 16:20:26	0.750	74.6	8.9
255	2010/07/23 16:21:46	0.750	70.9	9.4
256	2010/07/23 16:21:54	0.750	69.0	9.1
257	2010/07/23 16:52:29	0.875	75.1	8.1
258	2010/07/23 16:52:30	0.625	75.4	6.9
259	2010/07/23 16:52:31	0.625	75.8	8.9
260	2010/07/23 16:52:33	0.625	75.1	8.8
261	2010/07/23 16:52:34	0.750	76.0	7.8
262	2010/07/23 16:52:36	0.625	75.5	8.9
263	2010/07/23 16:52:37	0.750	74.7	8.6
264	2010/07/23 16:52:46	0.625	74.8	7.3
265	2010/07/23 16:52:48	0.750	73.1	8.6
266	2010/07/23 16:52:55	0.750	74.2	10.1
267	2010/07/23 16:52:57	1.000	72.8	7.3
268	2010/07/23 16:56:51	0.750	76.4	10.8
269	2010/07/23 16:56:52	1.000	75.5	6.8
270	2010/07/23 16:56:58	0.625	78.9	10.4
271	2010/07/23 16:56:58	0.750	77.7	7.6
272	2010/07/23 16:57:00	0.625	76.8	8.3
273	2010/07/23 16:57:07	0.750	75.0	10.0
274	2010/07/23 16:57:09	0.625	74.7	9.5
275	2010/07/23 16:57:10	0.625	76.8	8.6
276	2010/07/23 16:57:16	0.750	74.8	10.0

277	2010/07/23 16:57:17	0.625	76.6	9.8
278	2010/07/23 16:57:34	0.750	74.0	9.5
279	2010/07/23 17:06:27	1.000	89.9	7.3
280	2010/07/23 17:16:39	0.750	75.4	9.3
281	2010/07/23 17:16:45	0.750	68.3	11.3
282	2010/07/23 17:17:35	0.875	72.1	9.4
283	2010/07/23 17:17:48	0.750	65.4	7.8
284	2010/07/23 17:18:03	0.750	64.2	10.2
285	2010/07/23 17:32:36	0.750	81.3	7.3
286	2010/07/23 17:32:38	0.750	83.0	6.5
287	2010/07/23 17:32:47	0.875	79.5	6.4
288	2010/07/23 17:32:57	0.875	73.6	6.6
289	2010/07/23 17:32:58	0.750	72.5	6.2
290	2010/07/23 17:33:51	0.750	70.5	8.2
291	2010/07/23 17:33:57	0.750	67.2	6.6
292	2010/07/23 17:34:04	0.750	76.0	9.4
293	2010/07/23 17:34:05	0.625	78.3	8.8
294	2010/07/23 17:34:07	0.875	77.0	7.1
295	2010/07/23 17:34:28	0.875	80.0	10.0
296	2010/07/23 17:34:29	0.750	77.0	7.4
297	2010/07/23 17:40:00	1.000	74.6	8.9
298	2010/07/23 17:50:39	0.750	85.0	10.0
299	2010/07/23 18:00:21	0.875	67.5	8.4
300	2010/07/23 18:07:12	0.875	73.4	9.0
301	2010/07/23 18:07:22	0.625	71.5	8.0
302	2010/07/23 18:07:29	0.750	69.7	8.1
303	2010/07/23 18:07:41	0.625	72.6	9.9
304	2010/07/23 18:09:38	0.875	78.0	8.8
305	2010/07/23 18:10:34	0.750	75.2	10.1
306	2010/07/23 18:11:24	0.750	77.1	9.3
307	2010/07/23 18:11:27	0.875	77.2	7.0
308	2010/07/23 18:11:35	0.750	76.1	8.5
309	2010/07/23 18:11:37	0.875	73.8	7.4
310	2010/07/23 18:11:42	0.625	76.7	6.1

311	2010/07/23 18:11:48	0.750	82.0	7.5
312	2010/07/23 18:11:52	0.750	76.8	7.6
313	2010/07/23 18:11:54	0.625	75.1	6.5
314	2010/07/23 18:12:26	0.625	75.1	7.3
315	2010/07/23 18:12:26	0.750	75.1	7.1
316	2010/07/23 18:12:27	0.625	74.7	7.6
317	2010/07/23 18:12:33	0.750	73.1	8.7
318	2010/07/23 18:12:40	0.625	73.9	8.2
319	2010/07/23 18:20:50	0.750	73.7	9.2
320	2010/07/23 18:26:32	0.875	78.5	10.7
321	2010/07/23 18:26:35	0.750	71.8	8.0
322	2010/07/23 18:28:31	0.750	78.8	8.5
323	2010/07/23 18:42:40	0.625	81.6	12.3
324	2010/07/23 18:50:08	0.625	83.0	10.1
325	2010/07/23 18:56:14	0.875	68.6	8.5
326	2010/07/23 19:00:11	0.875	74.9	11.6
327	2010/07/23 19:04:46	1.000	82.4	7.7
328	2010/07/23 19:08:32	0.875	71.4	7.9
329	2010/07/23 19:10:31	0.875	74.5	11.2
330	2010/07/23 19:11:57	0.625	80.3	11.1
331	2010/07/23 19:23:39	1.000	75.0	10.3
332	2010/07/23 19:25:10	1.000	73.2	11.7
333	2010/07/23 19:26:58	0.625	81.8	11.1
334	2010/07/23 19:43:17	0.625	79.1	11.6
335	2010/07/23 19:45:02	0.750	76.2	7.5
336	2010/07/23 19:45:05	0.750	81.3	8.6
337	2010/07/23 19:48:55	0.875	74.6	9.3
338	2010/07/23 19:57:01	0.875	69.1	10.1
339	2010/07/23 20:04:47	0.875	73.0	9.2
340	2010/07/23 20:07:22	0.875	72.1	9.8
341	2010/07/23 20:08:20	0.750	69.9	6.6
342	2010/07/23 20:08:42	0.625	75.4	12.3
343	2010/07/23 20:14:22	1.000	73.2	9.0
344	2010/07/23 20:14:28	0.875	66.3	7.8

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

345	2010/07/23 20:14:29	0.625	72.5	10.4
346	2010/07/23 20:19:07	0.875	74.0	8.7
347	2010/07/23 20:19:09	0.750	74.6	8.7
348	2010/07/23 20:19:10	0.750	74.8	7.7
349	2010/07/23 20:20:26	1.000	72.2	9.0
350	2010/07/23 20:23:09	0.750	81.2	8.3
351	2010/07/23 20:29:47	0.750	68.1	9.8
352	2010/07/23 20:30:50	0.750	66.4	11.1
353	2010/07/23 20:31:52	0.750	74.7	9.3
354	2010/07/23 20:41:34	1.000	69.7	8.1
355	2010/07/23 20:46:08	0.875	67.9	6.6
356	2010/07/23 20:46:38	0.625	71.7	10.7
357	2010/07/23 20:47:58	0.750	71.7	9.1
358	2010/07/23 20:48:50	0.750	71.7	8.3
359	2010/07/23 20:48:58	0.625	73.0	9.7
360	2010/07/23 20:50:42	0.750	60.5	7.6
361	2010/07/23 20:50:43	0.750	67.1	9.3
362	2010/07/23 20:52:30	1.000	65.8	7.3
363	2010/07/23 20:56:50	0.625	73.2	9.4
364	2010/07/23 20:58:50	0.750	78.2	7.3
365	2010/07/23 20:59:59	0.875	79.2	7.7
366	2010/07/23 21:01:57	0.750	65.5	7.5
367	2010/07/23 21:02:30	0.750	72.1	9.4
368	2010/07/23 21:02:52	1.000	72.4	6.8
369	2010/07/23 21:03:23	1.000	74.1	8.2
370	2010/07/23 21:03:59	0.625	71.0	8.3
371	2010/07/23 21:04:01	1.000	68.4	7.9
372	2010/07/23 21:05:08	1.000	77.9	7.6
373	2010/07/23 21:05:21	1.000	77.1	6.3
374	2010/07/23 21:06:30	0.875	80.4	7.4
375	2010/07/23 21:07:26	0.625	72.9	9.5
376	2010/07/23 21:07:29	0.625	77.8	9.2
377	2010/07/23 21:07:32	0.625	79.2	10.9
378	2010/07/23 21:07:34	0.625	76.8	8.8

379	2010/07/23 21:07:41	0.750	80.4	10.7
380	2010/07/23 21:07:46	0.625	80.8	10.1
381	2010/07/23 21:10:31	0.875	74.1	8.6
382	2010/07/23 21:11:06	0.875	73.7	8.9
383	2010/07/23 21:11:18	1.000	73.8	7.9
384	2010/07/23 21:11:22	0.625	76.5	10.3
385	2010/07/23 21:11:23	0.750	72.7	8.5
386	2010/07/23 21:11:27	0.625	74.1	7.4
387	2010/07/23 21:22:36	0.750	65.0	8.4
388	2010/07/23 21:24:22	1.000	70.9	6.6
389	2010/07/23 21:26:02	0.750	63.6	8.2
390	2010/07/23 21:27:40	0.875	65.7	7.9
391	2010/07/23 21:29:33	0.750	65.6	8.1
392	2010/07/23 21:35:07	0.625	76.3	12.1
393	2010/07/23 21:43:31	0.625	65.0	12.0
394	2010/07/23 21:44:11	0.625	67.7	10.2
395	2010/07/23 21:57:05	0.750	66.0	6.9
396	2010/07/23 22:08:01	0.750	57.5	10.8
397	2010/07/23 22:28:56	1.000	71.9	10.1
398	2010/07/23 22:29:43	0.875	69.3	8.8
399	2010/07/23 22:31:47	0.875	74.3	6.3
400	2010/07/23 22:31:54	0.875	72.5	6.8
401	2010/07/23 22:33:24	0.750	74.3	9.0
402	2010/07/23 22:33:24	0.625	82.8	10.1
403	2010/07/23 22:49:33	0.750	67.4	7.8
404	2010/07/23 22:49:35	1.000	66.8	8.7
405	2010/07/23 22:50:41	0.625	71.4	11.4
406	2010/07/23 23:13:40	0.750	72.4	9.8
407	2010/07/23 23:26:06	1.000	71.9	12.1
408	2010/07/23 23:27:03	0.625	70.1	13.1
409	2010/07/23 23:27:04	0.875	67.8	10.7
410	2010/07/23 23:35:35	0.875	71.0	7.2
411	2010/07/23 23:40:39	0.875	62.6	8.7
412	2010/07/23 23:41:56	0.625	66.0	11.9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

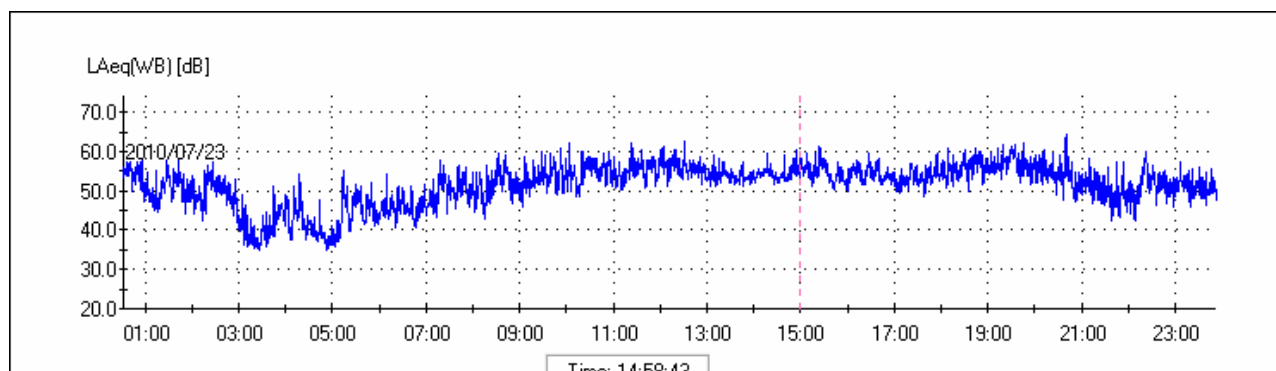
413	2010/07/23 23:51:32	0.625	68.0	10.7

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGGIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 100	0.1
Freq: 125	0.4
Freq: 160	0.1
Freq: 200	0.2
Freq: 250	0.4
Freq: 315	0.3
Freq: 400	0.1
Freq: 500	0.1
Freq: 630	0.4

Freq: 800	0.1
Freq: 1 k	0.1
Freq: 1.25 k	0.1
Freq: 2 k	0.1
Freq: 2.5 k	0.1
Freq: 4 k	0.1
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

TIME ISTORY COMPONENTI TONALI

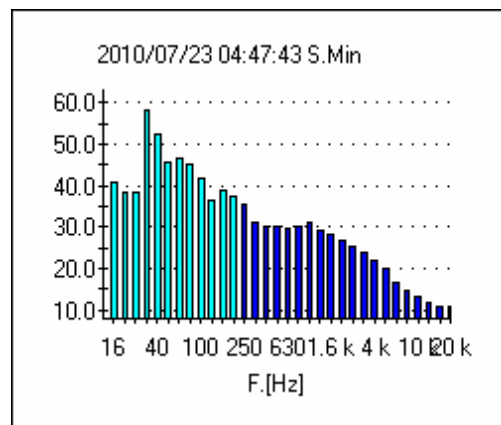
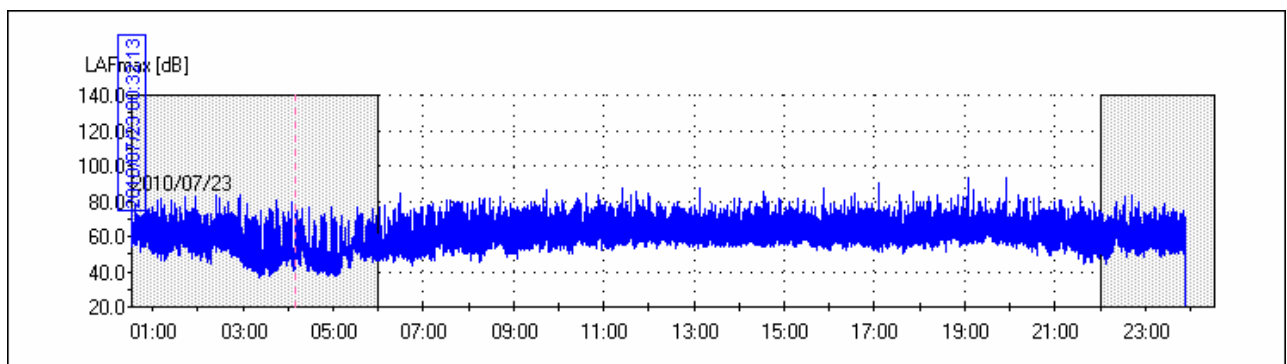
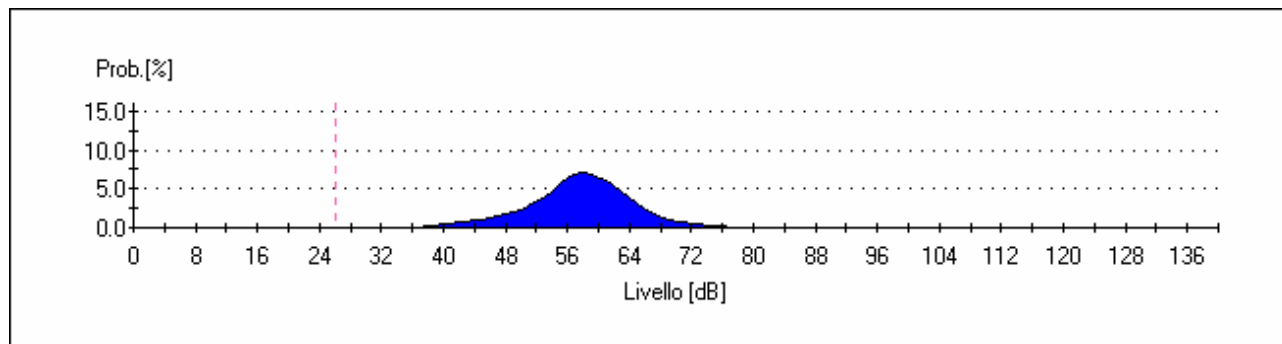


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

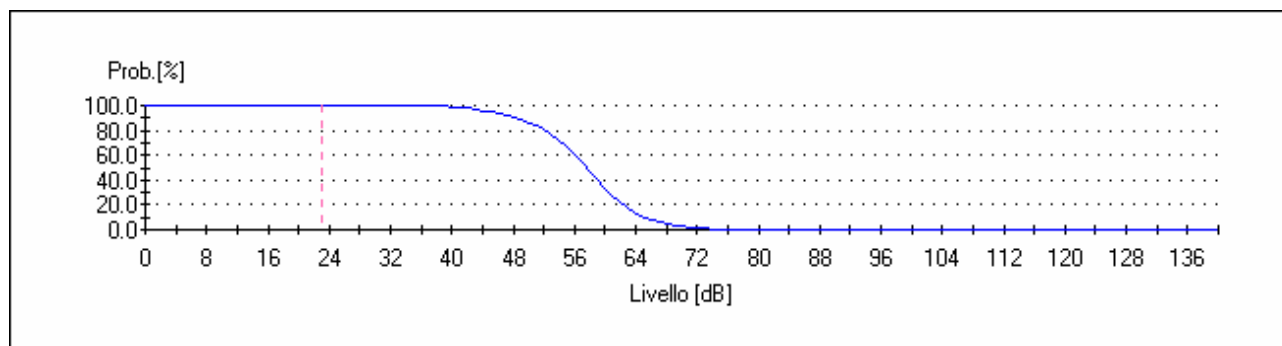
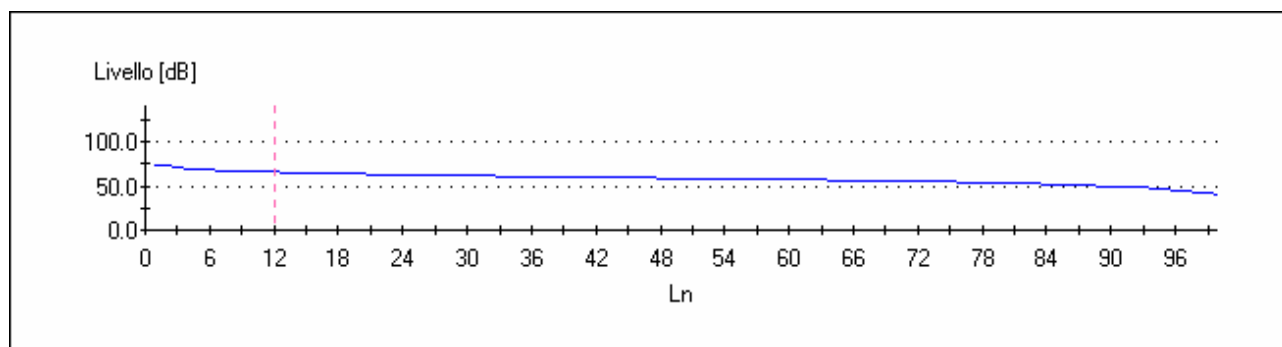


GRAFICO PERCENTILI



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile	Leq.[dB]
0	73.0
1	73.0
2	71.0
3	70.0
4	69.0
5	68.0
6	67.5
7	67.0
8	66.7
9	66.3
10	66.0
11	65.7
12	65.3
13	65.0
14	64.7
15	64.3
16	64.0
17	63.8
18	63.6
19	63.4
20	63.2
21	63.0
22	62.8
23	62.6
24	62.4
25	62.2
26	62.0
27	61.8
28	61.7
29	61.5
30	61.3

31	61.2
32	61.0
33	60.9
34	60.7
35	60.6
36	60.4
37	60.3
38	60.1
39	60.0
40	59.9
41	59.7
42	59.6
43	59.4
44	59.3
45	59.1
46	59.0
47	58.9
48	58.7
49	58.6
50	58.4
51	58.3
52	58.1
53	58.0
54	57.9
55	57.7
56	57.6
57	57.4
58	57.3
59	57.1
60	57.0
61	56.8
62	56.7
63	56.5
64	56.3

65	56.2
66	56.0
67	55.8
68	55.7
69	55.5
70	55.3
71	55.2
72	55.0
73	54.8
74	54.5
75	54.3
76	54.0
77	53.8
78	53.5
79	53.3
80	53.0
81	52.7
82	52.3
83	52.0
84	51.7
85	51.3
86	51.0
87	50.5
88	50.0
89	49.5
90	49.0
91	48.5
92	48.0
93	47.0
94	46.0
95	45.0
96	44.0
97	43.0
98	42.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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99	40.0

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	74.0
1	74.0
2	72.0
3	71.0
4	70.0
5	69.5
6	69.0
7	68.0
8	67.7
9	67.3
10	67.0
11	66.7
12	66.3
13	66.0
14	65.7
15	65.3
16	65.0
17	64.8
18	64.6
19	64.4
20	64.2
21	64.0
22	63.8
23	63.7
24	63.5
25	63.3
26	63.2
27	63.0
28	62.8

29	62.7
30	62.5
31	62.3
32	62.2
33	62.0
34	61.9
35	61.8
36	61.6
37	61.5
38	61.4
39	61.3
40	61.1
41	61.0
42	60.9
43	60.7
44	60.6
45	60.4
46	60.3
47	60.1
48	60.0
49	59.9
50	59.8
51	59.6
52	59.5
53	59.4
54	59.3
55	59.1
56	59.0
57	58.9
58	58.8
59	58.6
60	58.5
61	58.4
62	58.3

63	58.1
64	58.0
65	57.9
66	57.8
67	57.6
68	57.5
69	57.4
70	57.3
71	57.1
72	57.0
73	56.8
74	56.7
75	56.5
76	56.3
77	56.2
78	56.0
79	55.8
80	55.7
81	55.5
82	55.3
83	55.2
84	55.0
85	54.8
86	54.5
87	54.3
88	54.0
89	53.7
90	53.3
91	53.0
92	52.5
93	52.0
94	51.5
95	51.0
96	50.0

97	49.0
98	48.0
99	47.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	70.0
1	70.0
2	68.0
3	66.0
4	65.5
5	65.0
6	64.0
7	63.7
8	63.3
9	63.0
10	62.5
11	62.0
12	61.8
13	61.5
14	61.3
15	61.0
16	60.8
17	60.5
18	60.3
19	60.0
20	59.8
21	59.5
22	59.3
23	59.0
24	58.8
25	58.6
26	58.4

27	58.2
28	58.0
29	57.8
30	57.6
31	57.4
32	57.2
33	57.0
34	56.8
35	56.7
36	56.5
37	56.3
38	56.2
39	56.0
40	55.8
41	55.7
42	55.5
43	55.3
44	55.2
45	55.0
46	54.8
47	54.7
48	54.5
49	54.3
50	54.2
51	54.0
52	53.8
53	53.7
54	53.5
55	53.3
56	53.2
57	53.0
58	52.8
59	52.6
60	52.4

61	52.2
62	52.0
63	51.8
64	51.6
65	51.4
66	51.2
67	51.0
68	50.8
69	50.5
70	50.3
71	50.0
72	49.7
73	49.3
74	49.0
75	48.8
76	48.5
77	48.3
78	48.0
79	47.7
80	47.3
81	47.0
82	46.7
83	46.3
84	46.0
85	45.7
86	45.3
87	45.0
88	44.7
89	44.3
90	44.0
91	43.5
92	43.0
93	42.5
94	42.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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95	41.5
96	41.0
97	40.5
98	40.0
99	39.0

LIVELLI DI IMPULS- FAST E SLOW MAX NELLE 24 ORE		
LAIp [dB]	LASp [dB]	LAFp [dB]
85.7	79	83.2
84.9	79.9	84
89.1	83	87
91.6	84.3	89.9
95.2	89.9	93.6
85.5	80.5	83.5
95.2	89.9	93.6

LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

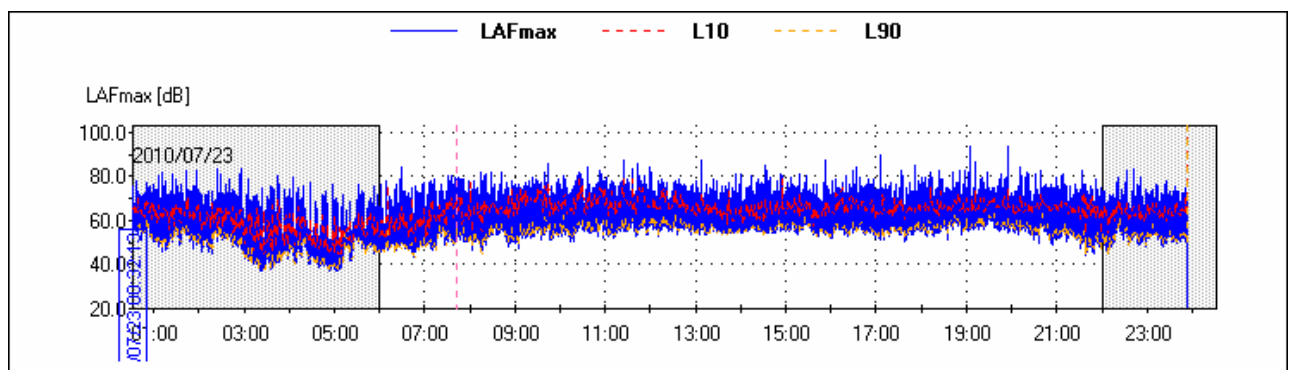
LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
84.9	79.9	84
89.1	83	87
91.6	84.3	89.9
95.2	89.9	93.6
82.8	80.5	82.3
95.2	89.9	93.6

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

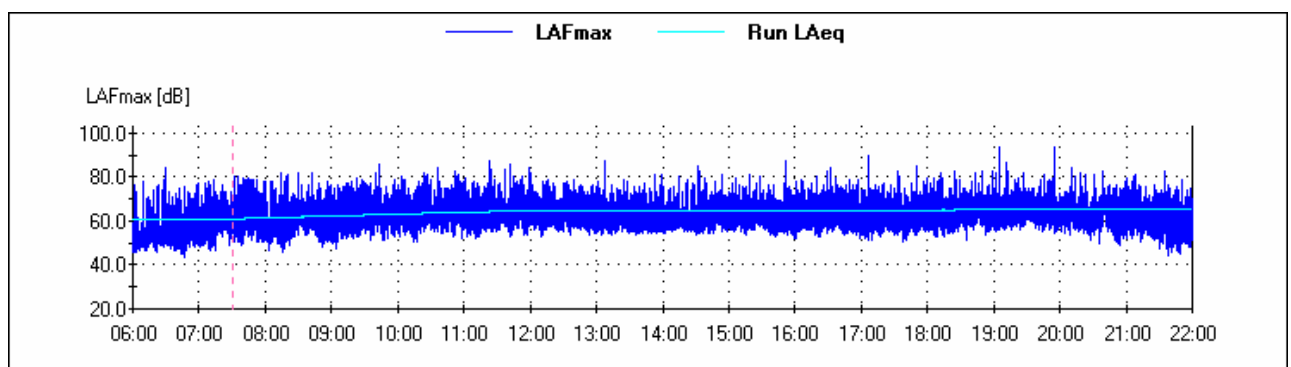
**LIVELLI DI IMPULS- FAST E SLOW
MAX NOTTURNI**

LAIp [dB]	LASp [dB]	LAfp [dB]
85.7	79	83.2
78.7	72.8	76.5
85.5	79.5	83.5
85.7	79.5	83.5

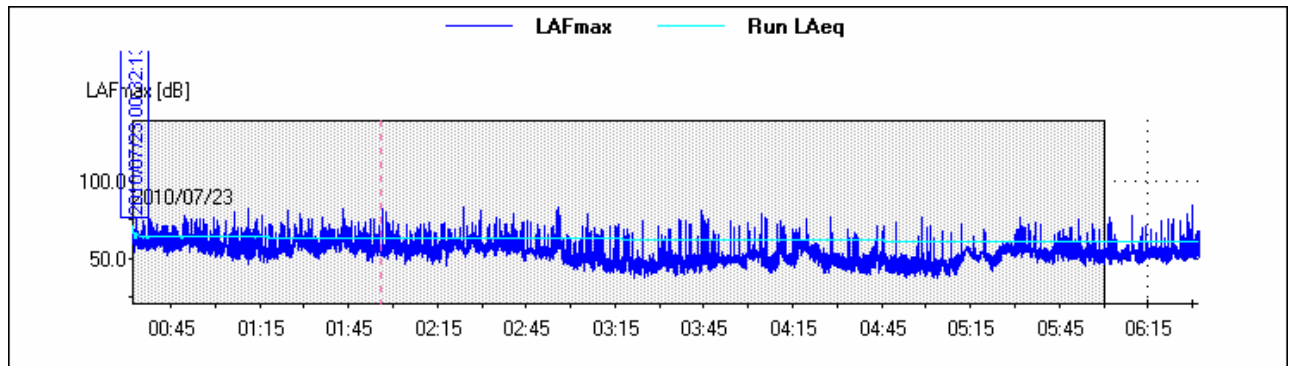
TIME HISTORY L10 – L90



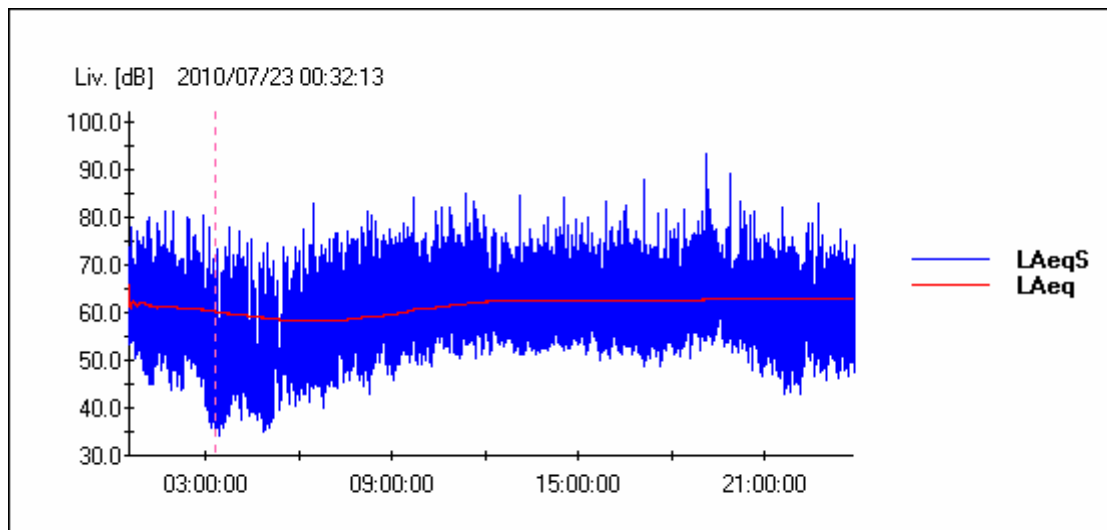
RUNNING Leq DIURNO



RUNNING Leq NOTTURNO



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"

**MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO**
Codice documento

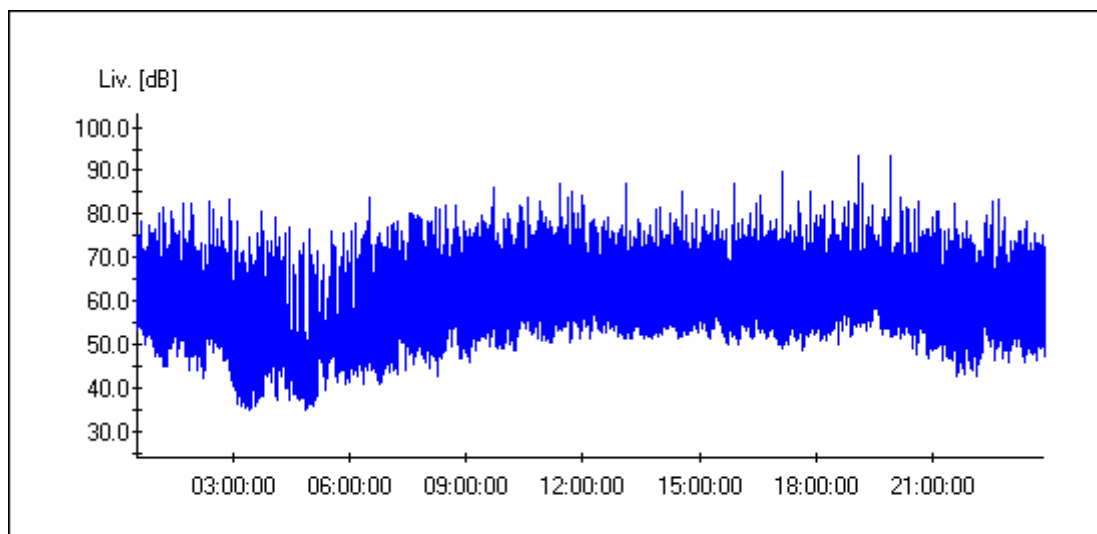
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20/06/2011


R2 - MISURE DI 24 ORE CON POSTAZIONE SEMI-FISSE

Punto

Ricettore

Indirizzo

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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	R_6_C	VIA TRE CROCI
Descrizione del punto di misura/ricettore <i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sul marciapiede adiacente la carreggiata stradale ad una distanza di mt 1 dal muro di cinta del fabbricato adiacente</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 /40 dB(a)
☐	Classe II	55 / 45 dB(a)
☐	Classe III	60 / 50 dB(a)
☒	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826		
Punto	Ricettore	Indirizzo
	R_6_C	VIA TRE CROCI

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Periodo	TR	Data	L_{AeqTR} [dBA]	K_I [dBA]	K_T [dBA]	K_B [dBA]	L_{AeqTRC} [dBA]	L_{lim} [dBA]
Giorno	6-22h	15/07/10	65.9	0	0		65.9	65
Notte	22-6h	15/07/10	62.2	0	0	0	62.2	55

RISULTATI MISURE	
Codice misura	R_6_C
Data inizio	15/07/2010
Ora inizio	0.35.15
Note	

Parametri		24 ore	Giorno (T_R = 6/22)	Notte (T_R = 22/6)
L _{AeqTR}	[dBA]	65.0	65.9	62.2
L ₁	[dBA]	76.0	77.0	74.0
L ₅	[dBA]	68.0	69.0	65.0
L ₁₀	[dBA]	65.0	66.0	60.0
L ₅₀	[dBA]	50.0	52.5	44.3
L ₉₀	[dBA]	38.5	44.0	35.0
L ₉₅	[dBA]	36.0	42.5	32.5
L ₉₉	[dBA]	31.0	40.0	29.0
L _I max	[dBA]	94.2	94.2	91.8
L _F max	[dBA]	92.2	92.2	90.9
L _S max	[dBA]	89.8	89.8	88.8
K _I	[dBA]	0	0	0
K _T	[dBA]	0	0	0
K _B	[dBA]	0	0	0
L _{AeqTRC}		65.0	65.9	62.2

Note:		
Punto	Ricettore	Indirizzo
	R_6_C	VIA TRE CROCI

Sorgente stradale: _____

**MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO**
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Data

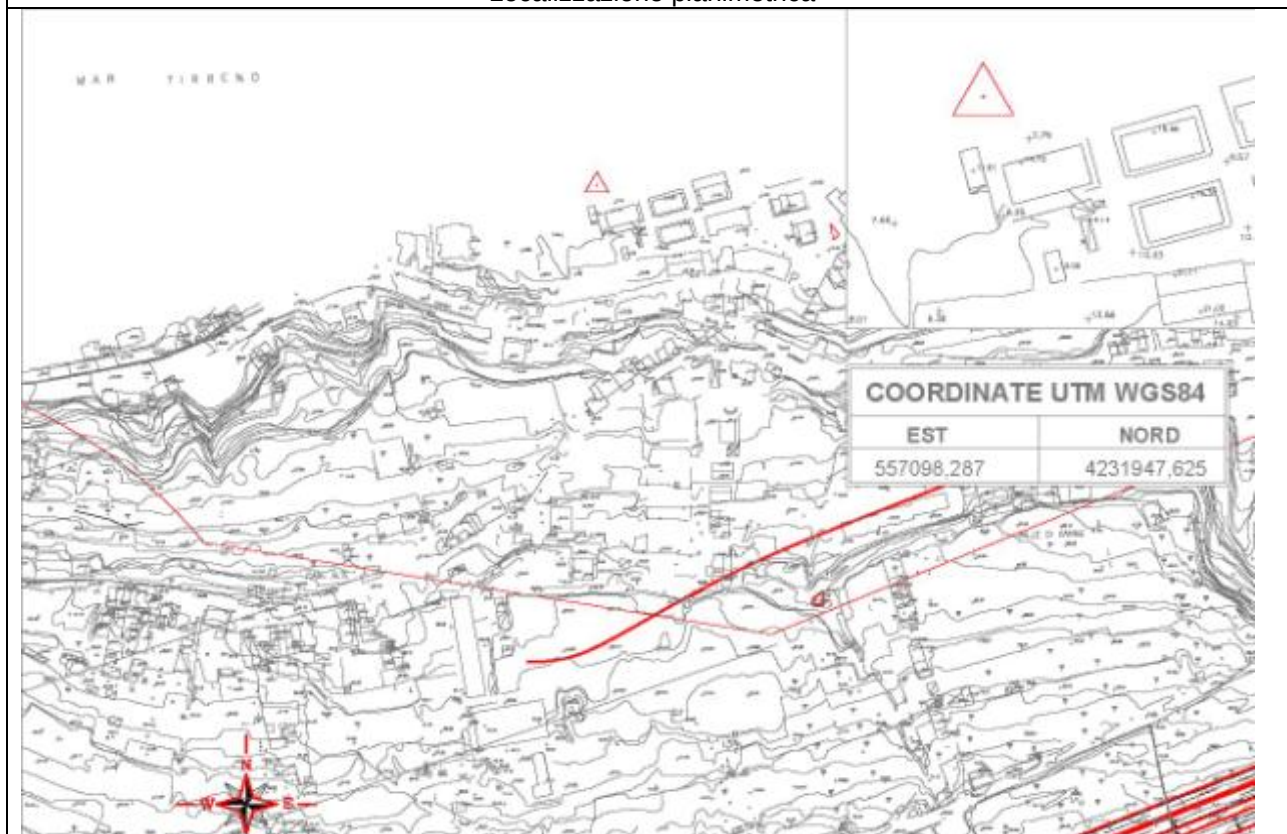
20/06/2011

	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	33	37	60	21	37.75	15	12	13.5
Veic. Pesanti / 10'	0	1	0	0	0.25	0	0	0
Motocicli / 10'	3	10	20	5	9.5	3	1	2
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	30	33	31	28	30.5	27.5	25	26.25
Umidità relativa	64	54	66	79	65.75	82	75	78.5
Velocità vento	1	3.6	1	0.2	1.45	0.5	2.1	1.3
Direzione vento	N	E	E	N N E		N N E	E	

Fotografia del punto di misura


Punto	Ricettore	Indirizzo
	R_6_C	VIA TRE CROCI

Localizzazione planimetrica



DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

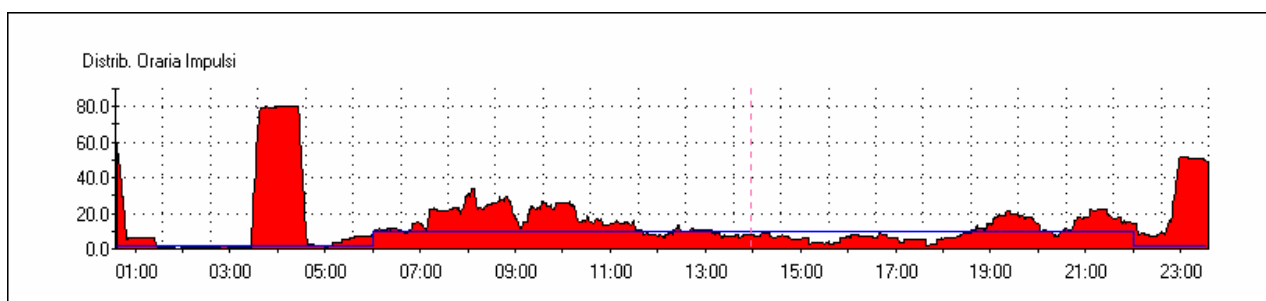
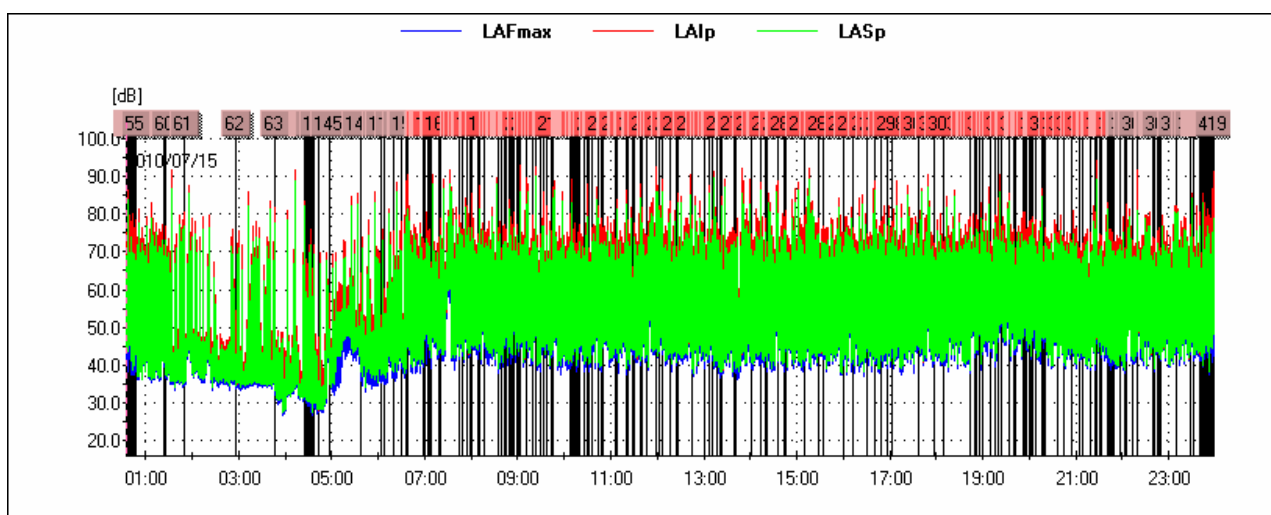
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);

- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAEmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAlmax - LASmax [dB]
1	2010/07/15 00:35:23	0.875	66.1	7.6
2	2010/07/15 00:35:52	0.750	69.8	8.5
3	2010/07/15 00:35:54	0.875	64.2	10.0
4	2010/07/15 00:36:09	0.625	67.2	12.4
5	2010/07/15 00:36:10	0.875	64.7	9.5
6	2010/07/15 00:36:12	0.875	67.7	8.8
7	2010/07/15 00:36:14	0.500	62.2	9.0
8	2010/07/15 00:36:36	0.750	60.0	9.4

9	2010/07/15 00:37:13	1.000	68.3	9.9
10	2010/07/15 00:37:52	0.625	76.6	11.7
11	2010/07/15 00:37:57	0.750	57.4	11.4
12	2010/07/15 00:38:01	0.625	59.8	12.1
13	2010/07/15 00:38:26	0.875	70.5	7.4
14	2010/07/15 00:39:07	0.625	63.4	9.3
15	2010/07/15 00:39:21	0.750	62.5	7.9
16	2010/07/15 00:39:26	0.750	65.1	7.8
17	2010/07/15 00:40:16	0.625	58.1	10.5
18	2010/07/15 00:40:22	0.625	59.4	12.1
19	2010/07/15 00:40:24	0.625	60.5	10.4
20	2010/07/15 00:40:37	0.500	60.0	11.3
21	2010/07/15 00:40:38	0.500	69.5	12.6
22	2010/07/15 00:40:45	1.000	54.3	6.7
23	2010/07/15 00:40:52	1.000	52.5	9.5
24	2010/07/15 00:40:54	0.750	61.1	12.1
25	2010/07/15 00:41:24	0.625	72.6	11.2
26	2010/07/15 00:41:25	0.625	67.3	11.5
27	2010/07/15 00:41:37	0.750	60.7	9.1
28	2010/07/15 00:41:41	0.875	60.0	10.0
29	2010/07/15 00:41:42	0.875	59.9	8.5
30	2010/07/15 00:41:44	0.750	62.9	8.7
31	2010/07/15 00:41:47	0.500	70.9	12.9
32	2010/07/15 00:43:08	0.750	76.3	10.2
33	2010/07/15 00:43:11	1.000	69.4	9.0
34	2010/07/15 00:43:37	0.875	64.8	9.1
35	2010/07/15 00:43:38	0.625	65.6	10.1
36	2010/07/15 00:44:03	1.000	56.7	8.8
37	2010/07/15 00:44:22	0.750	50.0	10.7
38	2010/07/15 00:44:26	0.625	62.7	10.0
39	2010/07/15 00:44:27	0.500	66.0	11.3
40	2010/07/15 00:44:28	0.750	58.4	11.6
41	2010/07/15 00:45:06	1.000	57.0	6.8
42	2010/07/15 00:45:07	0.750	65.7	9.3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

43	2010/07/15 00:45:34	0.750	59.8	9.0
44	2010/07/15 00:45:37	0.500	67.2	11.9
45	2010/07/15 00:45:39	0.500	63.1	11.5
46	2010/07/15 00:46:10	1.000	63.0	6.9
47	2010/07/15 00:46:18	1.000	61.5	8.1
48	2010/07/15 00:46:26	0.750	62.0	10.2
49	2010/07/15 00:46:35	0.875	65.1	10.9
50	2010/07/15 00:46:40	0.625	57.7	12.0
51	2010/07/15 00:46:41	0.750	52.3	10.7
52	2010/07/15 00:46:42	0.750	52.7	9.2
53	2010/07/15 00:47:05	0.625	65.7	10.7
54	2010/07/15 00:47:09	0.625	61.6	10.3
55	2010/07/15 00:47:35	0.625	74.7	11.8
56	2010/07/15 01:23:30	0.750	54.9	8.7
57	2010/07/15 01:24:28	0.625	66.4	12.5
58	2010/07/15 01:24:48	0.750	49.4	8.7
59	2010/07/15 01:25:01	0.500	63.8	11.9
60	2010/07/15 01:26:04	1.000	48.0	9.8
61	2010/07/15 01:49:32	0.750	74.9	8.5
62	2010/07/15 02:55:27	0.750	49.9	11.7
63	2010/07/15 03:46:03	0.750	48.0	10.6
64	2010/07/15 04:25:20	0.750	57.7	6.9
65	2010/07/15 04:25:21	0.875	60.0	7.5
66	2010/07/15 04:25:23	0.625	57.8	7.8
67	2010/07/15 04:25:25	0.750	57.7	7.6
68	2010/07/15 04:25:26	0.750	60.1	8.8
69	2010/07/15 04:25:26	0.750	57.1	7.4
70	2010/07/15 04:25:27	0.750	57.9	7.2
71	2010/07/15 04:25:28	0.875	59.9	8.4
72	2010/07/15 04:26:06	0.875	63.8	9.0
73	2010/07/15 04:26:14	0.625	58.2	9.4
74	2010/07/15 04:26:15	0.625	63.7	10.0
75	2010/07/15 04:26:17	0.625	63.2	9.8
76	2010/07/15 04:26:19	0.875	63.2	9.9

77	2010/07/15 04:26:21	0.750	58.6	8.7
78	2010/07/15 04:26:23	0.625	63.1	10.2
79	2010/07/15 04:26:24	0.750	64.4	10.6
80	2010/07/15 04:27:20	0.625	57.5	10.8
81	2010/07/15 04:27:24	0.625	46.8	10.1
82	2010/07/15 04:27:32	1.000	64.2	11.6
83	2010/07/15 04:27:35	1.000	61.5	8.6
84	2010/07/15 04:27:36	0.625	61.5	8.2
85	2010/07/15 04:27:38	0.875	62.7	10.0
86	2010/07/15 04:27:40	0.625	61.3	9.6
87	2010/07/15 04:27:42	0.625	62.1	9.8
88	2010/07/15 04:27:45	0.625	61.9	9.8
89	2010/07/15 04:27:45	0.625	62.3	8.2
90	2010/07/15 04:27:50	0.625	58.7	7.3
91	2010/07/15 04:27:51	0.625	58.9	7.9
92	2010/07/15 04:27:52	0.750	58.2	8.2
93	2010/07/15 04:27:58	0.625	56.5	6.6
94	2010/07/15 04:28:04	0.625	58.7	9.6
95	2010/07/15 04:28:07	0.625	61.6	10.9
96	2010/07/15 04:28:09	0.625	61.5	10.4
97	2010/07/15 04:28:11	0.625	51.2	8.1
98	2010/07/15 04:28:13	0.625	48.0	9.7
99	2010/07/15 04:29:03	0.750	51.5	10.8
100	2010/07/15 04:29:05	0.875	45.1	9.0
101	2010/07/15 04:29:15	0.750	53.4	10.5
102	2010/07/15 04:29:21	0.750	44.0	10.1
103	2010/07/15 04:30:51	0.750	50.0	9.0
104	2010/07/15 04:30:53	0.750	54.9	11.0
105	2010/07/15 04:31:02	0.750	54.1	9.7
106	2010/07/15 04:31:11	0.750	59.9	10.4
107	2010/07/15 04:31:22	1.000	59.1	8.7
108	2010/07/15 04:31:26	1.000	63.6	10.1
109	2010/07/15 04:31:31	0.750	54.1	6.3
110	2010/07/15 04:31:33	0.625	59.8	10.2

111	2010/07/15 04:31:36	0.750	59.5	9.2
112	2010/07/15 04:31:38	0.750	59.5	9.1
113	2010/07/15 04:31:40	0.750	58.3	9.3
114	2010/07/15 04:31:42	0.750	63.5	10.4
115	2010/07/15 04:31:43	0.875	57.6	9.6
116	2010/07/15 04:31:45	1.000	59.8	9.3
117	2010/07/15 04:31:47	0.625	65.4	9.5
118	2010/07/15 04:31:51	0.750	61.0	9.1
119	2010/07/15 04:31:56	0.625	61.8	9.1
120	2010/07/15 04:31:59	0.750	65.2	10.1
121	2010/07/15 04:32:04	0.875	60.6	6.9
122	2010/07/15 04:32:13	0.750	61.0	8.5
123	2010/07/15 04:32:20	0.750	54.0	9.9
124	2010/07/15 04:32:24	0.625	48.4	7.6
125	2010/07/15 04:32:30	0.750	47.7	10.7
126	2010/07/15 04:32:43	0.625	47.6	10.3
127	2010/07/15 04:32:59	0.625	60.4	11.1
128	2010/07/15 04:33:01	0.625	55.3	9.6
129	2010/07/15 04:33:40	0.750	59.4	8.4
130	2010/07/15 04:33:42	0.750	56.8	7.4
131	2010/07/15 04:33:47	1.000	57.0	8.7
132	2010/07/15 04:33:52	0.625	59.7	10.3
133	2010/07/15 04:34:37	0.750	58.9	10.3
134	2010/07/15 04:34:39	1.000	57.4	9.9
135	2010/07/15 04:34:42	0.625	56.6	10.4
136	2010/07/15 04:34:55	0.625	48.4	11.4
137	2010/07/15 04:35:12	1.000	44.7	11.0
138	2010/07/15 04:35:17	0.625	52.3	11.0
139	2010/07/15 04:35:34	0.750	53.8	9.5
140	2010/07/15 04:35:36	0.625	44.4	9.8
141	2010/07/15 04:35:49	0.750	57.7	10.8
142	2010/07/15 04:36:00	1.000	60.2	8.9
143	2010/07/15 04:36:08	0.625	60.9	10.3
144	2010/07/15 04:44:00	0.625	43.0	12.0

145	2010/07/15 04:57:40	0.750	56.1	9.3
146	2010/07/15 05:38:12	0.750	60.4	10.5
147	2010/07/15 06:03:48	0.875	50.6	7.6
148	2010/07/15 06:08:26	0.875	50.4	6.8
149	2010/07/15 06:08:27	0.750	50.2	6.2
150	2010/07/15 06:19:05	1.000	59.6	10.8
151	2010/07/15 06:29:16	0.625	76.2	8.7
152	2010/07/15 06:35:53	0.875	85.8	9.5
153	2010/07/15 06:38:37	0.750	88.0	9.0
154	2010/07/15 06:57:44	0.750	62.1	10.3
155	2010/07/15 06:59:38	0.875	61.5	8.8
156	2010/07/15 07:00:11	0.875	61.5	11.0
157	2010/07/15 07:00:24	0.875	63.2	11.5
158	2010/07/15 07:03:51	0.625	65.0	12.9
159	2010/07/15 07:06:08	1.000	57.4	8.8
160	2010/07/15 07:08:19	1.000	51.3	10.0
161	2010/07/15 07:17:33	0.625	70.4	11.4
162	2010/07/15 07:20:49	0.750	56.8	7.9
163	2010/07/15 07:43:52	0.625	72.5	10.4
164	2010/07/15 07:44:14	0.750	58.1	9.1
165	2010/07/15 07:47:45	0.875	73.1	8.8
166	2010/07/15 07:48:38	0.750	59.6	8.5
167	2010/07/15 07:48:48	0.750	73.2	9.8
168	2010/07/15 07:53:43	1.000	80.3	7.9
169	2010/07/15 07:59:17	0.625	66.8	11.1
170	2010/07/15 08:00:11	1.000	82.4	9.0
171	2010/07/15 08:07:53	0.750	62.1	9.0
172	2010/07/15 08:07:59	0.875	60.4	6.1
173	2010/07/15 08:08:03	0.750	62.6	7.5
174	2010/07/15 08:08:16	0.875	68.7	8.4
175	2010/07/15 08:08:22	0.750	63.7	7.0
176	2010/07/15 08:08:27	0.750	68.5	8.5
177	2010/07/15 08:08:54	0.750	67.0	10.8
178	2010/07/15 08:09:34	1.000	66.2	6.4

179	2010/07/15 08:10:08	1.000	79.4	7.5
180	2010/07/15 08:10:13	1.000	80.1	7.1
181	2010/07/15 08:10:18	1.000	84.3	6.5
182	2010/07/15 08:10:22	1.000	84.6	6.3
183	2010/07/15 08:16:40	0.875	62.7	8.2
184	2010/07/15 08:34:17	0.875	59.5	8.6
185	2010/07/15 08:39:39	0.750	57.4	9.4
186	2010/07/15 08:43:48	0.750	60.9	9.0
187	2010/07/15 08:45:28	0.875	61.6	9.2
188	2010/07/15 08:49:18	0.625	67.6	10.4
189	2010/07/15 08:50:59	0.875	61.0	8.0
190	2010/07/15 08:52:04	0.750	64.8	9.7
191	2010/07/15 08:53:37	0.750	58.6	7.7
192	2010/07/15 08:53:51	0.625	73.4	11.5
193	2010/07/15 08:53:56	0.750	63.7	11.2
194	2010/07/15 08:54:40	0.750	66.1	10.0
195	2010/07/15 08:55:20	0.750	76.2	10.1
196	2010/07/15 08:55:44	0.625	66.9	8.9
197	2010/07/15 08:55:49	0.625	72.1	10.8
198	2010/07/15 08:58:31	0.625	75.3	7.7
199	2010/07/15 08:58:54	0.750	67.2	9.0
200	2010/07/15 09:01:43	0.750	59.5	7.9
201	2010/07/15 09:01:44	0.875	58.9	7.9
202	2010/07/15 09:02:38	1.000	69.7	9.1
203	2010/07/15 09:03:00	1.000	78.6	8.0
204	2010/07/15 09:03:11	1.000	91.0	6.8
205	2010/07/15 09:11:51	1.000	82.8	9.5
206	2010/07/15 09:20:01	0.875	62.2	10.0
207	2010/07/15 09:20:08	0.875	76.4	10.3
208	2010/07/15 09:23:41	0.750	90.2	8.8
209	2010/07/15 09:29:56	0.875	60.4	7.2
210	2010/07/15 09:34:03	0.750	82.8	8.9
211	2010/07/15 09:36:43	0.750	79.9	7.9
212	2010/07/15 09:38:01	0.750	60.2	9.4

213	2010/07/15 09:38:01	0.625	60.3	8.3
214	2010/07/15 09:38:10	0.625	67.2	11.5
215	2010/07/15 09:44:06	1.000	72.6	8.8
216	2010/07/15 09:45:20	0.875	58.4	9.6
217	2010/07/15 09:45:22	0.625	67.8	11.1
218	2010/07/15 10:07:02	0.625	76.0	12.3
219	2010/07/15 10:08:55	0.875	88.2	6.5
220	2010/07/15 10:08:57	0.875	87.1	6.3
221	2010/07/15 10:11:25	0.750	53.9	8.5
222	2010/07/15 10:14:00	0.750	63.5	8.0
223	2010/07/15 10:14:02	0.750	65.7	10.5
224	2010/07/15 10:14:14	0.750	75.9	7.6
225	2010/07/15 10:14:39	0.750	65.0	10.1
226	2010/07/15 10:15:05	0.750	57.0	11.2
227	2010/07/15 10:16:36	0.625	59.1	10.9
228	2010/07/15 10:16:48	0.625	65.4	11.3
229	2010/07/15 10:18:07	0.500	69.9	12.8
230	2010/07/15 10:18:14	0.625	70.5	12.7
231	2010/07/15 10:20:15	0.875	54.3	7.5
232	2010/07/15 10:26:05	0.625	64.7	10.4
233	2010/07/15 10:30:20	1.000	85.0	8.6
234	2010/07/15 10:30:48	0.750	59.4	10.1
235	2010/07/15 10:31:03	0.750	55.6	9.5
236	2010/07/15 10:32:33	0.625	58.2	10.1
237	2010/07/15 10:32:34	0.750	58.0	8.9
238	2010/07/15 10:36:27	0.625	73.0	10.4
239	2010/07/15 10:43:19	0.750	60.8	10.1
240	2010/07/15 10:47:34	0.750	72.4	10.1
241	2010/07/15 10:48:16	0.750	76.2	9.9
242	2010/07/15 10:49:49	0.875	61.1	8.2
243	2010/07/15 10:49:53	0.625	61.6	9.8
244	2010/07/15 11:06:56	0.875	71.4	8.0
245	2010/07/15 11:09:00	0.750	59.2	10.0
246	2010/07/15 11:20:44	0.625	63.7	11.0

247	2010/07/15 11:23:05	0.750	64.8	9.1
248	2010/07/15 11:28:30	1.000	60.3	8.6
249	2010/07/15 11:28:33	0.750	57.8	8.8
250	2010/07/15 11:29:25	0.750	60.9	10.5
251	2010/07/15 11:29:38	0.625	59.9	10.0
252	2010/07/15 11:30:04	0.750	56.5	9.0
253	2010/07/15 11:38:49	1.000	57.5	9.2
254	2010/07/15 11:39:49	0.875	58.8	9.7
255	2010/07/15 11:40:04	0.750	68.0	10.3
256	2010/07/15 11:46:02	0.625	70.9	9.1
257	2010/07/15 11:57:54	1.000	91.2	7.2
258	2010/07/15 12:03:03	0.625	58.7	11.4
259	2010/07/15 12:05:44	0.625	66.1	9.9
260	2010/07/15 12:16:28	0.875	59.5	8.0
261	2010/07/15 12:25:26	1.000	67.9	7.3
262	2010/07/15 12:26:14	0.750	83.9	8.1
263	2010/07/15 12:27:33	0.625	66.5	13.0
264	2010/07/15 12:43:51	1.000	59.6	9.5
265	2010/07/15 13:00:45	0.750	60.1	8.3
266	2010/07/15 13:07:24	0.625	65.3	11.9
267	2010/07/15 13:07:25	0.875	56.7	11.3
268	2010/07/15 13:11:20	1.000	57.5	8.6
269	2010/07/15 13:17:05	0.750	61.4	9.9
270	2010/07/15 13:17:14	0.625	58.5	8.9
271	2010/07/15 13:17:16	0.750	58.8	8.8
272	2010/07/15 13:20:37	1.000	54.8	8.8
273	2010/07/15 13:23:18	0.625	67.6	10.5
274	2010/07/15 13:40:12	0.750	55.3	9.6
275	2010/07/15 13:40:12	0.875	63.5	9.4
276	2010/07/15 13:40:35	0.875	59.0	9.4
277	2010/07/15 14:00:48	0.750	57.5	8.6
278	2010/07/15 14:12:52	1.000	55.7	6.8
279	2010/07/15 14:20:04	0.750	58.7	10.8
280	2010/07/15 14:20:32	0.625	59.4	11.4

281	2010/07/15 14:22:19	0.875	53.8	9.0
282	2010/07/15 14:36:00	0.750	86.8	8.8
283	2010/07/15 14:43:59	1.000	59.4	6.5
284	2010/07/15 14:46:42	0.875	78.9	8.5
285	2010/07/15 15:09:38	0.625	76.9	10.3
286	2010/07/15 15:09:40	0.625	59.0	11.9
287	2010/07/15 15:09:47	0.750	58.2	9.9
288	2010/07/15 15:28:17	0.875	59.4	9.9
289	2010/07/15 15:34:15	0.750	56.1	8.8
290	2010/07/15 16:00:48	0.750	61.1	10.3
291	2010/07/15 16:12:57	0.625	70.9	11.0
292	2010/07/15 16:30:36	1.000	62.6	8.8
293	2010/07/15 16:40:32	0.875	58.9	10.0
294	2010/07/15 16:48:39	0.625	61.2	11.8
295	2010/07/15 16:48:45	0.750	57.1	9.3
296	2010/07/15 16:56:47	0.750	63.7	8.9
297	2010/07/15 17:02:37	0.750	61.6	9.8
298	2010/07/15 17:02:39	0.750	62.5	8.8
299	2010/07/15 17:37:06	0.750	64.4	9.9
300	2010/07/15 17:37:47	0.750	65.2	10.1
301	2010/07/15 17:37:59	0.750	63.3	10.3
302	2010/07/15 17:56:27	0.875	61.6	8.8
303	2010/07/15 18:09:42	1.000	64.7	6.3
304	2010/07/15 18:42:39	0.875	62.2	7.3
305	2010/07/15 18:50:12	0.625	66.7	10.0
306	2010/07/15 18:50:55	0.500	67.8	12.2
307	2010/07/15 18:55:58	0.625	71.4	11.1
308	2010/07/15 18:59:08	1.000	68.5	9.9
309	2010/07/15 19:09:14	0.875	56.8	10.4
310	2010/07/15 19:15:49	0.625	72.0	9.8
311	2010/07/15 19:20:04	0.750	80.3	11.3
312	2010/07/15 19:23:19	0.875	65.1	8.8
313	2010/07/15 19:34:07	0.750	75.0	10.9
314	2010/07/15 19:34:32	1.000	70.1	11.8

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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315	2010/07/15 19:40:53	0.750	65.3	11.6
316	2010/07/15 19:41:57	0.625	66.4	12.6
317	2010/07/15 19:52:27	0.875	61.1	10.1
318	2010/07/15 19:52:32	0.750	79.3	7.5
319	2010/07/15 19:54:19	1.000	69.5	10.2
320	2010/07/15 19:54:34	0.750	79.2	7.7
321	2010/07/15 19:56:51	0.875	66.4	8.7
322	2010/07/15 20:00:34	1.000	76.5	6.5
323	2010/07/15 20:01:10	0.625	72.8	10.0
324	2010/07/15 20:01:29	0.750	57.9	9.2
325	2010/07/15 20:01:45	0.625	62.6	7.8
326	2010/07/15 20:03:16	0.750	59.2	9.8
327	2010/07/15 20:07:19	1.000	55.3	10.6
328	2010/07/15 20:08:28	0.625	62.7	10.7
329	2010/07/15 20:15:56	1.000	60.2	10.0
330	2010/07/15 20:17:36	0.875	68.8	8.4
331	2010/07/15 20:18:35	0.875	57.3	6.3
332	2010/07/15 20:20:50	0.625	72.2	10.4
333	2010/07/15 20:35:45	0.625	69.2	10.5
334	2010/07/15 20:43:48	1.000	53.0	8.1
335	2010/07/15 20:53:55	0.750	63.4	10.0
336	2010/07/15 21:03:41	0.500	67.2	11.3
337	2010/07/15 21:05:02	0.750	58.1	10.4
338	2010/07/15 21:07:59	0.750	63.9	8.9
339	2010/07/15 21:19:24	0.875	64.9	8.3
340	2010/07/15 21:25:03	0.875	57.3	10.1
341	2010/07/15 21:25:09	0.875	62.4	9.0
342	2010/07/15 21:27:07	0.625	92.2	9.1
343	2010/07/15 21:30:18	0.875	66.3	9.7
344	2010/07/15 21:32:22	1.000	58.5	6.7
345	2010/07/15 21:41:41	0.875	54.3	9.4
346	2010/07/15 21:43:23	0.625	64.4	10.2
347	2010/07/15 21:43:43	0.750	59.5	9.9
348	2010/07/15 21:44:45	0.750	55.0	8.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

349	2010/07/15 21:44:51	0.750	54.5	8.8
350	2010/07/15 21:44:55	1.000	57.9	8.6
351	2010/07/15 21:47:54	0.750	60.1	9.0
352	2010/07/15 21:48:36	0.625	57.7	11.8
353	2010/07/15 21:56:49	0.625	63.4	10.4
354	2010/07/15 22:03:31	0.875	63.4	9.2
355	2010/07/15 22:03:53	0.750	63.2	9.4
356	2010/07/15 22:04:01	1.000	63.2	9.3
357	2010/07/15 22:04:12	0.625	78.3	11.9
358	2010/07/15 22:04:27	0.625	66.9	11.2
359	2010/07/15 22:05:59	0.625	78.4	11.7
360	2010/07/15 22:13:43	0.750	56.6	10.5
361	2010/07/15 22:19:07	0.625	89.0	10.9
362	2010/07/15 22:38:40	0.625	70.0	11.5
363	2010/07/15 22:41:52	1.000	51.9	7.3
364	2010/07/15 22:44:36	1.000	66.5	11.3
365	2010/07/15 22:46:31	0.625	66.1	11.7
366	2010/07/15 22:46:51	0.625	66.2	10.1
367	2010/07/15 22:49:29	0.875	59.7	8.4
368	2010/07/15 23:08:57	1.000	56.7	7.2
369	2010/07/15 23:28:28	1.000	69.0	6.8
370	2010/07/15 23:31:04	0.875	65.2	9.5
371	2010/07/15 23:39:37	0.750	60.5	10.8
372	2010/07/15 23:39:41	0.750	58.6	10.2
373	2010/07/15 23:41:14	0.750	62.8	7.3
374	2010/07/15 23:41:19	0.625	62.0	11.4
375	2010/07/15 23:41:50	0.625	65.2	9.7
376	2010/07/15 23:41:59	1.000	68.0	6.9
377	2010/07/15 23:42:14	0.625	60.7	8.9
378	2010/07/15 23:43:19	1.000	54.1	8.3
379	2010/07/15 23:44:55	0.625	78.2	13.1
380	2010/07/15 23:45:23	0.625	64.6	13.1
381	2010/07/15 23:45:53	0.625	64.5	11.9
382	2010/07/15 23:47:15	0.750	59.4	10.6

383	2010/07/15 23:47:17	0.625	74.4	13.5
384	2010/07/15 23:47:40	0.625	59.5	10.9
385	2010/07/15 23:47:45	0.750	56.1	11.2
386	2010/07/15 23:48:11	0.750	63.9	10.3
387	2010/07/15 23:48:18	0.750	67.7	8.9
388	2010/07/15 23:48:29	0.875	72.3	8.2
389	2010/07/15 23:48:30	1.000	67.5	7.6
390	2010/07/15 23:48:32	0.875	69.0	8.5
391	2010/07/15 23:48:33	0.625	64.0	7.4
392	2010/07/15 23:48:38	0.625	64.8	10.9
393	2010/07/15 23:49:40	0.750	62.9	10.3
394	2010/07/15 23:49:43	0.875	57.1	7.6
395	2010/07/15 23:49:44	0.750	61.0	10.6
396	2010/07/15 23:51:04	0.625	68.4	10.1
397	2010/07/15 23:51:05	0.625	65.6	10.1
398	2010/07/15 23:51:11	0.750	65.5	9.4
399	2010/07/15 23:51:13	0.625	69.6	12.9
400	2010/07/15 23:51:33	0.875	57.9	10.0
401	2010/07/15 23:51:43	0.750	51.5	10.3
402	2010/07/15 23:52:12	0.625	57.4	10.0
403	2010/07/15 23:52:35	0.750	67.4	8.0
404	2010/07/15 23:52:59	0.625	65.1	11.6
405	2010/07/15 23:53:39	0.625	66.9	9.2
406	2010/07/15 23:53:51	0.750	73.3	11.2
407	2010/07/15 23:54:21	0.875	62.8	10.2
408	2010/07/15 23:54:33	0.750	60.8	7.5
409	2010/07/15 23:54:42	0.750	59.1	11.4
410	2010/07/15 23:54:55	0.750	65.0	10.9
411	2010/07/15 23:55:04	0.750	77.7	12.3
412	2010/07/15 23:55:05	0.625	82.6	11.8
413	2010/07/15 23:55:23	0.500	65.1	12.3
414	2010/07/15 23:55:27	0.750	59.9	7.9
415	2010/07/15 23:56:19	0.625	76.4	10.5
416	2010/07/15 23:56:43	0.625	75.1	11.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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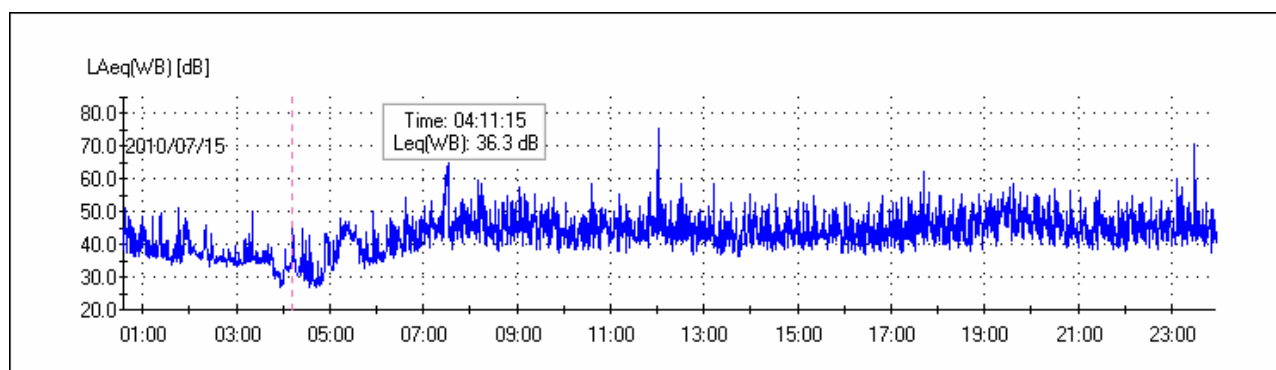
417	2010/07/15 23:56:55	1.000	64.3	8.6
418	2010/07/15 23:57:07	0.625	86.8	12.5
419	2010/07/15 23:57:23	0.625	69.4	11.6

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 125	0.0
Freq: 200	0.2
Freq: 250	0.2
Freq: 315	0.1
Freq: 400	0.1
Freq: 500	0.5
Freq: 630	0.1
Freq: 800	0.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Freq: 1 k	0.1
Freq: 1.25 k	0.0
Freq: 1.6 k	0.1
Freq: 2 k	0.1
Freq: 2.5 k	0.1
Freq: 3.15 k	5.6
Freq: 4 k	0.2
Freq: 5 k	0.0
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME HISTORY COMPONENTI TONALI

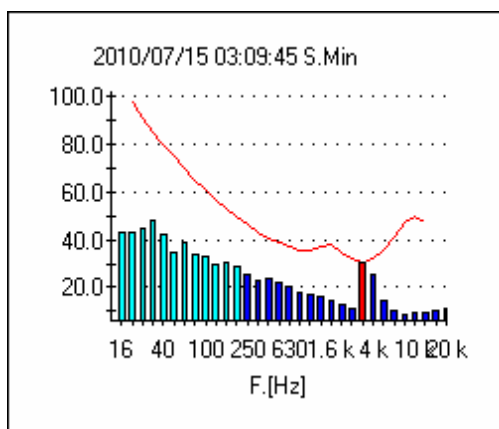
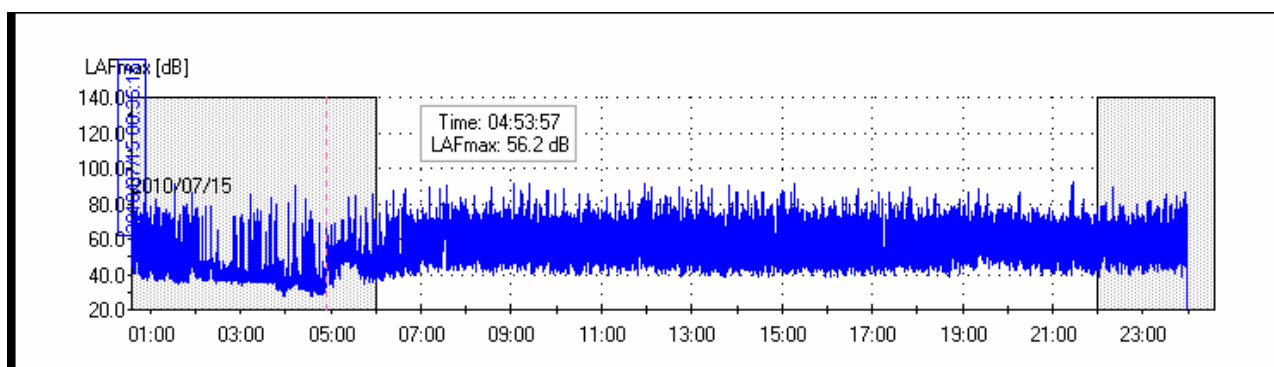
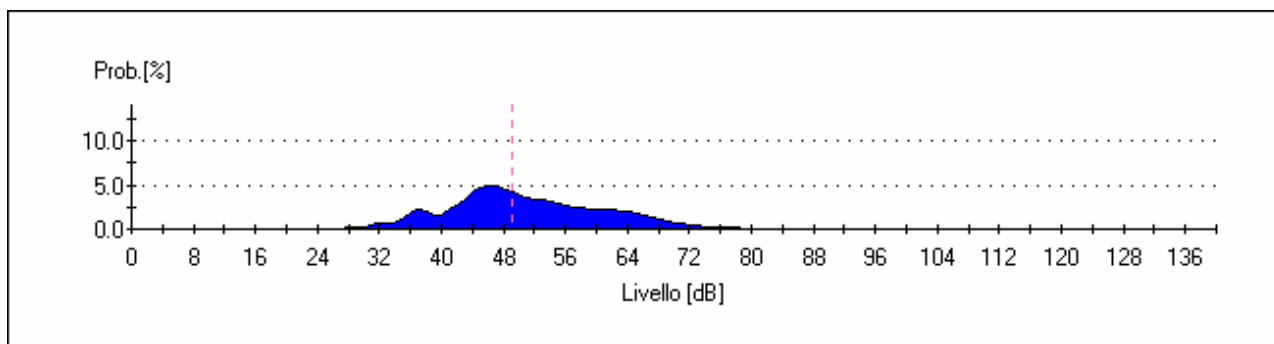


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

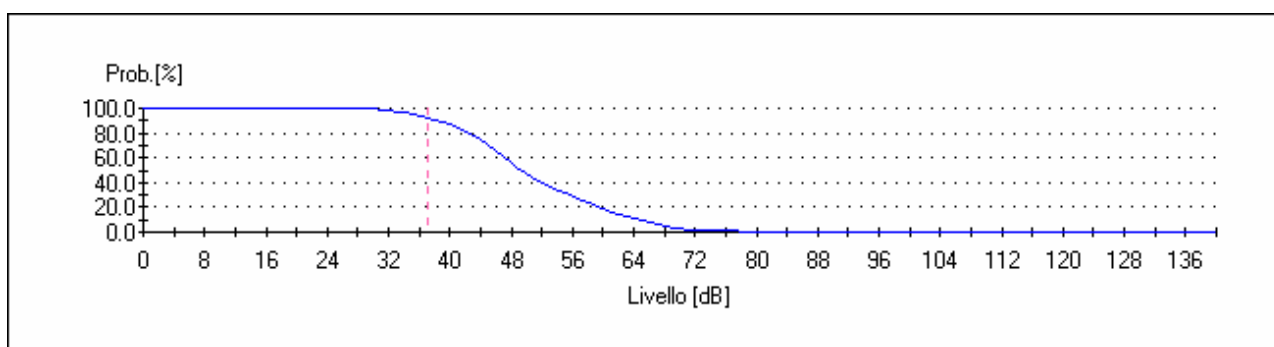
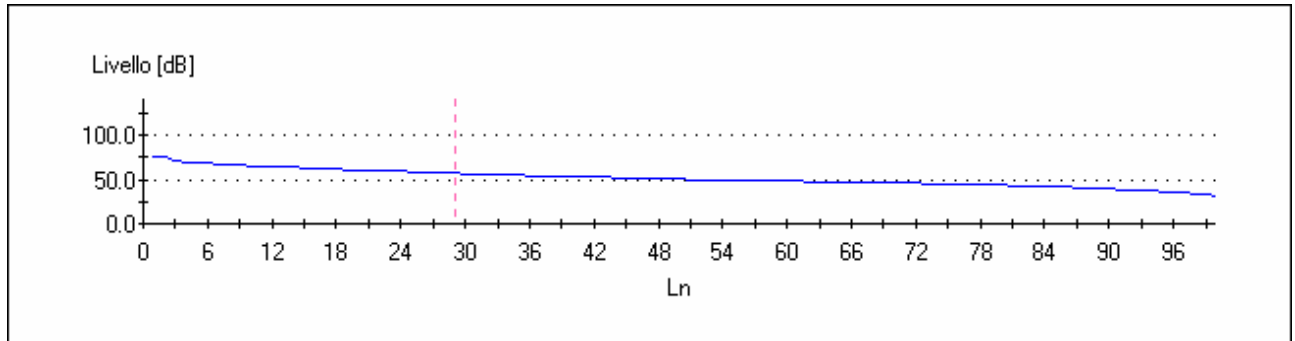


GRAFICO PERCENTILI



Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile	Leq.[dB]
0	76.0
1	76.0
2	72.0
3	70.0
4	69.0
5	68.0
6	67.5
7	67.0
8	66.0
9	65.5
10	65.0
11	64.5
12	64.0
13	63.5
14	63.0
15	62.5
16	62.0
17	61.5
18	61.0
19	60.7
20	60.3
21	60.0
22	59.5

23	59.0
24	58.5
25	58.0
26	57.7
27	57.3
28	57.0
29	56.5
30	56.0
31	55.7
32	55.3
33	55.0
34	54.7
35	54.3
36	54.0
37	53.8
38	53.5
39	53.3
40	53.0
41	52.7
42	52.3
43	52.0
44	51.8
45	51.5
46	51.3
47	51.0
48	50.7
49	50.3
50	50.0
51	49.8
52	49.6
53	49.4
54	49.2
55	49.0
56	48.8

57	48.5
58	48.3
59	48.0
60	47.8
61	47.6
62	47.4
63	47.2
64	47.0
65	46.8
66	46.6
67	46.4
68	46.2
69	46.0
70	45.8
71	45.6
72	45.4
73	45.2
74	45.0
75	44.8
76	44.5
77	44.3
78	44.0
79	43.7
80	43.3
81	43.0
82	42.7
83	42.3
84	42.0
85	41.5
86	41.0
87	40.5
88	40.0
89	39.0
90	38.5

91	38.0
92	37.5
93	37.0
94	36.5
95	36.0
96	35.0
97	34.0
98	33.0
99	31.0

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	77.0
1	77.0
2	73.0
3	71.0
4	70.0
5	69.0
6	68.5
7	68.0
8	67.0
9	66.5
10	66.0
11	65.7
12	65.3
13	65.0
14	64.5
15	64.0
16	63.5
17	63.0
18	62.7
19	62.3
20	62.0

21	61.7
22	61.3
23	61.0
24	60.7
25	60.3
26	60.0
27	59.5
28	59.0
29	58.7
30	58.3
31	58.0
32	57.7
33	57.3
34	57.0
35	56.7
36	56.3
37	56.0
38	55.8
39	55.5
40	55.3
41	55.0
42	54.7
43	54.3
44	54.0
45	53.8
46	53.5
47	53.3
48	53.0
49	52.8
50	52.5
51	52.3
52	52.0
53	51.8
54	51.5

55	51.3
56	51.0
57	50.8
58	50.5
59	50.3
60	50.0
61	49.8
62	49.6
63	49.4
64	49.2
65	49.0
66	48.8
67	48.6
68	48.4
69	48.2
70	48.0
71	47.8
72	47.7
73	47.5
74	47.3
75	47.2
76	47.0
77	46.8
78	46.6
79	46.4
80	46.2
81	46.0
82	45.8
83	45.6
84	45.4
85	45.2
86	45.0
87	44.8
88	44.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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89	44.3
90	44.0
91	43.8
92	43.5
93	43.3
94	43.0
95	42.5
96	42.0
97	41.5
98	41.0
99	40.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	74.0
1	74.0
2	69.0
3	67.0
4	66.0
5	65.0
6	63.0
7	62.5
8	62.0
9	61.0
10	60.0
11	59.0
12	58.5
13	58.0
14	57.0
15	56.5
16	56.0
17	55.0
18	54.5

19	54.0
20	53.7
21	53.3
22	53.0
23	52.5
24	52.0
25	51.7
26	51.3
27	51.0
28	50.5
29	50.0
30	49.7
31	49.3
32	49.0
33	48.7
34	48.3
35	48.0
36	47.8
37	47.5
38	47.3
39	47.0
40	46.7
41	46.3
42	46.0
43	45.8
44	45.6
45	45.4
46	45.2
47	45.0
48	44.8
49	44.5
50	44.3
51	44.0
52	43.7

53	43.3
54	43.0
55	42.8
56	42.5
57	42.3
58	42.0
59	41.7
60	41.3
61	41.0
62	40.7
63	40.3
64	40.0
65	39.8
66	39.5
67	39.3
68	39.0
69	38.8
70	38.7
71	38.5
72	38.3
73	38.2
74	38.0
75	37.9
76	37.7
77	37.6
78	37.4
79	37.3
80	37.1
81	37.0
82	36.8
83	36.6
84	36.4
85	36.2
86	36.0

87	35.8
88	35.5
89	35.3
90	35.0
91	34.5
92	34.0
93	33.5
94	33.0
95	32.5
96	32.0
97	31.0
98	30.0
99	29.0

LIVELLI DI IMPULS- FAST E SLOW MAX NELLE 24 ORE		
LAlp [dB]	LASp [dB]	LAFp [dB]
91.7	88.8	90.9
91.7	88	90.5
93	89.8	91.2
92.1	89.5	91.2
90.3	87.1	89
94.2	89.3	92.2
94.2	89.8	92.2

LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

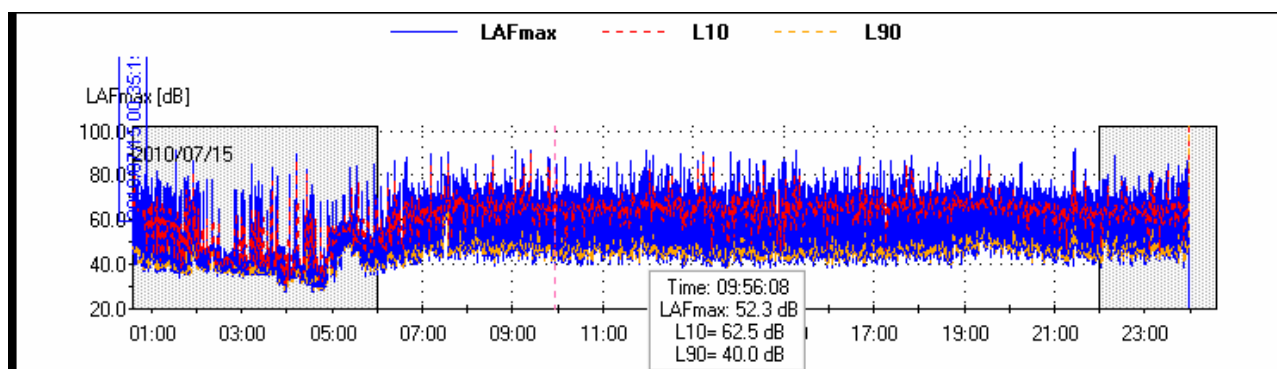
**LIVELLI DI IMPULS- FAST E SLOW
MAX DIURNI**

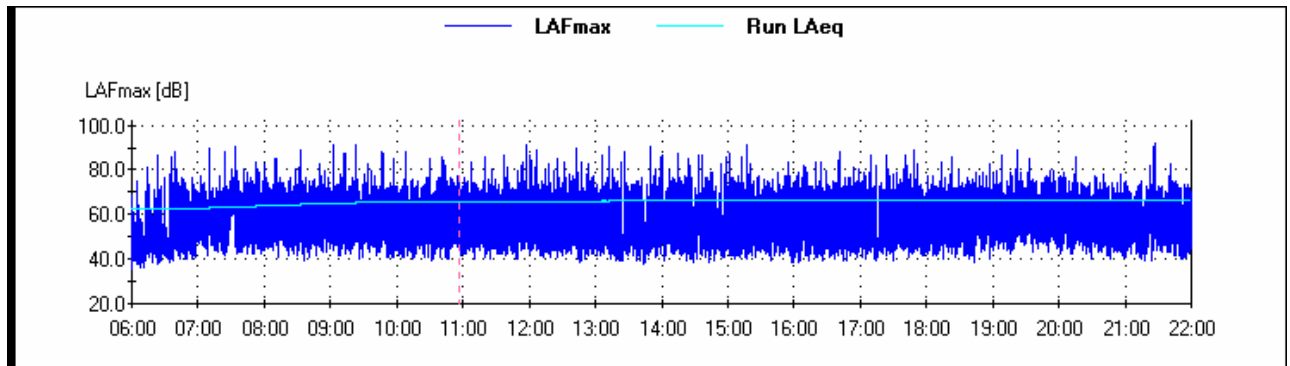
LAlp [dB]	LASp [dB]	LAFp [dB]
91.7	88	90.5
93	89.8	91.2
92.1	89.5	91.2
90.3	87.1	89
94.2	89.3	92.2
94.2	89.8	92.2

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

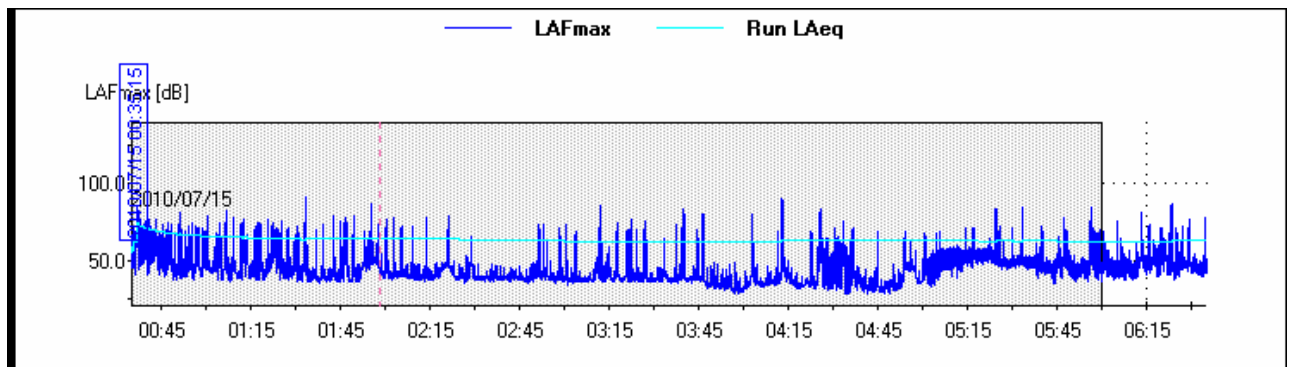
**LIVELLI DI IMPULS- FAST E SLOW
MAX NOTTURNI**

LAlp [dB]	LASp [dB]	LAFp [dB]
91.7	88.8	90.9
85.9	83	85
91.8	84.3	89
91.8	88.8	90.9

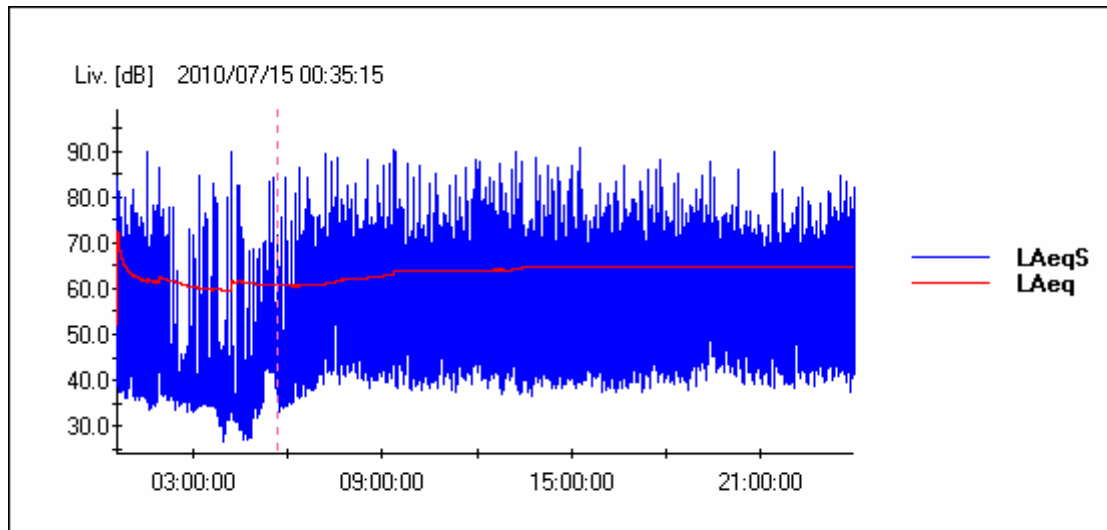
TIME HISTORY L10 – L90

RUNNING Leq DIURNO



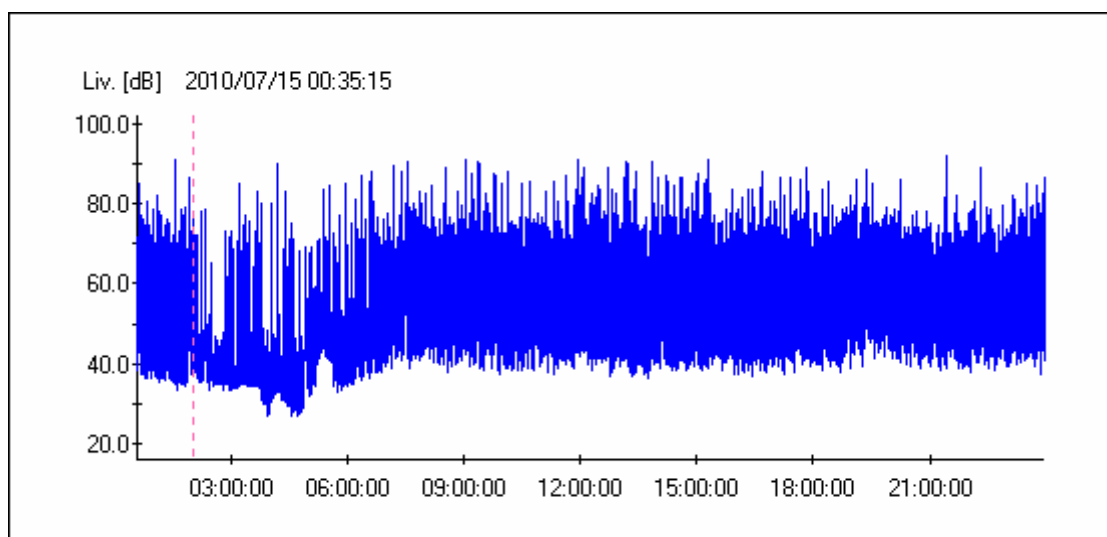
RUNNING Leq NOTTURNO



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto	Ricettore R_8_C	Indirizzo SVINCOLO A3
Descrizione del punto di misura L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sulla svincolo dell'autostrada A3 nella corsia del cantiere del sesto macrolotto all'incrocio tra le rampe di innesto alla A3 e di decelerazione della Sa - Rc		

Caratterizzazione del punto di misura/ricettore				
Zonizzazione acustica e limiti diurni/notturni				
☐	Classe I	50 /40 dB(a)		
☐	Classe II	55 / 45 dB(a)		
☒	Classe III	60 / 50 dB(a)		
☐	Classe IV	65 / 55 dB(a)		
☐	Classe V	70 / 60 dB(a)		
☐	Classe VI	70 / 70 dB(a)		
Caratterizzazione delle sorgenti di rumore				
Tipologia CNR				
Pavimentazione	☒	Conglomerato bituminoso chiuso	☐	Fonoassorbente
	☐	Conglomerato bituminoso aperto	☐	altro
Note Eventuali				
Strumentazione adottata				
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826				
Punto	Ricettore R_8_C	Indirizzo SVINCOLO A3		

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)								
	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Laeq 6-22h (grn) [dBA]	71.1	70.8	70.6	70.9	70.8	68.7	67.3	70.03
Laeq 22-6h (ntt) [dBA]	68.5	58.9	70.9	69.2	68	67.2	68.5	67.31

RISULTATI MISURE - periodo DIURNO (6/22h)								
Parametri	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Data	05-lug	06-lug	07-lug	08-lug	09-lug	3-lug	04-lug	
Note								
LAeq. TM [dBA]	71.1	70.8	70.6	70.9	70.8	68.7	67.3	70.03
L1 [dBA]	80.0	81.0	80.0	81.0	81.0	79.0	77.0	79.86
L5 [dBA]	76.0	76.5	76.0	76.0	76.0	73.0	71.5	75.00
L10 [dBA]	72.7	73.5	73.0	73.5	73.0	70.8	70.0	72.36
L50 [dBA]	66.4	66.3	66.4	66.7	66.7	65.3	63.8	65.94
L90 [dBA]	57.5	57.0	57.0	57.5	57.5	55.0	51.0	56.07
L95 [dBA]	55.0	54.0	54.0	54.0	54.0	52.0	47.0	52.86
L99 [dBA]	50.0	49.0	49.0	48.0	49.0	47.0	43.0	47.86
Ll max [dBA]	111.4	98.3	101.4	102.3	102.4	98.8	101.6	102.31
LF max [dBA]	109.7	97.4	98.6	100.3	101.6	97.5	99.6	100.67
Ls max [dBA]	103.3	94.9	93.6	97.6	98.5	94.7	92.7	96.47
KI [dBA]	0	0	0	0	0	0	0	
KT [dBA]	0	0	0	0	0	0	0	
Laeq.TRC [dBA]	71.1	70.8	70.6	70.9	70.8	68.7	67.3	70.03

Note:		
Punto	Ricettore	Indirizzo
	R_8_C	SVINCOLO A3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Data	05-lug	6-lug	7-lug	8-lug	9-lug	3-lug	04-lug	
Sorgente stradale REGGIO CALABRIA - SALERNO								
	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Veic. Leggeri/h	7423	6802	8631	8994	7326	7068	6479	7531.9
Veic. Pesanti/h	2293	1802	1768	1870	1885	1809	1105	1790.3
Motocicli/h	1171	113	460	455	520	1032	926	668.14
Sorgente stradale SALERNO - REGGIO CALABRIA								
	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Veic. Leggeri/h	9474	8522	6855	7229	6873	8423	7610	7855.1
Veic. Pesanti/h	1767	1783	1863	1983	1755	1133	607	1555.9
Motocicli/h	440	453	1148	1310	1055	331	310	721

Parametri meteorologici						
		6-9h	9-14h	14-19h	19-22h	Media
LUNEDI' 05-lug	Condizioni cielo	SERENO	SERENO	SERENO	SERENO	
	Temperatura	21.6	25	23.5	21	22.775
	Umidità relativa	38	38	49	61	46.5
	Velocità vento	0.6	1.1	2.9	0.7	1.325
	Direzione vento	W	N	W	N	
		6-9h	9-14h	14-19h	19-22h	Media
MARTEDI 06-lug	Condizioni cielo	SERENO	SERENO	SERENO	SERENO	
	Temperatura	20	21.1	28.4	25.6	23.775
	Umidità relativa	73	76	70	81	75
	Velocità vento	1.1	1.1	2.9	1.1	1.55
	Direzione vento	E	N W	N N E	N	

Punto	Ricettore R_8_C	Indirizzo SVINCOLO A3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

		6-9h	9-14h	14-19h	19-22h	Media
MERCOLEDI 07-lug	Condizioni cielo	SERENO	SERENO	SERENO	SERENO	
	Temperatura	24.1	28.6	28.6	26.4	26.925
	Umidità relativa	87	68	69	77	75.25
	Velocità vento	1.6	3.9	3.2	2	2.675
	Direzione vento	N E	N W	N N W	N N E	
		6-9h	9-14h	14-19h	19-22h	Media
GIOVEDI 08-lug	Condizioni cielo	SERENO	SERENO	SERENO	SERENO	
	Temperatura	24	29.2	29.1	22.9	26.3
	Umidità relativa	80	61	58	66	66.25
	Velocità vento	1.7	2.8	1.9	1.5	1.975
	Direzione vento	N	N N W	N N W	E N E	
		6-9h	9-14h	14-19h	19-22h	Media
VENERDI 9-lug	Condizioni cielo	SERENO	SERENO	SERENO	SERENO	
	Temperatura	22	30.7	29.5	26.6	27.2
	Umidità relativa	74	47	52	58	57.75
	Velocità vento	1.3	2.1	2.4	1.1	1.725
	Direzione vento	E S E	N N W	E N E	N	
		6-9h	9-14h	14-19h	19-22h	Media
SABATO 3-lug	Condizioni cielo	SERENO	SERENO	SERENO	SERENO	
	Temperatura	24.8	35.4	34.7	28.2	30.775
	Umidità relativa	75	50	46	61	58
	Velocità vento	1.5	3.9	4.3	1.1	2.7
	Direzione vento	N	N N E	N N E	N	
		6-9h	9-14h	14-19h	19-22h	Media
DOMENICA 04-lug	Condizioni cielo	SERENO	SERENO	SERENO	SERENO	
	Temperatura	20.6	26.4	26.9	22.8	24.175
	Umidità relativa	65	51	40	66	55.5
	Velocità vento	0.8	1.6	3.8	0.8	1.75
	Direzione vento	E S E	N N E	N N E	S E	
Punto	Ricettore	R 8 C		Indirizzo		
				SVINCOLO A3		

RISULTATI MISURE - periodo **NOTTURNO** (22/6h)

Parametri	Lun	Mar	Mer	Gio	Ven	Sab	Dom	SETT
Data	05-lug	6-lug	7-lug	8-lug	9-lug	3-lug	04-lug	
Note								
LAeq. TM [dBA]	68.5	58.9	70.9	69.2	68.0	67.2	68.5	67.31
L1 [dBA]	80.0	80.0	80.0	80.0	80.0	79.0	79.0	79.71
L5 [dBA]	75.0	76.0	76.0	75.5	74.0	72.0	72.0	74.36
L10 [dBA]	71.0	71.5	71.0	71.5	70.0	69.0	69.3	70.47
L50 [dBA]	58.3	57.7	57.0	58.3	58.3	58.0	58.5	58.01
L90 [dBA]	49.5	49.3	49.2	49.3	47.3	49.0	50.0	49.09
L95 [dBA]	48.0	47.0	47.5	47.0	45.5	47.5	47.0	47.07
L99 [dBA]	44.0	43.0	44.0	44.0	42.0	45.0	43.0	43.57
Ll max [dBA]	98.9	100.1	110.3	104.9	99.4	103.2	109.2	103.71
LF max [dBA]	95.9	97.6	108.1	104.5	97.8	100.4	106.7	101.57
Ls max [dBA]	92.4	90.5	104.6	101.2	91.3	93.4	100.5	96.27
Kl [dBA]	0	0	0	0	0	0	0	
Kt [dBA]	0	0	0	0	0	0	0	
Kb [dBA]	0	0	0	0	0	0	0	
Laeq.TRC [dBA]	68.5	58.9	70.9	69.2	68	67.2	68.5	67.31

Note:

DISCOTECA

Punto	Ricettore R_8_C	Indirizzo SVINCOLO A3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Parametri meteorologici					
			22-2h	2-6h	Media
LUNEDI' 05-lug	Condizioni cielo				
	Temperatura		25.1	25.9	25.5
	Umidità relativa		65	63	64
	Velocità vento		1.5	2.1	1.8
	Direzione vento		N N E	N N E	
			22-2h	2-6h	Media
MARTEDI 06-lug	Condizioni cielo				
	Temperatura		26.8	26.5	26.65
	Umidità relativa		70	69	69.5
	Velocità vento		2.1	1.8	1.95
	Direzione vento		N	N	
			22-2h	2-6h	Media
MERCOLEDI 07-lug	Condizioni cielo				
	Temperatura		25.1	24.1	24.6
	Umidità relativa		83	84	83.5
	Velocità vento		2	1.1	1.55
	Direzione vento		N N E	N N E	
			22-2h	2-6h	Media
GIOVEDI 08-lug	Condizioni cielo				
	Temperatura		24.8	24.4	83
	Umidità relativa		81	80	1.8
	Velocità vento		0.5	0.8	N
	Direzione vento		N	N	

Punto	Ricettore R 8 C	Indirizzo SVINCOLO A3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

		22-2h	2-6h	Media
VENERDI 9-lug	Condizioni cielo			
	Temperatura	20	19.4	19.7
	Umidità relativa	83	85	84
	Velocità vento	2.2	1.3	1.75
	Direzione vento	N N E	N E	
		22-2h	2-6h	Media
SABATO 3-lug	Condizioni cielo			
	Temperatura	25.4	24.4	24.9
	Umidità relativa	70	74	72
	Velocità vento	0.5	2	1.25
	Direzione vento	S S E	N	
		22-2h	2-6h	Media
DOMENICA 04-lug	Condizioni cielo			
	Temperatura	25.5	25.7	25.6
	Umidità relativa	68	72	70
	Velocità vento	2.1	2.2	2.15
	Direzione vento	N N W	N N E	

Punto	Ricettore R 8 C	Indirizzo SVINCOLO A3

MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO

Codice documento
AC0053_F0.docx_F0

Rev
F0

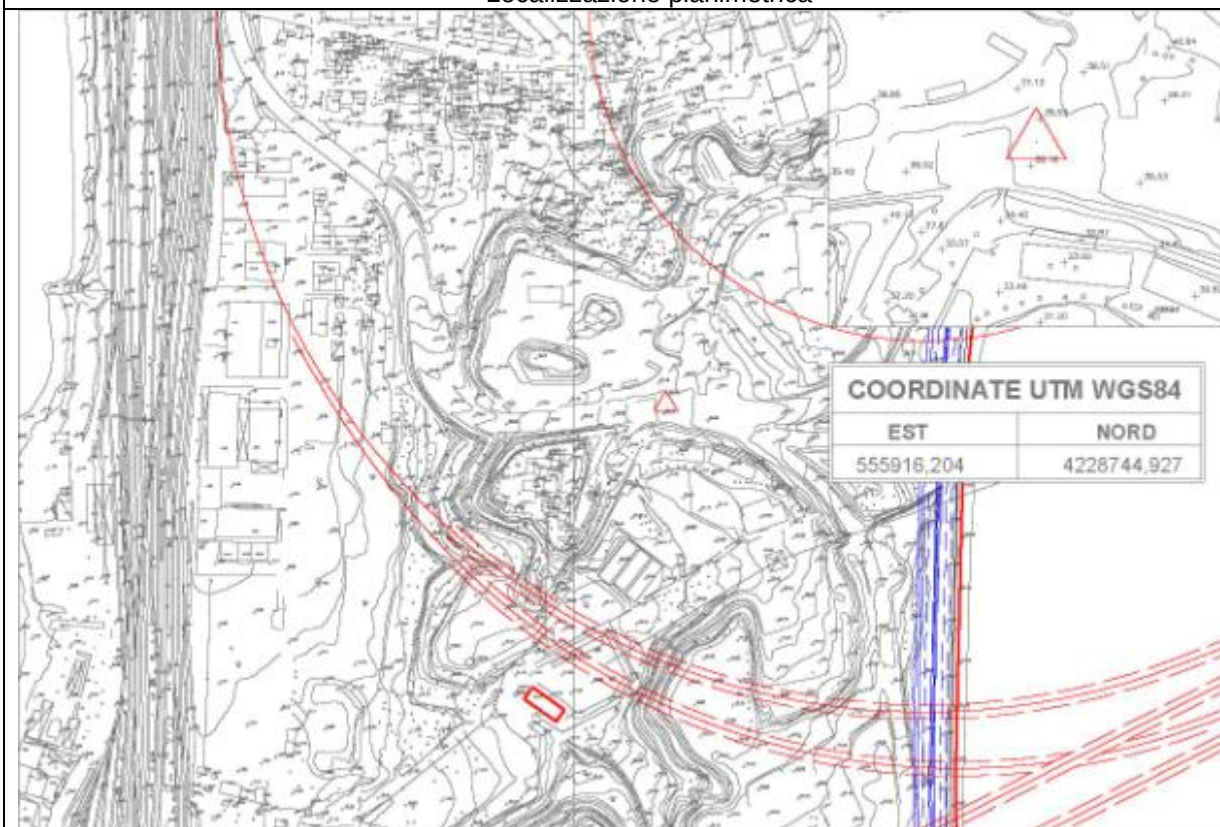
Data
20/06/2011

Fotografia del punto di misura



Punto	Ricettore R_8_C	Indirizzo SVINCOLO A3

Localizzazione planimetrica



DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

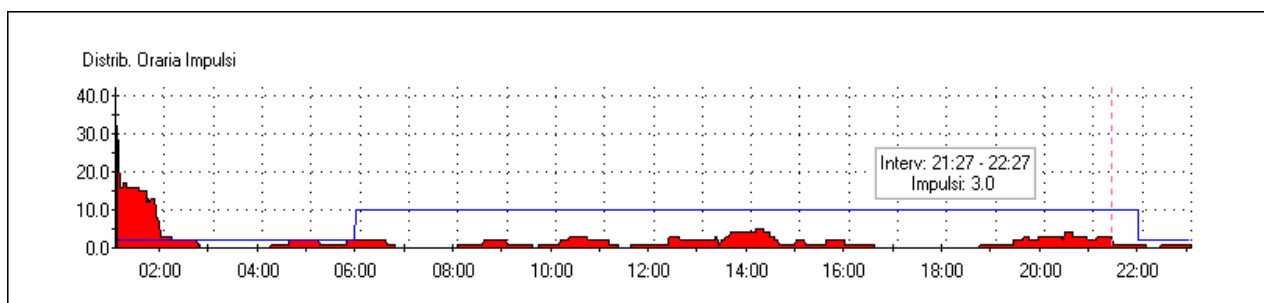
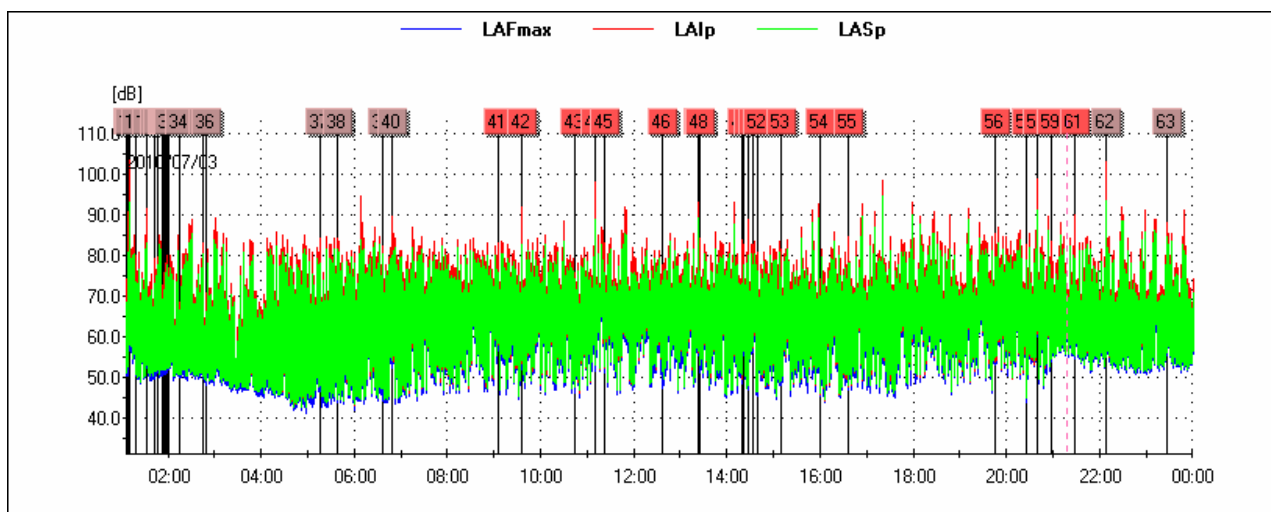
R_8_C SABATO 03/07/2010

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/03 01:06:50	0.625	68.8	9.5
2	2010/07/03 01:07:15	1.000	70.9	8.1
3	2010/07/03 01:07:20	1.000	70.0	8.1
4	2010/07/03 01:07:52	0.625	64.8	11.6
5	2010/07/03 01:07:53	0.500	77.0	12.9

6	2010/07/03 01:07:58	0.500	77.4	13.7
7	2010/07/03 01:08:16	0.875	72.0	10.0
8	2010/07/03 01:08:36	0.625	74.0	11.1
9	2010/07/03 01:08:43	0.500	75.5	12.7
10	2010/07/03 01:09:21	0.750	71.6	9.9
11	2010/07/03 01:09:22	0.750	87.9	10.0
12	2010/07/03 01:09:46	0.625	85.4	11.7
13	2010/07/03 01:09:54	0.750	86.1	10.3
14	2010/07/03 01:09:57	0.625	99.5	11.9
15	2010/07/03 01:09:57	0.625	98.5	9.6
16	2010/07/03 01:09:59	0.625	98.0	9.5
17	2010/07/03 01:10:00	0.625	99.9	9.8
18	2010/07/03 01:18:04	0.500	75.9	12.4
19	2010/07/03 01:33:01	0.750	89.0	8.3
20	2010/07/03 01:43:14	0.875	62.6	8.4
21	2010/07/03 01:43:21	1.000	72.7	11.4
22	2010/07/03 01:43:25	0.875	76.6	8.6
23	2010/07/03 01:46:14	0.625	70.7	12.4
24	2010/07/03 01:52:39	0.625	69.1	10.2
25	2010/07/03 01:53:01	0.750	64.8	11.2
26	2010/07/03 01:54:02	0.875	70.5	9.4
27	2010/07/03 01:54:21	0.750	69.2	8.5
28	2010/07/03 01:54:35	0.750	70.9	9.9
29	2010/07/03 01:57:18	0.750	67.1	10.4
30	2010/07/03 01:59:39	0.750	71.2	10.3
31	2010/07/03 01:59:42	1.000	66.5	9.0
32	2010/07/03 01:59:51	0.750	65.1	9.5
33	2010/07/03 01:59:55	0.875	65.6	8.6
34	2010/07/03 02:14:15	0.625	65.0	10.0
35	2010/07/03 02:45:28	1.000	63.1	10.6
36	2010/07/03 02:48:47	0.625	66.3	11.7
37	2010/07/03 05:15:35	1.000	82.1	7.2
38	2010/07/03 05:37:18	1.000	73.5	7.1
39	2010/07/03 06:37:28	0.750	68.0	11.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

40	2010/07/03 06:48:52	0.625	86.0	11.2
41	2010/07/03 09:04:56	0.750	80.2	9.7
42	2010/07/03 09:36:35	0.750	89.6	9.2
43	2010/07/03 10:44:17	0.875	65.5	8.1
44	2010/07/03 11:10:04	0.625	95.7	9.0
45	2010/07/03 11:21:28	0.875	81.7	7.4
46	2010/07/03 12:37:49	0.875	66.5	7.7
47	2010/07/03 13:23:44	0.875	80.2	8.9
48	2010/07/03 13:24:51	0.625	80.8	11.1
49	2010/07/03 14:20:31	0.875	80.2	10.9
50	2010/07/03 14:27:44	0.750	86.9	8.8
51	2010/07/03 14:33:03	0.875	79.5	10.3
52	2010/07/03 14:38:53	0.625	79.3	8.0
53	2010/07/03 15:10:04	0.875	79.9	6.6
54	2010/07/03 15:59:20	0.875	63.6	11.0
55	2010/07/03 16:36:51	0.750	83.1	7.7
56	2010/07/03 19:45:03	0.750	82.3	9.8
57	2010/07/03 20:26:29	0.875	80.2	8.6
58	2010/07/03 20:39:20	0.625	96.0	9.9
59	2010/07/03 20:57:23	0.750	81.1	9.2
60	2010/07/03 21:28:34	0.625	86.7	10.9
61	2010/07/03 21:28:39	0.875	80.8	6.5
62	2010/07/03 22:09:24	0.750	100.4	9.4
63	2010/07/03 23:27:21	0.500	75.8	11.6

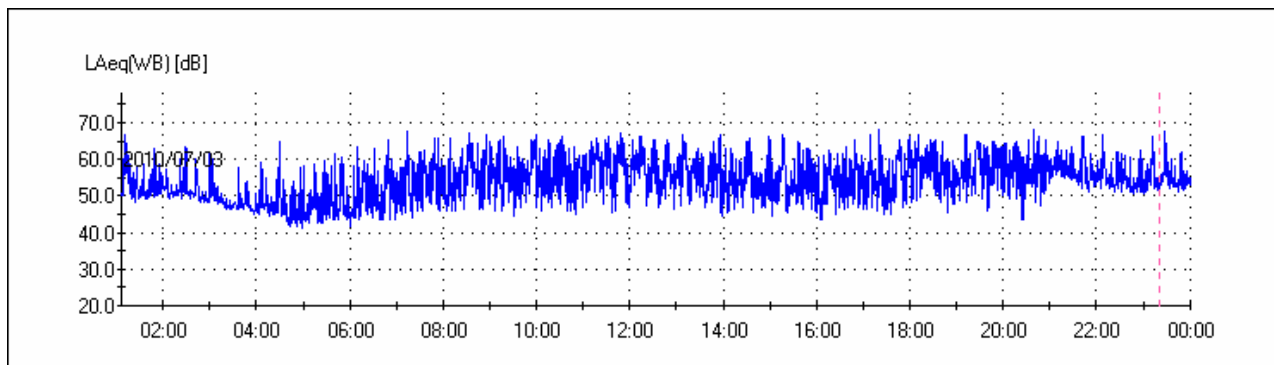
RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi

spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 125	0.1
Freq: 160	0.0
Freq: 200	0.0
Freq: 250	0.1
Freq: 500	0.1
Freq: 1 k	0.0
Freq: 3.15 k	23.0
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

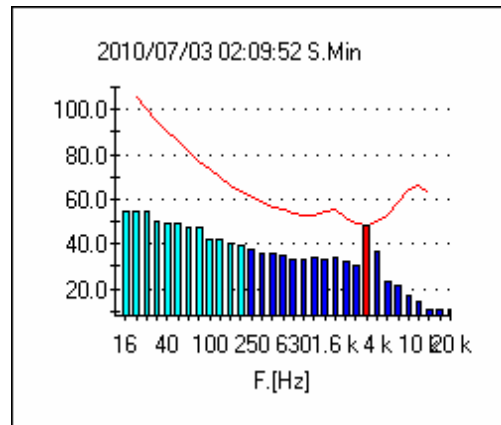
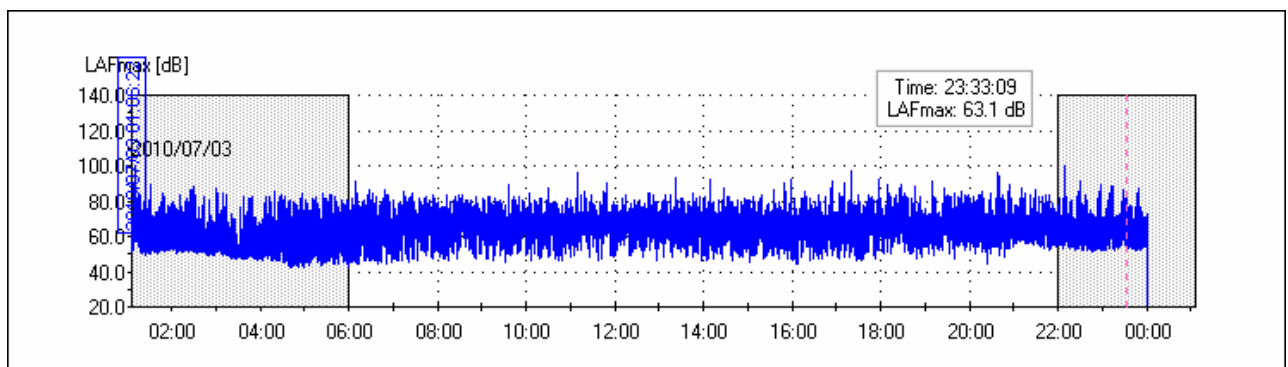
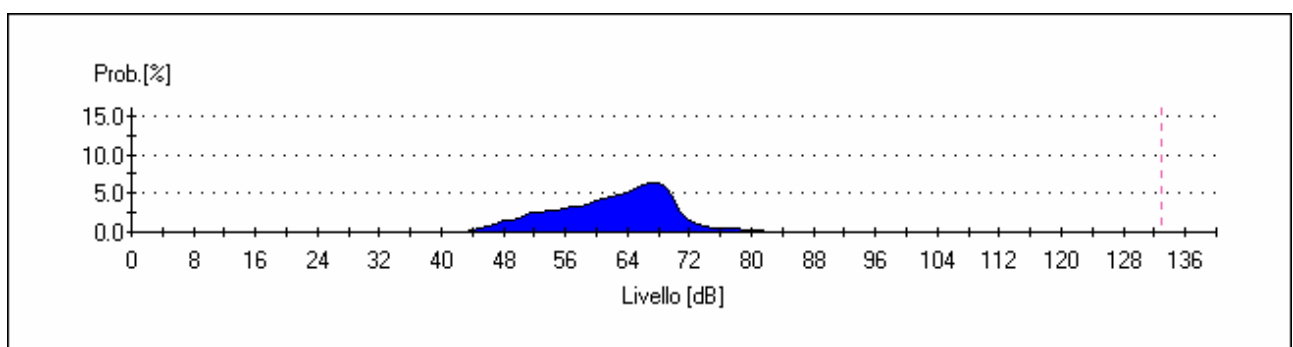


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

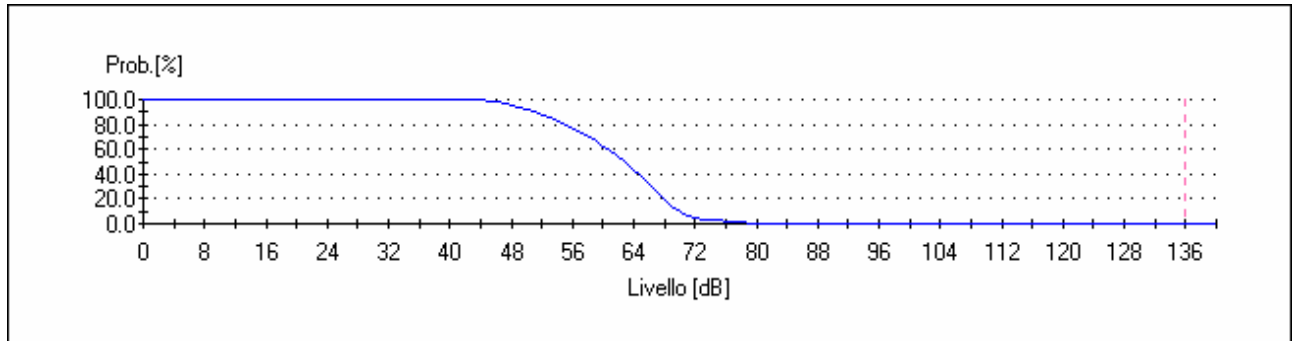
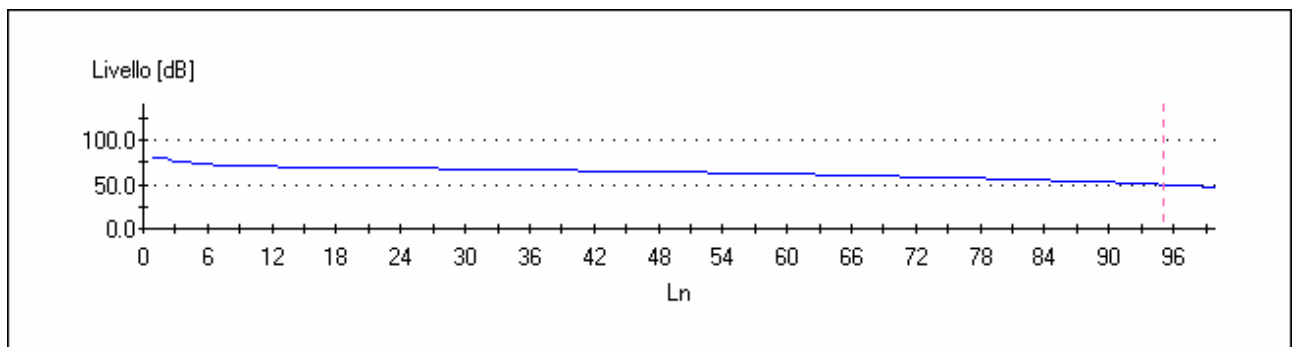


GRAFICO PERCENTILI



LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	79.0
1	79.0
2	76.0
3	75.0
4	74.0
5	73.0
6	72.0
7	71.7
8	71.3
9	71.0
10	70.8
11	70.7
12	70.5

13	70.3
14	70.2
15	70.0
16	69.9
17	69.7
18	69.6
19	69.4
20	69.3
21	69.1
22	69.0
23	68.9
24	68.8
25	68.6
26	68.5
27	68.4
28	68.3
29	68.1
30	68.0
31	67.9
32	67.8
33	67.6
34	67.5
35	67.4
36	67.3
37	67.1
38	67.0
39	66.9
40	66.7
41	66.6
42	66.4
43	66.3
44	66.1
45	66.0
46	65.9

47	65.7
48	65.6
49	65.4
50	65.3
51	65.1
52	65.0
53	64.8
54	64.6
55	64.4
56	64.2
57	64.0
58	63.8
59	63.7
60	63.5
61	63.3
62	63.2
63	63.0
64	62.8
65	62.6
66	62.4
67	62.2
68	62.0
69	61.8
70	61.5
71	61.3
72	61.0
73	60.8
74	60.5
75	60.3
76	60.0
77	59.7
78	59.3
79	59.0
80	58.8

81	58.5
82	58.3
83	58.0
84	57.5
85	57.0
86	56.7
87	56.3
88	56.0
89	55.5
90	55.0
91	54.5
92	54.0
93	53.0
94	52.5
95	52.0
96	51.0
97	50.0
98	48.0
99	47.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	79.0
1	79.0
2	77.0
3	75.0
4	73.0
5	72.0
6	71.0
7	70.0
8	69.7
9	69.3

10	69.0
11	68.5
12	68.0
13	67.7
14	67.3
15	67.0
16	66.8
17	66.5
18	66.3
19	66.0
20	65.8
21	65.5
22	65.3
23	65.0
24	64.7
25	64.3
26	64.0
27	63.8
28	63.5
29	63.3
30	63.0
31	62.8
32	62.5
33	62.3
34	62.0
35	61.8
36	61.5
37	61.3
38	61.0
39	60.8
40	60.5
41	60.3
42	60.0
43	59.8

44	59.5
45	59.3
46	59.0
47	58.8
48	58.5
49	58.3
50	58.0
51	57.8
52	57.5
53	57.3
54	57.0
55	56.8
56	56.6
57	56.4
58	56.2
59	56.0
60	55.8
61	55.5
62	55.3
63	55.0
64	54.8
65	54.6
66	54.4
67	54.2
68	54.0
69	53.8
70	53.6
71	53.4
72	53.2
73	53.0
74	52.8
75	52.6
76	52.4
77	52.2

78	52.0
79	51.8
80	51.6
81	51.4
82	51.2
83	51.0
84	50.8
85	50.5
86	50.3
87	50.0
88	49.7
89	49.3
90	49.0
91	48.8
92	48.5
93	48.3
94	48.0
95	47.5
96	47.0
97	46.5
98	46.0
99	45.0

LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

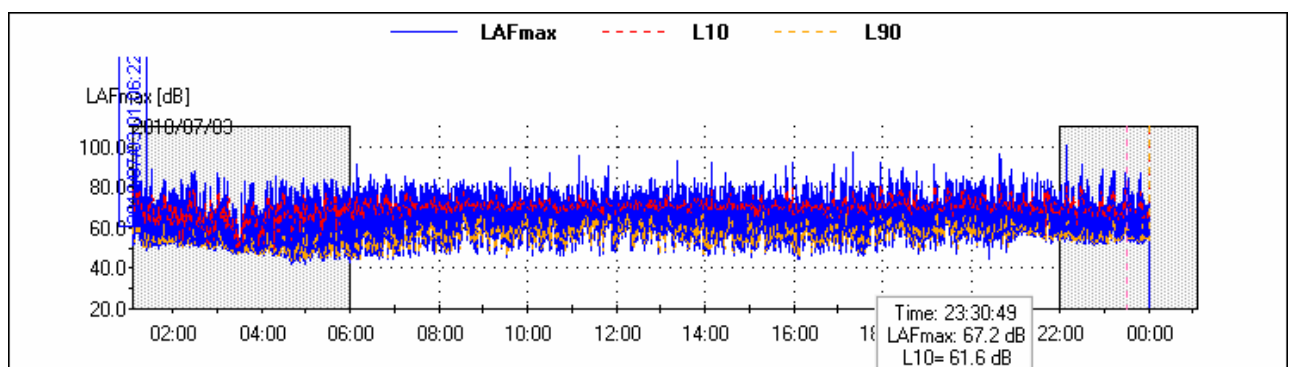
**LIVELLI DI IMPULS- FAST E SLOW
MAX DIURNI**

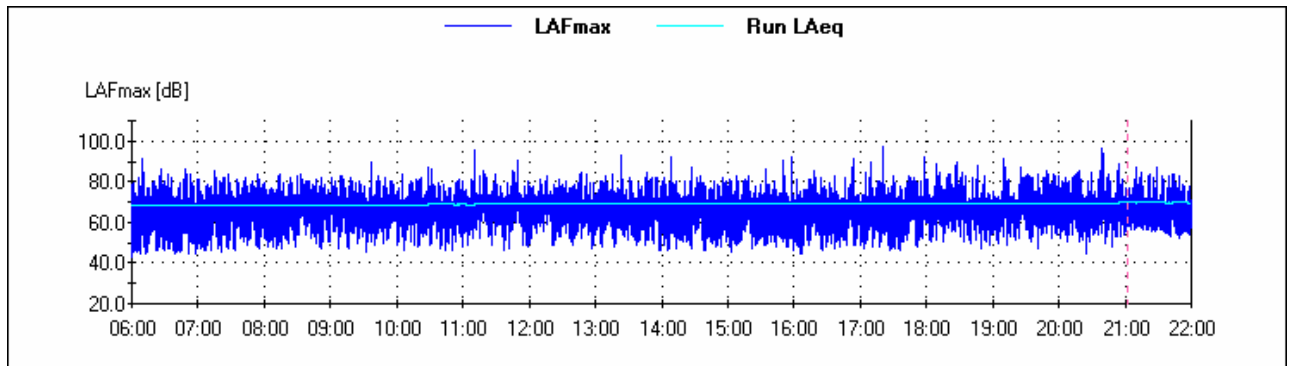
LAlp [dB]	LASp [dB]	LAFp [dB]
94.4	83.9	91.2
97.9	89.1	95.7
98.3	94.7	97.5
98.8	91.1	96
78.2	75.9	77.8
98.8	94.7	97.5

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

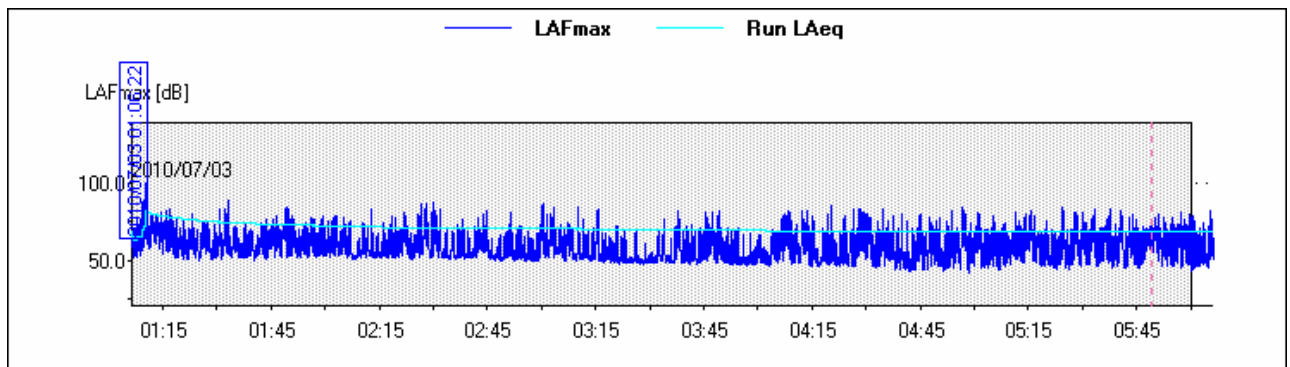
**LIVELLI DI IMPULS- FAST E SLOW
MAX NOTTURNI**

LAlp [dB]	LASp [dB]	LAFp [dB]
103.2	93.1	99.9
84.6	81.6	84.1
102.8	93.4	100.4
103.2	93.4	100.4

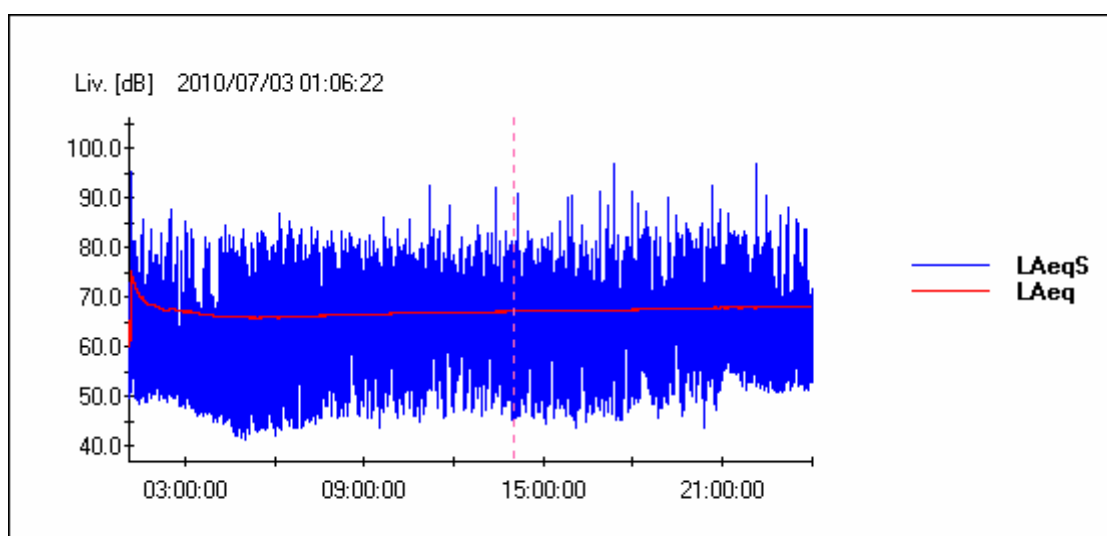
TIME HISTORY L10 – L90

RUNNING Leq DIURNO



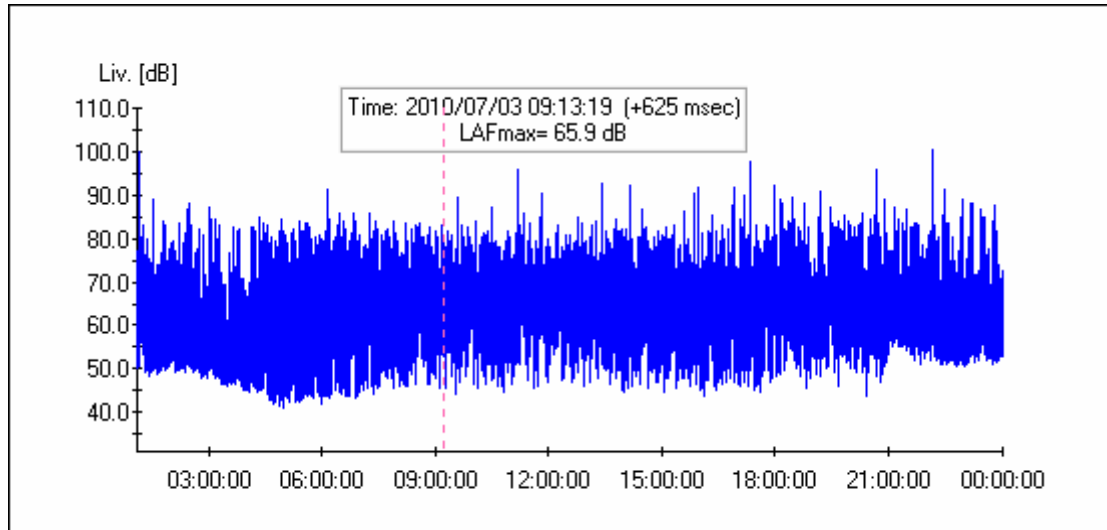
RUNNING Leq NOTTURNO



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"

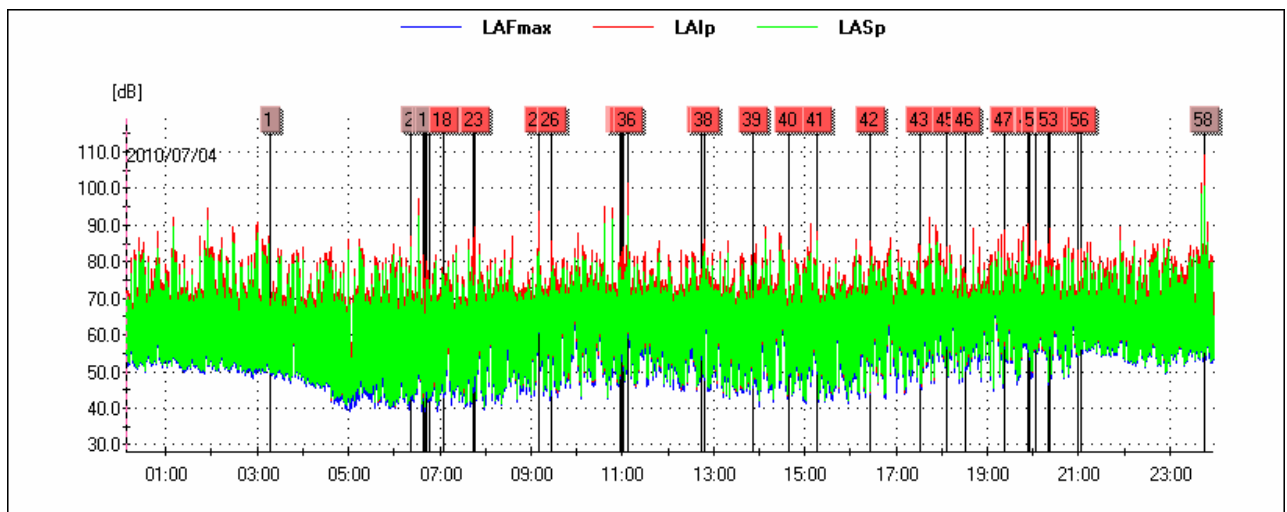


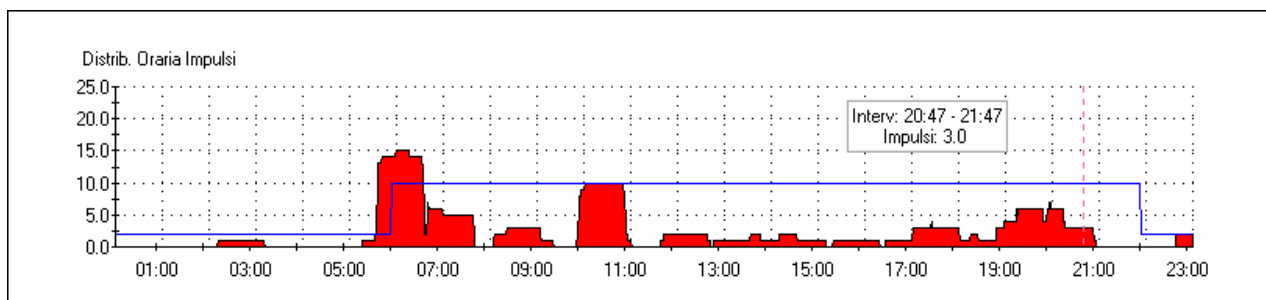
R_8_C DOMENICA 04/07/2010
RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.





Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/04 03:17:32	0.750	62.7	9.7
2	2010/07/04 06:22:15	0.875	76.8	7.8
3	2010/07/04 06:39:09	0.625	72.7	11.3
4	2010/07/04 06:39:10	0.625	75.9	10.8
5	2010/07/04 06:41:00	0.625	66.1	10.6
6	2010/07/04 06:41:00	0.625	70.8	11.2
7	2010/07/04 06:41:01	0.625	71.9	9.7
8	2010/07/04 06:41:31	0.750	57.2	12.6
9	2010/07/04 06:41:38	0.625	74.4	11.8
10	2010/07/04 06:41:39	0.625	67.2	12.1
11	2010/07/04 06:41:39	0.500	73.5	11.0
12	2010/07/04 06:41:44	0.625	73.9	10.2
13	2010/07/04 06:41:47	0.625	76.2	10.8
14	2010/07/04 06:42:20	1.000	61.0	9.9
15	2010/07/04 06:42:41	0.500	66.3	12.5
16	2010/07/04 06:42:47	0.875	69.4	12.3
17	2010/07/04 06:47:00	0.625	59.2	10.4
18	2010/07/04 07:05:43	1.000	56.4	6.3
19	2010/07/04 07:45:02	0.625	81.9	13.3
20	2010/07/04 07:45:28	0.500	81.0	13.3
21	2010/07/04 07:45:54	0.625	79.0	12.6
22	2010/07/04 07:46:14	0.750	72.7	11.0
23	2010/07/04 07:46:41	0.500	84.9	13.6
24	2010/07/04 09:10:59	0.625	90.7	10.9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

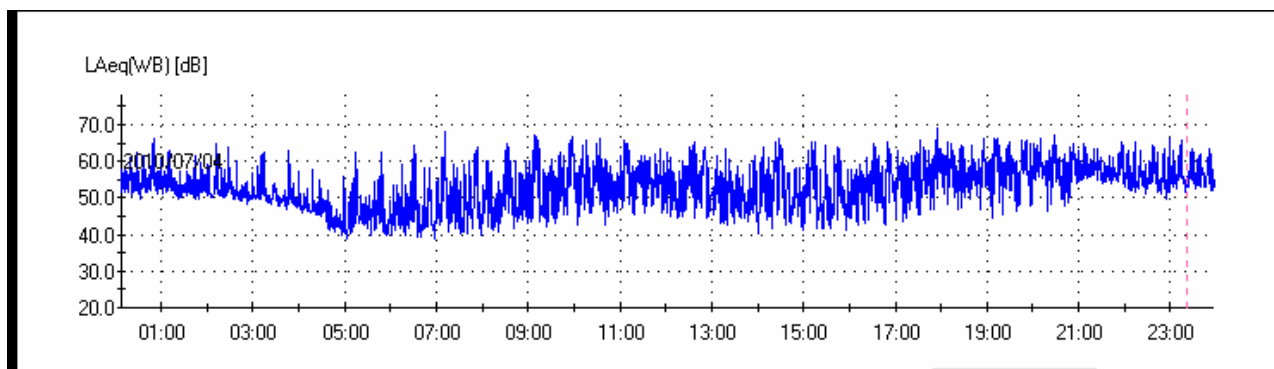
25	2010/07/04 09:11:02	0.750	86.2	7.9
26	2010/07/04 09:27:45	0.625	84.3	8.3
27	2010/07/04 10:57:47	0.625	74.0	9.6
28	2010/07/04 10:57:49	0.625	66.5	10.3
29	2010/07/04 10:59:04	0.875	78.2	10.4
30	2010/07/04 10:59:27	1.000	67.0	8.6
31	2010/07/04 10:59:30	1.000	72.1	11.5
32	2010/07/04 10:59:41	0.875	72.8	10.2
33	2010/07/04 11:00:41	0.625	74.2	12.4
34	2010/07/04 11:00:43	0.875	73.3	11.6
35	2010/07/04 11:02:03	1.000	79.9	9.9
36	2010/07/04 11:07:23	0.875	99.1	8.9
37	2010/07/04 12:44:00	1.000	74.9	6.6
38	2010/07/04 12:48:54	0.750	79.4	9.5
39	2010/07/04 13:52:41	0.625	67.5	9.2
40	2010/07/04 14:39:06	0.625	81.2	8.6
41	2010/07/04 15:16:04	0.750	85.8	9.5
42	2010/07/04 16:25:51	0.875	83.9	6.6
43	2010/07/04 17:32:32	0.750	83.0	7.7
44	2010/07/04 18:07:01	0.625	74.9	11.0
45	2010/07/04 18:07:12	0.625	79.4	12.8
46	2010/07/04 18:31:12	0.750	73.5	9.4
47	2010/07/04 19:21:48	0.750	84.6	12.5
48	2010/07/04 19:54:23	0.625	87.2	10.9
49	2010/07/04 19:54:37	1.000	72.9	7.6
50	2010/07/04 20:04:22	0.875	81.3	7.7
51	2010/07/04 20:20:07	0.625	79.9	11.1
52	2010/07/04 20:20:09	0.875	82.8	8.1
53	2010/07/04 20:22:01	0.625	86.3	10.2
54	2010/07/04 20:59:52	0.750	75.6	9.2
55	2010/07/04 20:59:55	0.750	78.5	9.3
56	2010/07/04 21:02:44	0.875	81.8	7.4
57	2010/07/04 23:44:48	1.000	106.7	8.7
58	2010/07/04 23:44:49	1.000	97.5	10.1

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 63	0.0
Freq: 80	0.0
Freq: 100	0.0
Freq: 125	0.0
Freq: 200	0.2
Freq: 250	0.0
Freq: 315	0.1
Freq: 500	0.1
Freq: 630	0.1
Freq: 1.25 k	0.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 2 k	0.0
Freq: 2.5 k	0.0
Freq: 3.15 k	20.5
Freq: 4 k	0.0
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

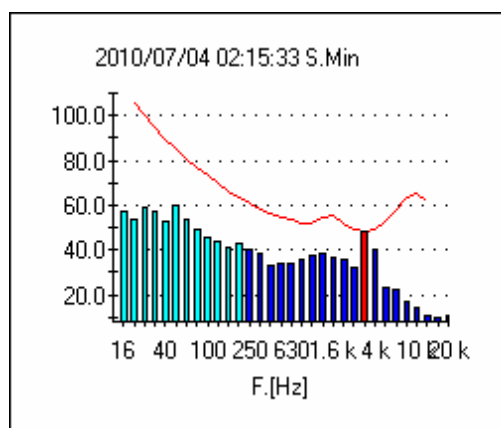
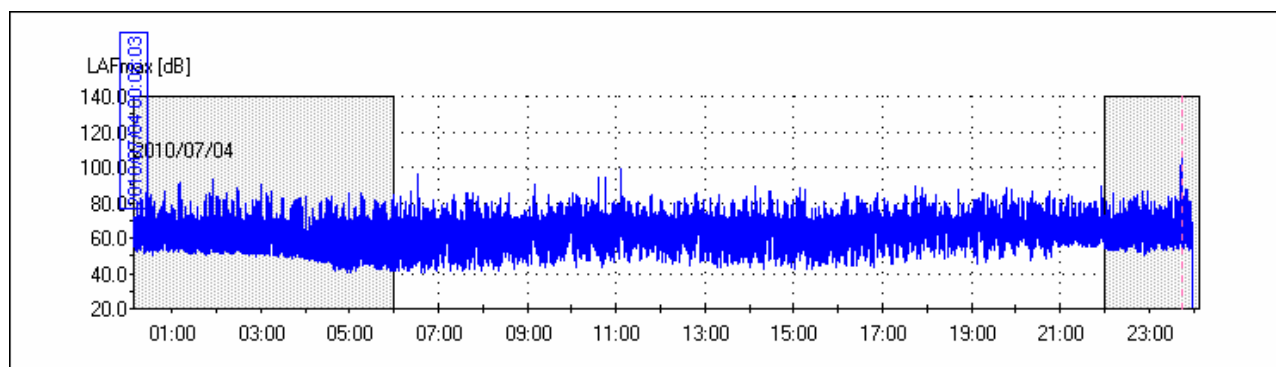
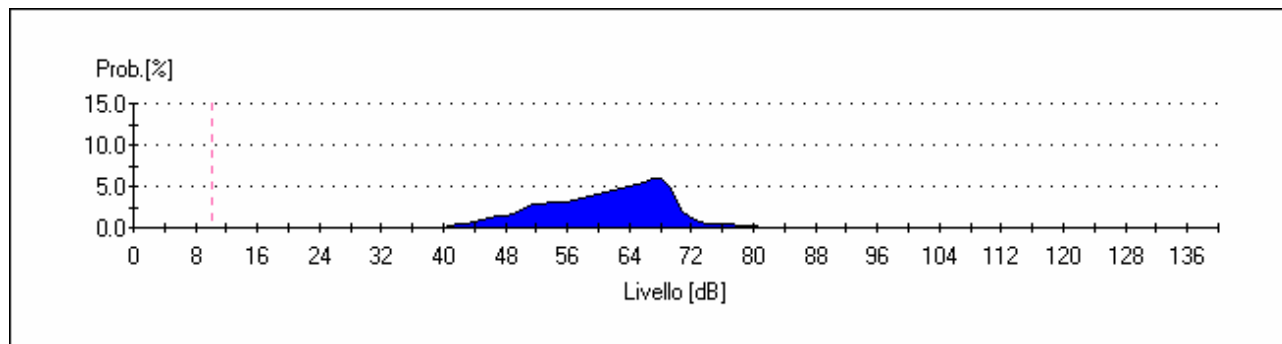


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

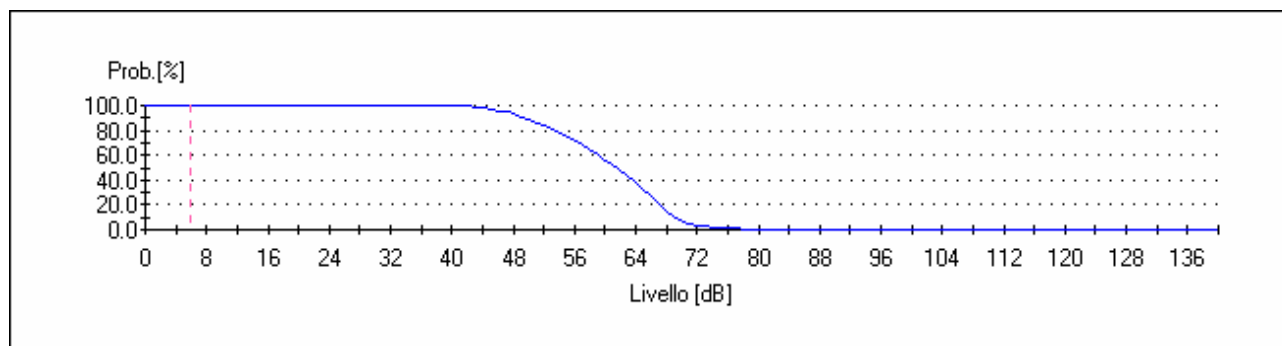
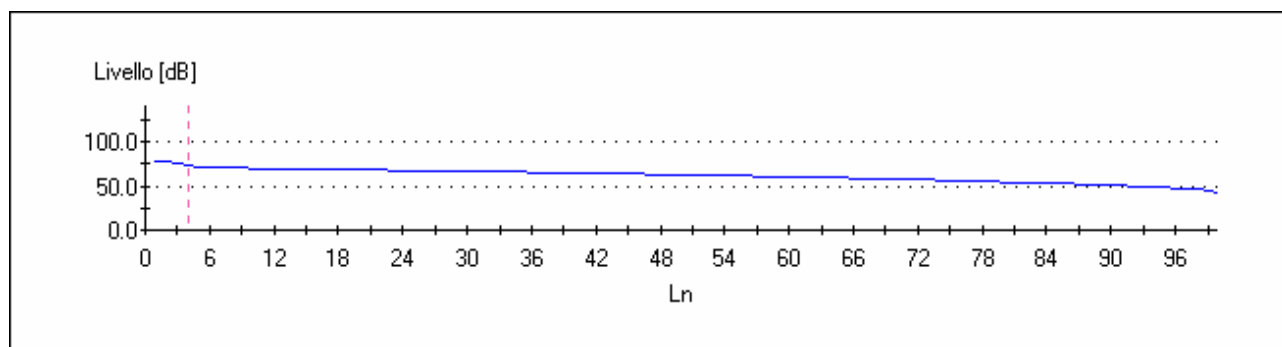


GRAFICO PERCENTILI



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	77.0
1	77.0
2	74.0
3	73.0
4	72.0
5	71.5
6	71.0
7	70.8
8	70.5
9	70.3
10	70.0
11	69.8
12	69.7
13	69.5
14	69.3
15	69.2
16	69.0
17	68.9
18	68.8
19	68.6
20	68.5
21	68.4
22	68.3
23	68.1
24	68.0
25	67.9
26	67.7
27	67.6
28	67.4
29	67.3
30	67.1

31	67.0
32	66.8
33	66.7
34	66.5
35	66.3
36	66.2
37	66.0
38	65.8
39	65.7
40	65.5
41	65.3
42	65.2
43	65.0
44	64.8
45	64.7
46	64.5
47	64.3
48	64.2
49	64.0
50	63.8
51	63.6
52	63.4
53	63.2
54	63.0
55	62.8
56	62.6
57	62.4
58	62.2
59	62.0
60	61.8
61	61.6
62	61.4
63	61.2
64	61.0

65	60.8
66	60.5
67	60.3
68	60.0
69	59.7
70	59.3
71	59.0
72	58.8
73	58.5
74	58.3
75	58.0
76	57.7
77	57.3
78	57.0
79	56.5
80	56.0
81	55.7
82	55.3
83	55.0
84	54.5
85	54.0
86	53.5
87	53.0
88	52.0
89	51.5
90	51.0
91	50.0
92	49.5
93	49.0
94	48.0
95	47.0
96	46.5
97	46.0
98	45.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

99	43.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	79.0
1	79.0
2	77.0
3	75.0
4	73.0
5	72.0
6	71.0
7	70.5
8	70.0
9	69.7
10	69.3
11	69.0
12	68.7
13	68.3
14	68.0
15	67.7
16	67.3
17	67.0
18	66.8
19	66.5
20	66.3
21	66.0
22	65.7
23	65.3
24	65.0
25	64.8
26	64.5
27	64.3
28	64.0

29	63.8
30	63.5
31	63.3
32	63.0
33	62.8
34	62.5
35	62.3
36	62.0
37	61.8
38	61.5
39	61.3
40	61.0
41	60.8
42	60.5
43	60.3
44	60.0
45	59.8
46	59.5
47	59.3
48	59.0
49	58.8
50	58.5
51	58.3
52	58.0
53	57.8
54	57.6
55	57.4
56	57.2
57	57.0
58	56.8
59	56.5
60	56.3
61	56.0
62	55.8

63	55.6
64	55.4
65	55.2
66	55.0
67	54.8
68	54.6
69	54.4
70	54.2
71	54.0
72	53.8
73	53.6
74	53.4
75	53.2
76	53.0
77	52.8
78	52.6
79	52.4
80	52.2
81	52.0
82	51.8
83	51.6
84	51.4
85	51.2
86	51.0
87	50.8
88	50.5
89	50.3
90	50.0
91	49.5
92	49.0
93	48.5
94	48.0
95	47.0
96	46.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

97	45.0
98	44.0
99	43.0

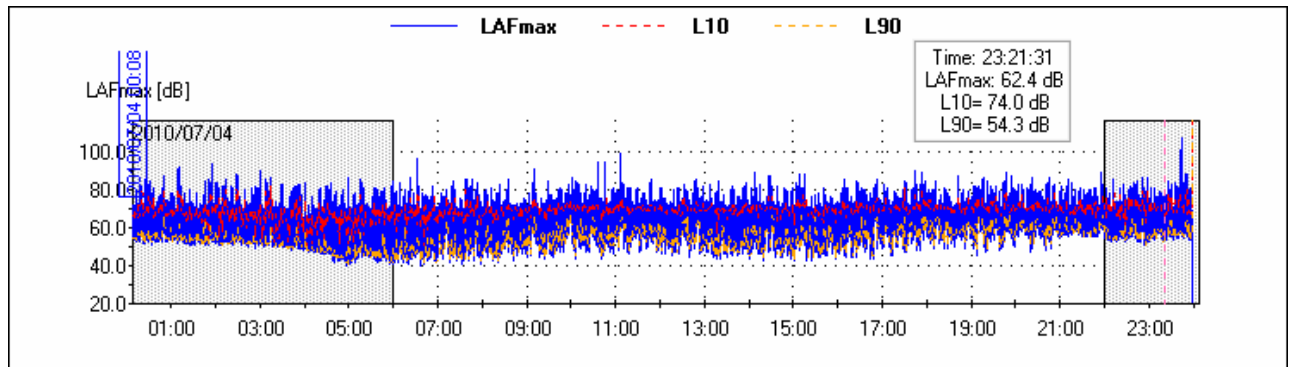
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
97	92.7	96.1
101.6	92.7	99.1
90.4	86	88.9
91.9	85.4	89.5
89.7	85.8	89.1
101.6	92.7	99.1

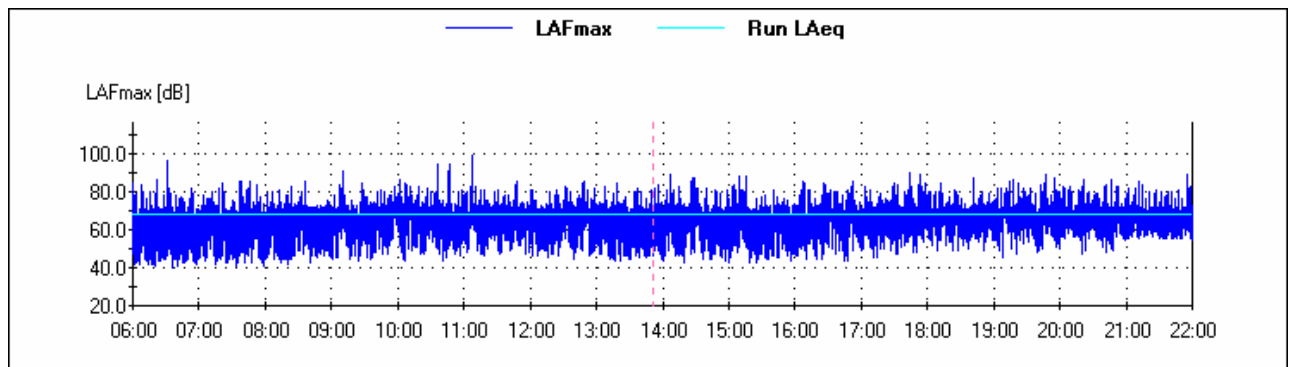
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
94.5	91.1	93.6
86.2	83.8	85.7
109.2	100.5	106.7
109.2	100.5	106.7

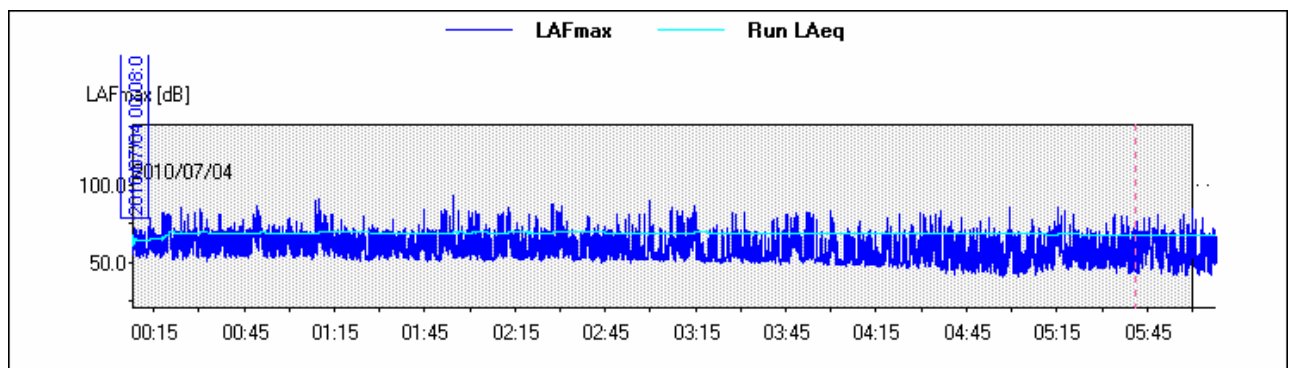
TIME HISTORY L10 – L90



RUNNING Leq DIURNO

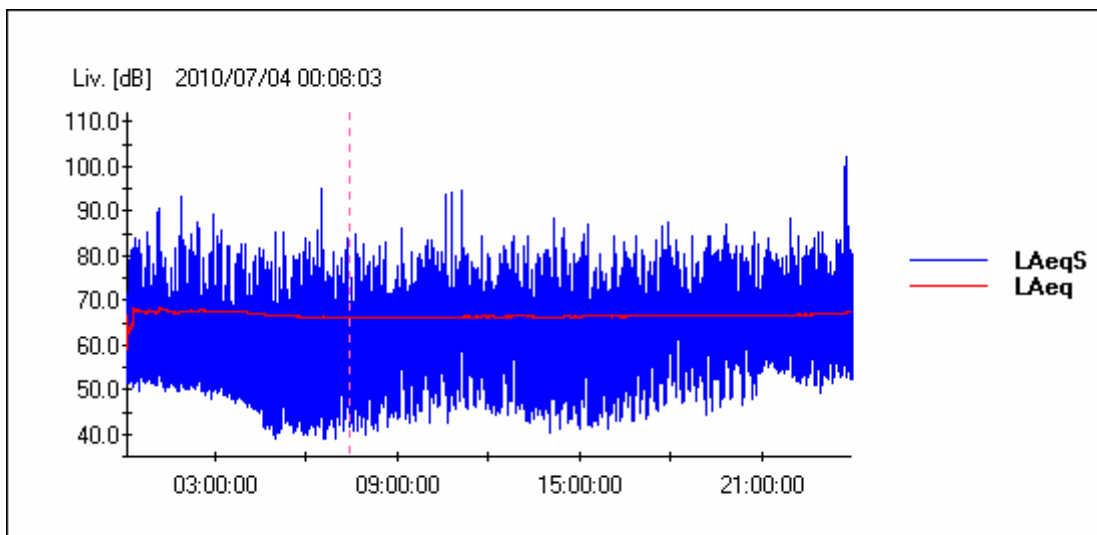


RUNNING Leq NOTTURNO

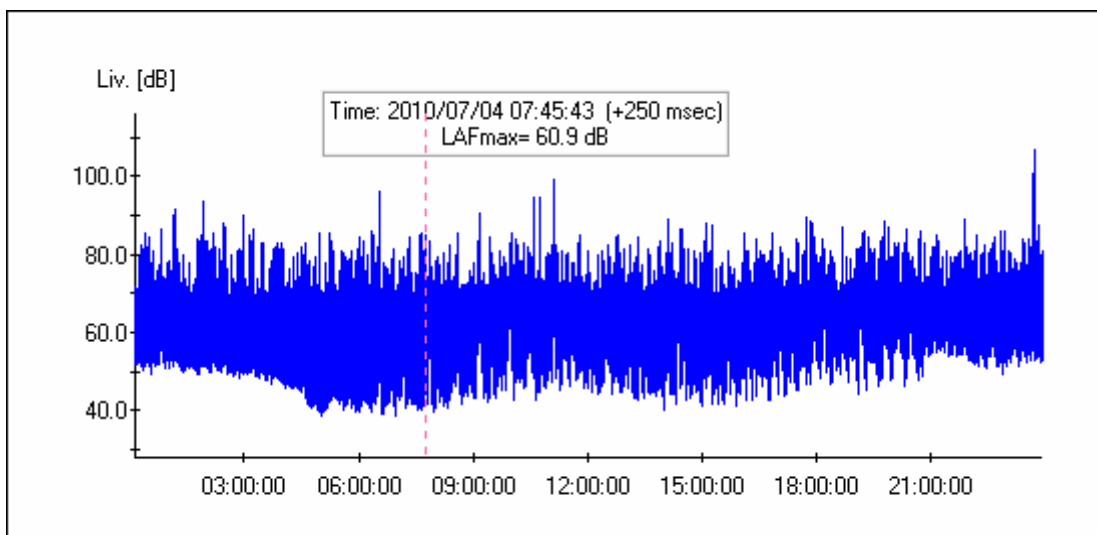


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



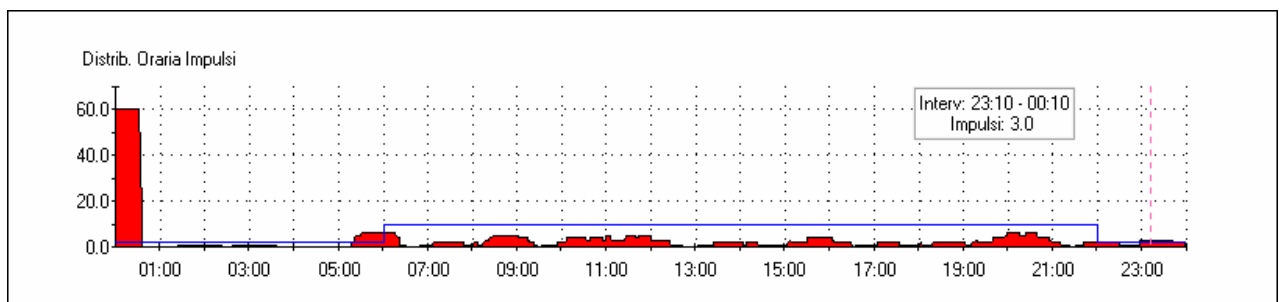
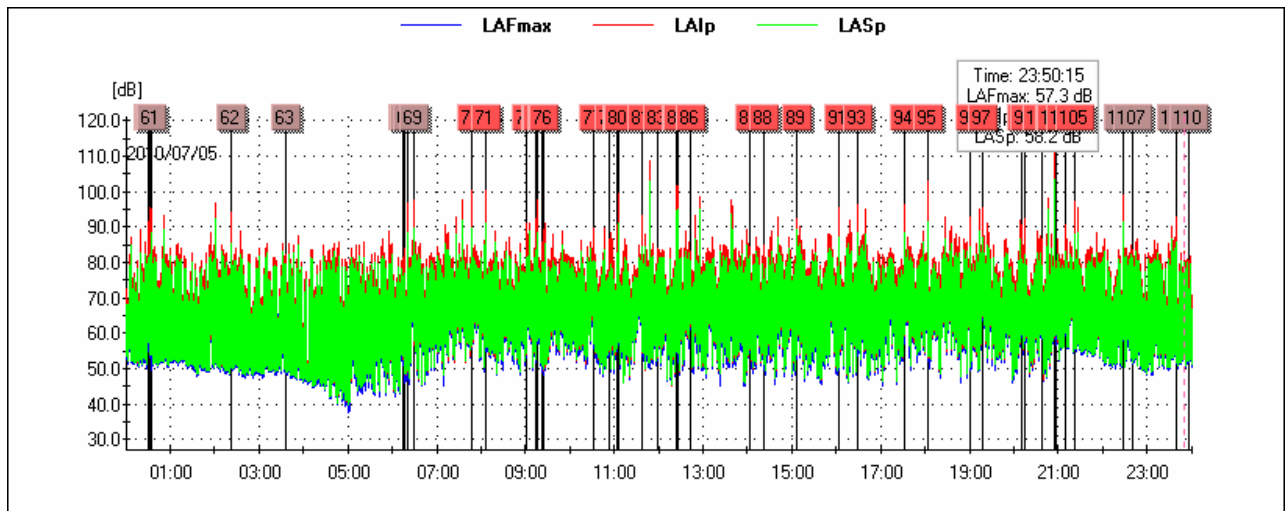
R_8_C LUNEDI' 05/07/2010

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/05 00:30:32	1.000	78.7	8.2
2	2010/07/05 00:30:35	0.875	79.1	8.5
3	2010/07/05 00:30:36	1.000	86.8	11.6

4	2010/07/05 00:30:39	0.625	83.3	9.2
5	2010/07/05 00:30:51	1.000	81.8	7.5
6	2010/07/05 00:30:53	0.625	85.5	11.8
7	2010/07/05 00:30:58	0.750	80.5	10.6
8	2010/07/05 00:31:03	0.625	76.3	7.1
9	2010/07/05 00:31:04	0.875	75.7	7.5
10	2010/07/05 00:31:05	0.750	74.9	7.4
11	2010/07/05 00:31:55	0.500	87.1	13.4
12	2010/07/05 00:31:58	0.625	85.9	12.6
13	2010/07/05 00:32:00	0.500	85.3	12.0
14	2010/07/05 00:32:02	0.500	84.7	12.4
15	2010/07/05 00:32:03	0.625	84.3	12.3
16	2010/07/05 00:32:09	0.500	85.6	12.0
17	2010/07/05 00:32:10	0.625	90.4	13.2
18	2010/07/05 00:32:43	0.750	76.9	11.5
19	2010/07/05 00:32:45	0.500	84.7	12.9
20	2010/07/05 00:32:47	0.625	84.9	13.3
21	2010/07/05 00:32:51	0.625	83.1	12.9
22	2010/07/05 00:32:56	1.000	72.4	9.9
23	2010/07/05 00:32:59	0.625	79.5	12.7
24	2010/07/05 00:33:01	0.625	78.5	12.6
25	2010/07/05 00:33:04	0.625	82.2	13.0
26	2010/07/05 00:33:08	0.625	80.7	11.1
27	2010/07/05 00:33:10	0.625	75.7	10.2
28	2010/07/05 00:33:13	0.500	79.2	13.2
29	2010/07/05 00:33:15	0.500	81.1	13.5
30	2010/07/05 00:33:17	0.625	78.9	12.4
31	2010/07/05 00:33:20	0.625	78.1	13.1
32	2010/07/05 00:33:22	0.625	79.3	13.4
33	2010/07/05 00:33:27	0.625	83.0	13.1
34	2010/07/05 00:33:30	0.500	77.1	11.7
35	2010/07/05 00:33:32	0.625	76.6	12.2
36	2010/07/05 00:33:35	0.625	80.3	13.1
37	2010/07/05 00:33:40	0.625	78.0	12.3

38	2010/07/05 00:33:43	0.625	83.4	13.3
39	2010/07/05 00:33:46	0.500	83.2	13.4
40	2010/07/05 00:33:48	0.500	82.4	13.3
41	2010/07/05 00:33:53	0.500	83.9	12.0
42	2010/07/05 00:33:55	0.625	87.2	12.8
43	2010/07/05 00:33:56	0.625	87.6	12.7
44	2010/07/05 00:33:58	0.625	86.6	12.7
45	2010/07/05 00:34:00	0.625	77.7	13.9
46	2010/07/05 00:34:02	0.500	89.0	13.2
47	2010/07/05 00:34:03	0.625	75.1	14.5
48	2010/07/05 00:34:05	0.500	82.5	12.3
49	2010/07/05 00:34:08	0.875	82.2	13.4
50	2010/07/05 00:34:10	0.500	80.4	10.5
51	2010/07/05 00:34:10	0.750	80.6	9.5
52	2010/07/05 00:34:12	1.000	82.9	11.7
53	2010/07/05 00:34:16	1.000	80.5	11.0
54	2010/07/05 00:34:26	1.000	81.8	9.3
55	2010/07/05 00:34:31	0.750	88.1	11.9
56	2010/07/05 00:34:37	0.500	77.2	12.8
57	2010/07/05 00:34:38	0.750	84.1	10.0
58	2010/07/05 00:34:44	0.625	85.6	11.9
59	2010/07/05 00:34:48	0.625	90.1	11.9
60	2010/07/05 00:34:54	0.500	87.0	9.0
61	2010/07/05 00:35:15	0.625	75.6	13.0
62	2010/07/05 02:22:57	0.750	91.7	9.0
63	2010/07/05 03:36:04	1.000	74.6	6.9
64	2010/07/05 06:15:26	0.750	77.3	11.5
65	2010/07/05 06:17:11	0.750	80.9	9.7
66	2010/07/05 06:20:52	0.875	93.9	9.0
67	2010/07/05 06:20:54	0.750	94.7	8.1
68	2010/07/05 06:21:04	0.625	90.5	10.4
69	2010/07/05 06:29:14	0.875	95.7	8.0
70	2010/07/05 07:47:42	0.625	97.4	10.6
71	2010/07/05 08:06:56	0.625	98.1	9.4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

72	2010/07/05 09:00:23	0.750	88.2	9.9
73	2010/07/05 09:13:03	1.000	89.4	8.9
74	2010/07/05 09:15:28	0.625	95.6	9.4
75	2010/07/05 09:21:56	0.750	82.5	10.3
76	2010/07/05 09:25:26	0.625	87.5	9.3
77	2010/07/05 10:31:50	0.625	86.9	10.0
78	2010/07/05 10:53:09	0.625	84.4	9.2
79	2010/07/05 11:04:21	0.750	88.9	8.1
80	2010/07/05 11:05:32	0.750	97.2	8.5
81	2010/07/05 11:37:14	0.875	90.5	9.0
82	2010/07/05 11:58:25	0.875	79.7	7.0
83	2010/07/05 11:58:28	1.000	81.0	7.6
84	2010/07/05 12:24:33	1.000	100.3	7.4
85	2010/07/05 12:25:47	0.750	81.5	8.1
86	2010/07/05 12:42:58	0.875	80.6	8.4
87	2010/07/05 14:02:37	0.750	80.6	8.5
88	2010/07/05 14:22:37	0.875	81.7	10.1
89	2010/07/05 15:06:30	0.750	77.7	10.0
90	2010/07/05 16:02:37	0.625	85.4	11.4
91	2010/07/05 16:04:28	0.750	93.6	8.4
92	2010/07/05 16:28:53	0.875	92.3	7.7
93	2010/07/05 16:28:54	0.625	94.4	7.9
94	2010/07/05 17:32:46	0.750	94.2	8.5
95	2010/07/05 18:03:47	0.625	99.3	11.2
96	2010/07/05 19:01:11	0.750	90.5	8.6
97	2010/07/05 19:17:11	0.750	92.6	8.8
98	2010/07/05 20:10:12	0.750	87.8	9.8
99	2010/07/05 20:14:11	1.000	89.1	10.1
100	2010/07/05 20:37:47	0.625	82.7	11.0
101	2010/07/05 20:38:28	0.750	80.5	10.3
102	2010/07/05 20:54:22	0.750	109.7	8.1
103	2010/07/05 20:57:13	0.750	78.1	8.5
104	2010/07/05 21:10:20	1.000	88.9	7.4
105	2010/07/05 21:22:58	0.750	94.7	9.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

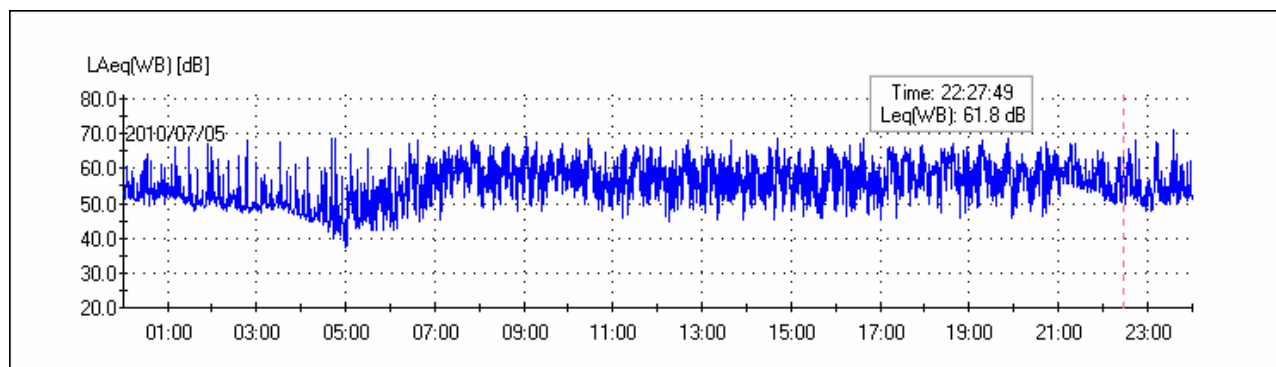
106	2010/07/05 22:28:43	0.875	95.9	7.2
107	2010/07/05 22:40:50	1.000	70.6	8.3
108	2010/07/05 23:40:03	1.000	91.2	7.0
109	2010/07/05 23:56:02	0.750	79.0	8.0
110	2010/07/05 23:56:04	0.875	69.2	8.3

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.0
Freq: 125	0.0
Freq: 200	0.1
Freq: 250	0.1
Freq: 400	0.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 500	0.2
Freq: 630	0.1
Freq: 800	0.1
Freq: 1 k	0.0
Freq: 1.25 k	0.1
Freq: 1.6 k	0.1
Freq: 2.5 k	0.0
Freq: 3.15 k	13.9
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

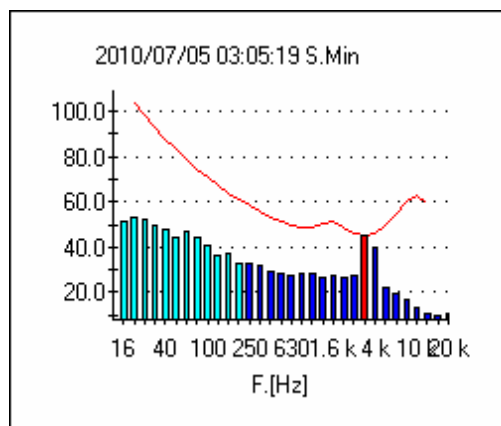
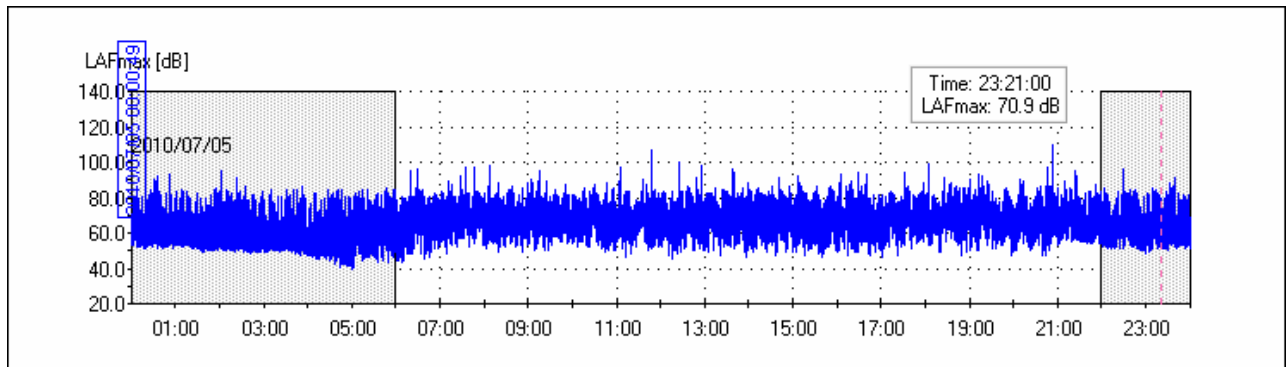
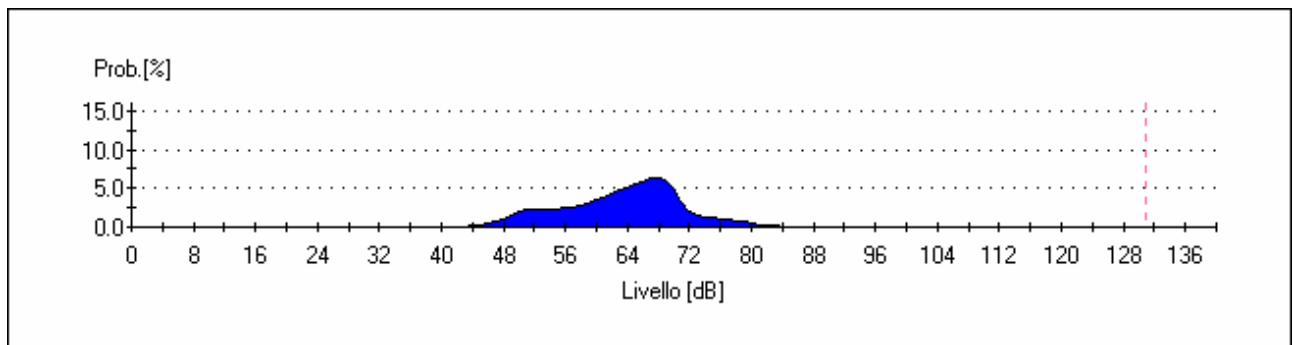


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

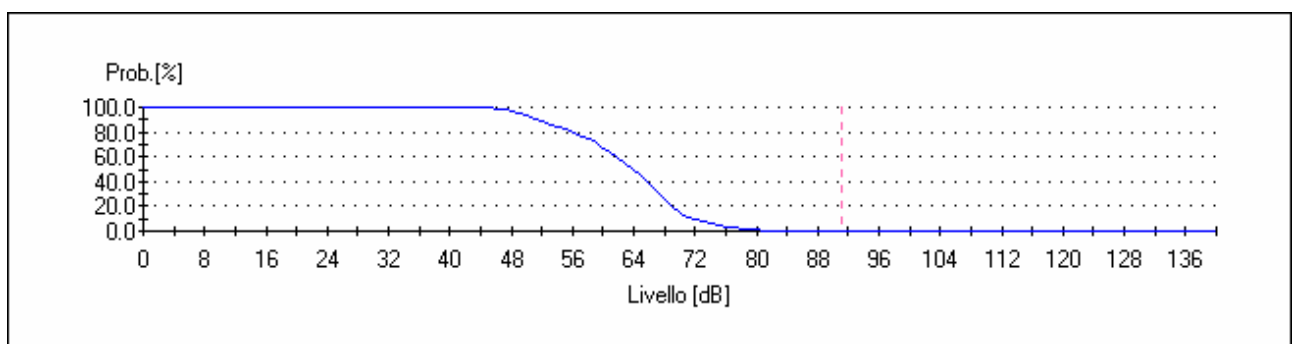
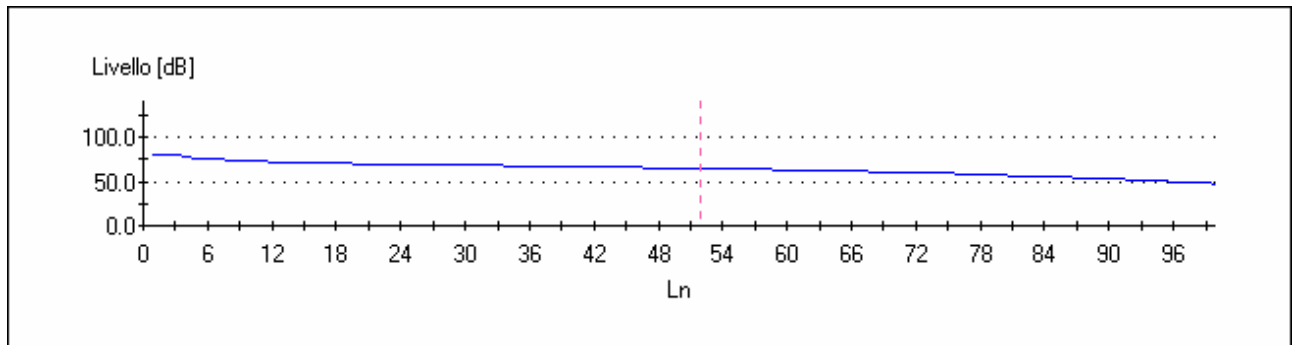


GRAFICO PERCENTILI

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	80.0
1	80.0
2	79.0
3	78.0
4	77.0
5	76.0
6	75.0
7	74.0
8	73.5
9	73.0
10	72.7
11	72.3
12	72.0
13	71.8
14	71.5
15	71.3
16	71.0
17	70.8
18	70.7
19	70.5
20	70.3

21	70.2
22	70.0
23	69.9
24	69.8
25	69.6
26	69.5
27	69.4
28	69.3
29	69.1
30	69.0
31	68.9
32	68.8
33	68.6
34	68.5
35	68.4
36	68.3
37	68.1
38	68.0
39	67.9
40	67.8
41	67.6
42	67.5
43	67.4
44	67.3
45	67.1
46	67.0
47	66.9
48	66.7
49	66.6
50	66.4
51	66.3
52	66.1
53	66.0
54	65.9

55	65.7
56	65.6
57	65.4
58	65.3
59	65.1
60	65.0
61	64.8
62	64.7
63	64.5
64	64.3
65	64.2
66	64.0
67	63.8
68	63.7
69	63.5
70	63.3
71	63.2
72	63.0
73	62.8
74	62.5
75	62.3
76	62.0
77	61.8
78	61.5
79	61.3
80	61.0
81	60.8
82	60.5
83	60.3
84	60.0
85	59.7
86	59.3
87	59.0
88	58.5

89	58.0
90	57.5
91	57.0
92	56.5
93	56.0
94	55.5
95	55.0
96	54.0
97	53.0
98	51.0
99	50.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	80.0
1	80.0
2	78.0
3	77.0
4	76.0
5	75.0
6	74.0
7	73.0
8	72.5
9	72.0
10	71.0
11	70.5
12	70.0
13	69.5
14	69.0
15	68.7
16	68.3
17	68.0
18	67.7

19	67.3
20	67.0
21	66.7
22	66.3
23	66.0
24	65.7
25	65.3
26	65.0
27	64.7
28	64.3
29	64.0
30	63.8
31	63.5
32	63.3
33	63.0
34	62.8
35	62.5
36	62.3
37	62.0
38	61.7
39	61.3
40	61.0
41	60.8
42	60.5
43	60.3
44	60.0
45	59.7
46	59.3
47	59.0
48	58.8
49	58.5
50	58.3
51	58.0
52	57.8

53	57.5
54	57.3
55	57.0
56	56.7
57	56.3
58	56.0
59	55.8
60	55.5
61	55.3
62	55.0
63	54.8
64	54.5
65	54.3
66	54.0
67	53.8
68	53.6
69	53.4
70	53.2
71	53.0
72	52.8
73	52.7
74	52.5
75	52.3
76	52.2
77	52.0
78	51.8
79	51.6
80	51.4
81	51.2
82	51.0
83	50.8
84	50.7
85	50.5
86	50.3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

87	50.2
88	50.0
89	49.8
90	49.5
91	49.3
92	49.0
93	48.7
94	48.3
95	48.0
96	47.0
97	46.5
98	46.0
99	44.0

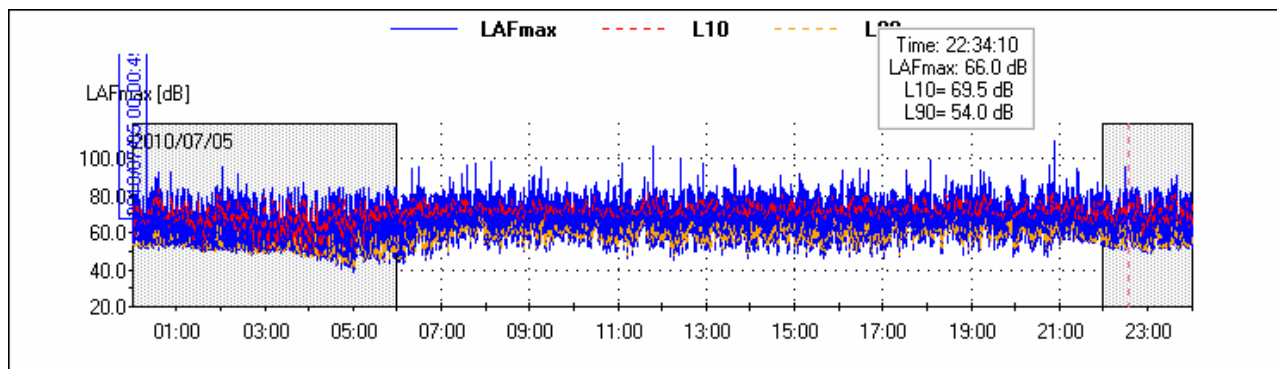
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
100.4	91.9	98.1
98.6	95	97.7
98.6	95	97.7
102.7	94.8	99.3
111.4	103.3	109.7
111.4	103.3	109.7

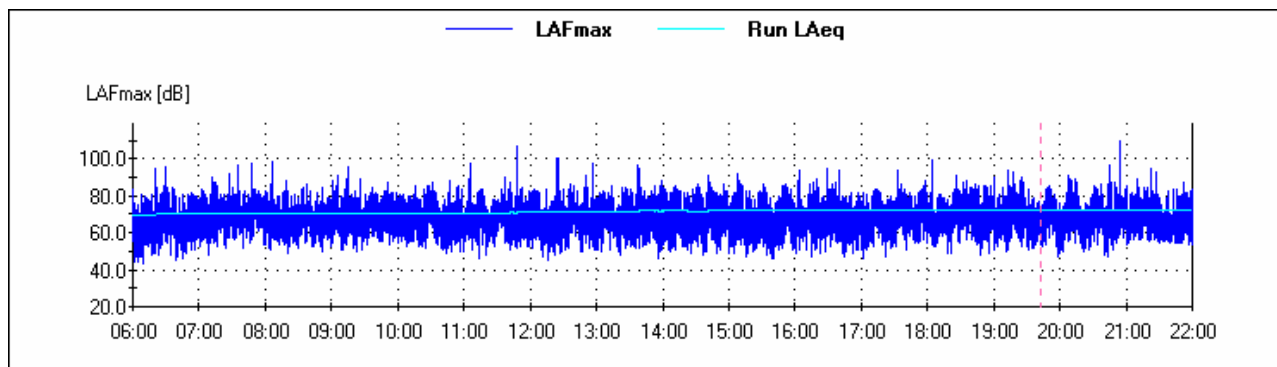
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
96.7	92.4	95.5
88.7	82.9	85
98.9	91.3	95.9
98.9	92.4	95.9

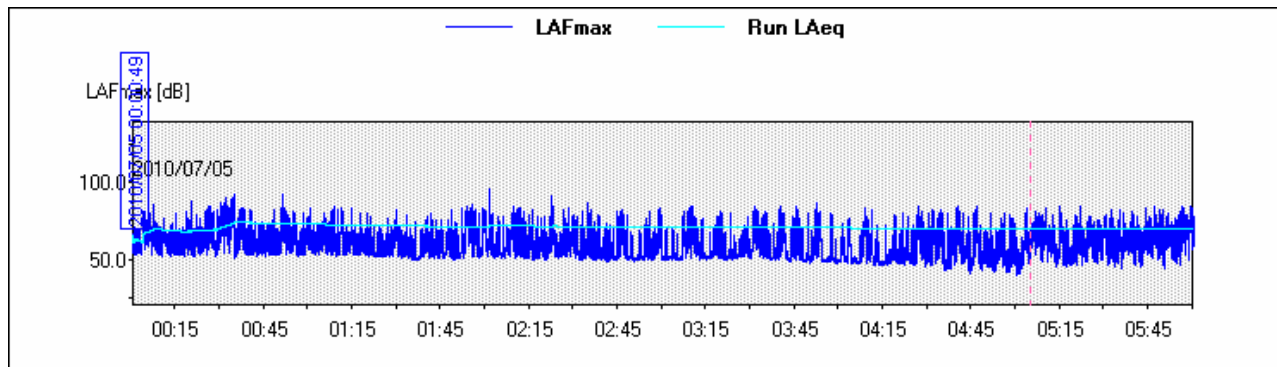
TIME HISTORY L10 – L90



RUNNING Leq DIURNO

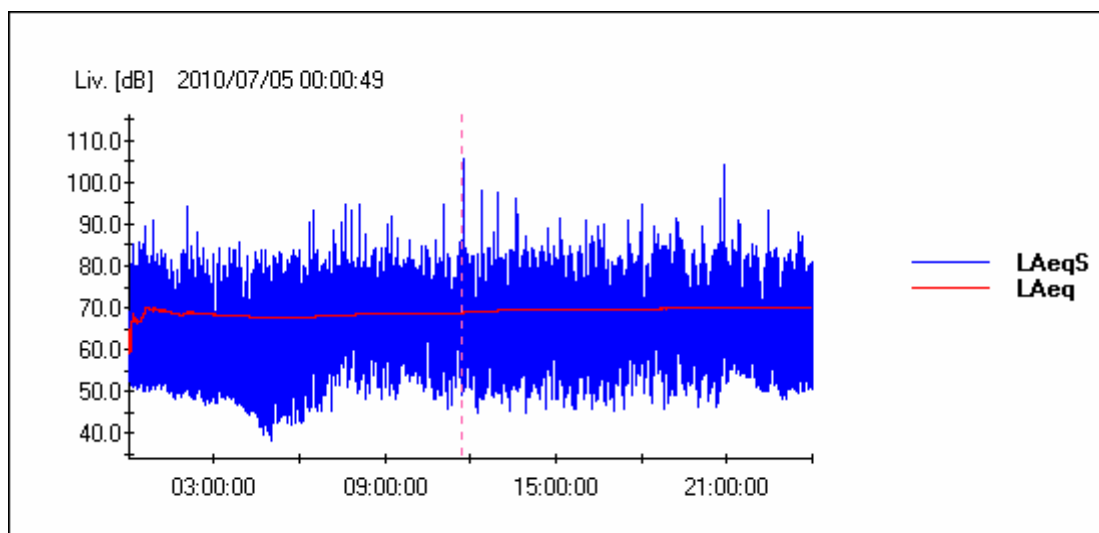


RUNNING Leq NOTTURNO

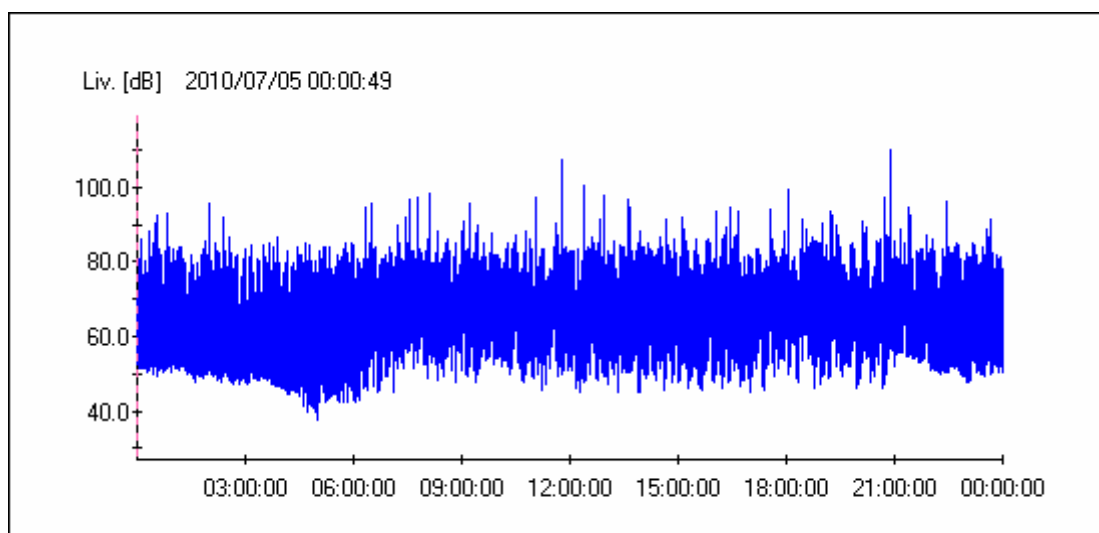


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



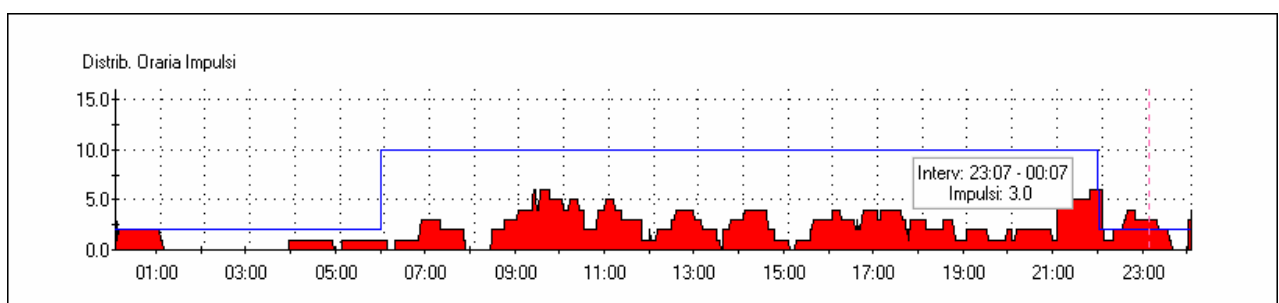
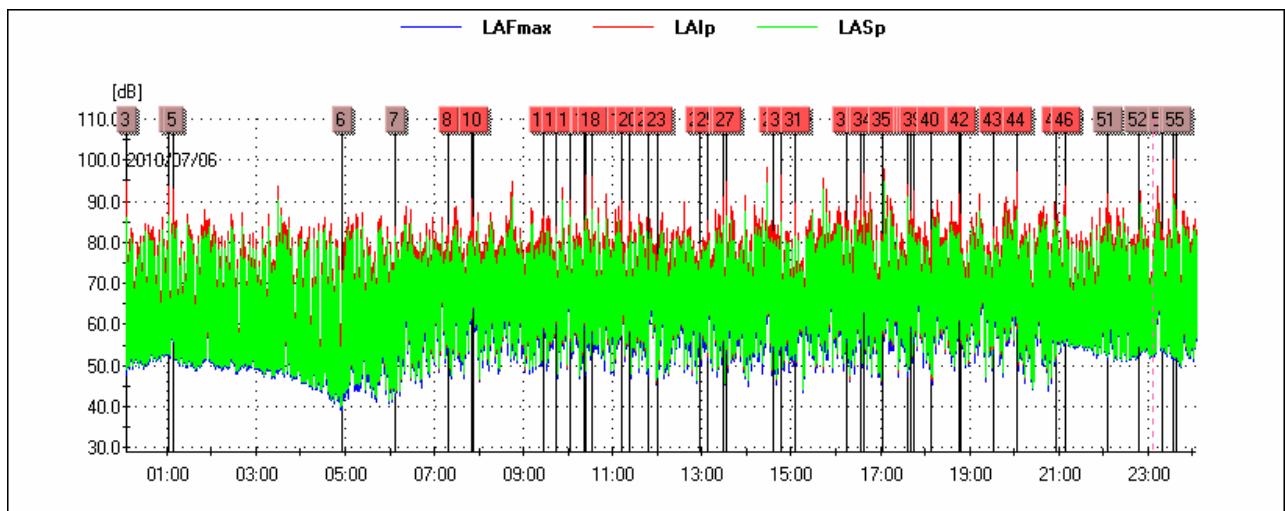
R_8_C 06/07/2010

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/06 00:05:50	0.625	93.0	8.3
2	2010/07/06 00:05:58	0.625	78.1	12.7
3	2010/07/06 00:06:09	1.000	65.8	7.8

4	2010/07/06 01:03:20	1.000	92.1	6.9
5	2010/07/06 01:07:56	0.875	90.3	8.7
6	2010/07/06 04:55:52	0.625	61.2	10.4
7	2010/07/06 06:07:42	0.750	62.8	10.1
8	2010/07/06 07:18:30	0.750	75.4	9.8
9	2010/07/06 07:50:17	0.625	88.5	9.7
10	2010/07/06 07:52:53	0.875	84.3	7.3
11	2010/07/06 09:26:25	0.750	82.9	9.7
12	2010/07/06 09:27:30	0.625	80.0	10.4
13	2010/07/06 09:44:10	0.750	78.9	8.5
14	2010/07/06 10:02:47	0.625	85.8	12.2
15	2010/07/06 10:21:11	0.750	83.6	7.3
16	2010/07/06 10:23:58	0.625	93.9	10.1
17	2010/07/06 10:31:40	0.750	94.0	8.8
18	2010/07/06 10:31:46	0.875	93.1	6.1
19	2010/07/06 11:11:18	0.625	87.4	10.8
20	2010/07/06 11:21:54	0.750	86.5	7.3
21	2010/07/06 11:48:13	0.875	78.5	8.9
22	2010/07/06 11:48:51	0.875	76.9	8.0
23	2010/07/06 11:59:34	1.000	62.5	6.4
24	2010/07/06 12:58:11	0.750	75.3	8.3
25	2010/07/06 13:08:01	0.875	80.4	11.6
26	2010/07/06 13:28:08	0.750	89.9	6.7
27	2010/07/06 13:33:03	0.875	92.7	8.3
28	2010/07/06 14:36:21	0.625	80.1	9.4
29	2010/07/06 14:36:32	1.000	81.0	7.8
30	2010/07/06 14:46:55	0.625	92.8	11.4
31	2010/07/06 15:05:22	0.750	87.8	8.0
32	2010/07/06 16:14:19	0.750	82.0	10.4
33	2010/07/06 16:33:59	0.625	86.3	12.0
34	2010/07/06 16:37:45	0.625	93.6	10.4
35	2010/07/06 17:03:59	0.875	77.1	8.1
36	2010/07/06 17:36:18	0.750	89.2	8.4
37	2010/07/06 17:36:18	0.875	89.6	7.6

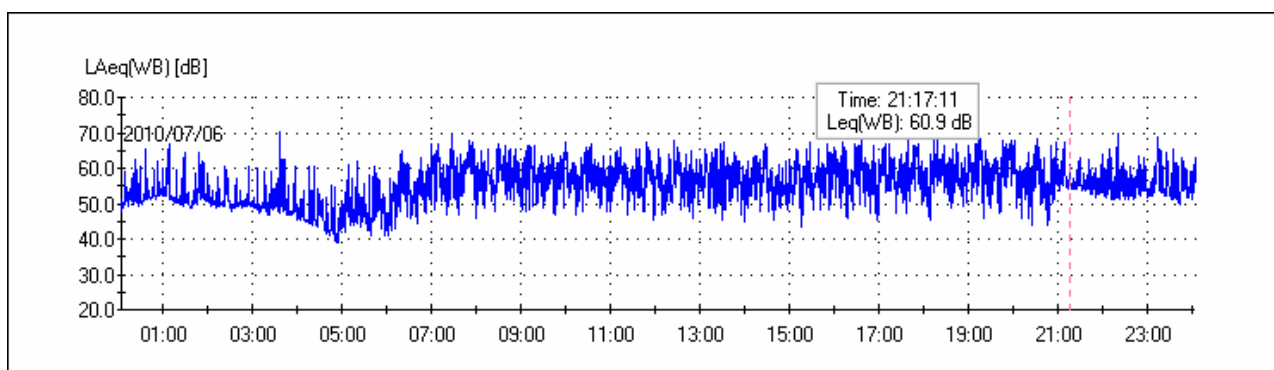
38	2010/07/06 17:41:43	0.875	82.6	9.0
39	2010/07/06 17:44:41	0.750	90.3	9.3
40	2010/07/06 18:08:31	0.625	80.1	10.7
41	2010/07/06 18:45:28	0.625	89.2	9.4
42	2010/07/06 18:47:48	0.625	84.7	9.6
43	2010/07/06 19:31:41	0.750	81.0	9.8
44	2010/07/06 20:03:42	0.750	94.4	8.7
45	2010/07/06 20:56:22	0.750	81.9	6.8
46	2010/07/06 21:08:30	0.875	92.4	7.4
47	2010/07/06 22:04:51	0.625	78.4	13.2
48	2010/07/06 22:04:54	0.500	80.2	13.3
49	2010/07/06 22:04:58	0.625	81.5	12.8
50	2010/07/06 22:05:08	0.625	83.7	13.4
51	2010/07/06 22:05:12	0.625	83.6	12.0
52	2010/07/06 22:48:36	0.750	76.3	7.7
53	2010/07/06 23:19:35	0.625	78.8	8.2
54	2010/07/06 23:33:33	0.750	97.6	9.6
55	2010/07/06 23:37:36	0.750	79.7	8.8

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonali (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.1
Freq: 100	0.0
Freq: 125	0.1
Freq: 160	0.1
Freq: 200	0.2
Freq: 315	0.1
Freq: 400	0.1
Freq: 500	0.1
Freq: 630	0.0
Freq: 1 k	0.0
Freq: 1.6 k	0.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 3.15 k	5.6
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

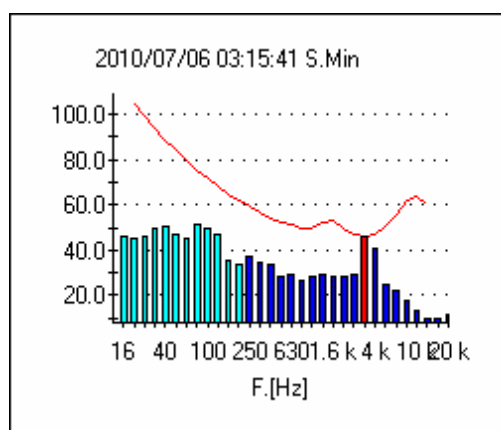
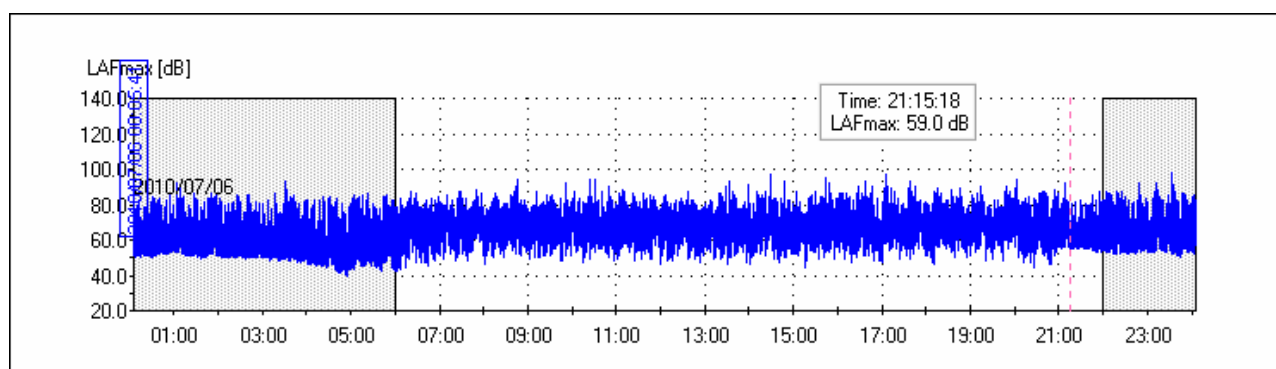
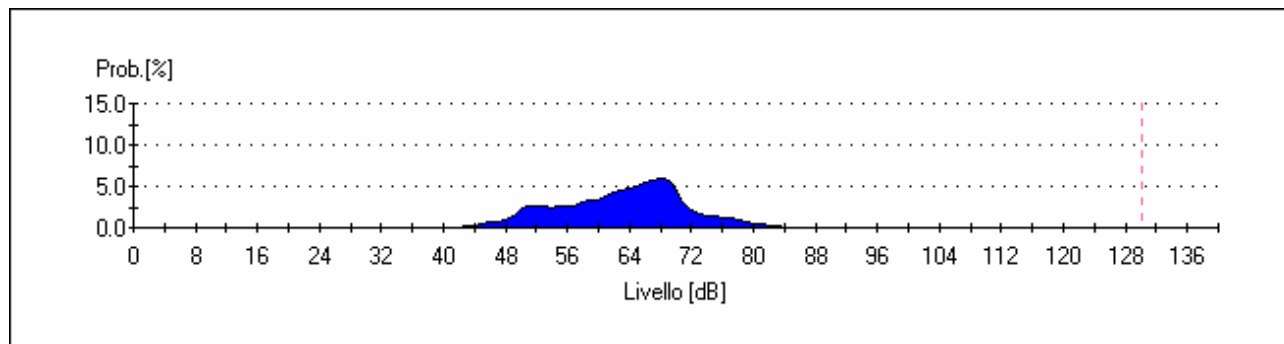


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

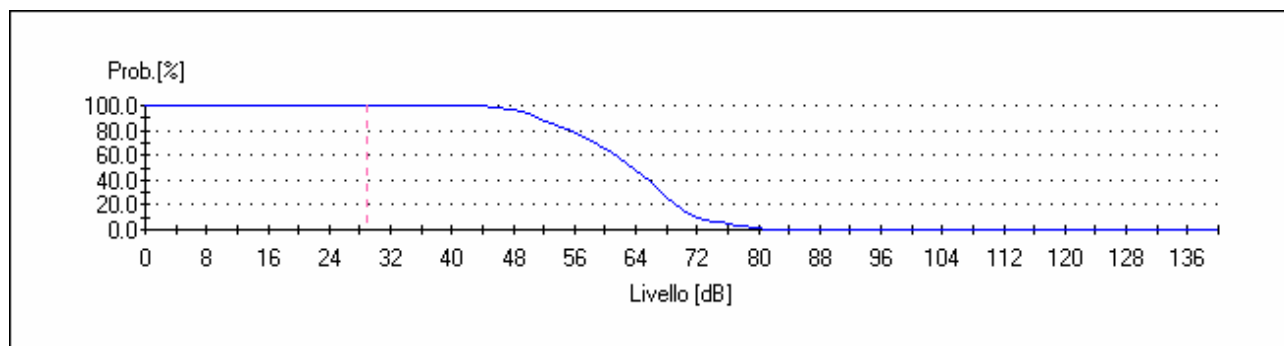
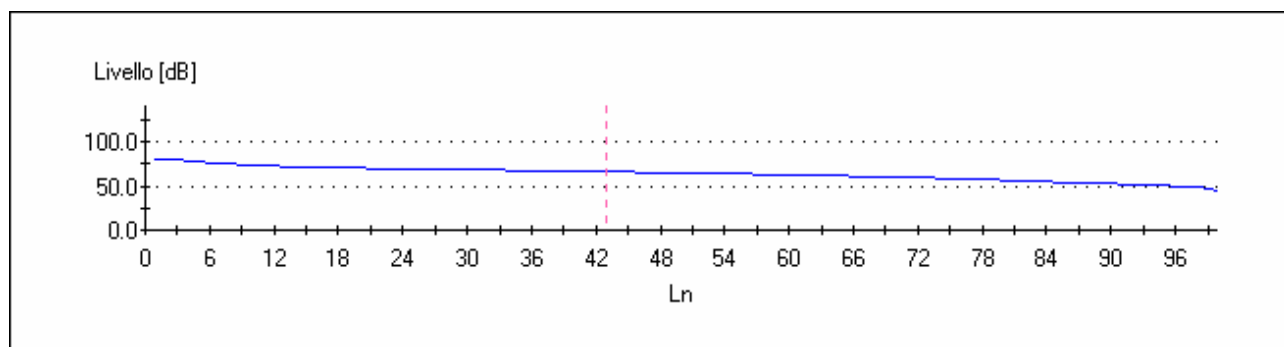


GRAFICO PERCENTILI



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	81.0
1	81.0
2	79.0
3	78.0
4	77.0
5	76.5
6	76.0
7	75.0
8	74.5
9	74.0
10	73.5
11	73.0
12	72.5
13	72.0
14	71.8
15	71.5
16	71.3
17	71.0
18	70.8
19	70.7
20	70.5
21	70.3
22	70.2
23	70.0
24	69.9
25	69.8
26	69.6
27	69.5
28	69.4
29	69.3
30	69.1

31	69.0
32	68.9
33	68.7
34	68.6
35	68.4
36	68.3
37	68.1
38	68.0
39	67.9
40	67.7
41	67.6
42	67.4
43	67.3
44	67.1
45	67.0
46	66.9
47	66.7
48	66.6
49	66.4
50	66.3
51	66.1
52	66.0
53	65.8
54	65.7
55	65.5
56	65.3
57	65.2
58	65.0
59	64.8
60	64.7
61	64.5
62	64.3
63	64.2
64	64.0

65	63.8
66	63.6
67	63.4
68	63.2
69	63.0
70	62.8
71	62.6
72	62.4
73	62.2
74	62.0
75	61.8
76	61.5
77	61.3
78	61.0
79	60.8
80	60.5
81	60.3
82	60.0
83	59.7
84	59.3
85	59.0
86	58.5
87	58.0
88	57.7
89	57.3
90	57.0
91	56.5
92	56.0
93	55.5
94	55.0
95	54.0
96	53.0
97	52.0
98	51.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

99	49.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	80.0
1	80.0
2	79.0
3	78.0
4	77.0
5	76.0
6	75.0
7	74.0
8	73.0
9	72.0
10	71.5
11	71.0
12	70.0
13	69.7
14	69.3
15	69.0
16	68.5
17	68.0
18	67.7
19	67.3
20	67.0
21	66.7
22	66.3
23	66.0
24	65.7
25	65.3
26	65.0
27	64.7

28	64.3
29	64.0
30	63.7
31	63.3
32	63.0
33	62.7
34	62.3
35	62.0
36	61.7
37	61.3
38	61.0
39	60.8
40	60.5
41	60.3
42	60.0
43	59.7
44	59.3
45	59.0
46	58.8
47	58.5
48	58.3
49	58.0
50	57.7
51	57.3
52	57.0
53	56.8
54	56.5
55	56.3
56	56.0
57	55.7
58	55.3
59	55.0
60	54.8
61	54.6

62	54.4
63	54.2
64	54.0
65	53.8
66	53.6
67	53.4
68	53.2
69	53.0
70	52.8
71	52.7
72	52.5
73	52.3
74	52.2
75	52.0
76	51.9
77	51.7
78	51.6
79	51.4
80	51.3
81	51.1
82	51.0
83	50.8
84	50.7
85	50.5
86	50.3
87	50.2
88	50.0
89	49.7
90	49.3
91	49.0
92	48.5
93	48.0
94	47.5
95	47.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

96	46.5
97	46.0
98	45.0
99	43.0

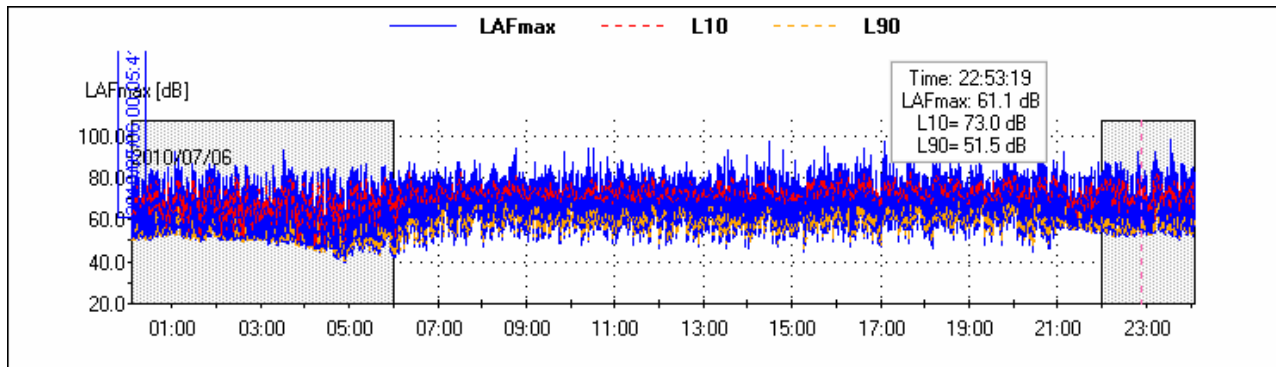
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
90.7	84.9	88.5
96.4	91.1	94
98.3	94.5	97.4
97.8	94.9	97.2
93.6	86.4	92.4
98.3	94.9	97.4

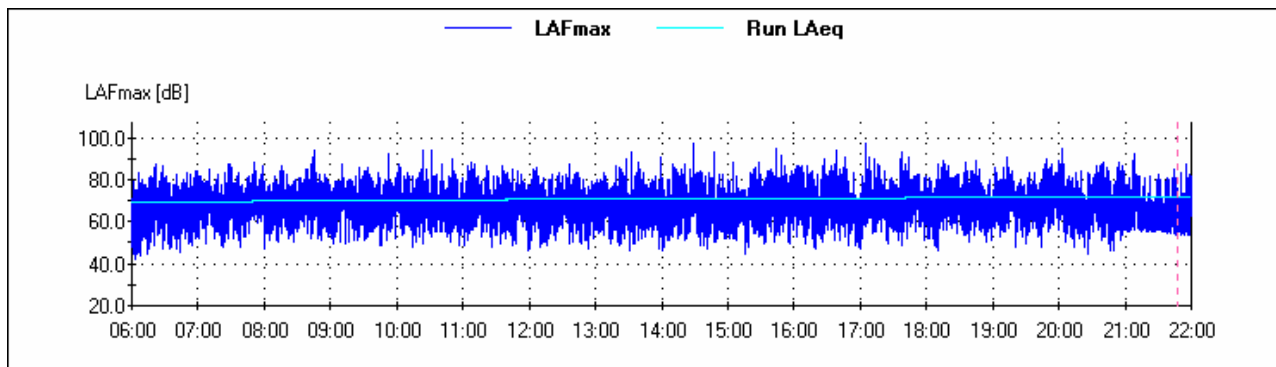
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
94.6	90.4	93
87	83.8	86.2
100.1	90.5	97.6
100.1	90.5	97.6

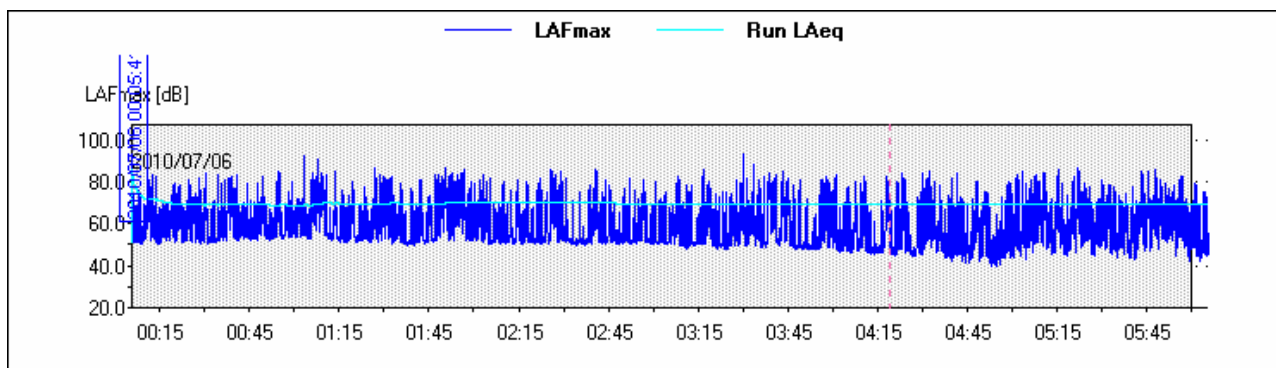
TIME HISTORY L10 – L90



RUNNING Leq DIURNO

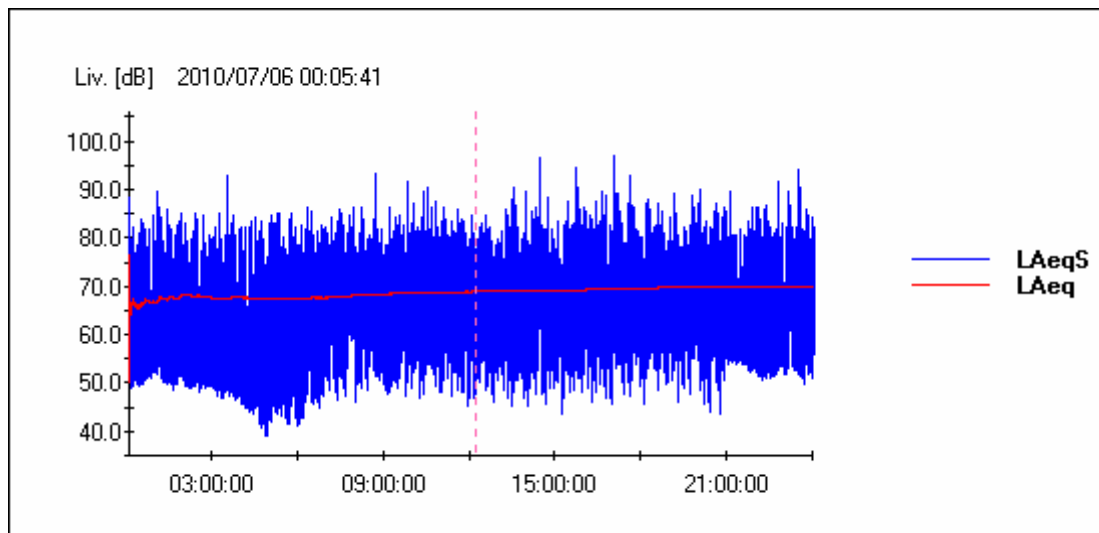


RUNNING Leq NOTTURNO

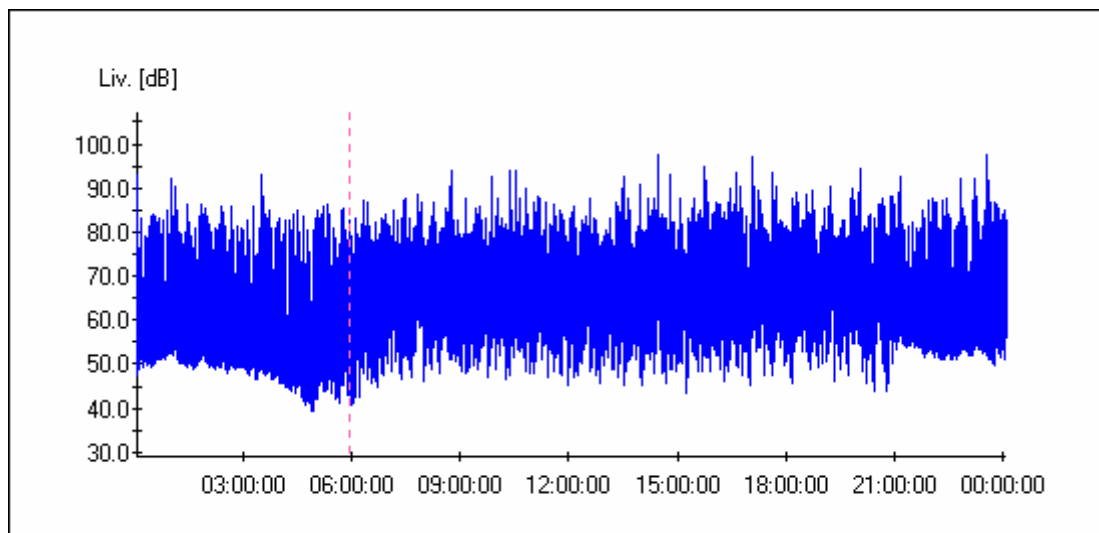


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



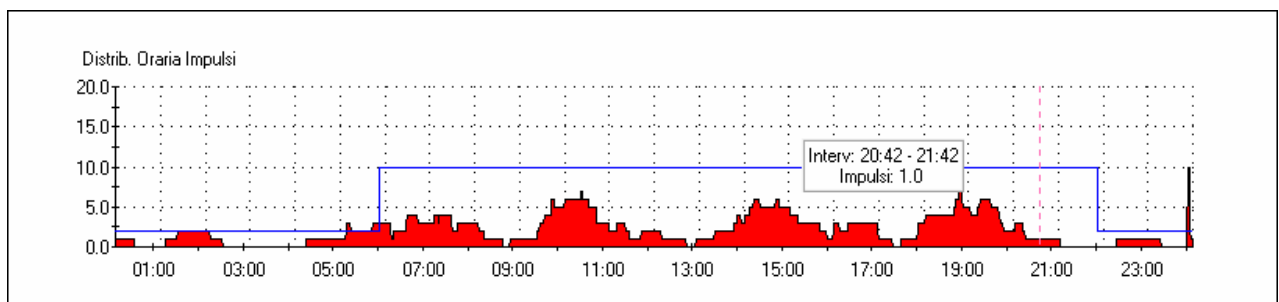
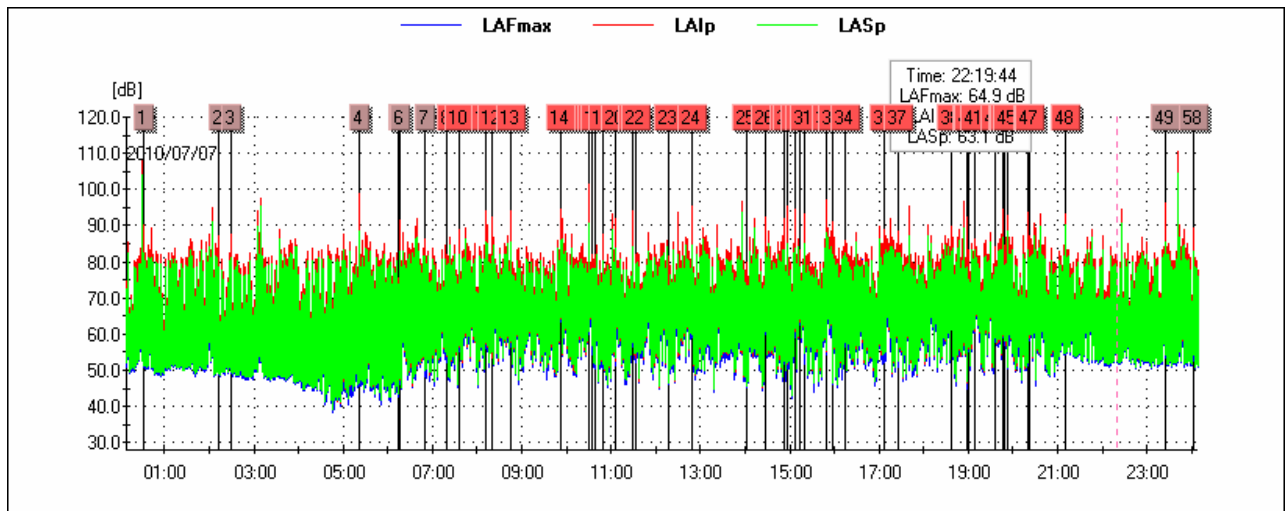
R_8_C MERCOLEDI' 07/07/2010

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/07 00:31:21	0.875	88.3	7.4
2	2010/07/07 02:13:32	0.750	85.6	8.5
3	2010/07/07 02:29:33	0.750	68.5	9.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

4	2010/07/07 05:21:50	0.625	95.9	10.4
5	2010/07/07 06:14:31	1.000	63.7	12.5
6	2010/07/07 06:15:39	1.000	88.8	8.6
7	2010/07/07 06:50:26	1.000	60.7	8.1
8	2010/07/07 07:18:16	0.750	79.2	9.1
9	2010/07/07 07:35:43	1.000	87.3	6.6
10	2010/07/07 07:36:01	0.750	81.0	8.6
11	2010/07/07 08:12:25	0.625	90.7	9.0
12	2010/07/07 08:19:22	0.625	88.7	11.0
13	2010/07/07 08:44:47	0.875	91.9	8.7
14	2010/07/07 09:53:03	0.750	92.4	8.9
15	2010/07/07 10:30:50	0.625	98.6	10.7
16	2010/07/07 10:33:38	0.875	79.9	7.3
17	2010/07/07 10:39:20	0.625	78.6	10.8
18	2010/07/07 10:49:04	0.750	86.6	7.4
19	2010/07/07 10:49:33	0.625	80.8	10.3
20	2010/07/07 11:06:48	0.750	89.6	8.0
21	2010/07/07 11:28:22	0.625	91.2	9.8
22	2010/07/07 11:33:26	0.875	71.3	9.9
23	2010/07/07 12:16:54	0.625	79.9	8.2
24	2010/07/07 12:49:32	0.625	92.4	10.9
25	2010/07/07 14:02:43	0.875	78.7	6.4
26	2010/07/07 14:27:47	0.625	89.5	9.7
27	2010/07/07 14:53:27	0.750	90.1	8.4
28	2010/07/07 14:57:18	0.625	92.6	10.5
29	2010/07/07 15:08:09	0.625	91.0	10.8
30	2010/07/07 15:14:37	0.625	80.8	9.1
31	2010/07/07 15:19:25	1.000	90.8	8.0
32	2010/07/07 15:48:17	0.875	94.5	8.7
33	2010/07/07 15:57:43	0.875	88.0	9.5
34	2010/07/07 16:14:58	0.750	82.4	8.8
35	2010/07/07 17:05:56	1.000	87.3	6.9
36	2010/07/07 17:06:20	0.875	77.4	6.7
37	2010/07/07 17:25:51	1.000	86.4	7.0

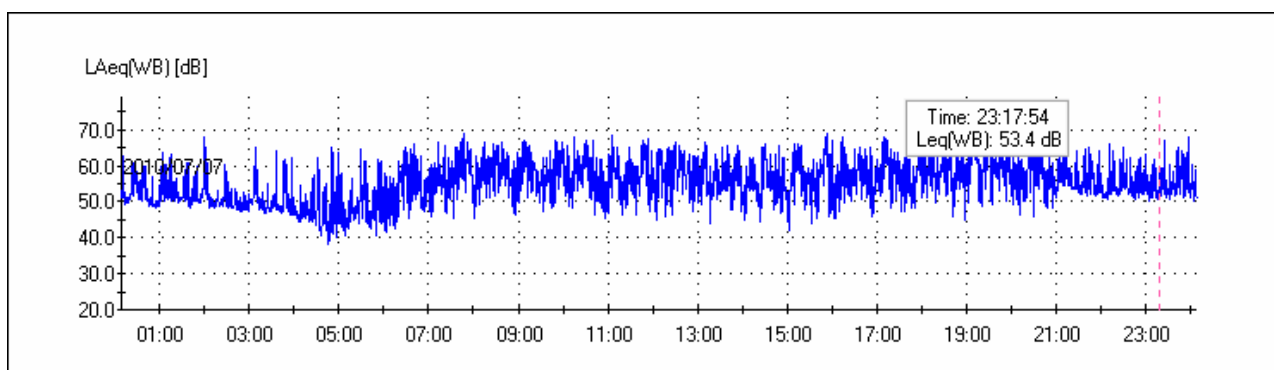
38	2010/07/07 18:36:52	0.625	86.5	11.2
39	2010/07/07 18:58:31	0.750	87.0	13.6
40	2010/07/07 18:59:20	0.750	79.5	10.0
41	2010/07/07 19:09:35	0.750	82.8	6.9
42	2010/07/07 19:36:16	0.750	81.4	10.1
43	2010/07/07 19:47:25	1.000	92.5	7.7
44	2010/07/07 19:49:17	0.875	81.1	8.6
45	2010/07/07 19:53:48	0.750	81.6	7.8
46	2010/07/07 20:19:13	0.750	90.7	10.0
47	2010/07/07 20:22:17	0.625	84.1	10.5
48	2010/07/07 21:09:36	0.750	83.1	7.5
49	2010/07/07 23:24:57	0.625	93.3	10.8
50	2010/07/08 00:02:47	0.625	75.7	11.2
51	2010/07/08 00:02:48	0.625	76.0	11.4
52	2010/07/08 00:02:50	0.625	84.1	13.6
53	2010/07/08 00:02:52	0.625	78.7	12.1
54	2010/07/08 00:02:55	0.625	78.3	12.3
55	2010/07/08 00:02:56	0.625	78.0	11.8
56	2010/07/08 00:02:58	0.625	74.3	10.4
57	2010/07/08 00:02:59	0.750	73.8	10.7
58	2010/07/08 00:03:00	0.875	78.8	10.3

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

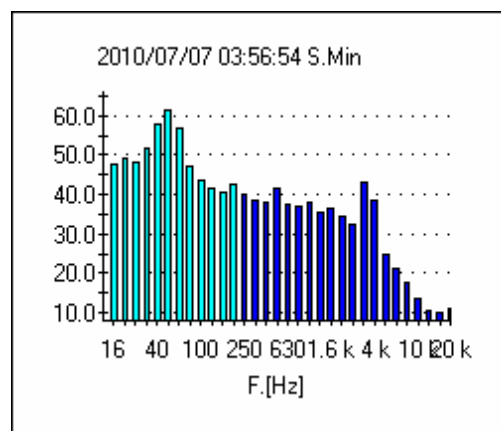
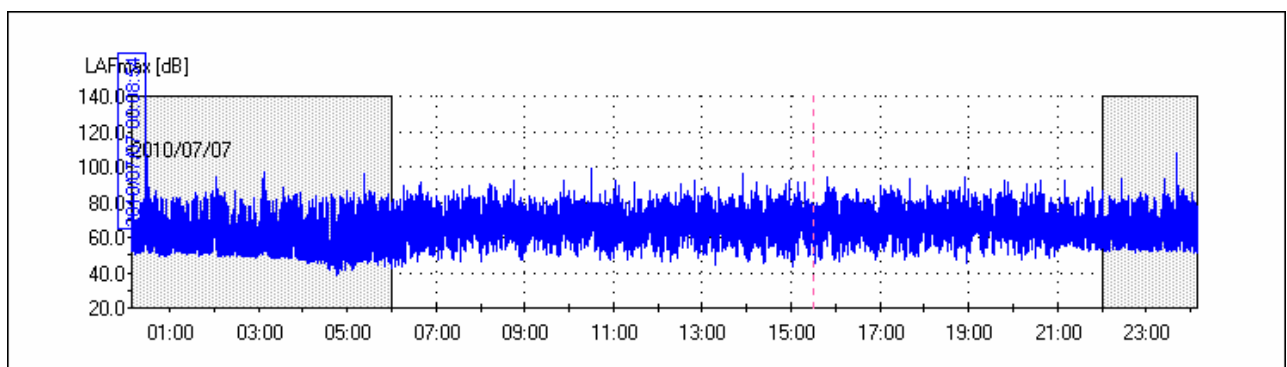
L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

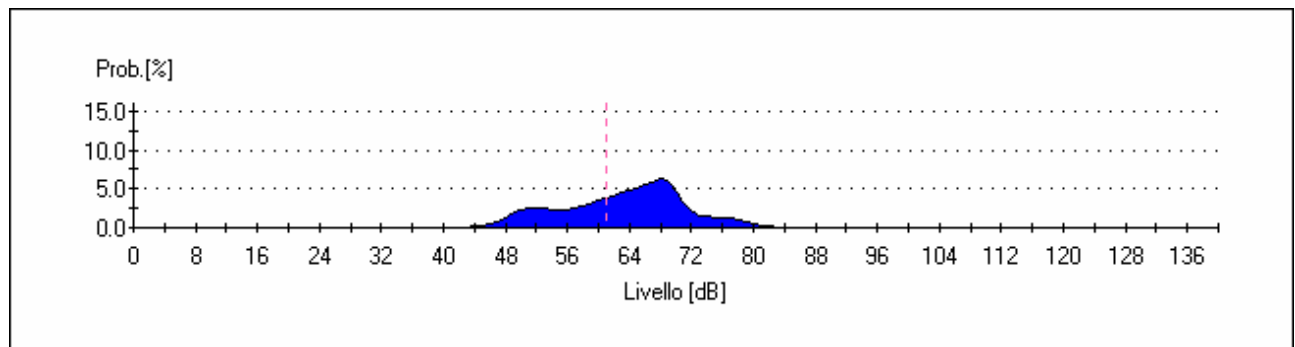
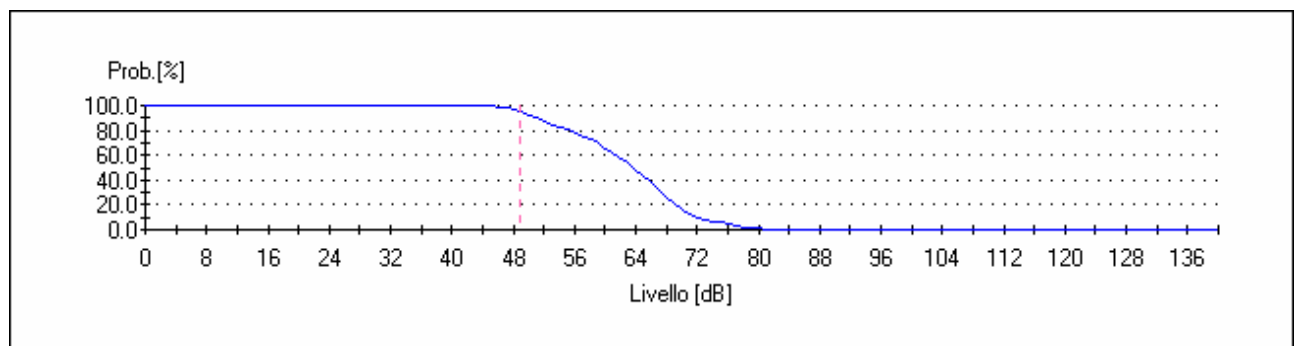
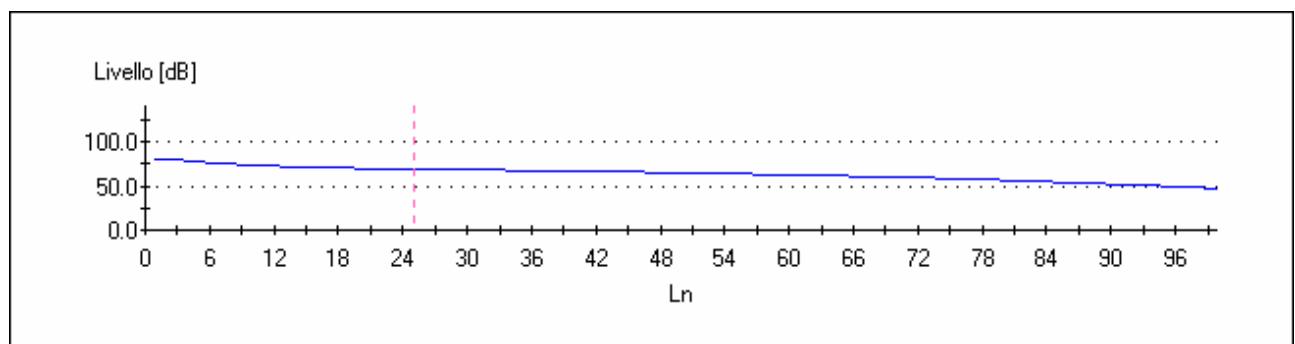
Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 125	0.0
Freq: 160	0.1
Freq: 200	0.2
Freq: 250	0.0
Freq: 315	0.0
Freq: 400	0.0
Freq: 500	0.1
Freq: 630	0.0
Freq: 1 k	0.0
Freq: 3.15 k	1.7

PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

TIME ISTORY COMPONENTI TONALI

GRAFICO DEL CLIMA ACUSTICO GIORNALIERO


DISTRIBUTIVA**CUMULATIVA****GRAFICO PERCENTILI**

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	80.0
1	80.0
2	79.0
3	78.0
4	77.0
5	76.0
6	75.5
7	75.0
8	74.0
9	73.5
10	73.0
11	72.7
12	72.3
13	72.0
14	71.8
15	71.5
16	71.3
17	71.0
18	70.8
19	70.7
20	70.5
21	70.3
22	70.2
23	70.0
24	69.9
25	69.8
26	69.6
27	69.5
28	69.4
29	69.3
30	69.1

31	69.0
32	68.9
33	68.8
34	68.6
35	68.5
36	68.4
37	68.3
38	68.1
39	68.0
40	67.9
41	67.7
42	67.6
43	67.4
44	67.3
45	67.1
46	67.0
47	66.9
48	66.7
49	66.6
50	66.4
51	66.3
52	66.1
53	66.0
54	65.8
55	65.7
56	65.5
57	65.3
58	65.2
59	65.0
60	64.8
61	64.7
62	64.5
63	64.3
64	64.2

65	64.0
66	63.8
67	63.6
68	63.4
69	63.2
70	63.0
71	62.8
72	62.5
73	62.3
74	62.0
75	61.8
76	61.5
77	61.3
78	61.0
79	60.8
80	60.5
81	60.3
82	60.0
83	59.7
84	59.3
85	59.0
86	58.7
87	58.3
88	58.0
89	57.5
90	57.0
91	56.5
92	56.0
93	55.0
94	54.5
95	54.0
96	53.0
97	52.0
98	51.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

99	49.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	80.0
1	80.0
2	79.0
3	78.0
4	77.0
5	76.0
6	75.0
7	74.0
8	73.0
9	72.0
10	71.0
11	70.5
12	70.0
13	69.5
14	69.0
15	68.7
16	68.3
17	68.0
18	67.7
19	67.3
20	67.0
21	66.7
22	66.3
23	66.0
24	65.7
25	65.3
26	65.0
27	64.7
28	64.3

29	64.0
30	63.7
31	63.3
32	63.0
33	62.7
34	62.3
35	62.0
36	61.8
37	61.5
38	61.3
39	61.0
40	60.7
41	60.3
42	60.0
43	59.8
44	59.5
45	59.3
46	59.0
47	58.7
48	58.3
49	58.0
50	57.7
51	57.3
52	57.0
53	56.8
54	56.5
55	56.3
56	56.0
57	55.7
58	55.3
59	55.0
60	54.8
61	54.5
62	54.3

63	54.0
64	53.8
65	53.6
66	53.4
67	53.2
68	53.0
69	52.8
70	52.7
71	52.5
72	52.3
73	52.2
74	52.0
75	51.8
76	51.7
77	51.5
78	51.3
79	51.2
80	51.0
81	50.8
82	50.7
83	50.5
84	50.3
85	50.2
86	50.0
87	49.8
88	49.6
89	49.4
90	49.2
91	49.0
92	48.7
93	48.3
94	48.0
95	47.5
96	47.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

97	46.5
98	46.0
99	44.0

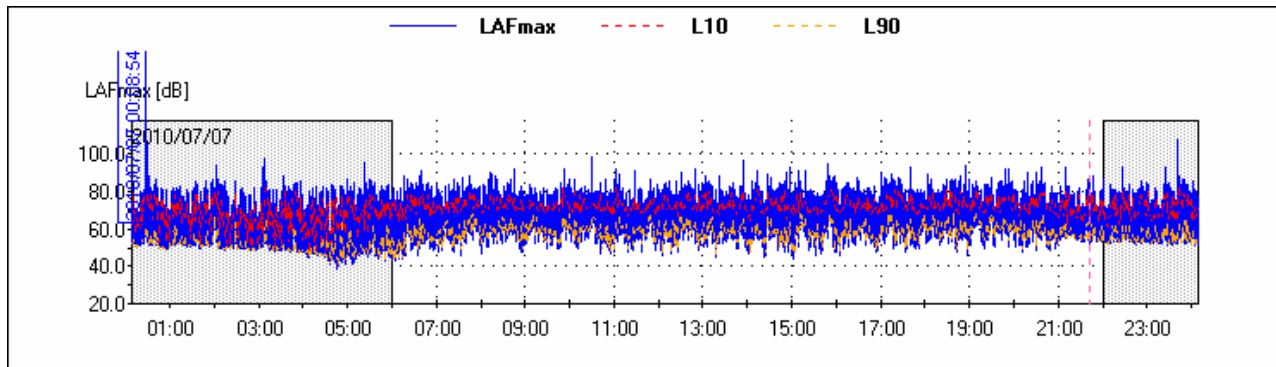
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
94.3	86.9	91.2
101.4	90.7	98.6
96.9	93.6	96.3
96.7	89.8	94.4
93.3	90.1	92.6
101.4	93.6	98.6

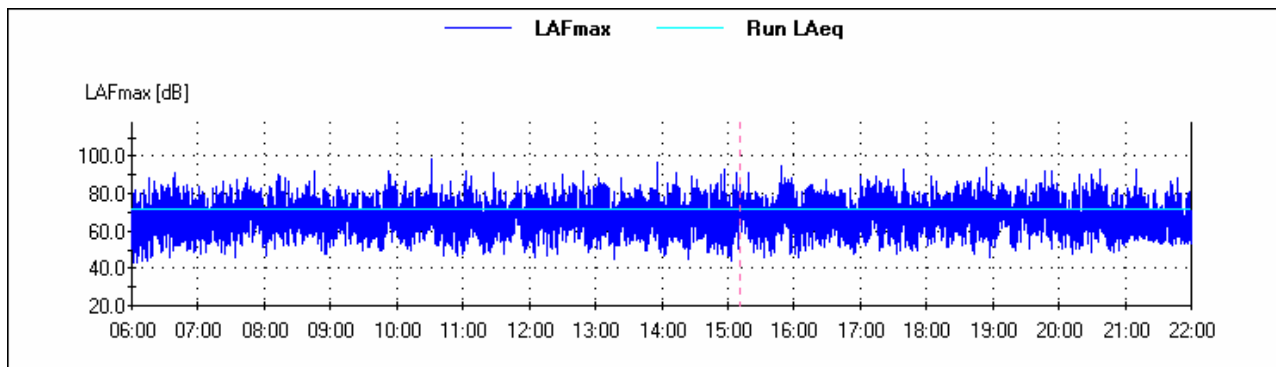
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
108.2	103.9	106.5
99	88.6	95.9
110.3	104.6	108.1
110.3	104.6	108.1

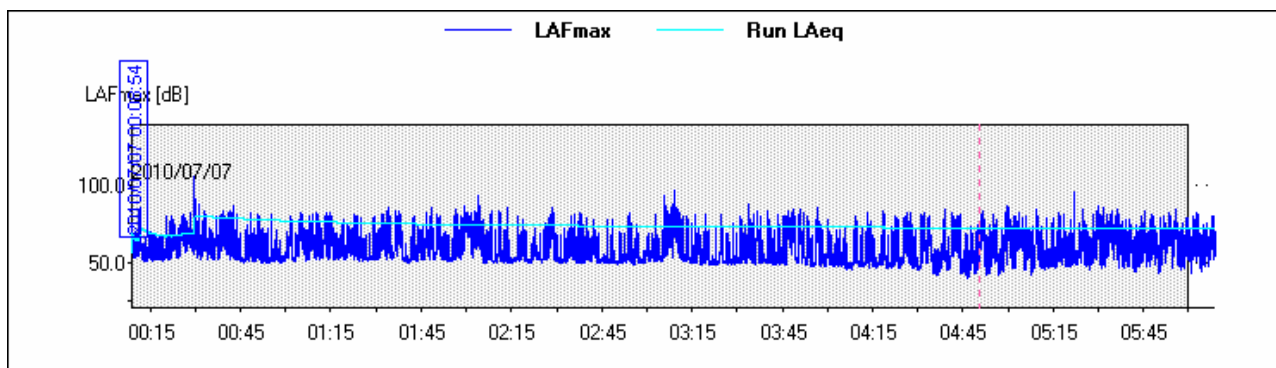
TIME HISTORY L10 – L90



RUNNING Leq DIURNO

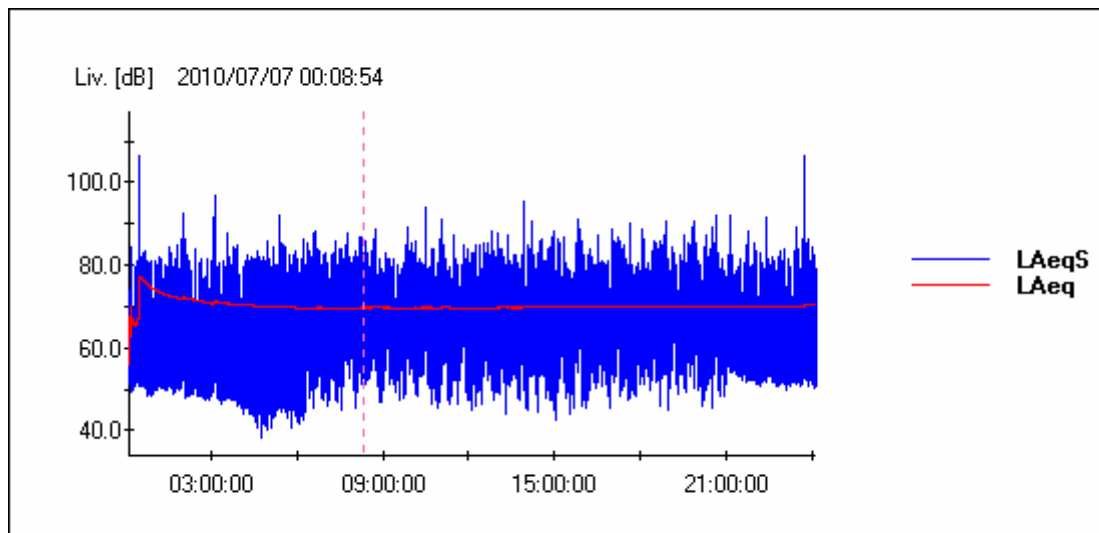


RUNNING Leq NOTTURNO

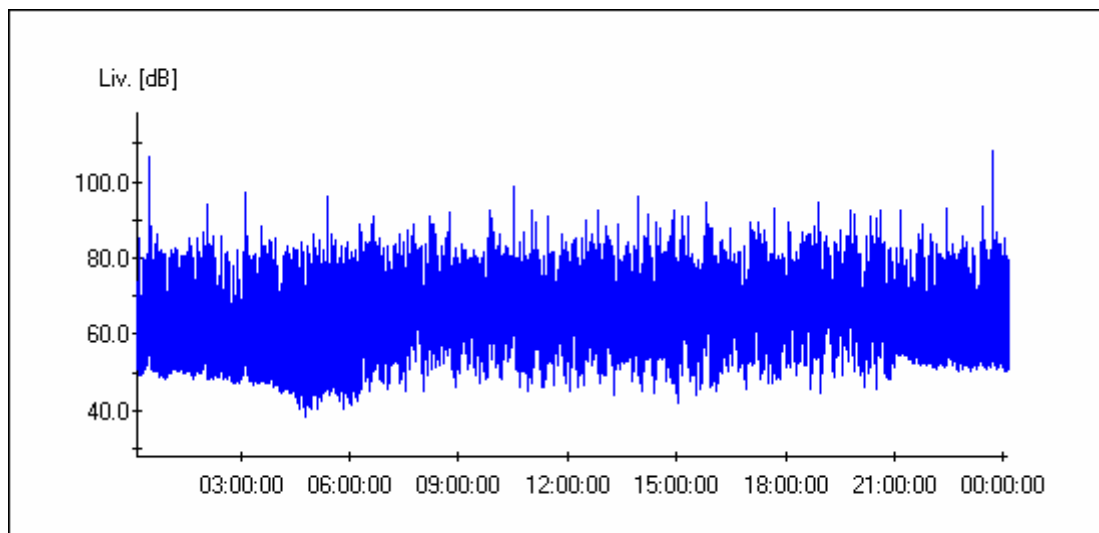


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



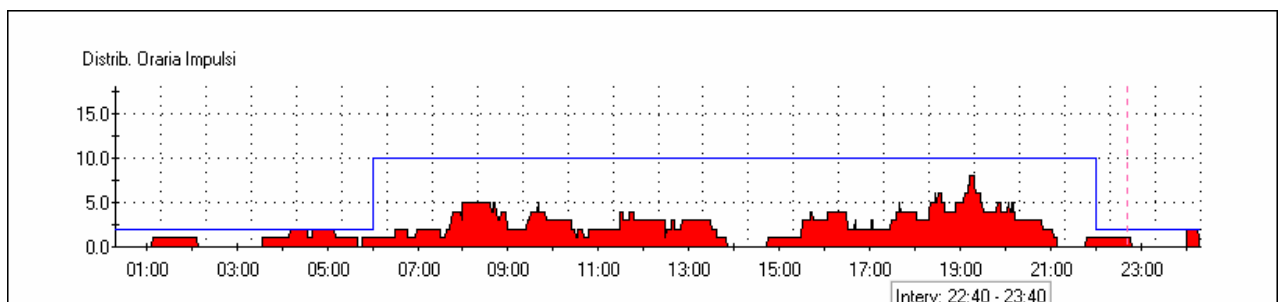
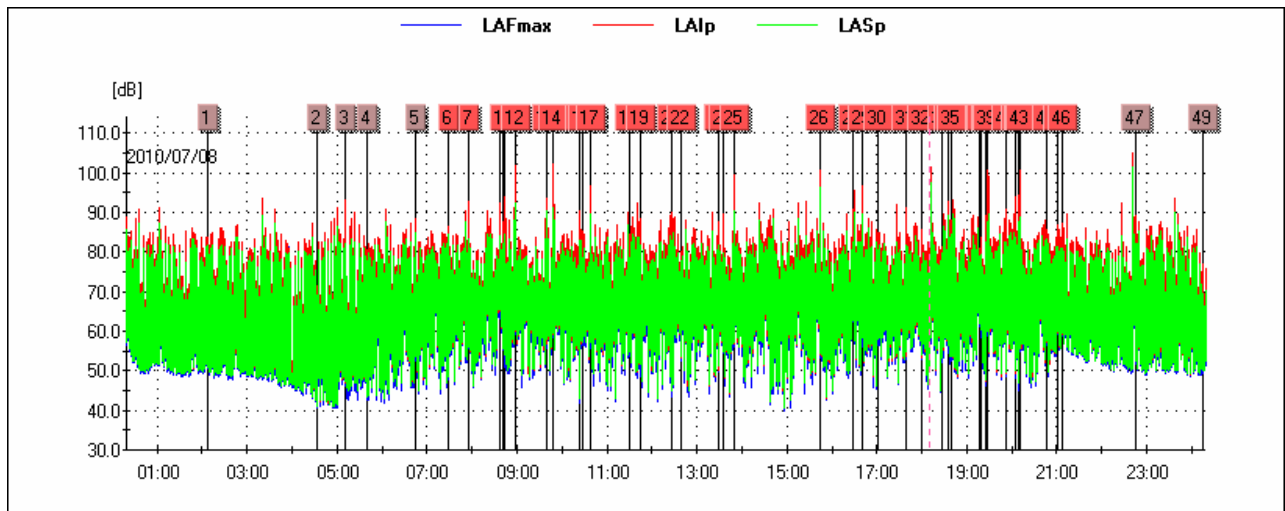
R_8_C 08/07/2010

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/08 02:06:38	0.875	73.5	9.8
2	2010/07/08 04:32:45	0.750	54.7	10.5
3	2010/07/08 05:09:58	0.500	89.5	11.3

4	2010/07/08 05:39:06	0.750	72.5	8.2
5	2010/07/08 06:45:30	0.625	86.2	9.3
6	2010/07/08 07:28:55	0.750	64.3	8.9
7	2010/07/08 07:56:18	0.625	90.2	9.7
8	2010/07/08 08:36:51	0.750	90.3	8.6
9	2010/07/08 08:42:07	0.750	73.1	7.4
10	2010/07/08 08:44:21	1.000	90.6	11.0
11	2010/07/08 08:57:46	0.750	84.0	6.8
12	2010/07/08 08:57:54	0.750	99.5	9.2
13	2010/07/08 09:39:04	0.625	86.8	6.7
14	2010/07/08 09:48:16	0.625	99.2	11.0
15	2010/07/08 10:23:53	1.000	87.9	8.7
16	2010/07/08 10:28:32	0.750	84.3	7.4
17	2010/07/08 10:38:08	0.875	95.5	7.4
18	2010/07/08 11:31:04	0.750	83.1	7.9
19	2010/07/08 11:45:15	1.000	85.8	7.6
20	2010/07/08 12:27:14	0.750	73.8	9.3
21	2010/07/08 12:27:17	0.750	88.2	6.6
22	2010/07/08 12:39:23	0.750	77.0	8.1
23	2010/07/08 13:28:19	0.625	84.5	11.3
24	2010/07/08 13:35:30	0.750	86.0	9.5
25	2010/07/08 13:49:43	0.750	97.3	8.9
26	2010/07/08 15:43:28	0.750	90.4	9.2
27	2010/07/08 16:28:21	0.750	82.6	10.7
28	2010/07/08 16:28:30	0.875	88.4	8.2
29	2010/07/08 16:40:34	0.750	95.2	7.2
30	2010/07/08 17:02:23	0.875	69.9	7.7
31	2010/07/08 17:39:20	0.750	88.4	9.1
32	2010/07/08 18:00:09	0.625	81.7	12.4
33	2010/07/08 18:26:30	0.875	78.1	6.5
34	2010/07/08 18:34:40	0.625	86.2	9.2
35	2010/07/08 18:38:51	0.750	84.9	9.7
36	2010/07/08 19:17:27	1.000	75.0	8.8
37	2010/07/08 19:18:17	0.875	82.7	6.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

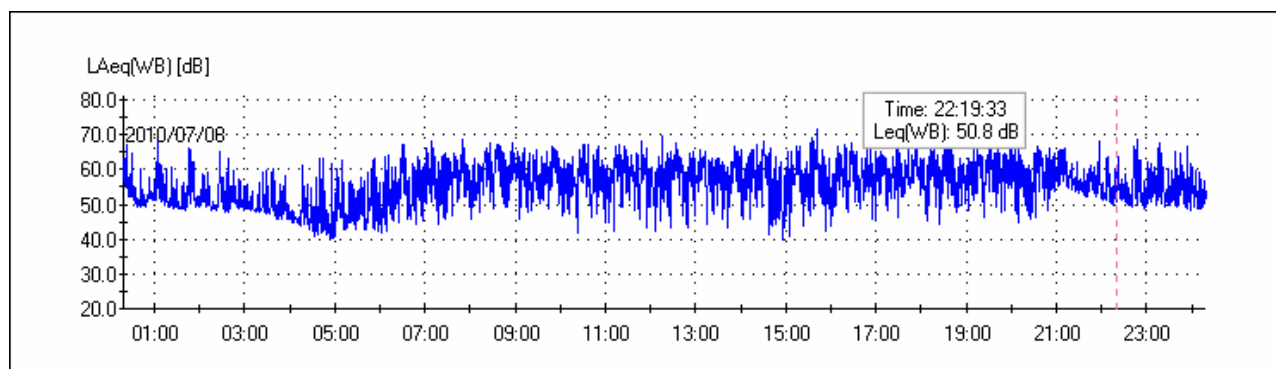
38	2010/07/08 19:25:02	1.000	86.6	8.1
39	2010/07/08 19:28:19	0.625	95.6	12.9
40	2010/07/08 19:52:38	0.625	87.7	10.4
41	2010/07/08 20:04:22	0.750	90.8	10.3
42	2010/07/08 20:09:08	1.000	92.9	6.7
43	2010/07/08 20:11:38	0.625	97.2	12.1
44	2010/07/08 20:47:02	0.750	74.5	7.4
45	2010/07/08 21:02:03	0.750	78.9	7.8
46	2010/07/08 21:07:41	1.000	86.0	6.1
47	2010/07/08 22:45:06	0.750	86.2	9.1
48	2010/07/09 00:14:28	0.625	73.2	9.6
49	2010/07/09 00:15:28	0.875	61.2	9.5

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

TONALI [Hz]	PERSIST [%]
Freq: 63	0.0
Freq: 80	0.0
Freq: 100	0.1
Freq: 125	0.2
Freq: 200	0.3
Freq: 250	0.1
Freq: 400	0.0
Freq: 500	0.1
Freq: 1 k	0.1
Freq: 1.25 k	0.0
Freq: 2.5 k	0.0
Freq: 3.15 k	11.8
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

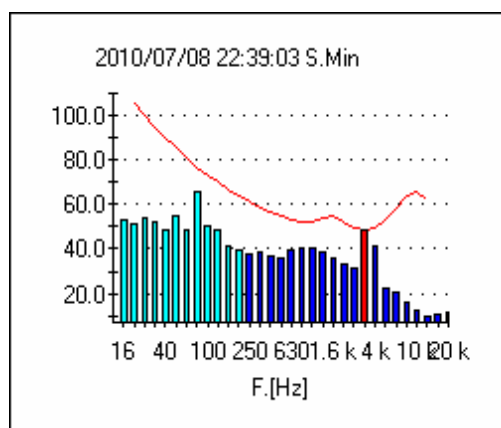
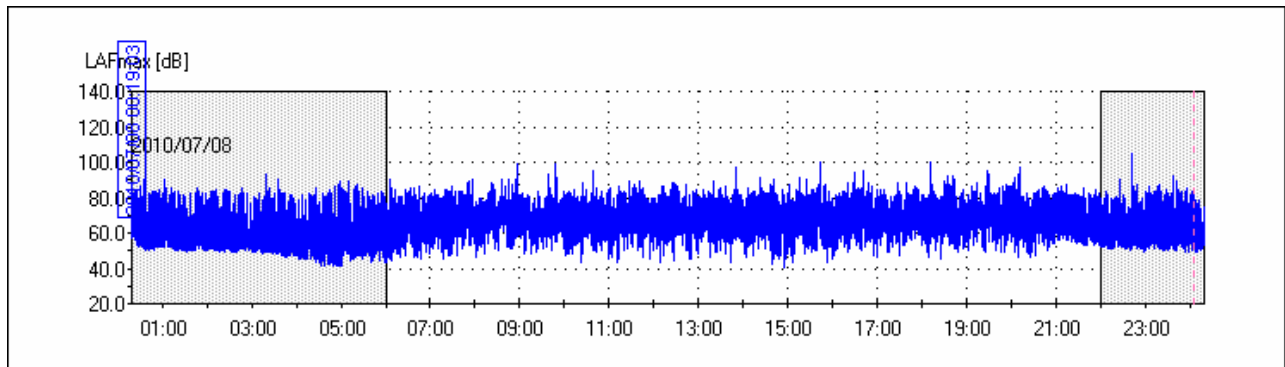
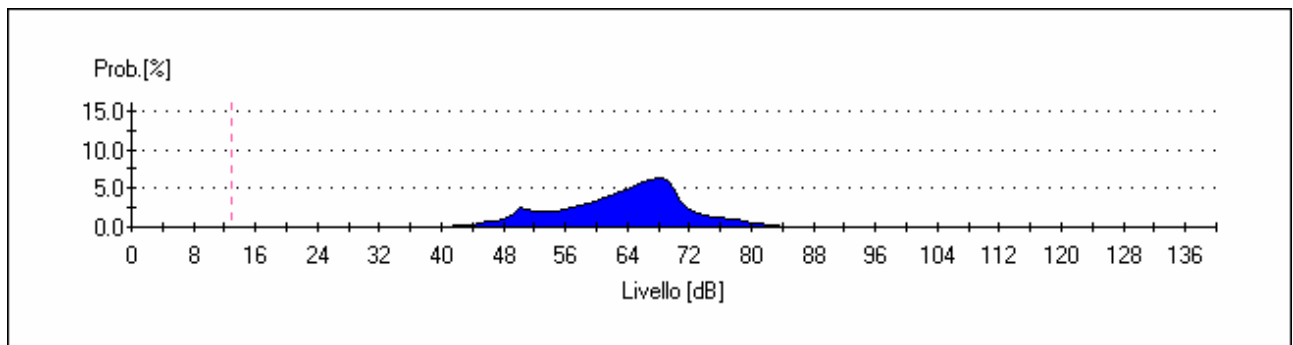


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

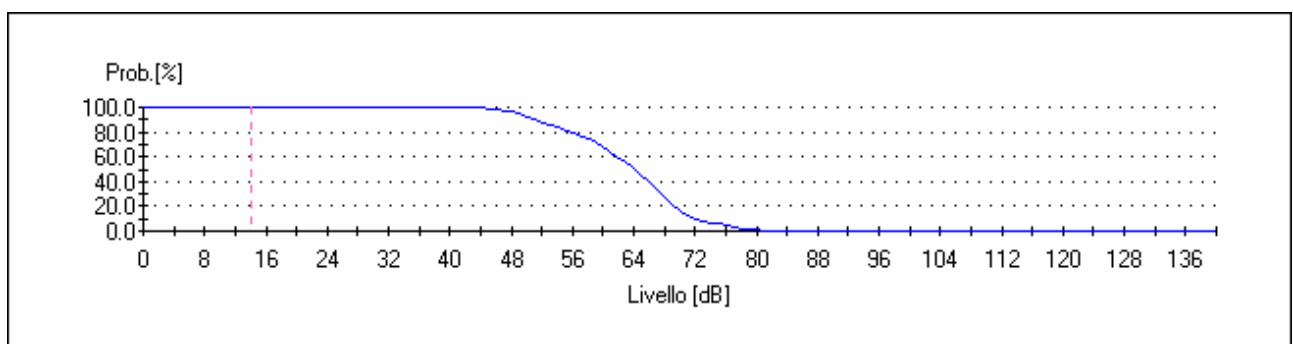
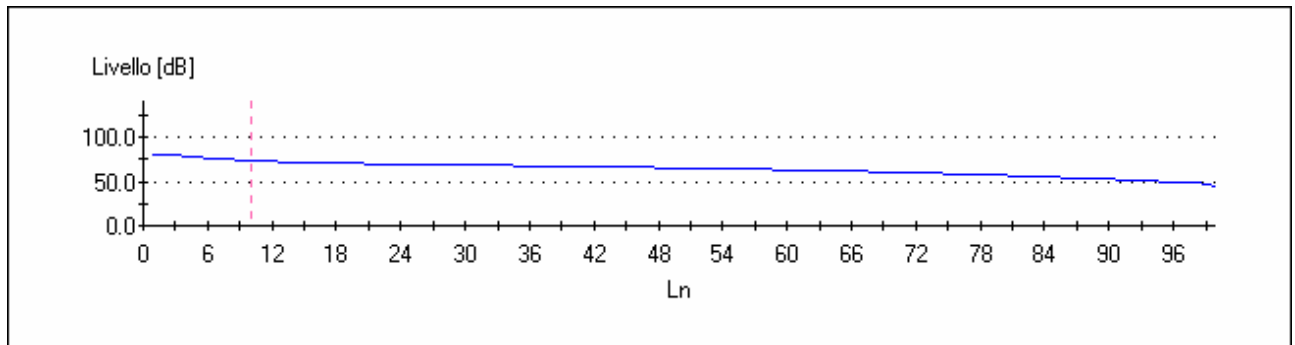


GRAFICO PERCENTILI

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	81.0
1	81.0
2	79.0
3	78.0
4	77.0
5	76.0
6	75.5
7	75.0
8	74.5
9	74.0
10	73.5
11	73.0
12	72.5
13	72.0
14	71.8
15	71.6
16	71.4
17	71.2
18	71.0
19	70.8
20	70.7

21	70.5
22	70.3
23	70.2
24	70.0
25	69.9
26	69.8
27	69.6
28	69.5
29	69.4
30	69.3
31	69.1
32	69.0
33	68.9
34	68.8
35	68.6
36	68.5
37	68.4
38	68.3
39	68.1
40	68.0
41	67.9
42	67.8
43	67.6
44	67.5
45	67.4
46	67.3
47	67.1
48	67.0
49	66.9
50	66.7
51	66.6
52	66.4
53	66.3
54	66.1

55	66.0
56	65.8
57	65.7
58	65.5
59	65.3
60	65.2
61	65.0
62	64.8
63	64.7
64	64.5
65	64.3
66	64.2
67	64.0
68	63.8
69	63.6
70	63.4
71	63.2
72	63.0
73	62.8
74	62.6
75	62.4
76	62.2
77	62.0
78	61.7
79	61.3
80	61.0
81	60.8
82	60.5
83	60.3
84	60.0
85	59.7
86	59.3
87	59.0
88	58.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

89	58.0
90	57.5
91	57.0
92	56.5
93	56.0
94	55.0
95	54.0
96	53.0
97	52.0
98	51.0
99	48.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	80.0
1	80.0
2	79.0
3	77.0
4	76.0
5	75.5
6	75.0
7	74.0
8	73.0
9	72.0
10	71.5
11	71.0
12	70.0
13	69.7
14	69.3
15	69.0
16	68.5
17	68.0
18	67.7

19	67.3
20	67.0
21	66.7
22	66.3
23	66.0
24	65.7
25	65.3
26	65.0
27	64.8
28	64.5
29	64.3
30	64.0
31	63.7
32	63.3
33	63.0
34	62.7
35	62.3
36	62.0
37	61.8
38	61.5
39	61.3
40	61.0
41	60.8
42	60.5
43	60.3
44	60.0
45	59.7
46	59.3
47	59.0
48	58.8
49	58.5
50	58.3
51	58.0
52	57.8

53	57.5
54	57.3
55	57.0
56	56.7
57	56.3
58	56.0
59	55.8
60	55.5
61	55.3
62	55.0
63	54.7
64	54.3
65	54.0
66	53.8
67	53.6
68	53.4
69	53.2
70	53.0
71	52.8
72	52.6
73	52.4
74	52.2
75	52.0
76	51.8
77	51.7
78	51.5
79	51.3
80	51.2
81	51.0
82	50.8
83	50.7
84	50.5
85	50.3
86	50.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

87	50.0
88	49.8
89	49.5
90	49.3
91	49.0
92	48.5
93	48.0
94	47.5
95	47.0
96	46.5
97	46.0
98	45.0
99	44.0

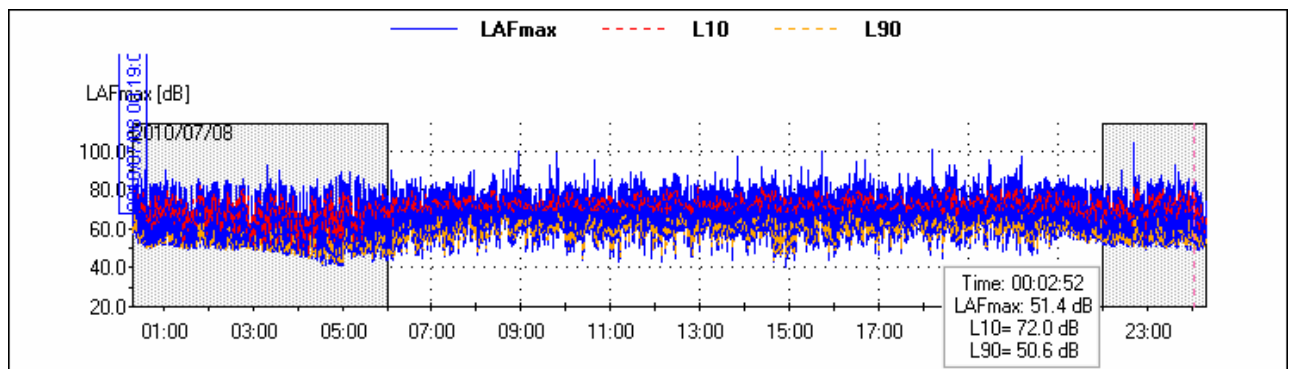
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
92.8	87.6	90.3
102.3	92.4	99.5
100.6	96.1	99.6
101.4	97.6	100.3
89.6	83.1	87.7
102.3	97.6	100.3

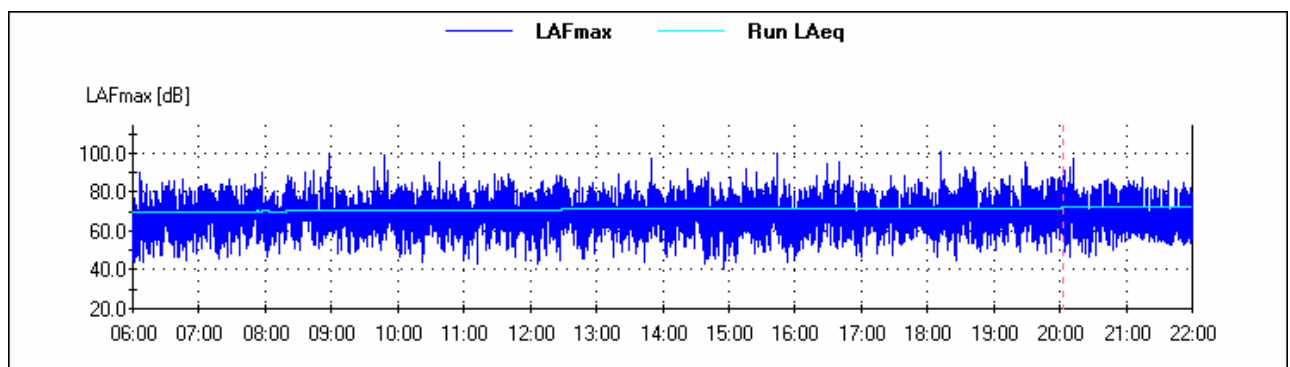
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
93.5	89.3	92.8
93.2	86.4	89.6
104.9	101.2	104.5
104.9	101.2	104.5

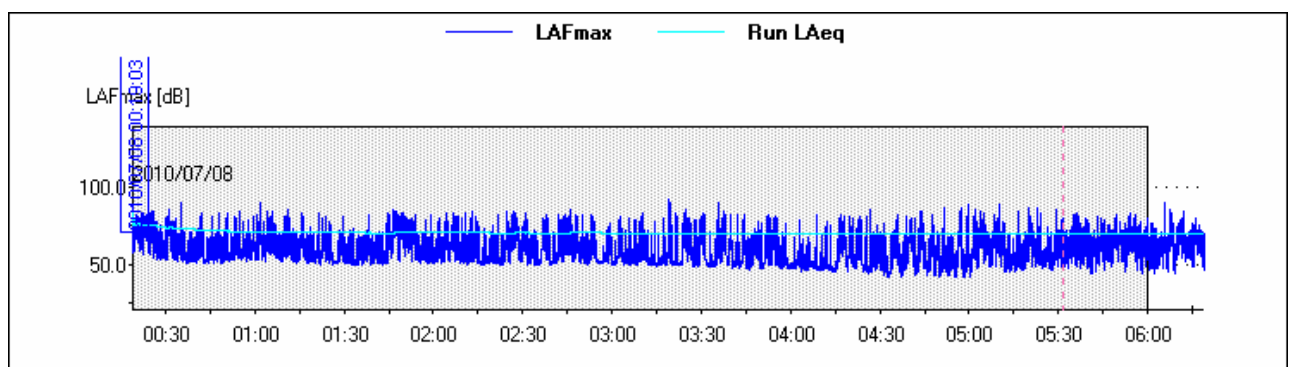
TIME HISTORY L10 – L90



RUNNING Leq DIURNO

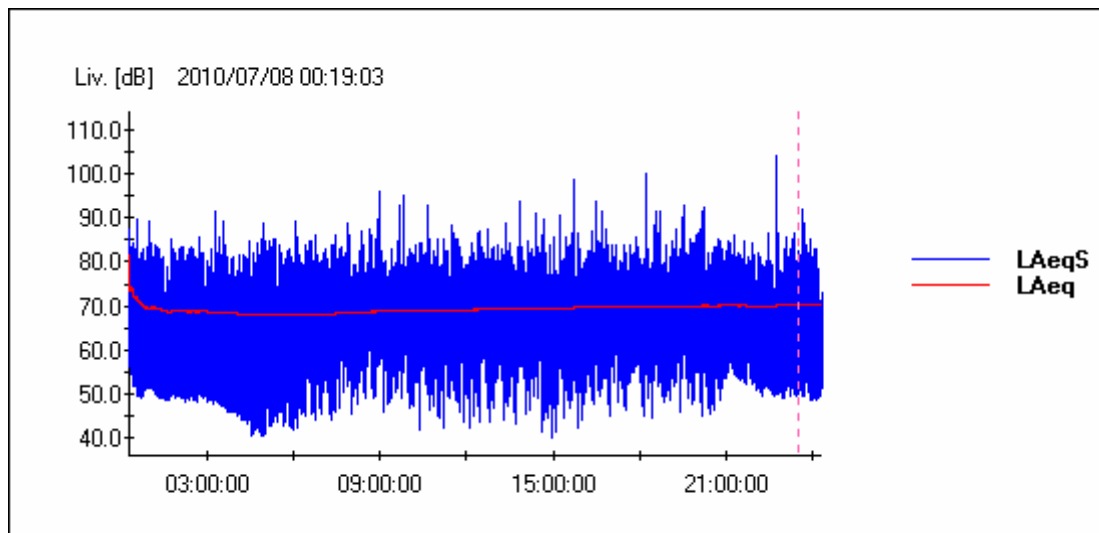


RUNNING Leq NOTTURNO

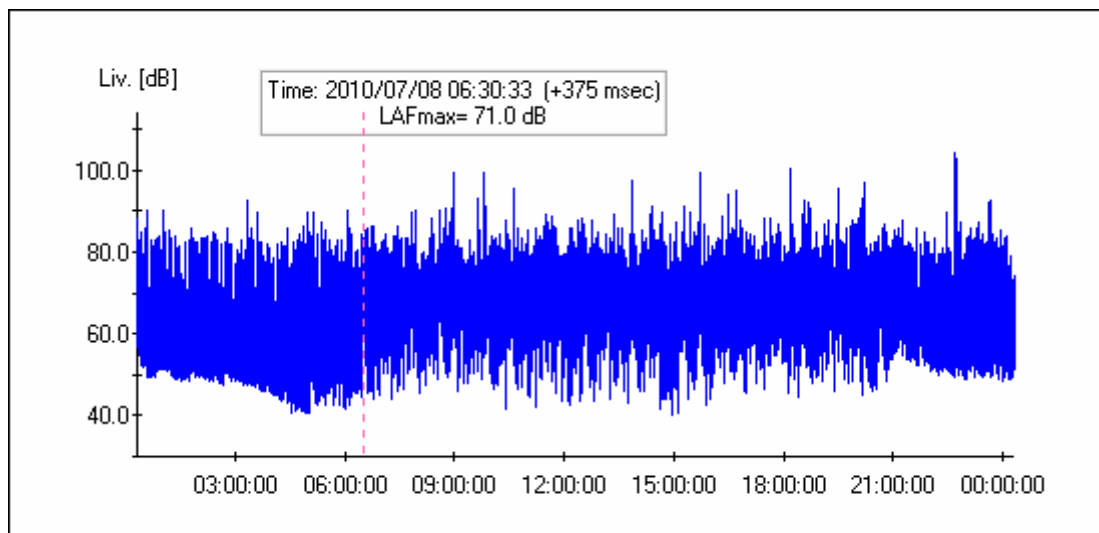


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



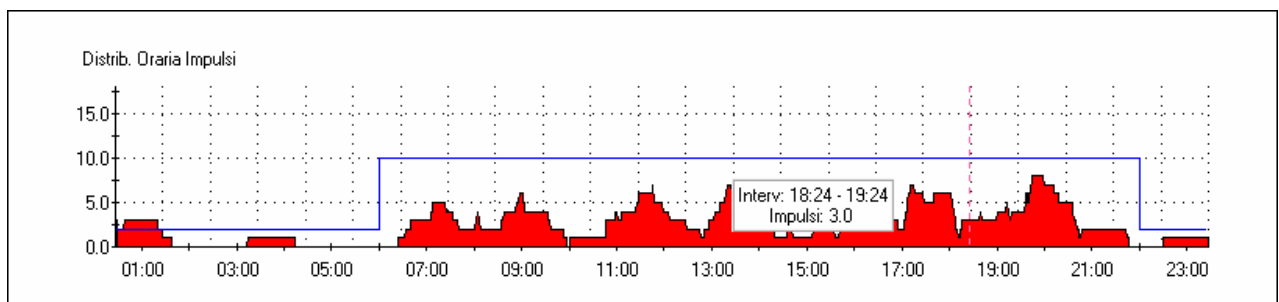
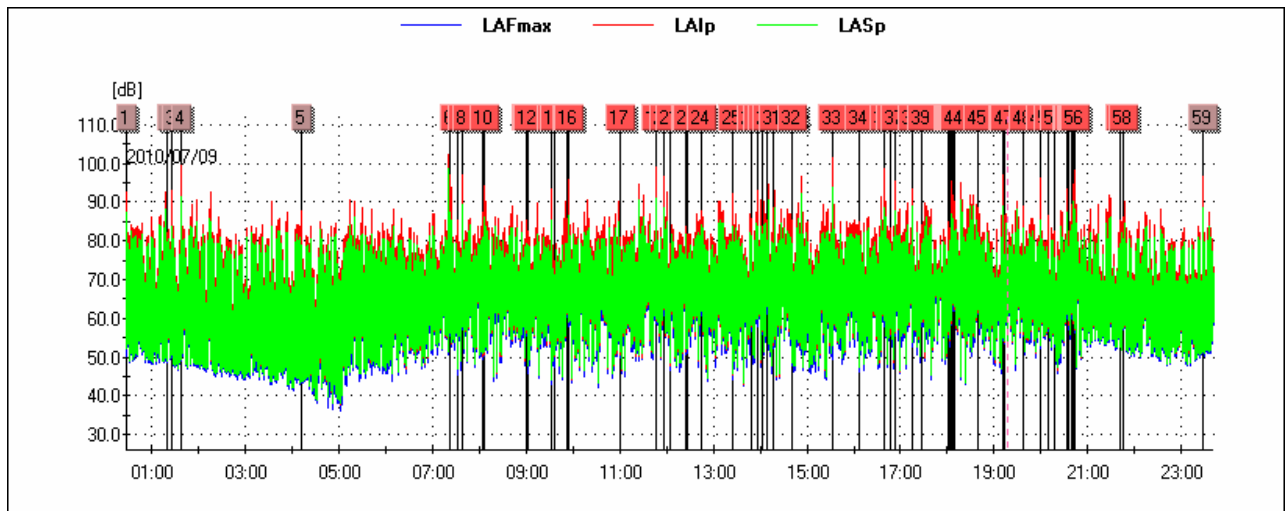
R_8_C 09/07/2010

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/09 00:27:14	0.625	80.0	11.7
2	2010/07/09 01:19:32	1.000	80.3	7.0
3	2010/07/09 01:25:43	0.875	89.7	10.0

4	2010/07/09 01:36:39	0.750	97.8	8.1
5	2010/07/09 04:12:02	1.000	85.2	9.0
6	2010/07/09 07:22:54	1.000	94.2	9.7
7	2010/07/09 07:31:15	0.875	83.3	8.4
8	2010/07/09 07:38:28	0.750	95.9	7.6
9	2010/07/09 08:04:25	0.625	84.2	10.6
10	2010/07/09 08:06:03	0.750	93.1	8.2
11	2010/07/09 09:00:29	0.750	83.6	7.8
12	2010/07/09 09:02:27	0.750	80.3	8.4
13	2010/07/09 09:32:37	0.750	91.2	8.9
14	2010/07/09 09:35:51	0.750	61.3	7.5
15	2010/07/09 09:51:18	0.750	82.2	10.1
16	2010/07/09 09:55:02	0.750	93.4	9.4
17	2010/07/09 10:59:40	0.875	70.4	6.2
18	2010/07/09 11:45:42	1.000	96.7	7.7
19	2010/07/09 11:45:48	0.750	91.7	7.8
20	2010/07/09 11:56:25	0.750	94.8	8.5
21	2010/07/09 12:04:35	0.625	75.6	10.8
22	2010/07/09 12:23:55	0.750	78.8	7.6
23	2010/07/09 12:26:07	0.875	80.1	7.3
24	2010/07/09 12:44:21	0.750	78.2	9.6
25	2010/07/09 13:23:50	0.875	89.9	8.4
26	2010/07/09 13:49:13	0.625	80.3	9.6
27	2010/07/09 13:55:47	0.750	90.6	9.4
28	2010/07/09 14:02:53	0.875	80.9	6.5
29	2010/07/09 14:08:38	0.625	77.2	9.2
30	2010/07/09 14:15:46	0.750	86.4	9.3
31	2010/07/09 14:17:15	0.875	82.9	7.7
32	2010/07/09 14:40:23	1.000	83.6	7.6
33	2010/07/09 15:33:47	0.750	100.4	7.7
34	2010/07/09 16:06:11	0.625	67.8	10.5
35	2010/07/09 16:39:41	0.625	96.0	10.1
36	2010/07/09 16:47:03	0.750	80.6	9.4
37	2010/07/09 16:53:59	0.875	93.8	7.8

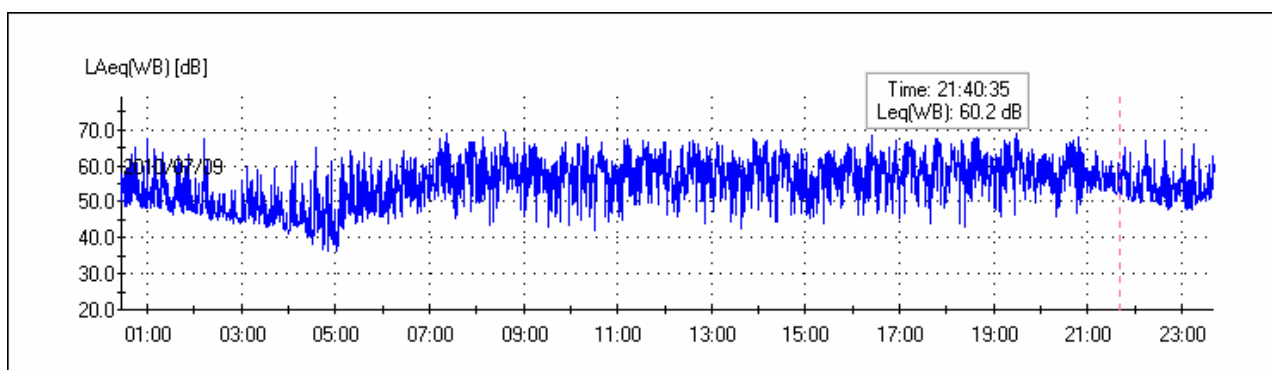
38	2010/07/09 17:14:53	0.750	87.7	9.3
39	2010/07/09 17:26:18	1.000	77.3	6.2
40	2010/07/09 18:01:48	0.750	83.7	7.6
41	2010/07/09 18:03:27	1.000	80.4	6.2
42	2010/07/09 18:05:05	0.750	93.3	8.6
43	2010/07/09 18:06:22	0.875	88.8	9.2
44	2010/07/09 18:09:54	1.000	83.8	8.6
45	2010/07/09 18:39:37	0.625	86.5	9.7
46	2010/07/09 19:12:14	1.000	94.8	7.9
47	2010/07/09 19:14:14	0.750	83.3	10.2
48	2010/07/09 19:37:02	0.750	84.1	10.5
49	2010/07/09 19:58:46	0.625	93.1	11.0
50	2010/07/09 20:10:13	0.625	83.0	11.5
51	2010/07/09 20:16:32	0.750	80.3	9.3
52	2010/07/09 20:34:23	0.875	92.8	6.2
53	2010/07/09 20:35:41	0.750	81.0	7.3
54	2010/07/09 20:39:08	0.625	81.9	10.7
55	2010/07/09 20:42:12	0.625	82.0	11.3
56	2010/07/09 20:42:59	0.625	95.0	10.7
57	2010/07/09 21:42:19	0.750	83.3	8.7
58	2010/07/09 21:45:09	1.000	80.3	7.5
59	2010/07/09 23:28:20	0.750	94.7	8.3

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 125	0.1
Freq: 160	0.1
Freq: 200	0.1
Freq: 250	0.1
Freq: 315	0.2
Freq: 400	0.1
Freq: 500	0.1
Freq: 630	0.1
Freq: 800	0.1
Freq: 1 k	0.0
Freq: 1.25 k	0.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 3.15 k	21.3
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME ISTORY COMPONENTI TONALI

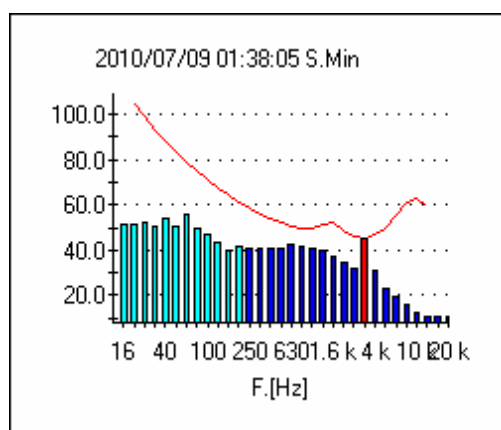
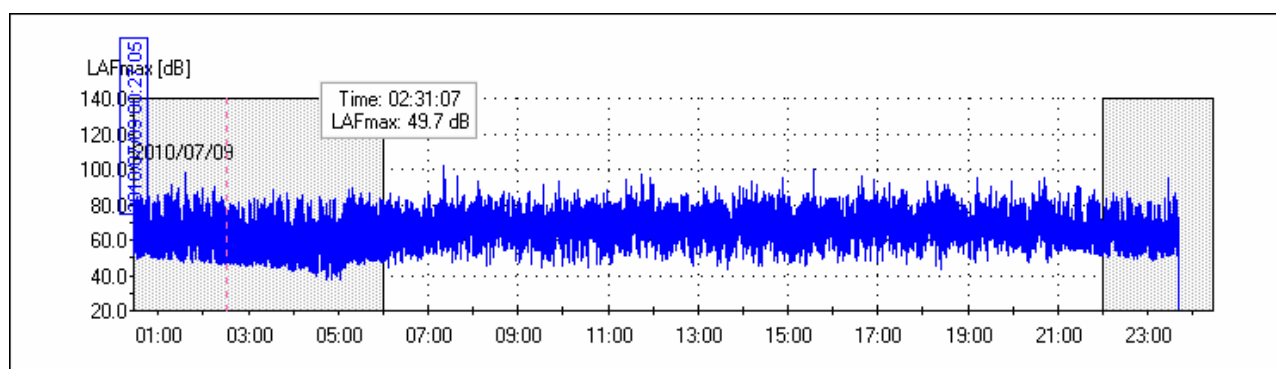
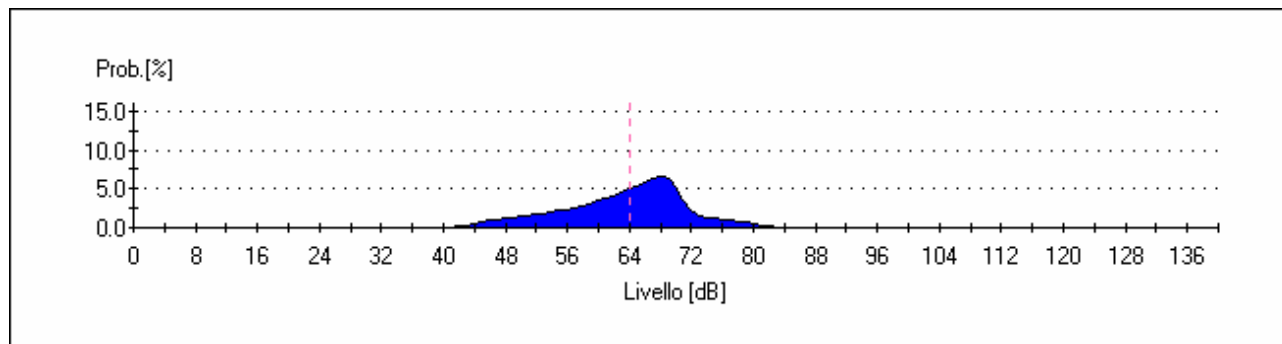


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

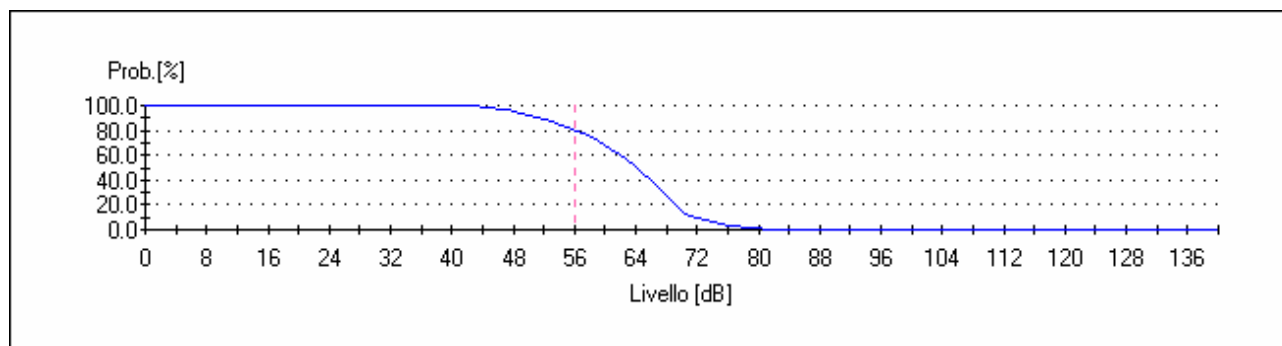
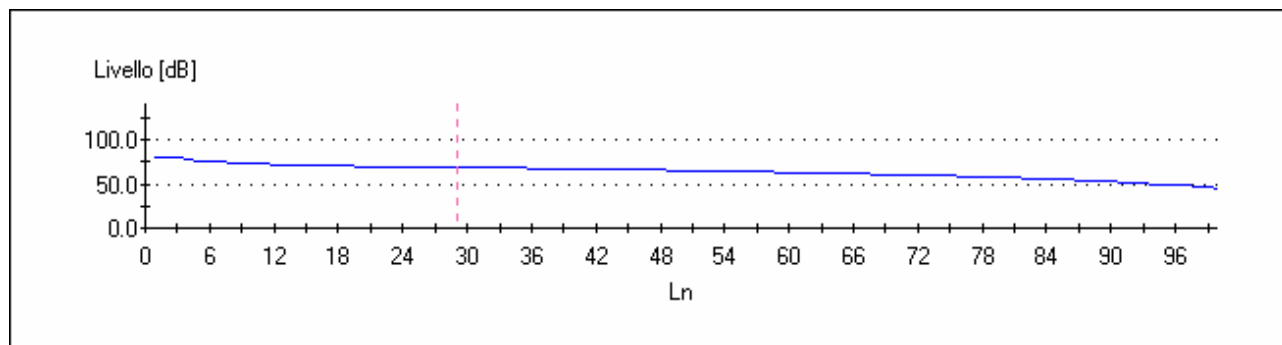


GRAFICO PERCENTILI



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	81.0
1	81.0
2	79.0
3	78.0
4	77.0
5	76.0
6	75.0
7	74.5
8	74.0
9	73.5
10	73.0
11	72.7
12	72.3
13	72.0
14	71.8
15	71.5
16	71.3
17	71.0
18	70.9
19	70.7
20	70.6
21	70.4
22	70.3
23	70.1
24	70.0
25	69.9
26	69.8
27	69.6
28	69.5
29	69.4
30	69.3

31	69.1
32	69.0
33	68.9
34	68.8
35	68.6
36	68.5
37	68.4
38	68.3
39	68.1
40	68.0
41	67.9
42	67.8
43	67.6
44	67.5
45	67.4
46	67.3
47	67.1
48	67.0
49	66.9
50	66.7
51	66.6
52	66.4
53	66.3
54	66.1
55	66.0
56	65.8
57	65.7
58	65.5
59	65.3
60	65.2
61	65.0
62	64.8
63	64.7
64	64.5

65	64.3
66	64.2
67	64.0
68	63.8
69	63.6
70	63.4
71	63.2
72	63.0
73	62.8
74	62.5
75	62.3
76	62.0
77	61.8
78	61.5
79	61.3
80	61.0
81	60.7
82	60.3
83	60.0
84	59.7
85	59.3
86	59.0
87	58.7
88	58.3
89	58.0
90	57.5
91	57.0
92	56.5
93	56.0
94	55.0
95	54.0
96	53.0
97	52.0
98	51.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

99	49.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	80.0
1	80.0
2	78.0
3	77.0
4	75.0
5	74.0
6	73.0
7	72.0
8	71.0
9	70.5
10	70.0
11	69.7
12	69.3
13	69.0
14	68.7
15	68.3
16	68.0
17	67.7
18	67.3
19	67.0
20	66.7
21	66.3
22	66.0
23	65.8
24	65.5
25	65.3
26	65.0
27	64.7
28	64.3

29	64.0
30	63.8
31	63.5
32	63.3
33	63.0
34	62.7
35	62.3
36	62.0
37	61.8
38	61.5
39	61.3
40	61.0
41	60.7
42	60.3
43	60.0
44	59.8
45	59.5
46	59.3
47	59.0
48	58.8
49	58.5
50	58.3
51	58.0
52	57.8
53	57.5
54	57.3
55	57.0
56	56.8
57	56.5
58	56.3
59	56.0
60	55.7
61	55.3
62	55.0

63	54.8
64	54.5
65	54.3
66	54.0
67	53.8
68	53.5
69	53.3
70	53.0
71	52.7
72	52.3
73	52.0
74	51.8
75	51.5
76	51.3
77	51.0
78	50.8
79	50.5
80	50.3
81	50.0
82	49.7
83	49.3
84	49.0
85	48.8
86	48.5
87	48.3
88	48.0
89	47.7
90	47.3
91	47.0
92	46.7
93	46.3
94	46.0
95	45.5
96	45.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

97	44.0
98	43.0
99	42.0

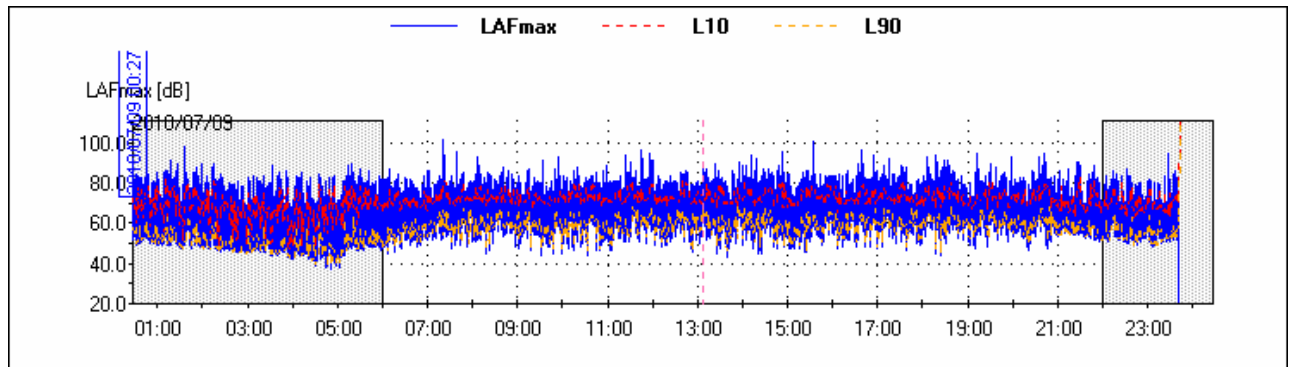
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
102.4	98.5	101.6
98.9	91.2	96.7
101.6	93.9	100.4
98.2	90.8	95
92	86.1	90.2
102.4	98.5	101.6

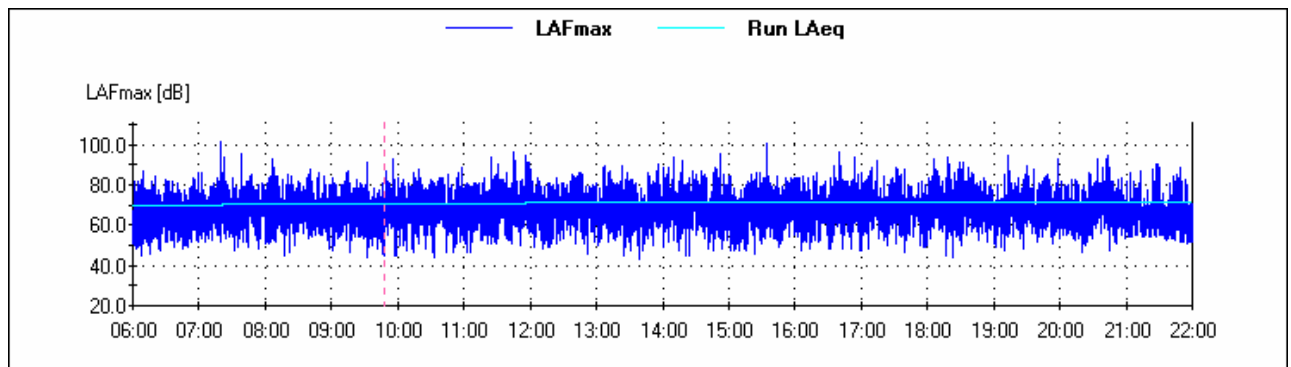
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
99.4	91.3	97.8
90.4	86.3	89.3
96.7	88.4	94.7
99.4	91.3	97.8

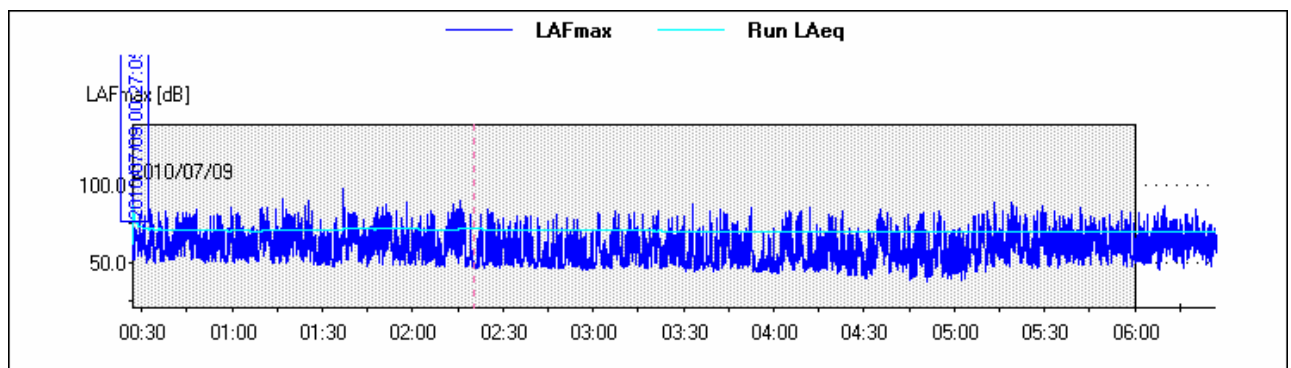
TIME HISTORY L10 – L90



RUNNING Leq DIURNO

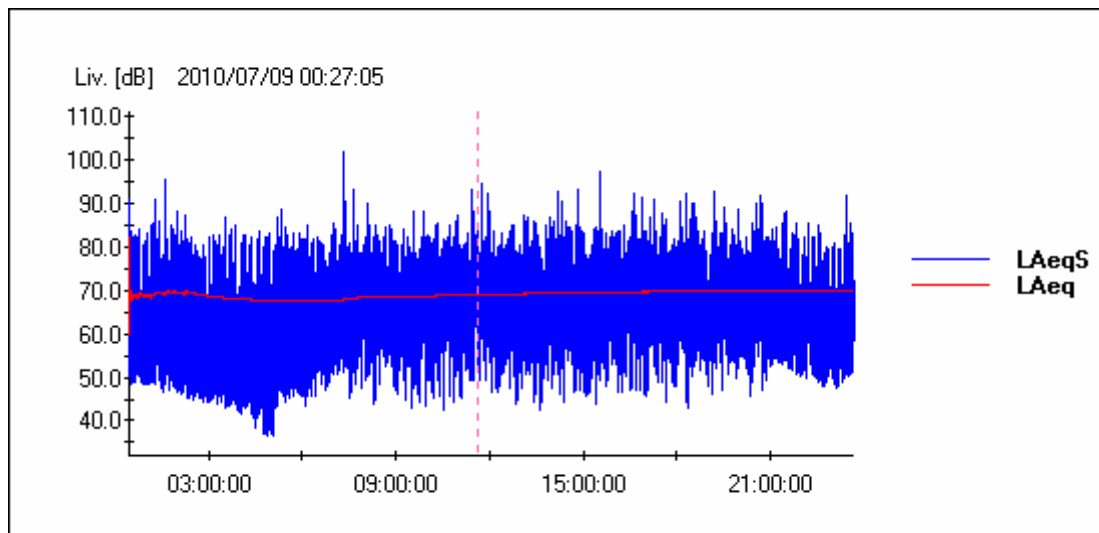


RUNNING Leq NOTTURNO

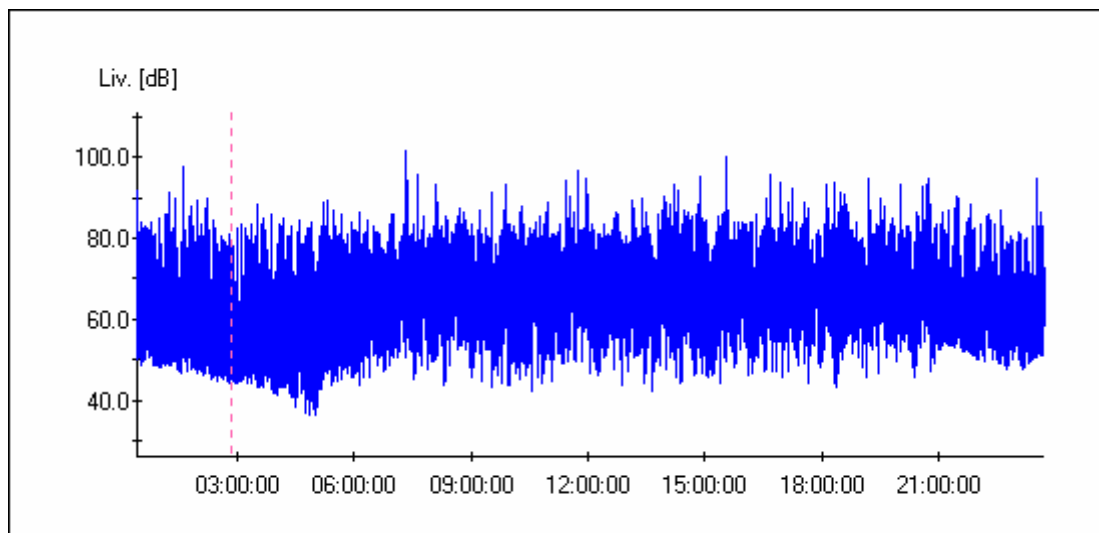


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

R2 - MISURE DI 24 ORE CON POSTAZIONE SEMI-FISSE		
Punto	Ricettore R_9_C	Indirizzo SP6
Descrizione del punto di misura/ricettore		
<i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata nello spazio adiacente la carreggiata stradale e posta ad una distanza di mt 7 dal prospetto del fabbricato stesso</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 / 40 dB(a)
☐	Classe II	55 / 45 dB(a)
☒	Classe III	60 / 50 dB(a)
☐	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826		

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Punto	Ricettore	Indirizzo
	R_9_C	SP6

<i>Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)</i>								
Periodo	TR	Data	L _{AeqTR} [dBA]	K _I [dBA]	K _T [dBA]	K _B [dBA]	L _{AeqTRC} [dBA]	L _{lim} [dBA]
Giorno	6-22h	20/07/10	62.6	0	0		62.6	60
Notte	22-6h	20/07/10	55.6	0	0	0	55.6	50

RISULTATI MISURE	
Codice misura	R_9_C
Data inizio	20/07/2010
Ora inizio	0.16.24
Note	

Parametri		24 ore	Giorno (T _R = 6/22)	Notte (T _R = 22/6)
L _{AeqTR}	[dBA]	61.4	62.6	55.6
L ₁	[dBA]	73.0	74.0	69.0
L ₅	[dBA]	68.0	69.0	59.0
L ₁₀	[dBA]	64.0	66.0	52.0
L ₅₀	[dBA]	46.3	50.0	39.9
L ₉₀	[dBA]	36.7	40.5	33.0
L ₉₅	[dBA]	34.0	39.0	31.5
L ₉₉	[dBA]	31.0	37.0	29.0
L _I max	[dBA]	94.2	94.2	85.0
L _F max	[dBA]	91.9	91.9	81.9
L _S max	[dBA]	86.3	86.3	78.4
K _I	[dBA]	0	0	0
K _T	[dBA]	0	0	0
K _B	[dBA]	0	0	0
L _{AeqTRC}		61.4	62.6	55.6

Note:

**MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO**
Codice documento

AC0053_F0.docx_F0

Rev

F0

Data

20/06/2011

Punto	Ricettore	Indirizzo
	R_9_C	SP6

Sorgente stradale:

	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	47	25	48	48	42	35	40	37.5
Veic. Pesanti / 10'	1	0	0	0	0.25	0	0	0
Motocicli / 10'	2	2	4	12	5	3	2	2.5
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	26	35	29	26	29	24	23.5	23.75
Umidità relativa	80	38	60	72	62.5	82	75	78.5
Velocità vento	3	2.8	1	2	2.2	2.3	2.1	2.2
Direzione vento	E	E	S W	S		S	E	

Fotografia del punto di misura


MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO

Codice documento

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Rev

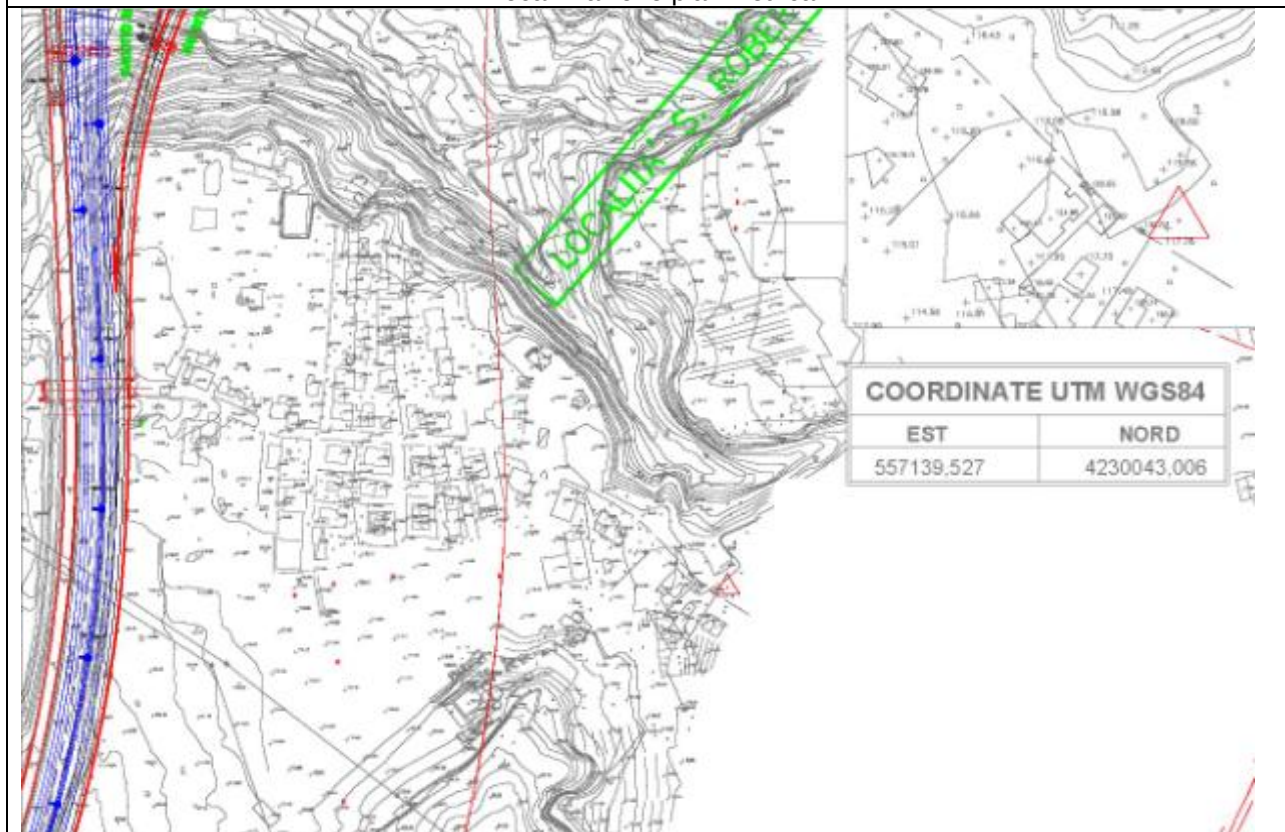
F0

Data

20/06/2011

Punto	Ricettore	Indirizzo
	R_9_C	SP6

Localizzazione planimetrica



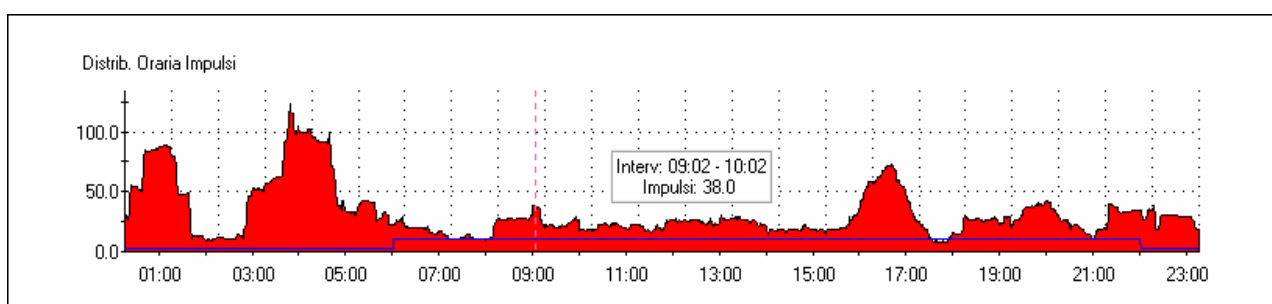
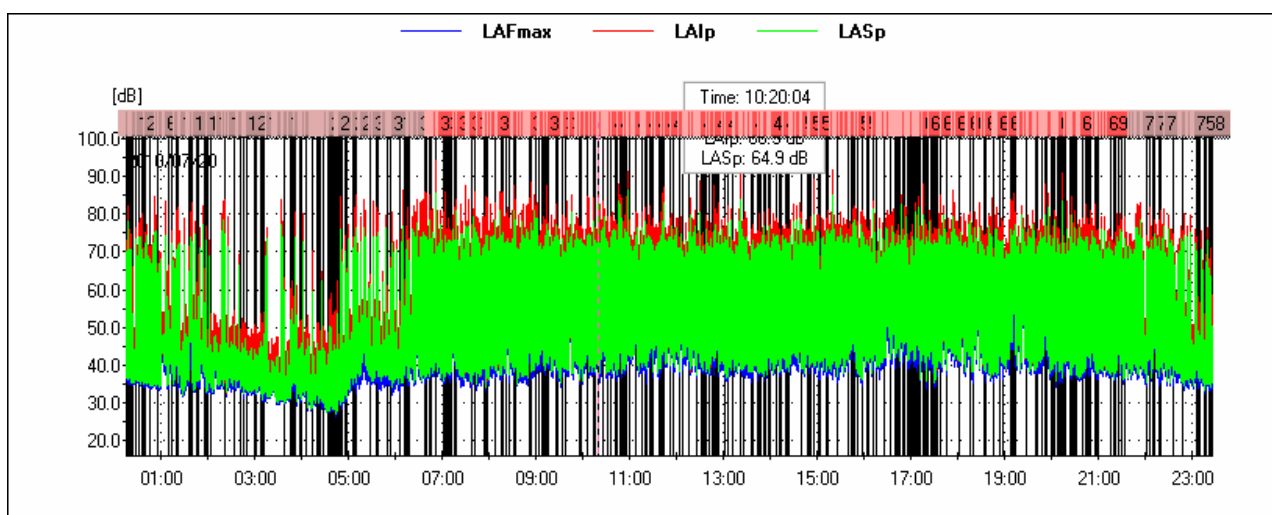
DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/20 00:17:53	0.625	63.8	12.5
2	2010/07/20 00:18:39	0.625	60.2	11.1
3	2010/07/20 00:18:43	0.625	63.9	10.4
4	2010/07/20 00:20:39	0.625	50.0	10.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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5	2010/07/20 00:20:43	0.625	63.3	10.4
6	2010/07/20 00:23:01	0.750	67.3	10.0
7	2010/07/20 00:23:25	0.625	61.9	12.1
8	2010/07/20 00:29:07	0.750	50.1	9.5
9	2010/07/20 00:32:53	0.750	49.4	10.1
10	2010/07/20 00:32:54	0.625	50.9	8.9
11	2010/07/20 00:35:39	0.625	61.8	11.9
12	2010/07/20 00:36:06	1.000	76.4	9.3
13	2010/07/20 00:38:11	0.500	64.8	11.4
14	2010/07/20 00:39:35	0.625	57.2	11.6
15	2010/07/20 00:40:50	0.625	67.5	9.0
16	2010/07/20 00:41:21	0.625	52.3	11.2
17	2010/07/20 00:45:40	0.750	49.0	9.0
18	2010/07/20 00:46:50	0.625	61.6	12.0
19	2010/07/20 00:56:16	0.625	62.3	12.1
20	2010/07/20 00:56:20	0.625	62.8	11.9
21	2010/07/20 01:09:56	0.625	62.6	12.2
22	2010/07/20 01:13:46	0.750	55.2	8.0
23	2010/07/20 01:13:52	0.750	59.1	9.6
24	2010/07/20 01:13:58	0.750	58.8	9.7
25	2010/07/20 01:13:59	0.750	57.6	8.5
26	2010/07/20 01:14:01	0.750	59.8	9.6
27	2010/07/20 01:14:02	0.750	57.4	8.1
28	2010/07/20 01:14:04	0.750	58.5	8.1
29	2010/07/20 01:14:08	1.000	59.7	9.3
30	2010/07/20 01:14:16	0.625	60.8	10.6
31	2010/07/20 01:20:23	0.750	66.8	10.7
32	2010/07/20 01:20:25	0.625	66.3	11.3
33	2010/07/20 01:20:27	0.750	59.6	11.0
34	2010/07/20 01:20:31	0.625	66.3	8.4
35	2010/07/20 01:20:34	0.625	70.4	9.3
36	2010/07/20 01:20:37	0.875	73.9	9.3
37	2010/07/20 01:20:50	0.625	58.5	9.9
38	2010/07/20 01:20:56	0.750	63.0	6.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

39	2010/07/20 01:21:01	0.625	64.5	9.8
40	2010/07/20 01:21:10	0.750	60.5	6.7
41	2010/07/20 01:21:13	0.625	62.4	9.0
42	2010/07/20 01:21:19	0.625	74.3	10.6
43	2010/07/20 01:21:20	1.000	77.3	10.4
44	2010/07/20 01:21:21	0.625	78.2	10.0
45	2010/07/20 01:21:23	0.625	74.1	8.0
46	2010/07/20 01:21:25	1.000	58.4	9.9
47	2010/07/20 01:21:55	0.625	72.0	8.5
48	2010/07/20 01:21:57	0.625	70.0	8.0
49	2010/07/20 01:21:57	0.625	69.5	7.6
50	2010/07/20 01:22:01	0.750	69.7	7.7
51	2010/07/20 01:22:03	0.625	66.3	8.8
52	2010/07/20 01:22:04	0.625	64.8	7.9
53	2010/07/20 01:22:08	0.750	64.0	10.2
54	2010/07/20 01:22:12	0.500	76.0	10.1
55	2010/07/20 01:22:14	0.875	71.1	7.4
56	2010/07/20 01:22:16	0.625	64.2	8.3
57	2010/07/20 01:22:26	0.875	59.0	9.3
58	2010/07/20 01:22:28	1.000	56.6	7.7
59	2010/07/20 01:22:30	0.750	49.3	8.1
60	2010/07/20 01:22:31	0.750	65.8	10.1
61	2010/07/20 01:22:46	0.625	58.3	10.8
62	2010/07/20 01:22:55	0.875	58.6	8.0
63	2010/07/20 01:23:00	1.000	57.9	9.5
64	2010/07/20 01:37:04	1.000	51.9	6.5
65	2010/07/20 01:37:07	1.000	53.4	8.0
66	2010/07/20 01:37:09	1.000	52.8	6.4
67	2010/07/20 01:37:11	1.000	52.0	6.1
68	2010/07/20 01:37:26	0.875	61.6	7.0
69	2010/07/20 01:37:34	0.875	67.4	8.5
70	2010/07/20 01:37:37	0.875	57.5	8.2
71	2010/07/20 01:37:47	0.625	58.3	9.2
72	2010/07/20 01:37:49	0.875	58.7	7.4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

73	2010/07/20 01:37:54	0.750	58.4	8.1
74	2010/07/20 01:38:17	1.000	65.4	7.9
75	2010/07/20 01:38:22	0.750	63.0	8.0
76	2010/07/20 01:38:24	0.875	59.9	7.5
77	2010/07/20 01:39:09	0.750	60.7	7.6
78	2010/07/20 01:39:15	0.875	61.6	9.6
79	2010/07/20 01:39:18	1.000	58.9	8.9
80	2010/07/20 01:39:23	0.875	61.1	9.2
81	2010/07/20 01:39:26	0.750	56.9	8.6
82	2010/07/20 01:39:28	0.875	58.9	8.1
83	2010/07/20 01:39:34	0.875	63.1	9.9
84	2010/07/20 01:39:36	1.000	61.5	8.3
85	2010/07/20 01:39:37	0.625	59.1	7.6
86	2010/07/20 01:39:38	0.750	58.4	7.6
87	2010/07/20 01:39:39	0.750	58.1	7.6
88	2010/07/20 01:39:40	0.750	62.1	7.7
89	2010/07/20 01:39:42	0.875	56.6	6.6
90	2010/07/20 01:39:55	0.750	56.5	7.7
91	2010/07/20 01:39:56	0.875	56.4	7.4
92	2010/07/20 01:39:58	0.750	56.7	9.2
93	2010/07/20 01:40:02	0.750	58.6	8.9
94	2010/07/20 01:40:03	0.750	56.6	7.5
95	2010/07/20 01:40:06	1.000	56.3	7.2
96	2010/07/20 01:40:07	1.000	56.7	8.2
97	2010/07/20 01:40:09	0.750	54.9	7.5
98	2010/07/20 01:40:14	0.750	55.7	8.2
99	2010/07/20 01:40:19	0.875	61.2	8.5
100	2010/07/20 01:40:21	0.750	54.6	6.3
101	2010/07/20 01:40:46	0.625	76.4	10.4
102	2010/07/20 01:46:46	0.875	54.4	8.4
103	2010/07/20 01:46:49	0.875	58.4	9.7
104	2010/07/20 01:48:04	0.625	66.1	10.8
105	2010/07/20 01:55:27	0.750	61.9	11.1
106	2010/07/20 01:56:35	0.625	56.7	12.3

107	2010/07/20 01:58:15	0.875	55.0	9.4
108	2010/07/20 01:58:17	0.625	57.6	10.8
109	2010/07/20 01:59:44	0.875	43.9	9.1
110	2010/07/20 02:04:27	0.750	49.8	9.4
111	2010/07/20 02:22:38	1.000	80.0	8.6
112	2010/07/20 02:34:37	0.875	51.3	8.5
113	2010/07/20 02:42:27	1.000	46.2	7.9
114	2010/07/20 02:42:38	0.625	46.4	9.8
115	2010/07/20 02:46:41	0.875	46.6	7.5
116	2010/07/20 02:46:53	1.000	48.9	7.7
117	2010/07/20 02:49:28	1.000	46.7	8.3
118	2010/07/20 02:59:37	0.875	46.5	7.3
119	2010/07/20 03:01:51	1.000	48.5	7.1
120	2010/07/20 03:07:49	1.000	45.4	6.9
121	2010/07/20 03:11:02	0.875	47.6	9.3
122	2010/07/20 03:12:41	0.750	43.8	7.6
123	2010/07/20 03:38:11	0.875	44.1	8.7
124	2010/07/20 03:38:18	0.750	46.8	8.9
125	2010/07/20 03:38:19	0.750	44.9	9.1
126	2010/07/20 03:38:22	0.750	44.9	9.4
127	2010/07/20 03:38:27	0.875	46.4	8.8
128	2010/07/20 03:47:00	0.875	53.9	9.3
129	2010/07/20 03:47:09	0.750	55.0	9.5
130	2010/07/20 03:47:11	0.875	56.9	9.5
131	2010/07/20 03:47:12	0.750	51.4	7.0
132	2010/07/20 03:47:13	0.750	55.6	8.8
133	2010/07/20 03:47:15	0.875	55.8	8.9
134	2010/07/20 03:47:17	0.750	54.5	9.4
135	2010/07/20 03:48:21	0.875	50.1	7.5
136	2010/07/20 03:48:57	0.750	49.5	8.9
137	2010/07/20 03:49:16	1.000	50.4	7.6
138	2010/07/20 03:50:01	1.000	48.2	7.3
139	2010/07/20 03:50:13	1.000	52.7	7.4
140	2010/07/20 03:50:15	1.000	53.8	7.9

141	2010/07/20 03:51:23	0.625	65.4	7.6
142	2010/07/20 03:51:28	0.625	69.9	10.7
143	2010/07/20 03:51:29	0.625	69.8	8.8
144	2010/07/20 03:51:31	0.875	66.5	8.9
145	2010/07/20 03:51:33	0.625	65.8	9.7
146	2010/07/20 03:51:35	0.875	57.4	10.6
147	2010/07/20 03:51:38	0.875	56.4	7.0
148	2010/07/20 03:51:39	0.750	60.7	9.6
149	2010/07/20 03:51:40	0.875	56.4	8.2
150	2010/07/20 03:51:46	0.750	57.3	9.6
151	2010/07/20 03:51:48	1.000	55.7	10.0
152	2010/07/20 03:51:57	0.750	58.0	9.4
153	2010/07/20 03:51:59	0.750	58.0	9.8
154	2010/07/20 03:52:00	0.625	56.2	7.4
155	2010/07/20 03:52:02	0.875	57.7	10.1
156	2010/07/20 03:52:08	0.875	55.8	8.8
157	2010/07/20 03:52:10	0.875	58.4	9.2
158	2010/07/20 03:52:12	0.750	58.5	8.4
159	2010/07/20 03:52:30	0.875	58.5	9.0
160	2010/07/20 03:52:31	0.875	57.6	8.4
161	2010/07/20 03:52:36	1.000	54.7	7.7
162	2010/07/20 03:52:37	0.750	53.6	8.2
163	2010/07/20 03:52:39	1.000	54.9	9.7
164	2010/07/20 03:57:41	0.875	46.3	7.0
165	2010/07/20 03:57:57	1.000	48.1	8.9
166	2010/07/20 03:57:59	1.000	45.4	6.9
167	2010/07/20 03:58:09	1.000	44.3	7.5
168	2010/07/20 03:58:17	0.875	45.3	8.0
169	2010/07/20 03:58:23	1.000	48.9	8.6
170	2010/07/20 03:58:51	1.000	48.4	8.0
171	2010/07/20 03:59:28	0.875	49.5	7.9
172	2010/07/20 04:05:56	1.000	47.2	7.8
173	2010/07/20 04:13:53	0.875	63.7	8.5
174	2010/07/20 04:13:59	0.875	60.1	9.8

175	2010/07/20 04:14:07	1.000	61.9	11.4
176	2010/07/20 04:14:20	0.750	61.4	6.9
177	2010/07/20 04:14:22	0.750	60.8	9.7
178	2010/07/20 04:14:27	0.750	65.3	10.4
179	2010/07/20 04:14:31	0.875	60.1	9.7
180	2010/07/20 04:20:13	0.875	44.6	8.2
181	2010/07/20 04:20:24	0.875	45.1	8.2
182	2010/07/20 04:23:03	1.000	45.3	8.2
183	2010/07/20 04:24:18	0.750	46.2	8.7
184	2010/07/20 04:28:04	1.000	45.4	9.2
185	2010/07/20 04:34:02	1.000	41.4	7.2
186	2010/07/20 04:36:55	0.625	50.9	6.1
187	2010/07/20 04:37:03	0.750	45.6	8.7
188	2010/07/20 04:37:18	0.750	50.5	6.4
189	2010/07/20 04:37:20	0.875	47.9	7.1
190	2010/07/20 04:37:23	0.875	49.3	8.6
191	2010/07/20 04:37:47	0.625	49.4	10.1
192	2010/07/20 04:38:04	0.750	51.0	8.8
193	2010/07/20 04:38:05	0.875	52.8	9.6
194	2010/07/20 04:38:07	0.750	51.2	10.4
195	2010/07/20 04:38:11	1.000	48.1	10.1
196	2010/07/20 04:38:12	0.750	51.6	10.4
197	2010/07/20 04:38:15	0.875	49.5	9.6
198	2010/07/20 04:38:17	1.000	48.1	10.2
199	2010/07/20 04:38:20	0.875	45.0	9.5
200	2010/07/20 04:38:21	0.750	50.3	10.5
201	2010/07/20 04:38:23	0.875	53.3	10.3
202	2010/07/20 04:38:25	1.000	51.9	10.3
203	2010/07/20 04:38:28	0.750	52.4	10.4
204	2010/07/20 04:38:29	0.875	54.0	10.1
205	2010/07/20 04:38:32	0.875	51.4	10.3
206	2010/07/20 04:38:39	1.000	52.9	10.0
207	2010/07/20 04:38:40	0.750	50.0	8.2
208	2010/07/20 04:38:43	0.750	47.7	9.6

209	2010/07/20 04:38:51	0.750	49.8	10.3
210	2010/07/20 04:38:52	1.000	51.4	10.3
211	2010/07/20 04:38:57	0.750	50.0	9.4
212	2010/07/20 04:39:00	0.875	51.8	9.4
213	2010/07/20 04:39:02	0.750	52.2	9.9
214	2010/07/20 04:39:05	0.750	51.1	11.0
215	2010/07/20 04:39:06	0.750	52.5	10.3
216	2010/07/20 04:39:14	0.750	50.3	10.3
217	2010/07/20 04:39:20	0.750	46.4	9.5
218	2010/07/20 04:39:21	0.750	47.6	10.0
219	2010/07/20 04:39:23	0.875	49.7	9.5
220	2010/07/20 04:42:10	1.000	49.5	8.2
221	2010/07/20 04:42:12	0.875	51.2	8.6
222	2010/07/20 04:42:15	0.750	45.8	8.8
223	2010/07/20 04:43:26	0.750	44.1	10.5
224	2010/07/20 04:43:35	0.750	42.6	8.6
225	2010/07/20 04:43:55	0.750	42.0	9.2
226	2010/07/20 04:44:32	0.750	48.0	11.2
227	2010/07/20 04:44:34	0.875	47.5	9.8
228	2010/07/20 04:44:36	0.750	48.2	10.6
229	2010/07/20 04:44:38	1.000	50.9	10.2
230	2010/07/20 04:44:41	0.750	47.8	9.8
231	2010/07/20 04:44:44	0.875	45.9	9.3
232	2010/07/20 04:44:46	0.750	48.2	10.0
233	2010/07/20 04:44:49	0.750	49.4	8.9
234	2010/07/20 04:44:52	1.000	38.3	10.1
235	2010/07/20 04:44:57	0.750	49.6	10.5
236	2010/07/20 04:45:03	1.000	39.2	7.6
237	2010/07/20 04:45:10	1.000	40.1	7.8
238	2010/07/20 04:45:45	1.000	41.7	9.1
239	2010/07/20 04:46:12	1.000	44.1	7.6
240	2010/07/20 04:46:20	0.625	59.9	9.6
241	2010/07/20 04:46:21	0.625	58.3	8.3
242	2010/07/20 04:46:24	0.625	57.5	9.0

243	2010/07/20 04:46:30	0.875	51.0	8.5
244	2010/07/20 04:46:31	0.875	49.3	7.2
245	2010/07/20 04:46:32	1.000	47.6	6.4
246	2010/07/20 04:46:36	0.875	48.1	8.4
247	2010/07/20 04:46:42	0.750	57.3	10.2
248	2010/07/20 04:46:43	0.625	56.3	9.2
249	2010/07/20 04:46:45	1.000	49.2	7.4
250	2010/07/20 04:46:47	0.750	55.2	8.4
251	2010/07/20 04:46:52	0.875	54.3	8.7
252	2010/07/20 04:47:03	0.750	59.4	9.3
253	2010/07/20 04:49:10	0.875	42.6	7.6
254	2010/07/20 04:50:54	1.000	46.6	9.2
255	2010/07/20 04:50:58	0.875	46.6	8.9
256	2010/07/20 04:51:00	0.875	49.6	9.4
257	2010/07/20 04:51:14	0.875	43.1	7.5
258	2010/07/20 04:51:34	0.750	48.0	9.8
259	2010/07/20 04:52:24	0.625	58.3	9.9
260	2010/07/20 04:52:25	0.875	56.3	8.5
261	2010/07/20 04:52:37	0.625	56.7	9.3
262	2010/07/20 04:56:03	1.000	45.0	8.8
263	2010/07/20 04:56:11	0.875	46.0	9.1
264	2010/07/20 04:56:15	0.750	54.7	10.2
265	2010/07/20 04:56:16	0.750	51.7	8.5
266	2010/07/20 04:56:17	0.875	48.2	7.0
267	2010/07/20 04:56:44	1.000	43.1	6.5
268	2010/07/20 04:56:49	0.625	70.8	11.7
269	2010/07/20 04:57:59	0.875	47.7	8.5
270	2010/07/20 04:58:10	0.750	44.7	10.9
271	2010/07/20 05:05:44	0.875	46.9	9.8
272	2010/07/20 05:05:49	0.750	51.2	8.8
273	2010/07/20 05:09:04	1.000	49.0	8.4
274	2010/07/20 05:09:38	0.875	81.9	8.4
275	2010/07/20 05:28:53	0.750	51.0	9.1
276	2010/07/20 05:36:05	0.750	55.5	9.7

277	2010/07/20 05:36:08	0.875	54.7	8.7
278	2010/07/20 05:36:17	0.750	57.5	9.6
279	2010/07/20 05:36:19	0.750	59.8	9.5
280	2010/07/20 05:36:21	0.875	55.1	7.9
281	2010/07/20 05:36:28	0.875	55.5	9.5
282	2010/07/20 05:36:31	1.000	57.2	9.0
283	2010/07/20 05:36:34	0.750	56.4	9.2
284	2010/07/20 05:36:43	0.875	54.2	8.7
285	2010/07/20 05:36:48	0.875	55.3	8.2
286	2010/07/20 05:36:59	1.000	53.2	9.1
287	2010/07/20 05:37:01	1.000	55.8	9.5
288	2010/07/20 05:37:13	0.875	54.2	8.6
289	2010/07/20 05:37:27	0.875	52.9	8.5
290	2010/07/20 05:37:42	0.875	50.2	10.1
291	2010/07/20 05:37:48	0.875	49.5	7.2
292	2010/07/20 05:50:52	0.750	57.5	8.7
293	2010/07/20 05:50:54	0.750	58.5	7.3
294	2010/07/20 05:50:57	0.750	56.8	8.8
295	2010/07/20 05:51:05	1.000	57.4	9.4
296	2010/07/20 05:53:18	0.875	54.7	8.4
297	2010/07/20 05:53:20	0.750	55.4	8.5
298	2010/07/20 05:53:22	0.750	54.5	8.5
299	2010/07/20 05:53:23	0.875	55.7	7.4
300	2010/07/20 05:53:33	0.625	61.1	9.4
301	2010/07/20 05:53:35	0.750	52.8	8.0
302	2010/07/20 05:53:42	1.000	56.4	7.8
303	2010/07/20 05:53:56	1.000	58.0	10.0
304	2010/07/20 06:05:19	1.000	46.4	6.6
305	2010/07/20 06:06:23	1.000	50.1	8.0
306	2010/07/20 06:12:42	0.750	57.6	8.1
307	2010/07/20 06:12:44	0.750	58.0	7.7
308	2010/07/20 06:12:49	0.750	56.7	7.2
309	2010/07/20 06:12:52	0.750	57.5	8.1
310	2010/07/20 06:12:56	0.750	54.6	7.8

311	2010/07/20 06:14:16	0.625	57.1	9.1
312	2010/07/20 06:14:48	0.750	55.5	7.6
313	2010/07/20 06:14:50	0.875	55.1	7.8
314	2010/07/20 06:15:40	0.875	54.3	7.2
315	2010/07/20 06:18:03	0.750	49.7	9.3
316	2010/07/20 06:18:24	0.750	48.6	9.0
317	2010/07/20 06:38:23	1.000	79.4	9.6
318	2010/07/20 06:38:28	0.625	81.6	11.3
319	2010/07/20 06:40:23	0.875	80.8	11.6
320	2010/07/20 06:44:14	0.750	52.8	9.5
321	2010/07/20 06:45:29	0.625	62.7	11.0
322	2010/07/20 06:46:13	0.625	57.3	11.9
323	2010/07/20 06:46:21	0.750	52.3	10.0
324	2010/07/20 06:46:22	0.750	50.5	8.6
325	2010/07/20 06:51:20	0.750	91.9	8.6
326	2010/07/20 06:52:31	1.000	82.3	7.6
327	2010/07/20 07:02:47	0.875	76.1	10.5
328	2010/07/20 07:03:11	0.750	81.9	11.6
329	2010/07/20 07:04:10	0.750	49.4	9.4
330	2010/07/20 07:06:18	0.875	53.1	8.5
331	2010/07/20 07:08:05	1.000	69.7	9.7
332	2010/07/20 07:10:48	0.625	48.7	9.7
333	2010/07/20 07:11:12	0.750	55.4	10.5
334	2010/07/20 07:11:36	0.625	62.6	10.8
335	2010/07/20 07:16:52	0.625	72.3	10.4
336	2010/07/20 07:18:12	1.000	48.4	7.5
337	2010/07/20 07:38:46	0.875	46.3	9.8
338	2010/07/20 07:38:54	0.750	50.0	9.6
339	2010/07/20 07:42:04	0.750	82.3	10.8
340	2010/07/20 07:43:01	0.750	48.6	8.6
341	2010/07/20 07:53:17	0.875	75.9	8.0
342	2010/07/20 07:56:54	0.750	80.1	11.9
343	2010/07/20 07:58:30	0.875	80.0	9.0
344	2010/07/20 08:08:46	1.000	78.8	9.9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

345	2010/07/20 08:15:13	1.000	81.3	11.3
346	2010/07/20 08:17:22	0.625	82.5	10.9
347	2010/07/20 08:21:34	0.875	76.0	9.9
348	2010/07/20 08:26:13	0.875	75.1	10.6
349	2010/07/20 08:33:05	1.000	50.7	7.1
350	2010/07/20 08:33:27	1.000	81.7	8.2
351	2010/07/20 08:51:49	0.875	79.7	12.1
352	2010/07/20 08:53:14	0.750	84.3	10.7
353	2010/07/20 08:59:13	1.000	52.6	8.3
354	2010/07/20 09:03:59	0.750	55.4	7.5
355	2010/07/20 09:04:22	0.750	54.7	9.5
356	2010/07/20 09:07:56	0.750	72.9	8.7
357	2010/07/20 09:08:25	0.625	73.8	10.6
358	2010/07/20 09:08:29	0.625	71.3	8.0
359	2010/07/20 09:08:30	0.750	71.4	7.7
360	2010/07/20 09:08:32	0.625	72.0	9.1
361	2010/07/20 09:08:34	0.750	67.9	8.0
362	2010/07/20 09:08:37	0.625	70.8	6.9
363	2010/07/20 09:08:41	0.625	70.5	8.1
364	2010/07/20 09:08:50	0.750	70.4	7.9
365	2010/07/20 09:08:53	0.625	72.5	8.4
366	2010/07/20 09:09:07	0.750	66.1	8.9
367	2010/07/20 09:10:12	1.000	72.7	10.7
368	2010/07/20 09:11:44	0.750	65.7	9.3
369	2010/07/20 09:11:53	0.750	67.8	8.9
370	2010/07/20 09:11:55	0.750	66.8	8.9
371	2010/07/20 09:11:58	1.000	70.0	8.0
372	2010/07/20 09:13:46	0.625	84.3	10.3
373	2010/07/20 09:16:43	0.750	68.0	8.0
374	2010/07/20 09:25:24	0.875	53.6	6.6
375	2010/07/20 09:25:58	0.875	51.7	7.5
376	2010/07/20 09:27:23	0.875	55.6	8.3
377	2010/07/20 09:33:50	0.875	56.7	7.2
378	2010/07/20 09:37:57	0.875	53.5	8.0

379	2010/07/20 09:55:37	1.000	58.3	8.0
380	2010/07/20 09:55:44	0.875	52.3	9.8
381	2010/07/20 09:55:47	1.000	53.2	8.7
382	2010/07/20 09:55:50	0.750	54.8	9.8
383	2010/07/20 09:58:13	0.875	69.2	8.7
384	2010/07/20 09:58:15	0.625	66.6	8.5
385	2010/07/20 09:58:21	0.750	65.7	10.4
386	2010/07/20 09:58:24	0.625	63.8	7.5
387	2010/07/20 09:58:26	0.625	63.3	6.5
388	2010/07/20 09:58:33	0.750	63.7	7.9
389	2010/07/20 09:58:34	0.625	68.0	9.7
390	2010/07/20 09:58:37	0.625	64.6	8.0
391	2010/07/20 09:58:40	1.000	67.3	10.7
392	2010/07/20 10:05:41	0.875	80.3	11.6
393	2010/07/20 10:14:51	0.875	54.7	9.1
394	2010/07/20 10:15:20	0.875	52.3	7.5
395	2010/07/20 10:19:13	1.000	79.2	11.9
396	2010/07/20 10:26:33	0.875	79.2	11.6
397	2010/07/20 10:32:13	1.000	60.3	7.6
398	2010/07/20 10:35:08	0.875	52.5	9.1
399	2010/07/20 10:35:25	0.625	54.9	10.6
400	2010/07/20 10:42:55	0.750	50.9	9.4
401	2010/07/20 10:42:59	0.875	51.1	7.3
402	2010/07/20 10:43:14	0.875	48.3	6.4
403	2010/07/20 10:47:43	0.625	58.4	11.1
404	2010/07/20 10:49:28	0.625	50.4	9.6
405	2010/07/20 10:49:35	0.875	51.3	9.2
406	2010/07/20 10:52:39	0.750	54.9	7.5
407	2010/07/20 10:53:36	0.750	50.5	7.6
408	2010/07/20 10:56:31	0.750	71.3	8.9
409	2010/07/20 10:59:47	1.000	54.3	6.7
410	2010/07/20 11:08:06	0.625	78.9	8.5
411	2010/07/20 11:15:15	0.750	76.2	6.8
412	2010/07/20 11:16:46	0.750	58.2	10.8

413	2010/07/20 11:16:54	0.625	57.8	10.9
414	2010/07/20 11:20:40	0.750	59.9	10.0
415	2010/07/20 11:21:14	0.750	58.6	8.3
416	2010/07/20 11:22:23	0.875	55.7	6.8
417	2010/07/20 11:22:30	0.750	60.3	9.2
418	2010/07/20 11:25:39	0.875	79.0	9.7
419	2010/07/20 11:27:32	1.000	63.1	6.3
420	2010/07/20 11:29:53	1.000	47.4	6.1
421	2010/07/20 11:38:22	0.750	65.1	9.3
422	2010/07/20 11:39:55	0.875	53.3	7.9
423	2010/07/20 11:40:18	0.625	59.4	12.2
424	2010/07/20 11:42:49	0.875	81.7	11.2
425	2010/07/20 11:44:05	0.875	66.6	10.9
426	2010/07/20 11:44:39	1.000	64.3	7.3
427	2010/07/20 11:52:33	0.875	55.0	7.9
428	2010/07/20 11:56:25	1.000	52.7	8.2
429	2010/07/20 12:03:09	1.000	71.3	8.7
430	2010/07/20 12:03:11	1.000	69.3	9.3
431	2010/07/20 12:03:12	0.625	65.2	6.8
432	2010/07/20 12:04:05	0.750	50.0	8.8
433	2010/07/20 12:08:38	1.000	52.1	6.1
434	2010/07/20 12:16:06	0.750	68.2	10.3
435	2010/07/20 12:25:06	0.875	50.5	6.5
436	2010/07/20 12:25:33	0.875	58.8	8.6
437	2010/07/20 12:31:02	0.875	51.6	8.9
438	2010/07/20 12:33:36	0.875	58.8	7.0
439	2010/07/20 12:34:46	0.875	53.8	7.8
440	2010/07/20 12:36:54	0.875	52.9	8.5
441	2010/07/20 12:37:47	0.875	56.6	8.9
442	2010/07/20 12:37:55	1.000	48.9	6.6
443	2010/07/20 12:40:59	1.000	57.9	8.1
444	2010/07/20 12:45:13	0.750	64.2	9.8
445	2010/07/20 12:48:02	0.750	51.9	8.2
446	2010/07/20 12:48:04	0.750	54.6	10.1

447	2010/07/20 12:48:11	0.625	53.0	9.2
448	2010/07/20 12:48:13	0.750	77.3	8.9
449	2010/07/20 12:48:48	0.625	83.2	12.3
450	2010/07/20 12:49:14	0.625	55.4	9.3
451	2010/07/20 12:51:46	1.000	58.8	8.1
452	2010/07/20 12:51:55	0.750	62.3	9.9
453	2010/07/20 12:54:14	0.750	52.6	8.6
454	2010/07/20 12:54:15	0.875	48.8	7.8
455	2010/07/20 13:02:13	1.000	52.0	6.9
456	2010/07/20 13:02:31	0.875	50.9	7.2
457	2010/07/20 13:05:00	0.750	52.9	8.1
458	2010/07/20 13:06:44	0.625	69.4	7.1
459	2010/07/20 13:12:52	0.875	58.2	8.5
460	2010/07/20 13:21:30	0.875	89.6	7.7
461	2010/07/20 13:21:46	0.875	52.3	8.0
462	2010/07/20 13:25:24	0.750	52.2	9.3
463	2010/07/20 13:26:26	0.875	53.9	7.8
464	2010/07/20 13:35:46	0.625	70.9	9.3
465	2010/07/20 13:36:05	0.750	70.3	6.2
466	2010/07/20 13:36:05	0.625	71.9	7.6
467	2010/07/20 13:37:21	0.625	74.0	8.6
468	2010/07/20 13:43:31	0.750	55.7	8.2
469	2010/07/20 13:44:57	0.750	53.4	10.6
470	2010/07/20 13:46:59	1.000	50.2	8.0
471	2010/07/20 13:47:16	0.750	56.2	9.6
472	2010/07/20 13:47:20	1.000	54.4	8.4
473	2010/07/20 13:47:47	0.750	53.8	6.3
474	2010/07/20 13:48:03	1.000	55.3	6.7
475	2010/07/20 13:52:24	0.750	53.4	9.1
476	2010/07/20 13:53:36	0.875	55.3	6.7
477	2010/07/20 13:53:57	0.750	52.7	9.1
478	2010/07/20 13:58:48	0.875	72.8	8.2
479	2010/07/20 13:58:50	0.750	54.8	10.2
480	2010/07/20 13:59:19	0.625	64.0	11.4

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481	2010/07/20 13:59:52	1.000	58.9	8.9
482	2010/07/20 13:59:57	1.000	75.0	8.1
483	2010/07/20 14:00:19	0.875	60.3	7.2
484	2010/07/20 14:00:34	1.000	55.5	8.0
485	2010/07/20 14:00:44	1.000	52.4	6.8
486	2010/07/20 14:08:06	1.000	52.4	7.7
487	2010/07/20 14:12:39	0.875	48.6	9.7
488	2010/07/20 14:12:58	0.750	52.3	8.3
489	2010/07/20 14:19:26	0.750	51.6	8.8
490	2010/07/20 14:22:21	0.875	53.6	9.5
491	2010/07/20 14:23:58	0.875	52.6	6.4
492	2010/07/20 14:39:23	0.625	53.9	9.0
493	2010/07/20 14:40:11	0.875	54.9	7.9
494	2010/07/20 14:40:21	0.875	53.1	7.2
495	2010/07/20 14:47:21	1.000	51.7	6.5
496	2010/07/20 14:50:46	0.625	52.9	9.3
497	2010/07/20 14:50:58	1.000	51.1	8.9
498	2010/07/20 14:51:25	0.875	51.9	7.8
499	2010/07/20 14:54:55	0.750	86.1	10.3
500	2010/07/20 14:55:43	0.875	50.1	9.0
501	2010/07/20 15:02:53	0.875	54.3	6.1
502	2010/07/20 15:02:56	0.750	51.1	6.4
503	2010/07/20 15:03:22	0.750	56.9	10.2
504	2010/07/20 15:12:32	0.750	54.2	6.3
505	2010/07/20 15:12:59	0.750	51.6	9.6
506	2010/07/20 15:13:56	0.750	53.6	7.8
507	2010/07/20 15:14:32	1.000	54.0	6.3
508	2010/07/20 15:25:29	0.750	73.9	8.6
509	2010/07/20 15:26:19	0.875	48.8	7.6
510	2010/07/20 15:39:19	0.875	52.8	6.8
511	2010/07/20 15:39:52	0.875	59.9	7.0
512	2010/07/20 15:43:38	0.875	56.4	9.2
513	2010/07/20 15:45:10	0.625	62.4	9.4
514	2010/07/20 15:45:11	0.875	62.1	6.3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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515	2010/07/20 15:46:26	1.000	64.5	9.9
516	2010/07/20 15:46:27	0.750	66.3	8.1
517	2010/07/20 15:48:26	0.625	60.9	10.0
518	2010/07/20 15:51:03	0.875	52.9	9.6
519	2010/07/20 15:57:01	1.000	47.4	6.3
520	2010/07/20 16:02:55	0.750	53.5	9.4
521	2010/07/20 16:06:24	0.625	59.2	10.0
522	2010/07/20 16:12:09	0.875	53.1	7.3
523	2010/07/20 16:15:29	0.750	54.5	8.0
524	2010/07/20 16:15:44	0.750	55.5	11.2
525	2010/07/20 16:16:08	0.625	55.5	10.9
526	2010/07/20 16:16:24	0.625	59.4	11.3
527	2010/07/20 16:25:44	0.750	61.8	10.9
528	2010/07/20 16:33:44	0.750	67.9	7.7
529	2010/07/20 16:33:57	0.750	69.1	9.1
530	2010/07/20 16:39:27	0.875	61.9	8.9
531	2010/07/20 16:39:40	0.750	59.7	9.3
532	2010/07/20 16:41:59	0.875	63.4	8.0
533	2010/07/20 16:42:04	1.000	63.8	6.7
534	2010/07/20 16:43:35	0.625	62.4	12.3
535	2010/07/20 16:45:08	0.750	60.9	8.8
536	2010/07/20 16:45:16	1.000	55.3	9.6
537	2010/07/20 16:45:22	1.000	57.3	7.5
538	2010/07/20 16:45:34	0.875	53.8	8.5
539	2010/07/20 16:45:40	0.750	55.9	11.7
540	2010/07/20 16:45:41	0.625	53.9	9.3
541	2010/07/20 16:45:44	0.750	56.9	10.0
542	2010/07/20 16:45:45	1.000	53.0	8.6
543	2010/07/20 16:45:56	0.500	59.2	12.3
544	2010/07/20 16:49:13	0.625	60.7	11.1
545	2010/07/20 16:49:58	0.625	56.9	7.7
546	2010/07/20 16:50:10	0.625	59.6	10.7
547	2010/07/20 16:50:41	1.000	57.6	6.6
548	2010/07/20 16:52:08	1.000	61.1	7.7

549	2010/07/20 16:56:03	0.750	59.1	8.5
550	2010/07/20 16:56:52	0.750	61.1	9.0
551	2010/07/20 16:56:59	0.875	60.5	9.3
552	2010/07/20 16:57:39	0.750	64.2	8.4
553	2010/07/20 16:58:35	0.875	61.8	6.7
554	2010/07/20 16:58:38	1.000	59.3	9.2
555	2010/07/20 16:58:41	0.625	62.6	10.3
556	2010/07/20 16:58:46	0.750	68.7	9.6
557	2010/07/20 16:58:53	0.750	68.3	9.7
558	2010/07/20 16:58:54	0.625	67.2	8.6
559	2010/07/20 16:59:05	0.750	71.5	8.2
560	2010/07/20 16:59:06	1.000	63.7	8.9
561	2010/07/20 16:59:08	0.625	71.2	8.6
562	2010/07/20 17:00:08	0.625	71.5	9.7
563	2010/07/20 17:01:13	1.000	69.2	7.7
564	2010/07/20 17:02:43	0.875	62.2	8.8
565	2010/07/20 17:03:04	0.750	59.9	6.4
566	2010/07/20 17:03:29	1.000	67.7	10.6
567	2010/07/20 17:03:42	1.000	68.9	8.1
568	2010/07/20 17:03:58	0.875	60.0	8.0
569	2010/07/20 17:04:52	0.750	67.5	8.2
570	2010/07/20 17:04:56	1.000	67.0	9.2
571	2010/07/20 17:05:00	0.625	65.7	9.4
572	2010/07/20 17:06:08	0.750	66.6	8.8
573	2010/07/20 17:06:58	1.000	72.3	9.7
574	2010/07/20 17:06:59	1.000	72.3	8.8
575	2010/07/20 17:07:01	0.625	70.8	9.0
576	2010/07/20 17:07:02	0.750	65.7	8.7
577	2010/07/20 17:09:07	0.750	66.1	7.2
578	2010/07/20 17:09:10	1.000	68.1	7.9
579	2010/07/20 17:09:53	0.625	61.6	9.5
580	2010/07/20 17:11:29	0.750	58.0	8.8
581	2010/07/20 17:15:24	0.875	61.8	8.0
582	2010/07/20 17:16:02	0.625	65.8	8.9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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583	2010/07/20 17:16:31	0.625	68.6	8.6
584	2010/07/20 17:17:22	0.875	68.8	9.3
585	2010/07/20 17:17:33	0.625	74.8	10.6
586	2010/07/20 17:19:40	0.875	54.7	7.2
587	2010/07/20 17:20:09	0.625	67.3	11.1
588	2010/07/20 17:21:09	0.750	56.2	7.6
589	2010/07/20 17:21:13	0.750	51.0	8.5
590	2010/07/20 17:25:58	0.625	67.4	9.6
591	2010/07/20 17:26:18	0.625	68.1	8.2
592	2010/07/20 17:26:20	1.000	54.4	9.2
593	2010/07/20 17:26:23	0.625	70.2	9.0
594	2010/07/20 17:26:23	0.625	68.1	7.7
595	2010/07/20 17:26:28	0.500	71.3	9.4
596	2010/07/20 17:27:30	0.625	69.6	11.4
597	2010/07/20 17:30:12	0.750	54.2	7.7
598	2010/07/20 17:31:36	1.000	54.1	8.6
599	2010/07/20 17:33:06	0.625	59.8	12.4
600	2010/07/20 17:33:11	0.625	63.4	12.4
601	2010/07/20 17:33:14	0.750	53.6	9.3
602	2010/07/20 17:33:15	0.750	54.8	9.1
603	2010/07/20 17:38:45	0.875	81.0	11.1
604	2010/07/20 17:46:15	0.625	56.0	10.3
605	2010/07/20 18:01:40	0.750	63.4	10.9
606	2010/07/20 18:01:48	0.875	58.9	9.0
607	2010/07/20 18:16:09	0.750	66.8	10.8
608	2010/07/20 18:18:48	0.750	53.0	10.2
609	2010/07/20 18:33:11	0.875	60.2	8.9
610	2010/07/20 18:33:48	1.000	70.1	10.5
611	2010/07/20 18:36:43	0.750	61.6	10.4
612	2010/07/20 18:45:06	0.875	56.6	7.0
613	2010/07/20 18:53:49	0.625	60.5	9.1
614	2010/07/20 18:53:59	0.625	63.6	8.2
615	2010/07/20 18:54:21	0.750	55.9	9.4
616	2010/07/20 18:54:28	0.750	63.9	8.2

617	2010/07/20 18:57:37	0.875	60.9	8.8
618	2010/07/20 18:57:50	0.750	54.7	7.9
619	2010/07/20 18:57:52	0.875	55.8	8.9
620	2010/07/20 18:58:45	0.750	63.3	7.7
621	2010/07/20 19:07:40	1.000	77.6	10.6
622	2010/07/20 19:09:10	0.625	80.7	9.8
623	2010/07/20 19:11:00	0.625	83.0	9.7
624	2010/07/20 19:11:56	0.625	73.4	9.9
625	2010/07/20 19:12:02	0.625	71.6	9.7
626	2010/07/20 19:12:13	0.625	70.5	9.5
627	2010/07/20 19:12:14	0.625	70.5	8.7
628	2010/07/20 19:12:18	0.750	69.0	8.1
629	2010/07/20 19:12:36	1.000	74.2	9.0
630	2010/07/20 19:12:38	0.875	68.2	7.4
631	2010/07/20 19:12:40	0.750	70.5	9.9
632	2010/07/20 19:12:42	0.625	68.6	7.8
633	2010/07/20 19:13:16	0.750	65.9	8.5
634	2010/07/20 19:13:22	0.750	67.2	9.3
635	2010/07/20 19:13:25	0.750	69.0	10.6
636	2010/07/20 19:28:12	1.000	66.7	6.6
637	2010/07/20 19:40:34	0.750	61.9	8.9
638	2010/07/20 19:41:26	0.875	68.4	7.9
639	2010/07/20 19:48:33	1.000	50.5	6.3
640	2010/07/20 19:48:35	1.000	60.7	9.8
641	2010/07/20 19:52:03	0.875	85.5	8.1
642	2010/07/20 19:53:09	1.000	63.7	7.8
643	2010/07/20 20:00:25	0.750	50.6	8.6
644	2010/07/20 20:00:50	0.875	51.8	8.6
645	2010/07/20 20:04:23	0.750	65.8	8.7
646	2010/07/20 20:04:25	0.875	66.8	10.2
647	2010/07/20 20:04:27	0.875	65.8	9.7
648	2010/07/20 20:04:30	0.875	65.5	9.1
649	2010/07/20 20:04:34	0.500	65.8	11.0
650	2010/07/20 20:08:12	0.875	50.8	10.6

651	2010/07/20 20:09:47	0.750	54.6	12.1
652	2010/07/20 20:11:05	0.750	57.1	9.5
653	2010/07/20 20:11:24	1.000	51.3	8.1
654	2010/07/20 20:12:40	0.625	57.1	13.5
655	2010/07/20 20:13:55	0.750	54.3	9.8
656	2010/07/20 20:14:21	0.625	54.7	8.4
657	2010/07/20 20:14:33	0.875	89.4	7.3
658	2010/07/20 20:15:13	0.750	69.7	10.9
659	2010/07/20 20:16:04	0.625	59.6	12.2
660	2010/07/20 20:16:44	1.000	49.9	7.3
661	2010/07/20 20:17:16	1.000	54.2	11.7
662	2010/07/20 20:24:22	0.625	63.9	8.6
663	2010/07/20 20:24:33	1.000	54.6	9.7
664	2010/07/20 20:25:42	0.875	52.0	9.4
665	2010/07/20 20:26:56	0.625	65.0	10.0
666	2010/07/20 20:26:57	1.000	67.7	8.8
667	2010/07/20 20:28:02	0.750	69.5	9.6
668	2010/07/20 20:28:35	0.750	55.9	10.9
669	2010/07/20 20:28:40	0.625	68.1	10.4
670	2010/07/20 20:28:50	0.750	67.0	8.5
671	2010/07/20 20:29:02	0.750	67.0	10.5
672	2010/07/20 20:29:46	0.750	50.4	7.1
673	2010/07/20 20:31:43	0.625	66.2	10.7
674	2010/07/20 20:39:55	0.625	66.0	10.5
675	2010/07/20 20:40:00	0.625	69.5	10.8
676	2010/07/20 20:43:00	0.625	66.9	9.8
677	2010/07/20 20:45:13	1.000	58.2	7.1
678	2010/07/20 20:47:10	0.750	51.4	9.1
679	2010/07/20 20:47:46	1.000	59.1	9.5
680	2010/07/20 20:49:50	0.875	77.8	9.6
681	2010/07/20 20:55:19	0.625	74.4	12.9
682	2010/07/20 20:55:32	0.625	80.7	9.2
683	2010/07/20 20:56:13	0.750	52.5	8.6
684	2010/07/20 20:57:06	0.625	51.3	10.5

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685	2010/07/20 21:00:00	0.750	53.2	7.6
686	2010/07/20 21:14:42	1.000	52.5	8.7
687	2010/07/20 21:19:12	0.875	54.9	8.4
688	2010/07/20 21:22:22	0.875	50.2	7.1
689	2010/07/20 21:25:35	0.875	55.6	8.2
690	2010/07/20 21:25:42	0.875	53.6	9.2
691	2010/07/20 21:30:16	0.750	57.2	8.8
692	2010/07/20 21:30:19	0.750	53.5	8.2
693	2010/07/20 21:30:25	0.625	58.6	11.9
694	2010/07/20 21:30:32	0.625	62.3	10.0
695	2010/07/20 21:33:35	1.000	53.5	8.3
696	2010/07/20 22:01:06	0.875	49.1	9.0
697	2010/07/20 22:01:15	0.625	55.1	10.7
698	2010/07/20 22:01:16	0.750	59.4	8.8
699	2010/07/20 22:01:20	1.000	62.0	7.2
700	2010/07/20 22:01:24	0.750	67.6	11.0
701	2010/07/20 22:01:28	0.625	69.2	10.4
702	2010/07/20 22:01:37	0.625	51.0	8.7
703	2010/07/20 22:04:54	0.875	52.6	7.7
704	2010/07/20 22:10:21	0.750	67.4	9.3
705	2010/07/20 22:11:23	0.750	63.8	10.2
706	2010/07/20 22:17:11	1.000	65.4	9.8
707	2010/07/20 22:17:16	0.875	61.1	8.8
708	2010/07/20 22:17:42	1.000	60.2	8.7
709	2010/07/20 22:17:43	0.625	71.2	10.5
710	2010/07/20 22:17:44	0.750	59.2	11.7
711	2010/07/20 22:17:46	0.625	73.3	11.5
712	2010/07/20 22:17:51	0.875	62.5	8.6
713	2010/07/20 22:17:53	1.000	64.0	9.5
714	2010/07/20 22:17:57	0.625	62.2	9.8
715	2010/07/20 22:17:59	0.750	70.2	9.6
716	2010/07/20 22:18:17	0.625	75.1	10.9
717	2010/07/20 22:18:27	0.625	72.5	11.4
718	2010/07/20 22:18:32	0.750	72.2	11.0

719	2010/07/20 22:18:34	1.000	56.2	12.0
720	2010/07/20 22:18:38	0.875	70.9	9.5
721	2010/07/20 22:18:41	0.875	59.5	10.0
722	2010/07/20 22:18:44	0.875	71.7	10.0
723	2010/07/20 22:18:46	0.625	59.1	10.8
724	2010/07/20 22:18:48	0.625	78.0	10.6
725	2010/07/20 22:18:52	0.625	63.1	11.4
726	2010/07/20 22:18:55	0.625	61.5	6.2
727	2010/07/20 22:19:02	0.750	65.9	7.8
728	2010/07/20 22:35:25	0.875	48.3	7.4
729	2010/07/20 22:47:27	1.000	49.3	7.0
730	2010/07/20 23:05:10	0.750	57.8	9.4
731	2010/07/20 23:05:17	1.000	70.0	11.6
732	2010/07/20 23:06:54	0.750	55.5	9.1
733	2010/07/20 23:07:54	1.000	54.0	11.0
734	2010/07/20 23:08:26	1.000	47.5	8.6
735	2010/07/20 23:08:44	0.750	51.6	8.7
736	2010/07/20 23:08:50	0.875	49.1	8.9
737	2010/07/20 23:09:26	0.875	52.1	9.6
738	2010/07/20 23:09:48	1.000	46.8	9.1
739	2010/07/20 23:09:58	1.000	53.3	10.7
740	2010/07/20 23:14:57	1.000	49.6	6.4
741	2010/07/20 23:15:11	0.750	46.7	8.1
742	2010/07/20 23:15:27	0.625	49.1	12.3
743	2010/07/20 23:16:35	1.000	49.1	6.7
744	2010/07/20 23:16:49	1.000	46.1	7.7
745	2010/07/20 23:17:59	1.000	51.6	7.8
746	2010/07/20 23:22:15	1.000	47.2	6.4
747	2010/07/20 23:23:17	0.875	68.4	7.8
748	2010/07/20 23:23:25	0.625	55.8	9.4
749	2010/07/20 23:23:34	0.750	67.1	10.9
750	2010/07/20 23:23:41	0.625	63.9	11.9
751	2010/07/20 23:23:50	1.000	49.6	8.6
752	2010/07/20 23:23:59	1.000	50.2	10.3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

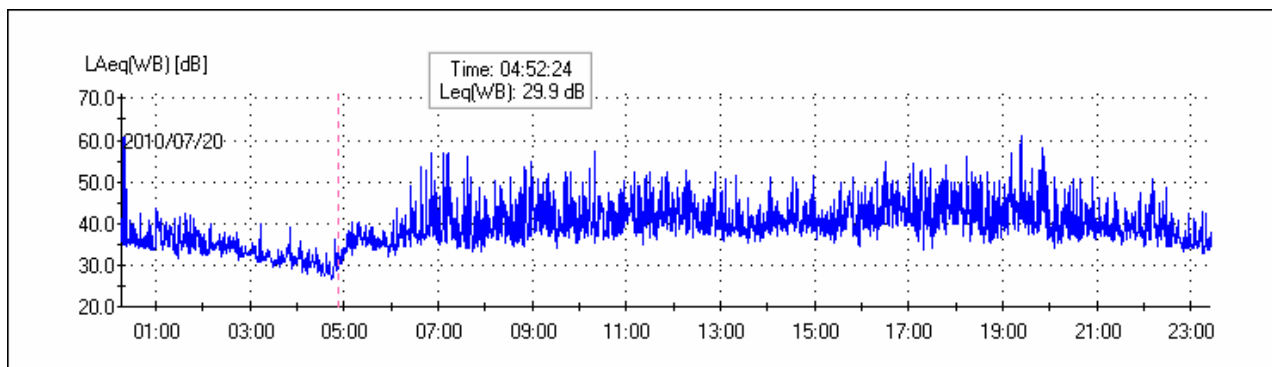
753	2010/07/20 23:24:12	0.750	54.9	11.9
754	2010/07/20 23:24:40	0.875	55.1	8.2
755	2010/07/20 23:24:43	0.750	55.2	10.2
756	2010/07/20 23:24:53	0.875	49.9	7.1
757	2010/07/20 23:25:21	0.625	52.2	11.2
758	2010/07/20 23:25:35	1.000	46.5	7.5

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 125	0.1
Freq: 160	0.0
Freq: 315	0.2
Freq: 500	1.3
Freq: 630	1.0
Freq: 800	0.3
Freq: 1 k	0.3
Freq: 1.25 k	0.1
Freq: 1.6 k	0.0
Freq: 2.5 k	0.1
Freq: 3.15 k	3.9
Freq: 4 k	0.2
Freq: 5 k	0.3
PENALIZZAZIONI	
Penalizzazione BF: No	

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Penalizzazione AF: No	

TIME ISTORY COMPONENTI TONALI

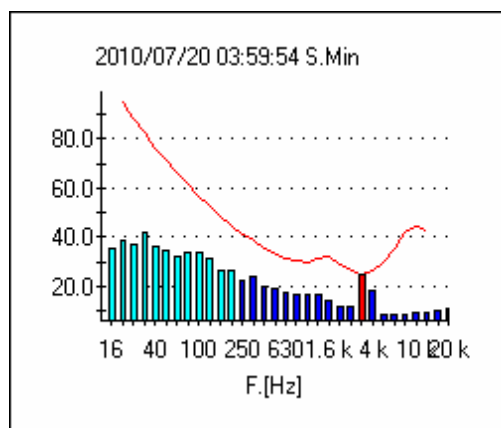
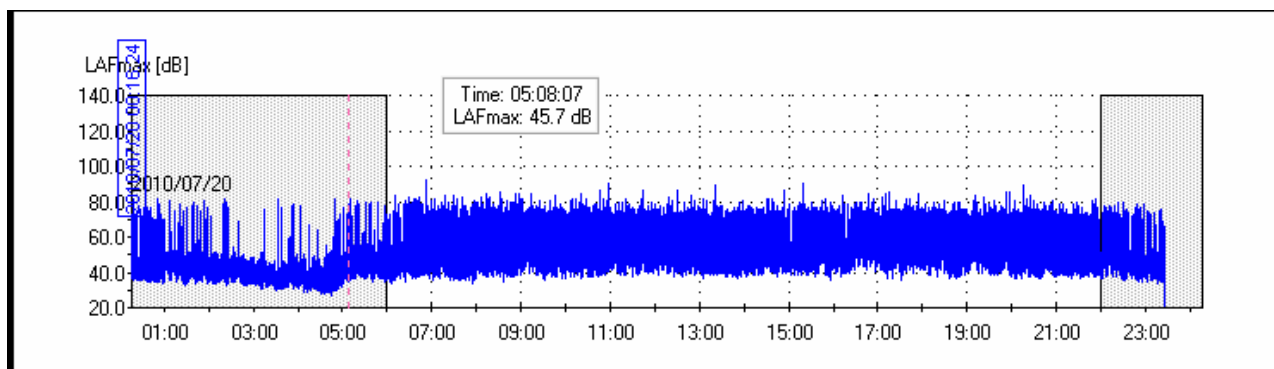
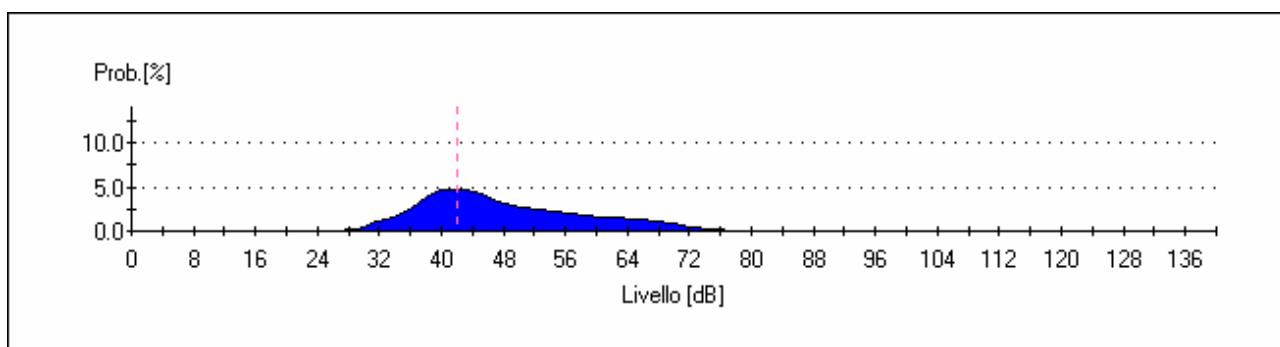


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

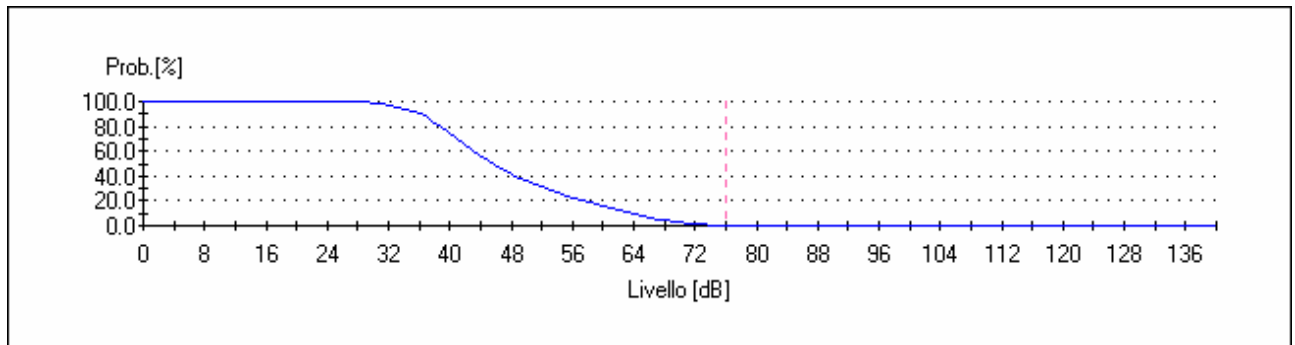
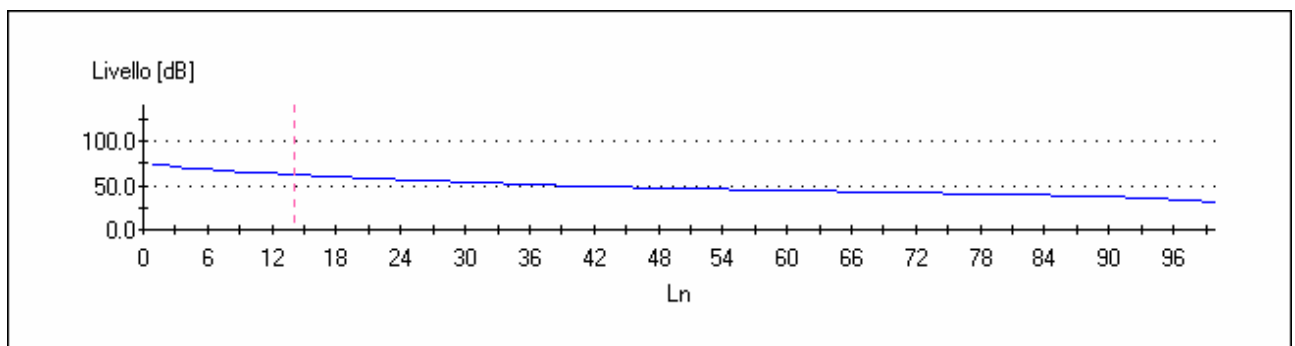


GRAFICO PERCENTILI



Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile	Leq.[dB]
0	73.0
1	73.0
2	71.0
3	70.0
4	69.0
5	68.0
6	67.0
7	66.0
8	65.5
9	65.0

10	64.0
11	63.5
12	63.0
13	62.0
14	61.5
15	61.0
16	60.0
17	59.5
18	59.0
19	58.5
20	58.0
21	57.5
22	57.0
23	56.5
24	56.0
25	55.5
26	55.0
27	54.5
28	54.0
29	53.7
30	53.3
31	53.0
32	52.5
33	52.0
34	51.7
35	51.3
36	51.0
37	50.5
38	50.0
39	49.7
40	49.3
41	49.0
42	48.7
43	48.3

44	48.0
45	47.8
46	47.5
47	47.3
48	47.0
49	46.7
50	46.3
51	46.0
52	45.8
53	45.6
54	45.4
55	45.2
56	45.0
57	44.8
58	44.5
59	44.3
60	44.0
61	43.8
62	43.6
63	43.4
64	43.2
65	43.0
66	42.8
67	42.5
68	42.3
69	42.0
70	41.8
71	41.6
72	41.4
73	41.2
74	41.0
75	40.8
76	40.5
77	40.3

78	40.0
79	39.8
80	39.6
81	39.4
82	39.2
83	39.0
84	38.7
85	38.3
86	38.0
87	37.7
88	37.3
89	37.0
90	36.7
91	36.3
92	36.0
93	35.5
94	35.0
95	34.0
96	33.5
97	33.0
98	32.0
99	31.0

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	74.0
1	74.0
2	72.0
3	71.0
4	70.0
5	69.0
6	68.5
7	68.0

8	67.0
9	66.5
10	66.0
11	65.5
12	65.0
13	64.0
14	63.5
15	63.0
16	62.5
17	62.0
18	61.7
19	61.3
20	61.0
21	60.5
22	60.0
23	59.5
24	59.0
25	58.5
26	58.0
27	57.7
28	57.3
29	57.0
30	56.5
31	56.0
32	55.7
33	55.3
34	55.0
35	54.7
36	54.3
37	54.0
38	53.7
39	53.3
40	53.0
41	52.7

42	52.3
43	52.0
44	51.8
45	51.5
46	51.3
47	51.0
48	50.7
49	50.3
50	50.0
51	49.7
52	49.3
53	49.0
54	48.8
55	48.5
56	48.3
57	48.0
58	47.8
59	47.5
60	47.3
61	47.0
62	46.8
63	46.5
64	46.3
65	46.0
66	45.8
67	45.6
68	45.4
69	45.2
70	45.0
71	44.8
72	44.5
73	44.3
74	44.0
75	43.8

76	43.6
77	43.4
78	43.2
79	43.0
80	42.8
81	42.5
82	42.3
83	42.0
84	41.8
85	41.6
86	41.4
87	41.2
88	41.0
89	40.8
90	40.5
91	40.3
92	40.0
93	39.7
94	39.3
95	39.0
96	38.5
97	38.0
98	37.5
99	37.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	69.0
1	69.0
2	65.0
3	63.0
4	61.0
5	59.0

6	57.0
7	56.0
8	54.0
9	53.0
10	52.0
11	51.0
12	50.0
13	49.5
14	49.0
15	48.0
16	47.7
17	47.3
18	47.0
19	46.5
20	46.0
21	45.8
22	45.5
23	45.3
24	45.0
25	44.8
26	44.5
27	44.3
28	44.0
29	43.8
30	43.6
31	43.4
32	43.2
33	43.0
34	42.8
35	42.6
36	42.4
37	42.2
38	42.0
39	41.8

40	41.6
41	41.4
42	41.2
43	41.0
44	40.8
45	40.7
46	40.5
47	40.3
48	40.2
49	40.0
50	39.9
51	39.7
52	39.6
53	39.4
54	39.3
55	39.1
56	39.0
57	38.8
58	38.7
59	38.5
60	38.3
61	38.2
62	38.0
63	37.9
64	37.7
65	37.6
66	37.4
67	37.3
68	37.1
69	37.0
70	36.9
71	36.7
72	36.6
73	36.4

74	36.3
75	36.1
76	36.0
77	35.8
78	35.6
79	35.4
80	35.2
81	35.0
82	34.8
83	34.6
84	34.4
85	34.2
86	34.0
87	33.8
88	33.5
89	33.3
90	33.0
91	32.8
92	32.5
93	32.3
94	32.0
95	31.5
96	31.0
97	30.5
98	30.0
99	29.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI DI IMPULS- FAST E SLOW MAX NELLE 24 ORE		
LAlp [dB]	LASp [dB]	LAFp [dB]
84.4	78.4	81.9
94.2	85.6	91.9
91.3	86.3	89.8
91.9	85.1	90.1
90.8	83.5	89.4
82.9	78.4	81.9
94.2	86.3	91.9

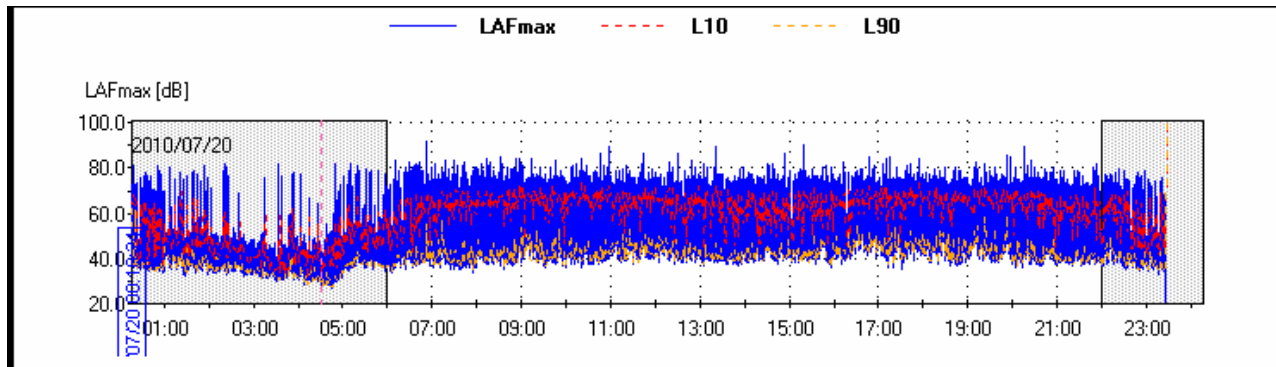
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LASp [dB]	LAFp [dB]
94.2	85.6	91.9
91.3	86.3	89.8
91.9	85.1	90.1
90.8	83.5	89.4
82.9	78.4	81.9
94.2	86.3	91.9

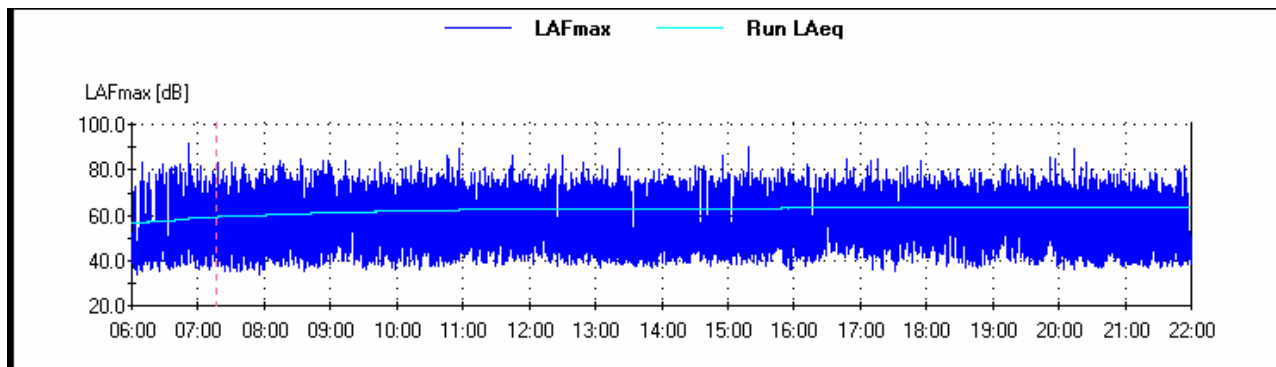
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LASp [dB]	LAFp [dB]
84.4	78.4	81.9
85	76.4	81.9
81.5	76.9	79.7
85	78.4	81.9

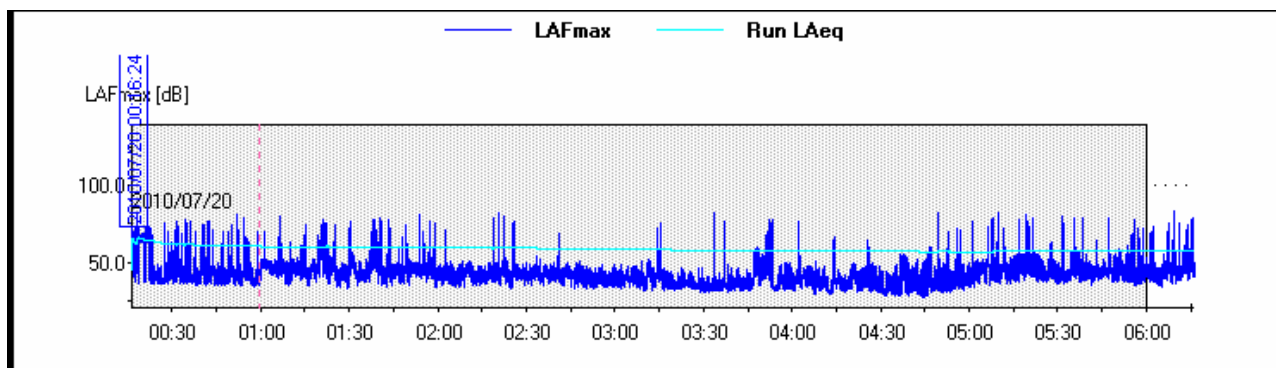
TIME HISTORY L10 – L90



RUNNING Leq DIURNO

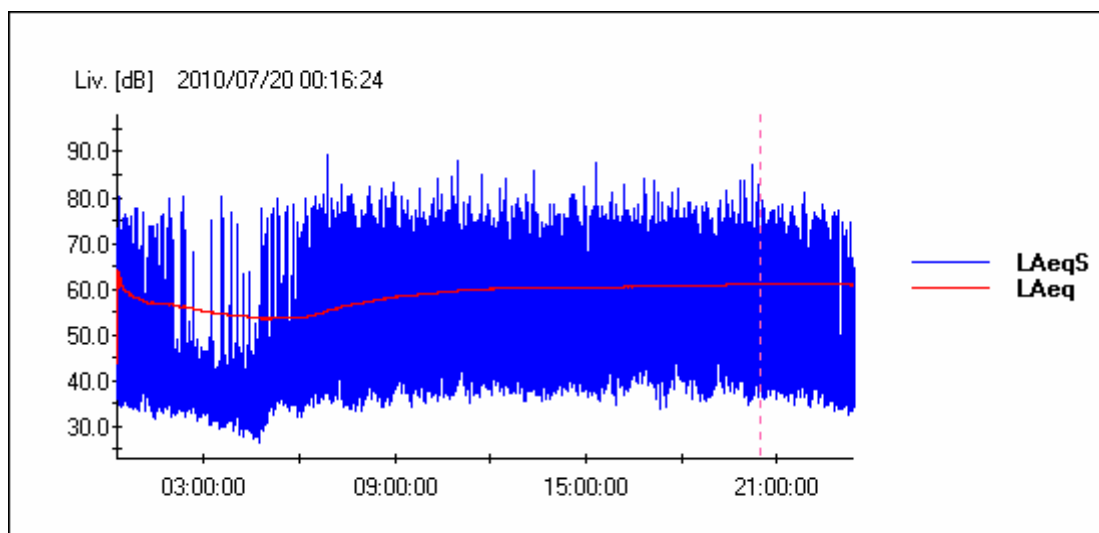


RUNNING Leq NOTTURNO

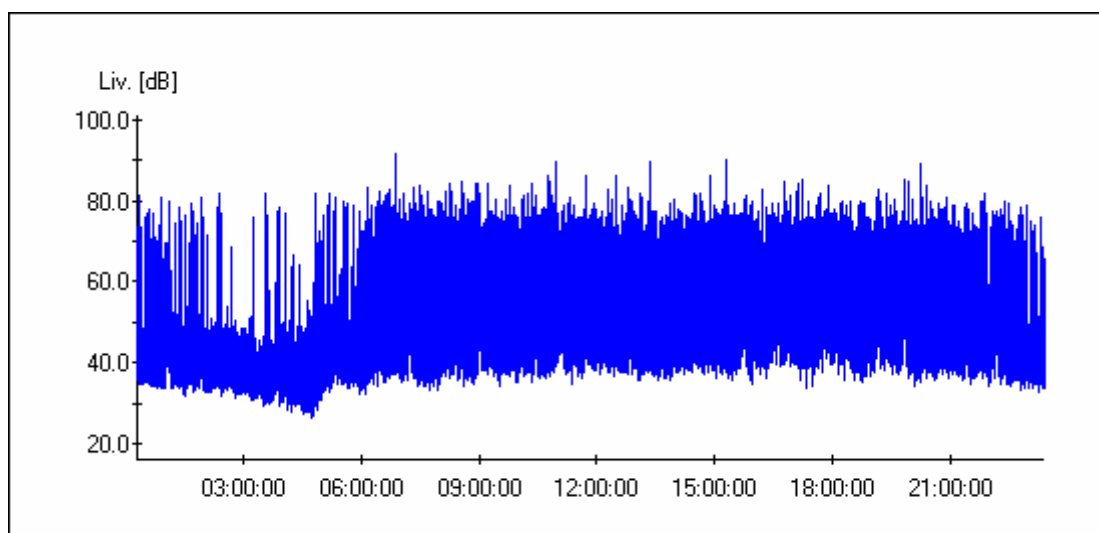


		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

R2 - MISURE DI 24 ORE CON POSTAZIONE SEMI-FISSE		
Punto	Ricettore R_10_C	Indirizzo VIA CAMPO PIALE
Descrizione del punto di misura/ricettore		
<i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata nel piazzale adiacente il fabbricato esistente ad una distanza di mt 1 dalla parete dello stesso</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 / 40 dB(a)
☐	Classe II	55 / 45 dB(a)
☒	Classe III	60 / 50 dB(a)
☐	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826		

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Punto	Ricettore	Indirizzo
	R_10_C	VIA CAMPO PIALE

<i>Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)</i>								
Periodo	TR	Data	L _{AeqTR} [dBA]	K _I [dBA]	K _T [dBA]	K _B [dBA]	L _{AeqTRC} [dBA]	L _{lim} [dBA]
Giorno	6-22h	19/07/10	61.7	0	0		61.7	60
Notte	22-6h	19/07/10	59.1	0	0	0	59.1	50

RISULTATI MISURE	
Codice misura	R_10_C
Data inizio	19/07/2010
Ora inizio	0.23.00
Note	

Parametri		24 ore	Giorno (T _R = 6/22)	Notte (T _R = 22/6)
L _{AeqTR}	[dBA]	61.0	61.7	59.1
L ₁	[dBA]	72.0	72.0	69.0
L ₅	[dBA]	67.0	68.0	61.0
L ₁₀	[dBA]	64.0	65.5	54.0
L ₅₀	[dBA]	48.2	50.0	43.8
L ₉₀	[dBA]	40.0	41.0	38.0
L ₉₅	[dBA]	38.0	39.0	34.0
L ₉₉	[dBA]	33.0	36.0	29.0
L _I max	[dBA]	101.6	100.0	101.6
L _F max	[dBA]	99.1	96.7	99.1
L _S max	[dBA]	92.8	89.3	92.8
K _I	[dBA]	0	0	0
K _T	[dBA]	0	0	0
K _B	[dBA]	0	0	0
L _{AeqTRC}		61.0	61.7	59.1

Note:

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Punto	Ricettore	Indirizzo
	R_10_C	VIA CAMPO PIALE

Sorgente stradale: _____								
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	43	31	30	32	34	21	32	26.5
Veic. Pesanti / 10'	1	3	4	0	2	0	0	0
Motocicli / 10'	6	2	10	1	4.75	2	1	1.5
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	25	30	31	25.5	27.88	27	23	25
Umidità relativa	85	69	68	70	73	61	54	57.5
Velocità vento	2.5	4.3	4.8	4.9	4.125	4.7	3.2	3.95
Direzione vento	E	E	N N W	S		S	S	

Fotografia del punto di misura	
	

MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO

Codice documento

AC0053_F0.docx_F0

Rev

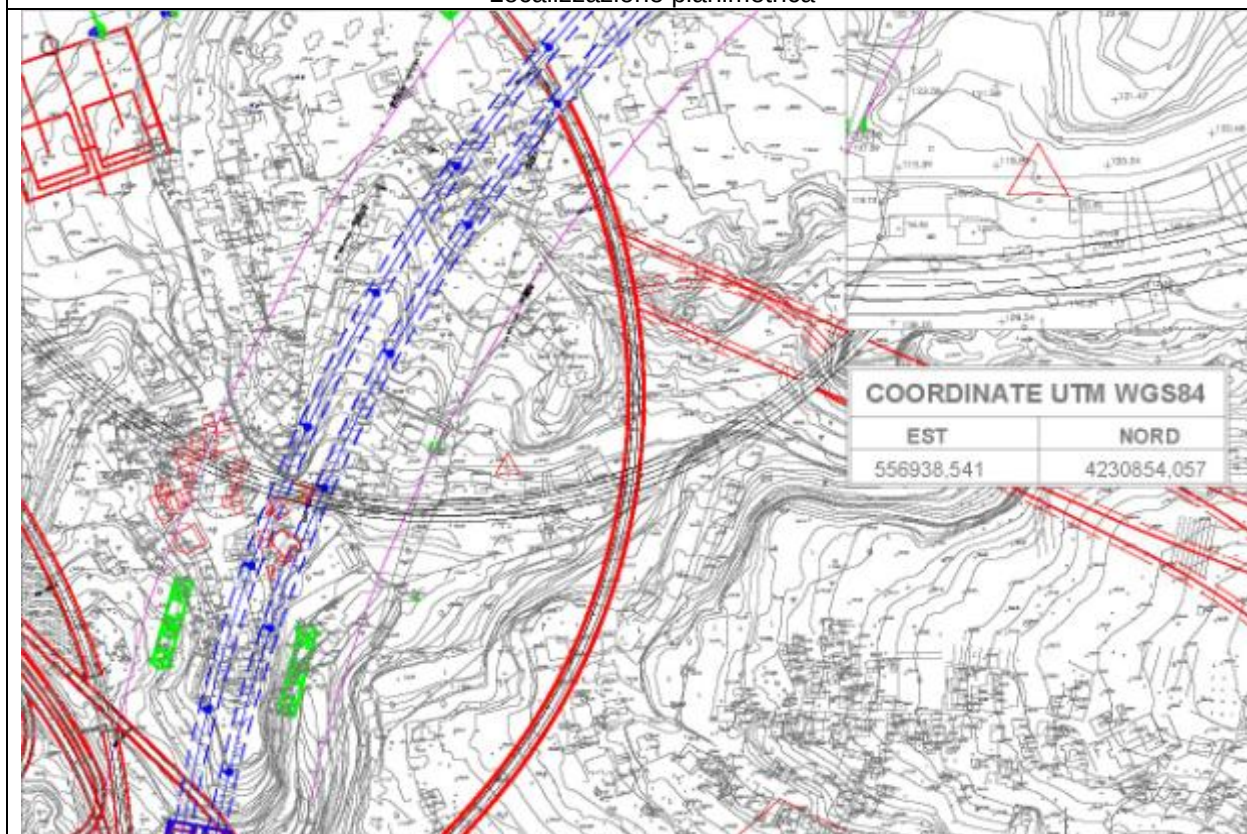
F0

Data

20/06/2011

Punto	Ricettore	Indirizzo
	R_10_C	VIA CAMPO PIALE

Localizzazione planimetrica



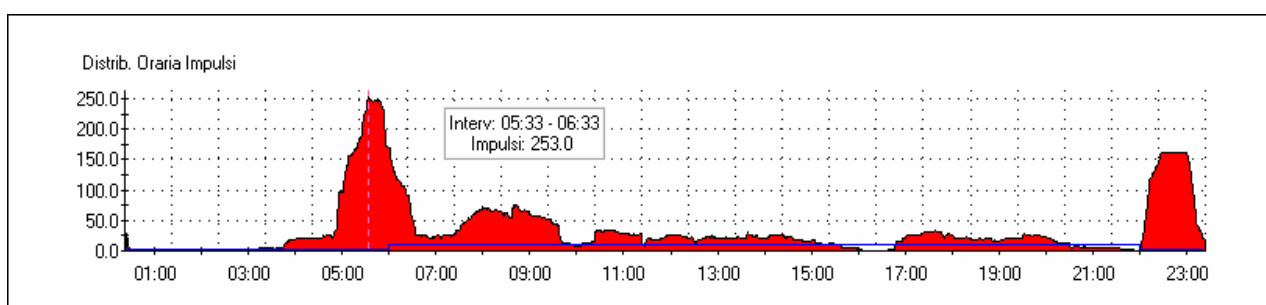
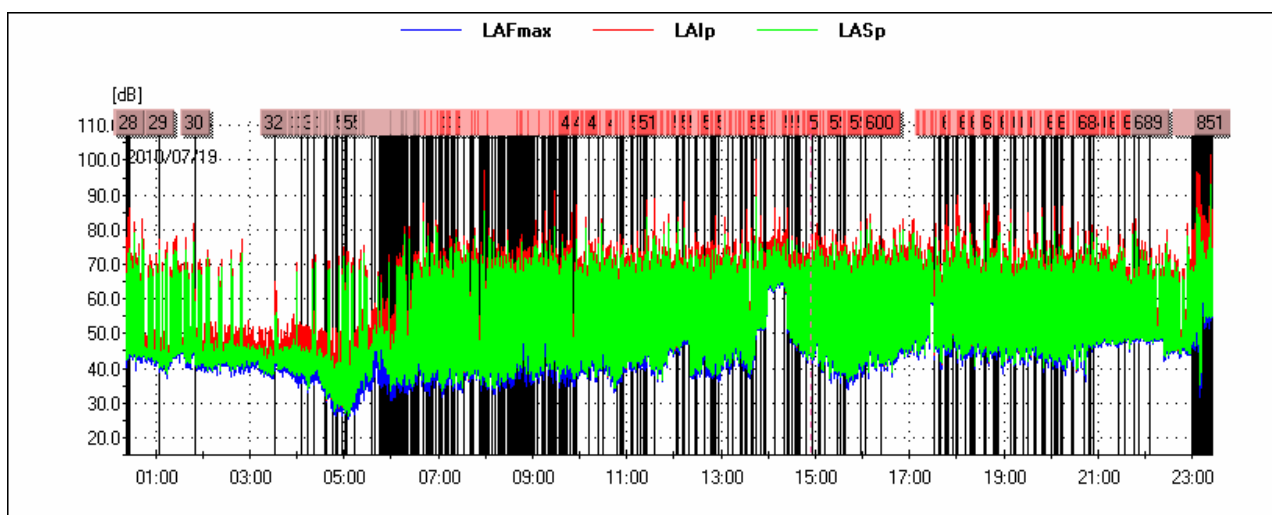
DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/19 00:23:02	0.875	57.6	10.6
2	2010/07/19 00:23:17	0.750	54.8	10.1
3	2010/07/19 00:23:28	0.750	53.7	8.8
4	2010/07/19 00:23:33	0.875	57.2	11.1

5	2010/07/19 00:24:29	0.625	64.0	11.3
6	2010/07/19 00:24:32	0.750	64.3	9.9
7	2010/07/19 00:24:44	0.750	64.4	11.2
8	2010/07/19 00:24:54	0.875	65.1	11.0
9	2010/07/19 00:25:07	1.000	68.8	9.8
10	2010/07/19 00:25:12	0.625	76.1	10.3
11	2010/07/19 00:25:18	0.750	63.7	9.0
12	2010/07/19 00:25:32	0.625	71.6	10.4
13	2010/07/19 00:25:42	0.875	79.8	10.5
14	2010/07/19 00:25:51	0.750	57.7	8.9
15	2010/07/19 00:25:53	0.750	63.9	7.4
16	2010/07/19 00:25:55	0.625	74.2	10.4
17	2010/07/19 00:25:57	0.625	66.1	11.1
18	2010/07/19 00:25:59	0.625	70.2	11.3
19	2010/07/19 00:26:00	0.750	65.4	10.6
20	2010/07/19 00:26:02	0.625	60.8	9.5
21	2010/07/19 00:26:04	0.500	71.7	12.1
22	2010/07/19 00:26:06	0.625	82.3	12.0
23	2010/07/19 00:26:11	0.625	59.3	16.4
24	2010/07/19 00:26:16	0.750	57.3	9.7
25	2010/07/19 00:26:17	0.750	60.4	9.2
26	2010/07/19 00:26:31	0.625	75.8	8.8
27	2010/07/19 00:27:28	0.625	74.0	12.0
28	2010/07/19 00:27:53	0.625	63.2	10.1
29	2010/07/19 01:04:33	0.750	57.2	9.1
30	2010/07/19 01:49:53	0.750	57.7	9.1
31	2010/07/19 03:31:18	1.000	62.0	9.6
32	2010/07/19 03:31:39	0.875	55.5	9.5
33	2010/07/19 04:05:20	1.000	50.3	8.1
34	2010/07/19 04:12:52	1.000	49.4	8.4
35	2010/07/19 04:21:38	1.000	52.1	6.6
36	2010/07/19 04:35:53	0.875	48.5	6.9
37	2010/07/19 04:36:31	1.000	46.9	7.6
38	2010/07/19 04:37:34	0.875	47.0	8.6

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

39	2010/07/19 04:44:44	0.875	48.9	7.7
40	2010/07/19 04:45:10	1.000	45.1	6.9
41	2010/07/19 04:45:17	0.875	46.9	7.8
42	2010/07/19 04:45:19	1.000	46.9	7.6
43	2010/07/19 04:45:32	0.875	49.0	7.8
44	2010/07/19 04:46:03	0.875	45.5	8.7
45	2010/07/19 04:46:17	0.875	44.5	9.1
46	2010/07/19 04:46:19	0.750	47.9	8.1
47	2010/07/19 04:49:15	0.500	46.9	12.8
48	2010/07/19 04:50:39	0.875	46.4	8.3
49	2010/07/19 04:51:12	0.875	47.7	8.6
50	2010/07/19 04:57:12	0.875	40.7	8.1
51	2010/07/19 04:57:34	0.875	43.6	9.4
52	2010/07/19 05:00:55	1.000	49.6	10.8
53	2010/07/19 05:01:03	0.625	44.1	11.1
54	2010/07/19 05:03:17	0.750	46.2	9.7
55	2010/07/19 05:12:42	1.000	44.1	6.8
56	2010/07/19 05:34:39	0.750	52.0	8.7
57	2010/07/19 05:34:50	1.000	52.3	9.0
58	2010/07/19 05:34:53	0.625	53.4	9.6
59	2010/07/19 05:35:03	0.625	52.0	9.2
60	2010/07/19 05:35:07	0.750	52.0	8.8
61	2010/07/19 05:35:21	0.875	52.2	8.3
62	2010/07/19 05:38:39	1.000	54.4	6.6
63	2010/07/19 05:38:49	0.875	54.3	7.0
64	2010/07/19 05:44:48	0.875	50.1	8.5
65	2010/07/19 05:45:07	0.625	50.8	8.4
66	2010/07/19 05:45:17	0.875	50.7	9.5
67	2010/07/19 05:45:21	0.750	52.1	7.7
68	2010/07/19 05:48:09	0.875	54.9	7.5
69	2010/07/19 05:48:31	0.875	53.9	7.2
70	2010/07/19 05:48:37	0.625	54.9	7.3
71	2010/07/19 05:48:38	0.875	54.5	6.4
72	2010/07/19 05:49:23	0.625	57.0	9.4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

73	2010/07/19 05:49:30	0.750	52.5	6.7
74	2010/07/19 05:49:47	0.750	54.1	7.8
75	2010/07/19 05:49:56	0.875	51.3	7.5
76	2010/07/19 05:50:00	1.000	51.0	6.5
77	2010/07/19 05:50:36	1.000	52.1	7.0
78	2010/07/19 05:50:37	0.875	52.9	7.4
79	2010/07/19 05:50:46	0.875	54.9	6.6
80	2010/07/19 05:50:49	0.875	53.2	7.4
81	2010/07/19 05:50:50	1.000	52.0	6.5
82	2010/07/19 05:50:51	0.875	54.5	7.4
83	2010/07/19 05:52:33	0.750	50.2	7.2
84	2010/07/19 05:52:35	0.750	49.8	7.1
85	2010/07/19 05:52:42	0.875	50.0	8.1
86	2010/07/19 05:52:57	0.875	51.9	7.0
87	2010/07/19 05:53:08	0.750	52.6	6.7
88	2010/07/19 05:53:14	1.000	54.3	7.3
89	2010/07/19 05:53:15	0.750	52.4	7.2
90	2010/07/19 05:53:20	0.750	52.3	8.0
91	2010/07/19 05:53:22	1.000	53.1	8.2
92	2010/07/19 05:53:26	0.625	54.7	9.0
93	2010/07/19 05:53:27	0.750	51.2	6.4
94	2010/07/19 05:53:28	0.625	50.0	6.8
95	2010/07/19 05:53:29	0.875	53.3	8.8
96	2010/07/19 05:53:33	0.625	53.7	8.4
97	2010/07/19 05:53:33	0.875	54.4	7.6
98	2010/07/19 05:53:34	1.000	54.4	8.3
99	2010/07/19 05:53:35	0.750	54.5	7.8
100	2010/07/19 05:53:37	0.750	52.6	7.7
101	2010/07/19 05:53:38	0.750	53.3	8.5
102	2010/07/19 05:53:41	0.750	54.6	7.9
103	2010/07/19 05:53:45	0.625	52.1	6.9
104	2010/07/19 05:53:48	0.750	55.2	8.7
105	2010/07/19 05:53:53	1.000	52.3	6.4
106	2010/07/19 05:53:55	0.625	51.0	6.3

107	2010/07/19 05:53:56	0.750	54.0	9.5
108	2010/07/19 05:53:58	0.750	53.5	8.1
109	2010/07/19 05:54:00	1.000	53.5	9.1
110	2010/07/19 05:54:02	0.625	57.1	8.5
111	2010/07/19 05:54:06	0.750	52.4	7.7
112	2010/07/19 05:54:10	1.000	52.3	9.0
113	2010/07/19 05:54:13	0.750	53.8	8.7
114	2010/07/19 05:54:15	0.750	55.3	9.1
115	2010/07/19 05:54:17	0.875	56.5	9.4
116	2010/07/19 05:54:20	0.625	52.7	8.3
117	2010/07/19 05:54:21	0.625	56.4	10.7
118	2010/07/19 05:54:28	1.000	49.2	8.5
119	2010/07/19 05:54:30	0.750	50.6	8.3
120	2010/07/19 05:54:32	0.875	52.2	9.5
121	2010/07/19 05:54:33	0.625	52.0	8.9
122	2010/07/19 05:54:37	1.000	48.2	8.0
123	2010/07/19 05:54:44	0.875	50.2	7.3
124	2010/07/19 05:54:47	1.000	52.3	8.3
125	2010/07/19 05:54:49	0.875	53.6	8.7
126	2010/07/19 05:54:50	1.000	53.3	7.4
127	2010/07/19 05:54:53	0.750	51.8	7.6
128	2010/07/19 05:54:54	0.625	51.4	8.8
129	2010/07/19 05:54:55	0.625	54.3	9.7
130	2010/07/19 05:54:57	0.625	53.4	9.9
131	2010/07/19 05:54:59	0.875	50.3	7.5
132	2010/07/19 05:55:00	0.875	48.6	7.6
133	2010/07/19 05:55:02	0.750	50.9	9.4
134	2010/07/19 05:55:07	0.875	52.4	9.4
135	2010/07/19 05:55:08	0.875	48.4	7.2
136	2010/07/19 05:55:12	0.750	49.9	7.2
137	2010/07/19 05:55:13	0.625	52.6	9.3
138	2010/07/19 05:55:15	0.750	52.5	8.9
139	2010/07/19 05:55:21	0.875	51.5	7.4
140	2010/07/19 05:55:23	0.750	50.2	8.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

141	2010/07/19 05:55:26	1.000	49.6	7.1
142	2010/07/19 05:55:28	0.750	51.4	8.7
143	2010/07/19 05:55:34	0.875	51.5	8.8
144	2010/07/19 05:55:35	0.875	50.5	8.0
145	2010/07/19 05:55:45	0.750	54.3	10.3
146	2010/07/19 05:55:51	1.000	48.4	7.6
147	2010/07/19 05:56:20	0.875	51.6	8.5
148	2010/07/19 05:56:39	0.750	49.5	6.7
149	2010/07/19 05:58:12	0.750	50.9	10.2
150	2010/07/19 05:59:40	0.750	50.1	8.9
151	2010/07/19 06:01:09	0.750	46.8	8.7
152	2010/07/19 06:01:10	0.875	49.4	7.9
153	2010/07/19 06:01:37	0.875	44.3	8.0
154	2010/07/19 06:01:47	0.625	48.6	9.2
155	2010/07/19 06:01:49	0.750	45.8	7.9
156	2010/07/19 06:01:51	0.875	47.1	8.5
157	2010/07/19 06:01:53	0.625	48.3	9.0
158	2010/07/19 06:01:55	0.875	51.0	8.3
159	2010/07/19 06:01:57	0.625	48.4	9.0
160	2010/07/19 06:01:59	0.625	49.8	8.8
161	2010/07/19 06:02:01	1.000	51.1	9.7
162	2010/07/19 06:02:02	0.750	48.9	8.2
163	2010/07/19 06:02:04	0.625	49.1	9.3
164	2010/07/19 06:02:08	0.625	47.3	8.0
165	2010/07/19 06:02:09	0.625	50.5	9.1
166	2010/07/19 06:02:11	0.750	49.8	8.5
167	2010/07/19 06:02:13	0.750	47.4	8.4
168	2010/07/19 06:02:15	0.625	50.6	9.5
169	2010/07/19 06:02:17	0.750	49.9	8.9
170	2010/07/19 06:02:19	0.750	48.6	7.9
171	2010/07/19 06:02:20	0.750	50.0	8.8
172	2010/07/19 06:02:29	0.750	51.4	9.1
173	2010/07/19 06:02:32	0.625	52.0	10.0
174	2010/07/19 06:02:34	0.750	45.3	9.9

175	2010/07/19 06:02:35	0.875	48.7	9.2
176	2010/07/19 06:02:39	0.875	48.0	9.0
177	2010/07/19 06:02:41	1.000	50.0	8.5
178	2010/07/19 06:02:44	0.750	50.3	10.4
179	2010/07/19 06:02:45	0.875	49.9	8.0
180	2010/07/19 06:02:48	0.875	47.7	8.7
181	2010/07/19 06:03:43	0.750	50.1	8.4
182	2010/07/19 06:03:50	0.875	49.9	8.1
183	2010/07/19 06:03:51	0.750	53.1	8.3
184	2010/07/19 06:03:59	0.750	52.2	8.3
185	2010/07/19 06:04:05	0.750	51.3	9.0
186	2010/07/19 06:04:08	0.750	51.1	8.4
187	2010/07/19 06:04:09	0.750	51.4	8.5
188	2010/07/19 06:04:41	1.000	49.9	6.3
189	2010/07/19 06:04:59	1.000	47.8	8.8
190	2010/07/19 06:05:00	0.875	47.6	8.3
191	2010/07/19 06:05:02	0.750	48.4	8.1
192	2010/07/19 06:05:31	1.000	51.8	9.0
193	2010/07/19 06:05:39	0.875	49.7	8.0
194	2010/07/19 06:05:43	0.625	53.9	9.8
195	2010/07/19 06:05:55	0.875	52.6	7.8
196	2010/07/19 06:06:00	0.750	52.4	9.9
197	2010/07/19 06:07:20	0.875	53.0	8.2
198	2010/07/19 06:07:24	0.750	52.2	8.6
199	2010/07/19 06:07:26	0.625	52.6	9.1
200	2010/07/19 06:07:27	0.625	54.5	9.3
201	2010/07/19 06:07:28	0.625	54.9	9.0
202	2010/07/19 06:07:29	0.750	53.3	7.0
203	2010/07/19 06:07:32	0.625	54.5	8.9
204	2010/07/19 06:07:33	0.625	53.9	8.9
205	2010/07/19 06:07:35	0.750	54.9	8.0
206	2010/07/19 06:07:39	0.625	51.9	8.0
207	2010/07/19 06:07:41	0.625	52.4	8.8
208	2010/07/19 06:07:45	0.750	50.8	8.3

209	2010/07/19 06:07:48	1.000	51.5	7.5
210	2010/07/19 06:07:51	0.625	53.2	8.9
211	2010/07/19 06:09:30	0.750	49.2	8.5
212	2010/07/19 06:11:24	1.000	48.9	6.4
213	2010/07/19 06:11:27	1.000	48.6	8.1
214	2010/07/19 06:12:23	0.750	50.6	8.9
215	2010/07/19 06:13:18	0.625	54.9	9.5
216	2010/07/19 06:13:23	0.625	55.4	10.2
217	2010/07/19 06:13:47	0.875	53.7	9.3
218	2010/07/19 06:14:09	0.750	56.0	9.3
219	2010/07/19 06:14:16	0.625	52.7	9.0
220	2010/07/19 06:14:33	1.000	46.4	7.9
221	2010/07/19 06:14:40	0.750	47.8	8.7
222	2010/07/19 06:15:31	1.000	48.8	9.1
223	2010/07/19 06:15:59	0.875	50.0	7.7
224	2010/07/19 06:17:28	1.000	47.9	7.1
225	2010/07/19 06:19:29	0.750	48.7	8.5
226	2010/07/19 06:19:31	0.750	49.1	8.8
227	2010/07/19 06:19:37	0.750	52.4	9.9
228	2010/07/19 06:19:39	0.750	49.3	8.8
229	2010/07/19 06:19:45	0.750	46.9	7.9
230	2010/07/19 06:19:47	0.750	49.3	9.1
231	2010/07/19 06:19:49	0.875	48.3	8.7
232	2010/07/19 06:20:16	0.875	45.3	9.2
233	2010/07/19 06:20:24	1.000	46.8	8.9
234	2010/07/19 06:20:29	0.625	48.3	8.8
235	2010/07/19 06:20:34	1.000	48.2	7.3
236	2010/07/19 06:20:41	0.875	48.6	9.6
237	2010/07/19 06:20:53	0.875	51.3	8.8
238	2010/07/19 06:21:37	0.625	53.0	7.8
239	2010/07/19 06:21:38	0.750	49.0	7.7
240	2010/07/19 06:21:40	0.750	53.4	9.6
241	2010/07/19 06:21:44	0.625	51.3	7.8
242	2010/07/19 06:24:04	0.750	49.3	8.0

243	2010/07/19 06:24:10	0.750	49.3	7.8
244	2010/07/19 06:24:17	0.625	48.9	8.3
245	2010/07/19 06:24:28	0.750	51.6	9.9
246	2010/07/19 06:24:33	0.625	49.2	8.3
247	2010/07/19 06:24:36	0.625	54.8	9.7
248	2010/07/19 06:24:43	0.625	52.1	7.5
249	2010/07/19 06:25:25	0.750	53.2	8.6
250	2010/07/19 06:25:27	0.750	54.0	8.5
251	2010/07/19 06:25:31	0.750	51.0	9.6
252	2010/07/19 06:25:32	0.750	53.1	8.7
253	2010/07/19 06:25:36	0.625	53.2	9.7
254	2010/07/19 06:25:39	0.625	54.1	9.5
255	2010/07/19 06:25:41	0.750	53.5	8.4
256	2010/07/19 06:25:47	0.625	53.0	9.4
257	2010/07/19 06:25:48	0.750	51.7	8.1
258	2010/07/19 06:25:49	0.750	52.2	7.5
259	2010/07/19 06:25:50	0.625	53.4	8.2
260	2010/07/19 06:25:51	0.750	52.3	8.1
261	2010/07/19 06:25:57	0.625	54.0	6.2
262	2010/07/19 06:25:58	0.625	53.3	7.5
263	2010/07/19 06:26:03	0.750	51.0	9.5
264	2010/07/19 06:26:06	0.625	51.6	9.3
265	2010/07/19 06:26:08	0.750	52.1	9.2
266	2010/07/19 06:26:11	1.000	54.8	9.7
267	2010/07/19 06:26:14	0.625	51.6	8.5
268	2010/07/19 06:26:20	0.750	51.5	9.1
269	2010/07/19 06:26:21	0.750	48.0	7.2
270	2010/07/19 06:26:28	0.625	51.4	10.3
271	2010/07/19 06:26:30	0.750	50.0	9.6
272	2010/07/19 06:26:57	0.875	49.9	9.2
273	2010/07/19 06:27:04	0.750	51.6	9.5
274	2010/07/19 06:27:07	0.625	53.5	9.8
275	2010/07/19 06:27:09	0.625	54.4	9.3
276	2010/07/19 06:27:13	0.625	53.7	10.5

277	2010/07/19 06:27:40	0.750	62.2	10.9
278	2010/07/19 06:27:59	0.875	57.3	7.6
279	2010/07/19 06:28:03	0.875	57.7	7.7
280	2010/07/19 06:28:08	0.750	51.6	8.0
281	2010/07/19 06:28:10	0.750	52.1	8.9
282	2010/07/19 06:28:12	0.750	52.6	9.5
283	2010/07/19 06:28:17	0.875	48.6	8.4
284	2010/07/19 06:29:22	0.750	51.2	9.5
285	2010/07/19 06:29:27	0.750	48.9	8.7
286	2010/07/19 06:30:01	0.750	57.9	10.5
287	2010/07/19 06:30:36	0.750	51.0	7.7
288	2010/07/19 06:30:47	0.625	51.2	7.8
289	2010/07/19 06:31:20	0.750	53.9	9.0
290	2010/07/19 06:31:24	0.750	51.1	7.7
291	2010/07/19 06:31:34	1.000	53.9	8.0
292	2010/07/19 06:31:39	0.750	54.5	8.6
293	2010/07/19 06:31:46	0.875	53.1	8.2
294	2010/07/19 06:31:52	0.875	53.0	7.8
295	2010/07/19 06:31:54	0.750	53.8	9.1
296	2010/07/19 06:31:56	0.625	53.8	8.1
297	2010/07/19 06:31:57	0.625	54.1	8.1
298	2010/07/19 06:31:58	0.625	55.4	8.5
299	2010/07/19 06:32:01	0.625	51.3	9.2
300	2010/07/19 06:32:03	0.750	52.4	8.0
301	2010/07/19 06:32:04	0.875	50.3	7.7
302	2010/07/19 06:32:06	0.750	50.4	7.9
303	2010/07/19 06:32:07	0.750	54.0	8.9
304	2010/07/19 06:32:09	0.750	50.9	7.6
305	2010/07/19 06:32:10	0.750	52.3	8.3
306	2010/07/19 06:32:11	0.750	50.8	7.4
307	2010/07/19 06:32:13	0.750	53.9	8.3
308	2010/07/19 06:32:14	0.625	52.8	8.2
309	2010/07/19 06:32:17	0.750	51.4	9.2
310	2010/07/19 06:35:28	0.750	56.9	9.4

311	2010/07/19 06:40:04	1.000	54.4	6.9
312	2010/07/19 06:40:32	0.625	58.7	9.8
313	2010/07/19 06:44:22	1.000	50.7	8.1
314	2010/07/19 06:46:04	0.750	52.3	10.1
315	2010/07/19 06:46:34	0.625	50.6	11.6
316	2010/07/19 06:47:42	0.750	63.0	9.0
317	2010/07/19 06:49:20	1.000	51.0	7.4
318	2010/07/19 06:51:50	1.000	47.2	9.1
319	2010/07/19 06:56:51	0.750	53.4	9.2
320	2010/07/19 07:01:46	1.000	49.0	7.6
321	2010/07/19 07:02:23	0.750	55.9	9.1
322	2010/07/19 07:03:01	0.750	57.6	10.0
323	2010/07/19 07:03:06	0.625	63.8	9.6
324	2010/07/19 07:03:43	0.875	53.3	8.0
325	2010/07/19 07:04:15	0.750	49.5	8.8
326	2010/07/19 07:04:30	0.750	50.0	7.8
327	2010/07/19 07:09:43	1.000	52.2	6.4
328	2010/07/19 07:11:34	0.750	57.4	8.4
329	2010/07/19 07:12:32	0.750	55.2	9.6
330	2010/07/19 07:16:27	1.000	51.4	8.3
331	2010/07/19 07:18:40	0.875	49.2	7.2
332	2010/07/19 07:18:56	0.875	48.5	8.6
333	2010/07/19 07:20:43	1.000	50.5	7.0
334	2010/07/19 07:25:38	1.000	51.3	7.8
335	2010/07/19 07:32:25	1.000	57.4	8.0
336	2010/07/19 07:41:21	0.875	54.6	7.7
337	2010/07/19 07:41:35	0.875	57.0	7.6
338	2010/07/19 07:44:30	0.875	59.7	8.0
339	2010/07/19 07:44:33	0.875	53.3	8.1
340	2010/07/19 07:51:36	0.875	52.7	8.7
341	2010/07/19 07:54:14	0.750	50.2	9.4
342	2010/07/19 07:57:01	0.875	51.4	9.5
343	2010/07/19 07:59:13	0.625	93.0	11.8
344	2010/07/19 07:59:59	1.000	50.9	7.7

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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345	2010/07/19 08:00:03	0.750	52.1	7.3
346	2010/07/19 08:01:45	0.750	49.8	7.8
347	2010/07/19 08:02:46	0.750	52.2	6.9
348	2010/07/19 08:04:53	0.625	68.6	10.0
349	2010/07/19 08:07:31	0.875	57.1	6.4
350	2010/07/19 08:07:34	1.000	60.5	7.0
351	2010/07/19 08:07:39	1.000	58.7	6.5
352	2010/07/19 08:08:41	1.000	68.0	7.3
353	2010/07/19 08:08:48	1.000	54.5	6.9
354	2010/07/19 08:11:31	0.750	44.6	7.4
355	2010/07/19 08:16:26	0.875	55.1	6.9
356	2010/07/19 08:17:18	0.875	52.1	6.4
357	2010/07/19 08:19:04	1.000	51.8	6.8
358	2010/07/19 08:19:48	0.750	50.1	8.8
359	2010/07/19 08:22:52	0.625	63.6	8.3
360	2010/07/19 08:22:53	0.625	71.1	9.3
361	2010/07/19 08:23:44	0.625	56.0	10.8
362	2010/07/19 08:23:50	0.625	69.2	10.1
363	2010/07/19 08:24:05	1.000	69.9	8.0
364	2010/07/19 08:24:11	1.000	56.9	8.3
365	2010/07/19 08:24:14	1.000	55.0	9.2
366	2010/07/19 08:24:15	0.625	70.9	10.2
367	2010/07/19 08:25:03	1.000	52.7	8.1
368	2010/07/19 08:25:11	1.000	51.0	8.2
369	2010/07/19 08:28:15	0.625	71.5	10.3
370	2010/07/19 08:29:11	0.750	61.1	11.4
371	2010/07/19 08:30:01	1.000	52.2	7.1
372	2010/07/19 08:30:07	0.875	54.7	6.9
373	2010/07/19 08:30:50	0.750	56.7	9.4
374	2010/07/19 08:30:51	1.000	58.0	7.5
375	2010/07/19 08:30:52	0.750	56.2	7.0
376	2010/07/19 08:31:01	0.875	63.9	8.0
377	2010/07/19 08:31:03	0.625	60.3	7.6
378	2010/07/19 08:31:49	0.625	60.2	8.4

379	2010/07/19 08:32:09	1.000	49.6	8.4
380	2010/07/19 08:33:37	0.875	50.0	6.5
381	2010/07/19 08:34:24	0.875	49.0	8.0
382	2010/07/19 08:35:55	1.000	53.4	7.2
383	2010/07/19 08:36:06	0.750	58.5	7.8
384	2010/07/19 08:37:26	0.875	57.6	6.5
385	2010/07/19 08:39:05	0.750	54.4	7.2
386	2010/07/19 08:39:08	0.875	56.6	9.0
387	2010/07/19 08:39:21	0.875	72.1	8.7
388	2010/07/19 08:39:50	0.750	59.5	10.3
389	2010/07/19 08:40:16	0.875	72.8	7.3
390	2010/07/19 08:42:53	0.750	64.6	8.7
391	2010/07/19 08:43:19	0.750	64.1	6.6
392	2010/07/19 08:43:24	0.875	58.1	6.4
393	2010/07/19 08:44:20	0.625	57.2	10.2
394	2010/07/19 08:44:28	0.625	72.7	12.6
395	2010/07/19 08:44:35	0.750	62.2	10.4
396	2010/07/19 08:44:40	0.625	60.4	12.3
397	2010/07/19 08:45:26	0.875	60.5	7.0
398	2010/07/19 08:45:31	0.625	70.6	12.8
399	2010/07/19 08:45:49	0.875	67.8	8.0
400	2010/07/19 08:46:19	1.000	57.7	8.8
401	2010/07/19 08:48:15	0.750	60.0	9.4
402	2010/07/19 08:48:18	0.625	70.5	10.6
403	2010/07/19 08:50:52	0.750	55.4	7.2
404	2010/07/19 08:51:08	1.000	63.5	8.1
405	2010/07/19 08:51:22	0.875	62.0	7.2
406	2010/07/19 08:53:06	0.750	59.4	8.2
407	2010/07/19 08:53:15	0.625	66.3	9.1
408	2010/07/19 08:55:08	0.750	72.3	8.9
409	2010/07/19 08:56:53	0.625	71.3	10.5
410	2010/07/19 08:56:57	0.625	64.3	9.4
411	2010/07/19 08:58:26	0.750	58.4	9.3
412	2010/07/19 08:58:33	1.000	51.6	8.9

413	2010/07/19 08:58:53	1.000	47.9	6.4
414	2010/07/19 08:58:57	0.625	51.9	8.1
415	2010/07/19 09:00:50	1.000	50.9	6.2
416	2010/07/19 09:00:54	0.875	53.6	7.9
417	2010/07/19 09:01:50	1.000	51.3	7.3
418	2010/07/19 09:05:47	0.750	55.9	10.1
419	2010/07/19 09:12:15	0.750	53.9	7.8
420	2010/07/19 09:13:24	1.000	52.1	8.2
421	2010/07/19 09:13:49	1.000	55.0	6.5
422	2010/07/19 09:15:13	0.625	83.1	9.7
423	2010/07/19 09:19:15	0.625	54.3	9.3
424	2010/07/19 09:21:28	0.750	77.1	7.5
425	2010/07/19 09:23:55	1.000	50.6	7.8
426	2010/07/19 09:26:07	0.875	55.0	7.9
427	2010/07/19 09:26:10	0.875	54.9	8.5
428	2010/07/19 09:26:43	0.750	60.8	7.9
429	2010/07/19 09:26:52	0.750	61.1	9.6
430	2010/07/19 09:26:55	0.750	52.1	8.5
431	2010/07/19 09:27:11	0.625	60.6	9.3
432	2010/07/19 09:28:25	0.625	88.4	10.5
433	2010/07/19 09:29:57	0.875	50.7	6.6
434	2010/07/19 09:30:21	1.000	53.7	7.1
435	2010/07/19 09:34:09	0.625	63.6	12.3
436	2010/07/19 09:34:18	0.875	50.4	8.1
437	2010/07/19 09:35:48	1.000	51.4	6.1
438	2010/07/19 09:36:24	0.625	55.5	9.6
439	2010/07/19 09:36:25	0.625	54.1	7.5
440	2010/07/19 09:36:26	0.750	52.9	7.2
441	2010/07/19 09:36:27	0.750	56.7	8.3
442	2010/07/19 09:36:28	0.750	54.8	7.5
443	2010/07/19 09:36:29	0.750	54.8	7.3
444	2010/07/19 09:36:34	1.000	55.1	6.1
445	2010/07/19 09:36:37	0.625	54.8	9.8
446	2010/07/19 09:36:39	0.750	53.9	8.9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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447	2010/07/19 09:36:40	0.750	54.7	8.6
448	2010/07/19 09:36:42	0.750	53.7	7.0
449	2010/07/19 09:36:43	0.875	50.6	6.9
450	2010/07/19 09:36:45	0.625	57.1	9.3
451	2010/07/19 09:36:47	0.750	52.8	7.8
452	2010/07/19 09:36:50	0.625	65.6	9.8
453	2010/07/19 09:36:52	0.875	68.4	8.3
454	2010/07/19 09:37:42	0.750	52.4	7.9
455	2010/07/19 09:37:52	0.875	53.8	7.1
456	2010/07/19 09:38:17	0.750	51.0	9.1
457	2010/07/19 09:38:23	0.875	48.4	6.8
458	2010/07/19 09:38:25	1.000	50.5	8.2
459	2010/07/19 09:38:34	0.750	65.5	9.1
460	2010/07/19 09:39:42	0.750	49.0	7.8
461	2010/07/19 09:39:49	0.750	49.7	7.4
462	2010/07/19 09:39:57	0.875	48.0	8.1
463	2010/07/19 09:40:01	0.750	50.1	7.9
464	2010/07/19 09:40:03	0.750	49.6	7.5
465	2010/07/19 09:41:20	0.750	48.8	7.4
466	2010/07/19 09:43:32	0.750	62.8	8.8
467	2010/07/19 09:48:48	0.750	59.5	8.5
468	2010/07/19 09:50:53	0.875	52.0	8.7
469	2010/07/19 09:51:03	1.000	48.4	8.5
470	2010/07/19 09:51:12	1.000	51.5	8.6
471	2010/07/19 09:51:18	0.875	48.6	8.5
472	2010/07/19 09:51:21	0.750	49.5	8.2
473	2010/07/19 09:54:08	0.875	52.8	8.9
474	2010/07/19 09:55:24	0.625	84.4	10.2
475	2010/07/19 09:56:24	0.625	75.8	9.9
476	2010/07/19 10:12:29	1.000	67.2	6.5
477	2010/07/19 10:24:18	0.625	68.3	11.1
478	2010/07/19 10:30:31	0.625	68.0	11.1
479	2010/07/19 10:47:53	1.000	51.2	7.3
480	2010/07/19 10:48:13	1.000	47.7	8.8

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

481	2010/07/19 10:50:40	0.875	77.0	6.5
482	2010/07/19 10:51:32	0.875	54.0	8.6
483	2010/07/19 10:53:30	0.875	51.6	9.4
484	2010/07/19 10:55:47	0.750	71.3	10.6
485	2010/07/19 11:04:40	1.000	58.0	11.0
486	2010/07/19 11:05:24	0.750	54.7	7.7
487	2010/07/19 11:06:19	0.625	56.2	10.8
488	2010/07/19 11:06:20	0.625	62.3	10.4
489	2010/07/19 11:07:29	0.875	54.5	8.7
490	2010/07/19 11:13:42	1.000	60.1	9.5
491	2010/07/19 11:18:02	0.625	55.1	9.3
492	2010/07/19 11:21:15	0.750	54.2	8.6
493	2010/07/19 11:22:15	0.875	55.3	6.8
494	2010/07/19 11:22:17	0.750	55.2	7.1
495	2010/07/19 11:22:18	0.875	55.3	6.9
496	2010/07/19 11:22:21	0.750	56.0	7.6
497	2010/07/19 11:22:27	0.750	55.1	7.5
498	2010/07/19 11:22:29	1.000	54.0	7.3
499	2010/07/19 11:22:35	0.875	52.6	8.1
500	2010/07/19 11:22:43	0.750	54.4	9.3
501	2010/07/19 11:22:44	0.750	52.7	7.3
502	2010/07/19 11:22:46	0.750	56.9	8.9
503	2010/07/19 11:22:47	0.750	53.7	7.1
504	2010/07/19 11:22:49	0.750	53.4	7.9
505	2010/07/19 11:22:50	0.875	53.2	8.7
506	2010/07/19 11:22:53	0.750	54.2	8.3
507	2010/07/19 11:22:54	1.000	53.2	8.0
508	2010/07/19 11:22:58	0.750	51.9	7.3
509	2010/07/19 11:23:01	0.750	54.5	8.4
510	2010/07/19 11:25:34	1.000	54.6	7.4
511	2010/07/19 11:34:50	0.625	73.2	12.6
512	2010/07/19 11:35:05	0.625	79.0	8.3
513	2010/07/19 12:03:30	1.000	65.8	11.4
514	2010/07/19 12:04:57	0.625	70.6	9.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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515	2010/07/19 12:11:55	0.750	69.1	8.0
516	2010/07/19 12:12:05	0.875	65.8	8.5
517	2010/07/19 12:12:11	1.000	86.2	6.7
518	2010/07/19 12:19:21	0.875	58.0	9.0
519	2010/07/19 12:19:28	0.625	71.7	10.3
520	2010/07/19 12:26:31	0.750	63.4	8.8
521	2010/07/19 12:26:33	0.625	60.7	7.9
522	2010/07/19 12:26:43	0.625	56.4	9.5
523	2010/07/19 12:27:29	0.750	64.5	8.0
524	2010/07/19 12:27:31	0.625	64.6	9.6
525	2010/07/19 12:27:33	0.750	64.8	8.1
526	2010/07/19 12:28:01	0.750	66.9	10.3
527	2010/07/19 12:28:31	0.625	62.8	9.6
528	2010/07/19 12:28:38	0.750	62.5	8.7
529	2010/07/19 12:28:58	1.000	57.4	7.7
530	2010/07/19 12:29:38	0.750	69.4	9.9
531	2010/07/19 12:38:30	0.625	68.8	11.3
532	2010/07/19 12:46:45	0.625	60.0	6.4
533	2010/07/19 12:48:14	0.750	60.8	8.1
534	2010/07/19 12:51:33	0.750	70.7	11.2
535	2010/07/19 12:51:44	0.750	55.7	10.6
536	2010/07/19 12:51:48	0.625	72.1	10.7
537	2010/07/19 12:53:12	0.875	81.4	9.5
538	2010/07/19 12:56:08	0.875	71.1	8.8
539	2010/07/19 12:56:16	0.875	57.3	6.9
540	2010/07/19 13:09:07	0.875	56.5	8.1
541	2010/07/19 13:14:02	0.625	59.1	11.0
542	2010/07/19 13:24:49	0.750	57.7	11.0
543	2010/07/19 13:25:03	0.750	63.3	10.2
544	2010/07/19 13:26:07	0.875	59.0	7.8
545	2010/07/19 13:31:17	0.625	68.4	10.9
546	2010/07/19 13:32:29	0.625	81.4	12.3
547	2010/07/19 13:32:54	1.000	52.5	8.8
548	2010/07/19 13:38:32	0.625	65.4	10.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

549	2010/07/19 13:38:33	0.750	68.0	9.4
550	2010/07/19 13:38:42	0.750	67.4	8.1
551	2010/07/19 13:38:45	0.875	57.5	8.4
552	2010/07/19 13:39:17	0.875	67.6	10.6
553	2010/07/19 13:40:21	0.625	62.9	8.9
554	2010/07/19 13:43:40	0.625	78.8	11.1
555	2010/07/19 13:43:47	0.875	96.7	11.5
556	2010/07/19 13:50:35	0.625	82.6	8.3
557	2010/07/19 13:50:36	0.625	81.1	8.2
558	2010/07/19 13:50:59	0.625	67.0	10.2
559	2010/07/19 13:51:27	0.750	64.1	10.3
560	2010/07/19 13:55:13	0.875	64.9	8.9
561	2010/07/19 13:56:40	0.750	68.4	9.3
562	2010/07/19 14:08:07	0.750	83.9	9.0
563	2010/07/19 14:20:04	0.750	76.7	8.1
564	2010/07/19 14:23:31	0.750	84.1	8.3
565	2010/07/19 14:24:00	0.750	73.9	9.1
566	2010/07/19 14:25:26	0.875	64.7	8.9
567	2010/07/19 14:31:05	0.750	70.7	10.0
568	2010/07/19 14:34:30	0.625	70.1	11.5
569	2010/07/19 14:35:03	0.875	59.9	8.7
570	2010/07/19 14:35:49	0.875	62.6	6.7
571	2010/07/19 14:35:52	0.750	61.4	9.4
572	2010/07/19 14:35:55	0.625	65.6	9.7
573	2010/07/19 14:36:18	0.750	66.8	7.1
574	2010/07/19 14:36:22	0.875	69.5	9.9
575	2010/07/19 14:36:24	0.750	66.0	7.9
576	2010/07/19 14:37:20	0.750	63.5	8.9
577	2010/07/19 14:37:59	0.750	68.5	7.1
578	2010/07/19 14:40:52	0.750	61.1	9.6
579	2010/07/19 14:40:59	0.750	59.7	8.4
580	2010/07/19 14:47:45	1.000	56.6	6.3
581	2010/07/19 14:56:09	0.750	68.1	8.7
582	2010/07/19 15:03:34	0.625	71.0	8.5

583	2010/07/19 15:03:35	0.625	74.7	10.3
584	2010/07/19 15:03:43	0.875	65.0	10.7
585	2010/07/19 15:04:10	0.750	61.6	8.7
586	2010/07/19 15:05:18	0.750	59.6	9.6
587	2010/07/19 15:06:38	0.625	66.8	10.3
588	2010/07/19 15:12:54	0.625	75.9	9.7
589	2010/07/19 15:27:42	0.625	73.7	9.8
590	2010/07/19 15:31:18	0.750	53.9	9.2
591	2010/07/19 15:36:48	0.750	67.8	9.7
592	2010/07/19 15:36:51	0.875	62.0	8.2
593	2010/07/19 15:37:15	0.750	61.6	6.8
594	2010/07/19 15:37:57	0.750	60.0	9.3
595	2010/07/19 15:38:35	0.750	61.0	9.4
596	2010/07/19 15:38:39	0.625	73.2	10.7
597	2010/07/19 15:57:04	0.750	69.8	10.4
598	2010/07/19 15:58:04	1.000	72.7	10.4
599	2010/07/19 16:04:26	0.750	58.8	9.2
600	2010/07/19 16:22:45	1.000	62.8	9.1
601	2010/07/19 17:31:38	0.750	64.0	8.3
602	2010/07/19 17:37:17	0.875	71.5	8.4
603	2010/07/19 17:39:53	0.875	54.8	6.9
604	2010/07/19 17:45:15	0.875	57.5	9.0
605	2010/07/19 17:45:16	1.000	59.6	8.0
606	2010/07/19 17:45:44	1.000	77.1	11.5
607	2010/07/19 17:45:46	0.750	70.4	7.4
608	2010/07/19 17:46:30	0.625	67.9	10.3
609	2010/07/19 17:46:33	0.625	68.9	10.5
610	2010/07/19 17:46:38	0.625	69.4	10.7
611	2010/07/19 17:47:13	0.625	69.4	8.9
612	2010/07/19 17:47:19	1.000	79.2	10.4
613	2010/07/19 17:47:21	0.625	82.7	9.8
614	2010/07/19 17:47:22	0.625	78.7	8.9
615	2010/07/19 17:47:57	0.625	69.7	9.5
616	2010/07/19 17:49:07	0.625	78.6	9.4

617	2010/07/19 17:55:23	1.000	61.3	10.1
618	2010/07/19 17:55:24	0.625	64.7	11.2
619	2010/07/19 17:55:27	0.750	63.0	9.2
620	2010/07/19 17:55:48	0.750	69.0	10.6
621	2010/07/19 17:59:21	0.750	64.7	8.8
622	2010/07/19 18:00:08	0.750	79.4	9.0
623	2010/07/19 18:00:10	0.625	85.1	8.7
624	2010/07/19 18:00:27	0.750	87.8	8.9
625	2010/07/19 18:00:43	0.875	79.7	8.3
626	2010/07/19 18:10:53	0.625	65.9	9.5
627	2010/07/19 18:17:57	0.875	60.9	9.3
628	2010/07/19 18:19:29	0.875	58.1	7.8
629	2010/07/19 18:20:09	1.000	60.1	8.2
630	2010/07/19 18:22:50	0.750	64.2	10.2
631	2010/07/19 18:23:06	0.625	64.9	8.6
632	2010/07/19 18:34:18	0.750	68.9	9.9
633	2010/07/19 18:35:20	0.625	84.6	10.5
634	2010/07/19 18:36:44	0.750	64.0	9.6
635	2010/07/19 18:47:50	0.875	63.5	9.3
636	2010/07/19 18:48:00	0.625	60.2	9.8
637	2010/07/19 18:48:17	0.625	61.2	10.8
638	2010/07/19 18:48:34	0.750	64.1	8.7
639	2010/07/19 18:48:35	0.625	65.4	11.4
640	2010/07/19 18:49:50	0.750	66.2	8.3
641	2010/07/19 18:49:53	0.750	64.7	7.6
642	2010/07/19 18:50:03	0.750	57.6	9.3
643	2010/07/19 18:50:39	0.875	63.6	7.7
644	2010/07/19 18:52:41	0.875	62.4	9.0
645	2010/07/19 18:52:46	0.625	66.8	12.3
646	2010/07/19 19:08:25	0.875	66.7	10.2
647	2010/07/19 19:08:28	1.000	66.5	8.0
648	2010/07/19 19:12:38	0.625	70.4	12.1
649	2010/07/19 19:15:17	0.625	74.8	10.5
650	2010/07/19 19:25:37	0.875	56.0	7.6

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651	2010/07/19 19:31:09	0.625	59.6	9.3
652	2010/07/19 19:31:27	0.625	81.5	11.1
653	2010/07/19 19:39:35	0.625	75.4	9.6
654	2010/07/19 19:39:49	1.000	55.7	6.1
655	2010/07/19 19:39:51	0.750	57.5	7.8
656	2010/07/19 19:48:08	0.625	71.8	9.3
657	2010/07/19 19:50:38	0.750	59.1	9.9
658	2010/07/19 19:50:54	0.750	68.9	10.2
659	2010/07/19 19:51:21	0.625	57.4	11.3
660	2010/07/19 19:51:37	0.750	62.8	10.4
661	2010/07/19 19:59:49	0.875	59.9	9.6
662	2010/07/19 19:59:53	1.000	56.2	9.5
663	2010/07/19 20:00:17	0.750	62.4	9.6
664	2010/07/19 20:03:53	1.000	60.6	10.6
665	2010/07/19 20:05:07	0.750	85.4	6.9
666	2010/07/19 20:06:46	0.875	58.5	10.0
667	2010/07/19 20:07:29	1.000	53.0	7.5
668	2010/07/19 20:08:05	1.000	52.9	7.6
669	2010/07/19 20:12:17	0.625	63.8	6.3
670	2010/07/19 20:12:38	0.750	56.3	10.7
671	2010/07/19 20:15:03	0.625	83.1	11.4
672	2010/07/19 20:26:20	0.875	61.4	9.1
673	2010/07/19 20:28:47	0.875	63.9	6.5
674	2010/07/19 20:28:49	0.875	62.0	7.4
675	2010/07/19 20:28:52	1.000	68.9	6.8
676	2010/07/19 20:29:08	0.625	61.9	10.2
677	2010/07/19 20:29:14	0.625	64.9	8.9
678	2010/07/19 20:29:17	0.750	58.1	8.0
679	2010/07/19 20:29:19	0.750	60.0	9.9
680	2010/07/19 20:41:40	0.875	61.4	8.8
681	2010/07/19 20:48:35	0.875	63.6	9.7
682	2010/07/19 20:48:38	0.750	59.6	8.2
683	2010/07/19 20:49:59	0.750	64.4	8.7
684	2010/07/19 20:54:53	0.750	59.5	9.9

685	2010/07/19 21:26:47	0.875	60.5	9.6
686	2010/07/19 21:33:34	0.625	64.5	10.9
687	2010/07/19 21:46:14	0.750	63.5	9.8
688	2010/07/19 21:51:30	0.875	65.0	8.6
689	2010/07/19 22:05:03	0.875	60.6	8.8
690	2010/07/19 22:58:42	0.750	65.7	7.6
691	2010/07/19 22:58:50	0.625	76.6	10.8
692	2010/07/19 22:59:45	0.500	74.0	12.0
693	2010/07/19 22:59:59	0.625	72.1	11.7
694	2010/07/19 23:00:00	0.625	64.6	11.3
695	2010/07/19 23:00:08	0.750	71.8	8.8
696	2010/07/19 23:00:22	0.750	61.2	10.1
697	2010/07/19 23:00:24	0.875	62.5	10.6
698	2010/07/19 23:00:24	0.875	67.9	9.7
699	2010/07/19 23:00:28	0.625	67.3	12.1
700	2010/07/19 23:00:31	0.500	63.0	11.8
701	2010/07/19 23:00:46	0.875	61.5	9.3
702	2010/07/19 23:01:25	0.625	72.1	12.3
703	2010/07/19 23:01:28	1.000	61.5	10.3
704	2010/07/19 23:01:39	0.875	60.2	9.4
705	2010/07/19 23:01:47	0.500	67.8	12.0
706	2010/07/19 23:01:56	0.625	64.1	9.0
707	2010/07/19 23:02:00	0.750	63.3	8.6
708	2010/07/19 23:02:03	0.625	62.1	6.6
709	2010/07/19 23:02:04	0.750	62.2	9.2
710	2010/07/19 23:02:11	0.625	74.3	12.1
711	2010/07/19 23:02:12	0.625	70.3	10.7
712	2010/07/19 23:02:13	0.500	70.3	9.3
713	2010/07/19 23:02:18	0.625	76.2	12.2
714	2010/07/19 23:02:32	0.750	71.0	9.8
715	2010/07/19 23:02:47	0.625	71.3	9.0
716	2010/07/19 23:02:49	0.750	67.3	9.9
717	2010/07/19 23:03:10	0.750	63.1	10.7
718	2010/07/19 23:03:19	0.625	77.4	12.3

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719	2010/07/19 23:03:40	1.000	59.4	6.7
720	2010/07/19 23:03:49	0.750	66.2	10.1
721	2010/07/19 23:03:50	1.000	68.1	7.8
722	2010/07/19 23:03:51	0.625	67.7	10.1
723	2010/07/19 23:04:07	0.750	66.9	10.6
724	2010/07/19 23:04:16	0.625	64.6	11.9
725	2010/07/19 23:04:18	0.875	59.5	10.2
726	2010/07/19 23:04:30	0.625	72.6	12.4
727	2010/07/19 23:04:32	1.000	63.2	11.6
728	2010/07/19 23:04:34	0.750	75.9	11.7
729	2010/07/19 23:04:39	0.625	62.0	9.2
730	2010/07/19 23:04:44	0.750	91.0	9.9
731	2010/07/19 23:04:45	1.000	77.9	10.4
732	2010/07/19 23:05:10	1.000	78.5	11.3
733	2010/07/19 23:05:11	0.625	86.5	11.3
734	2010/07/19 23:05:17	0.750	65.3	13.0
735	2010/07/19 23:05:21	0.625	73.9	10.8
736	2010/07/19 23:05:25	1.000	88.7	9.6
737	2010/07/19 23:05:26	1.000	78.4	9.9
738	2010/07/19 23:05:28	0.875	79.7	9.6
739	2010/07/19 23:05:30	0.875	78.0	6.5
740	2010/07/19 23:05:35	0.625	87.4	8.8
741	2010/07/19 23:05:39	0.750	75.1	10.6
742	2010/07/19 23:05:43	0.625	75.0	9.6
743	2010/07/19 23:05:47	0.750	71.8	14.9
744	2010/07/19 23:05:52	0.875	69.9	12.7
745	2010/07/19 23:05:53	0.750	66.9	11.4
746	2010/07/19 23:05:56	0.625	65.3	14.7
747	2010/07/19 23:05:59	0.750	65.6	15.6
748	2010/07/19 23:06:01	0.625	64.1	11.8
749	2010/07/19 23:06:16	0.750	77.9	9.4
750	2010/07/19 23:06:36	0.750	66.5	11.2
751	2010/07/19 23:06:38	0.875	91.8	11.8
752	2010/07/19 23:06:54	0.625	71.2	10.9

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753	2010/07/19 23:06:55	0.750	70.8	7.6
754	2010/07/19 23:07:08	0.625	60.6	13.6
755	2010/07/19 23:07:15	0.750	61.8	9.3
756	2010/07/19 23:07:17	0.875	58.6	9.7
757	2010/07/19 23:07:18	0.875	67.0	8.1
758	2010/07/19 23:07:31	0.750	66.2	8.7
759	2010/07/19 23:07:38	0.500	78.7	11.8
760	2010/07/19 23:07:45	0.750	68.9	10.8
761	2010/07/19 23:07:46	0.625	89.9	11.7
762	2010/07/19 23:07:48	0.750	77.3	12.6
763	2010/07/19 23:08:03	0.625	69.9	8.6
764	2010/07/19 23:08:04	0.750	72.7	9.9
765	2010/07/19 23:08:06	0.625	69.4	10.3
766	2010/07/19 23:08:07	0.875	66.7	10.0
767	2010/07/19 23:08:09	0.750	73.0	9.6
768	2010/07/19 23:08:31	0.875	61.8	7.6
769	2010/07/19 23:08:40	0.625	74.2	11.0
770	2010/07/19 23:08:42	0.750	79.8	9.3
771	2010/07/19 23:08:44	0.875	91.1	12.4
772	2010/07/19 23:08:50	0.625	84.8	11.4
773	2010/07/19 23:08:54	0.625	81.5	8.2
774	2010/07/19 23:09:00	0.750	73.2	9.8
775	2010/07/19 23:09:04	0.625	86.8	13.9
776	2010/07/19 23:09:07	0.750	67.4	17.0
777	2010/07/19 23:09:09	0.625	86.2	13.0
778	2010/07/19 23:09:10	0.500	80.0	12.0
779	2010/07/19 23:09:17	0.875	68.4	11.4
780	2010/07/19 23:09:18	0.750	74.2	10.0
781	2010/07/19 23:09:24	0.625	73.2	11.8
782	2010/07/19 23:09:26	0.500	71.2	10.4
783	2010/07/19 23:09:31	0.625	87.3	11.3
784	2010/07/19 23:09:35	0.625	86.6	10.9
785	2010/07/19 23:09:37	0.875	51.5	13.4
786	2010/07/19 23:09:40	0.750	57.3	17.0

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787	2010/07/19 23:09:41	0.625	64.9	14.7
788	2010/07/19 23:09:42	0.625	90.8	12.1
789	2010/07/19 23:09:58	0.625	55.0	12.2
790	2010/07/19 23:09:59	0.625	83.1	11.5
791	2010/07/19 23:10:05	0.625	59.0	15.7
792	2010/07/19 23:10:08	0.625	78.3	10.2
793	2010/07/19 23:10:13	1.000	53.4	12.3
794	2010/07/19 23:10:18	0.625	73.7	13.1
795	2010/07/19 23:10:24	0.750	51.7	13.0
796	2010/07/19 23:10:28	0.750	53.9	9.7
797	2010/07/19 23:10:29	0.750	62.9	11.4
798	2010/07/19 23:10:31	1.000	69.4	11.2
799	2010/07/19 23:10:34	0.625	81.5	10.8
800	2010/07/19 23:10:36	0.625	81.9	11.4
801	2010/07/19 23:10:38	0.625	80.4	8.2
802	2010/07/19 23:10:45	1.000	56.0	11.2
803	2010/07/19 23:10:50	0.750	61.8	12.2
804	2010/07/19 23:10:51	0.625	51.1	12.1
805	2010/07/19 23:10:53	0.625	49.8	10.8
806	2010/07/19 23:10:54	0.875	49.5	9.5
807	2010/07/19 23:11:41	0.625	83.0	12.5
808	2010/07/19 23:11:42	0.625	77.0	12.3
809	2010/07/19 23:11:53	0.625	77.4	9.5
810	2010/07/19 23:12:34	0.750	76.7	10.4
811	2010/07/19 23:13:02	0.750	78.0	11.6
812	2010/07/19 23:13:04	0.625	77.4	10.5
813	2010/07/19 23:14:07	1.000	82.1	7.0
814	2010/07/19 23:14:17	0.875	73.4	10.7
815	2010/07/19 23:14:26	0.625	80.4	11.7
816	2010/07/19 23:14:28	0.875	70.8	10.2
817	2010/07/19 23:14:58	0.625	72.3	10.6
818	2010/07/19 23:16:18	1.000	79.7	11.2
819	2010/07/19 23:17:20	0.625	76.1	10.8
820	2010/07/19 23:17:24	0.625	76.4	11.5

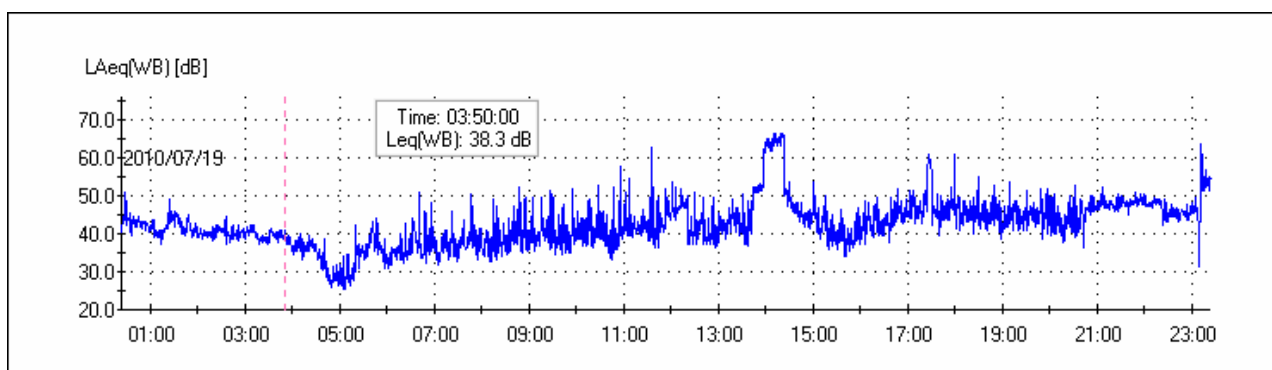
821	2010/07/19 23:17:28	1.000	70.5	8.1
822	2010/07/19 23:17:47	0.625	73.0	11.8
823	2010/07/19 23:17:55	0.750	71.6	10.2
824	2010/07/19 23:17:56	0.625	78.4	11.8
825	2010/07/19 23:18:00	0.625	70.4	9.9
826	2010/07/19 23:18:08	0.750	76.6	9.3
827	2010/07/19 23:18:46	0.750	71.8	10.3
828	2010/07/19 23:18:51	0.625	70.7	10.4
829	2010/07/19 23:18:59	0.625	72.5	10.1
830	2010/07/19 23:21:38	0.875	74.6	10.6
831	2010/07/19 23:21:53	0.625	79.7	11.2
832	2010/07/19 23:21:56	0.750	79.1	9.9
833	2010/07/19 23:21:57	0.750	84.5	8.8
834	2010/07/19 23:21:59	0.625	66.8	10.2
835	2010/07/19 23:22:03	0.750	75.4	11.0
836	2010/07/19 23:22:09	0.625	76.2	11.2
837	2010/07/19 23:22:59	0.875	99.1	9.1
838	2010/07/19 23:23:06	1.000	66.2	16.4
839	2010/07/19 23:23:08	0.625	74.5	11.0
840	2010/07/19 23:23:20	0.625	85.0	11.3
841	2010/07/19 23:23:21	0.875	85.9	10.5
842	2010/07/19 23:23:26	0.875	80.6	6.9
843	2010/07/19 23:23:27	0.875	70.1	7.9
844	2010/07/19 23:23:31	0.625	82.2	10.9
845	2010/07/19 23:24:56	0.750	77.5	10.9
846	2010/07/19 23:24:59	0.625	81.3	12.3
847	2010/07/19 23:25:01	0.500	80.4	11.4
848	2010/07/19 23:25:16	0.750	70.7	10.8
849	2010/07/19 23:25:17	0.625	74.4	9.9
850	2010/07/19 23:25:18	0.625	81.8	11.2
851	2010/07/19 23:25:19	0.500	78.2	10.3

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 50	0.3
Freq: 63	0.3
Freq: 100	0.0
Freq: 250	0.0
Freq: 315	0.3
Freq: 400	0.3
Freq: 500	0.2
Freq: 630	0.1
Freq: 800	0.1
Freq: 1 k	0.0
Freq: 1.6 k	0.1
Freq: 2 k	0.0

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Freq: 2.5 k	0.1
Freq: 3.15 k	0.1
Freq: 4 k	1.7
Freq: 5 k	0.2
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

TIME ISTORY COMPONENTI TONALI

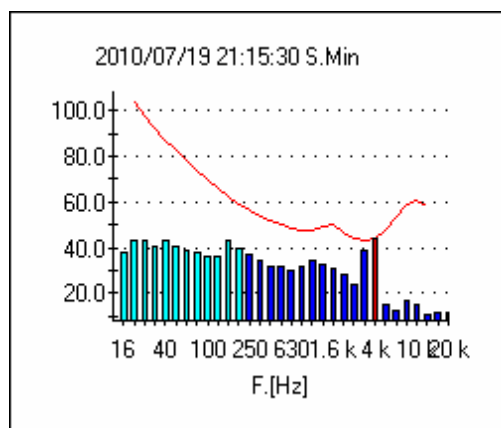
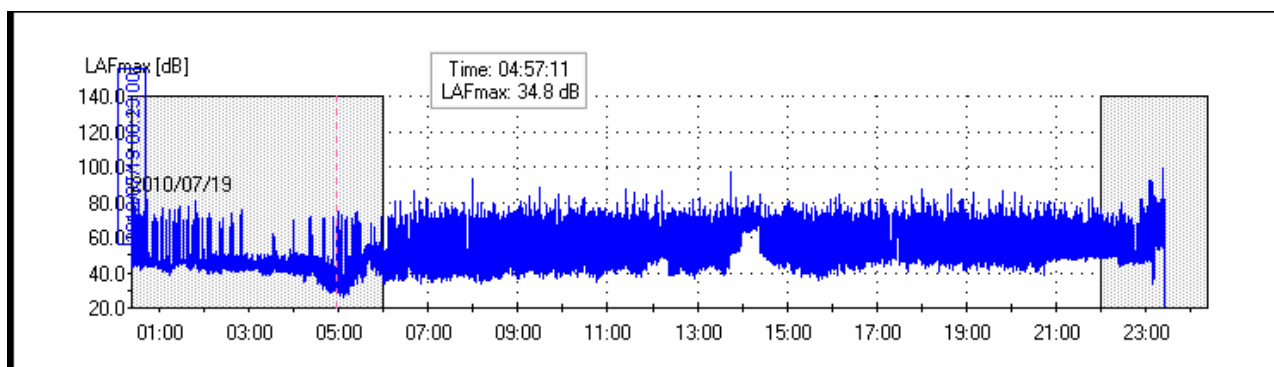
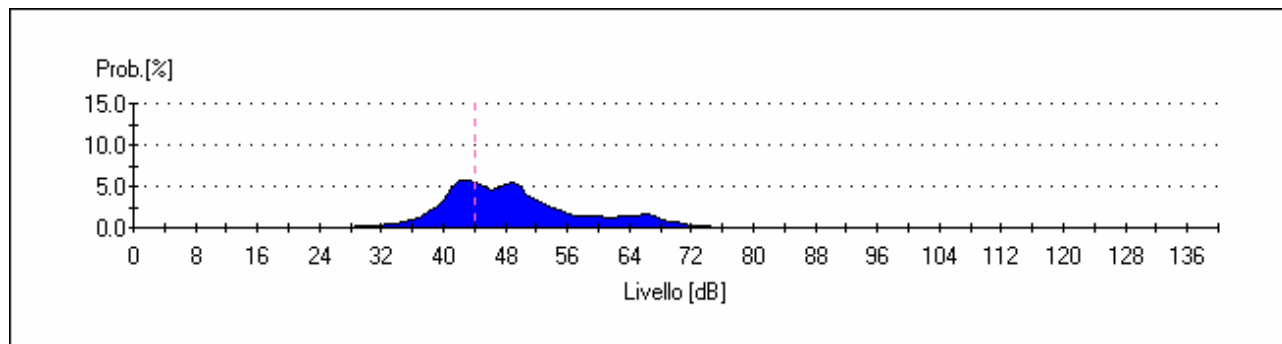


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

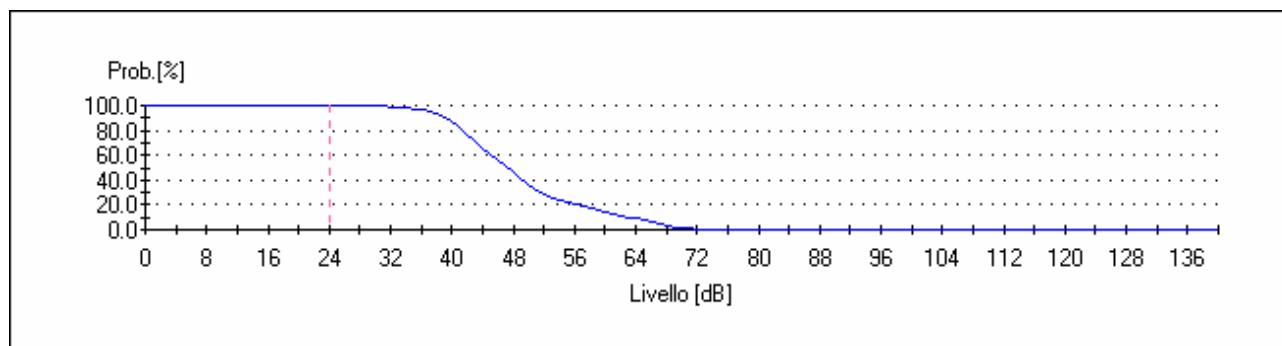
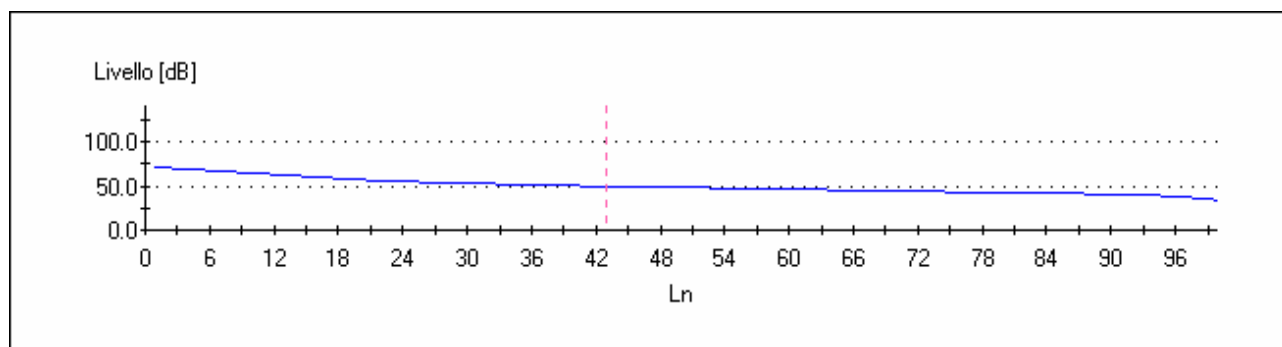


GRAFICO PERCENTILI



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile	Leq.[dB]
0	72.0
1	72.0
2	70.0
3	69.0
4	68.0
5	67.0
6	66.5
7	66.0
8	65.0
9	64.5
10	64.0
11	63.0
12	62.0
13	61.5
14	61.0
15	60.0
16	59.0
17	58.5
18	58.0
19	57.0
20	56.5
21	56.0
22	55.5
23	55.0
24	54.5
25	54.0
26	53.7
27	53.3
28	53.0
29	52.8
30	52.5

31	52.3
32	52.0
33	51.7
34	51.3
35	51.0
36	50.8
37	50.6
38	50.4
39	50.2
40	50.0
41	49.8
42	49.6
43	49.4
44	49.2
45	49.0
46	48.8
47	48.7
48	48.5
49	48.3
50	48.2
51	48.0
52	47.8
53	47.5
54	47.3
55	47.0
56	46.8
57	46.6
58	46.4
59	46.2
60	46.0
61	45.8
62	45.6
63	45.4
64	45.2

65	45.0
66	44.8
67	44.6
68	44.4
69	44.2
70	44.0
71	43.8
72	43.7
73	43.5
74	43.3
75	43.2
76	43.0
77	42.8
78	42.7
79	42.5
80	42.3
81	42.2
82	42.0
83	41.8
84	41.6
85	41.4
86	41.2
87	41.0
88	40.7
89	40.3
90	40.0
91	39.7
92	39.3
93	39.0
94	38.5
95	38.0
96	37.0
97	36.0
98	35.0

99

33.0

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	72.0
1	72.0
2	71.0
3	69.0
4	68.5
5	68.0
6	67.5
7	67.0
8	66.5
9	66.0
10	65.5
11	65.0
12	64.5
13	64.0
14	63.0
15	62.5
16	62.0
17	61.5
18	61.0
19	60.0
20	59.5
21	59.0
22	58.5
23	58.0
24	57.5
25	57.0
26	56.5
27	56.0
28	55.5

29	55.0
30	54.7
31	54.3
32	54.0
33	53.8
34	53.5
35	53.3
36	53.0
37	52.8
38	52.5
39	52.3
40	52.0
41	51.8
42	51.5
43	51.3
44	51.0
45	50.8
46	50.7
47	50.5
48	50.3
49	50.2
50	50.0
51	49.8
52	49.7
53	49.5
54	49.3
55	49.2
56	49.0
57	48.8
58	48.7
59	48.5
60	48.3
61	48.2
62	48.0

63	47.8
64	47.7
65	47.5
66	47.3
67	47.2
68	47.0
69	46.8
70	46.5
71	46.3
72	46.0
73	45.8
74	45.5
75	45.3
76	45.0
77	44.8
78	44.5
79	44.3
80	44.0
81	43.8
82	43.5
83	43.3
84	43.0
85	42.7
86	42.3
87	42.0
88	41.7
89	41.3
90	41.0
91	40.7
92	40.3
93	40.0
94	39.5
95	39.0
96	38.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

97	38.0
98	37.0
99	36.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	69.0
1	69.0
2	66.0
3	64.0
4	63.0
5	61.0
6	59.0
7	58.0
8	56.0
9	55.0
10	54.0
11	53.0
12	52.5
13	52.0
14	51.5
15	51.0
16	50.5
17	50.0
18	49.8
19	49.5
20	49.3
21	49.0
22	48.7
23	48.3
24	48.0
25	47.8
26	47.5

27	47.3
28	47.0
29	46.8
30	46.5
31	46.3
32	46.0
33	45.9
34	45.7
35	45.6
36	45.4
37	45.3
38	45.1
39	45.0
40	44.9
41	44.8
42	44.7
43	44.6
44	44.4
45	44.3
46	44.2
47	44.1
48	44.0
49	43.9
50	43.8
51	43.7
52	43.6
53	43.5
54	43.5
55	43.4
56	43.3
57	43.2
58	43.1
59	43.0
60	42.9

61	42.8
62	42.8
63	42.7
64	42.6
65	42.5
66	42.4
67	42.3
68	42.3
69	42.2
70	42.1
71	42.0
72	41.9
73	41.8
74	41.7
75	41.6
76	41.4
77	41.3
78	41.2
79	41.1
80	41.0
81	40.8
82	40.6
83	40.4
84	40.2
85	40.0
86	39.7
87	39.3
88	39.0
89	38.5
90	38.0
91	37.0
92	36.5
93	36.0
94	35.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

95	34.0
96	33.0
97	32.0
98	31.0
99	29.0

LIVELLI DI IMPULS- FAST E SLOW MAX NELLE 24 ORE		
LAIp [dB]	LASp [dB]	LAFp [dB]
86.1	79.1	82.3
97	85.2	93
91.1	83.3	88.4
100	89.3	96.7
89.7	84.1	87.8
101.6	92.8	99.1
101.6	92.8	99.1

LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

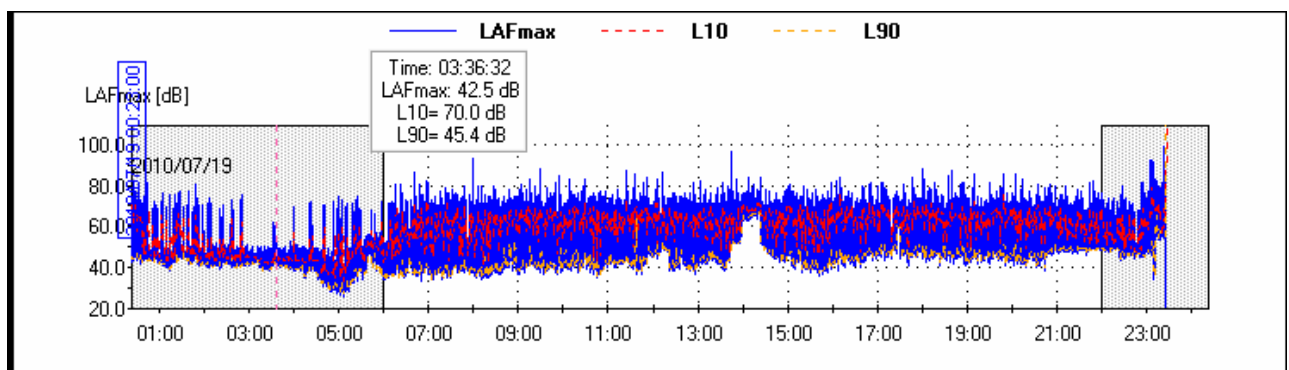
LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAFp [dB]
97	85.2	93
91.1	83.3	88.4
100	89.3	96.7
89.7	84.1	87.8
83.1	79.4	82.5
100	89.3	96.7

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

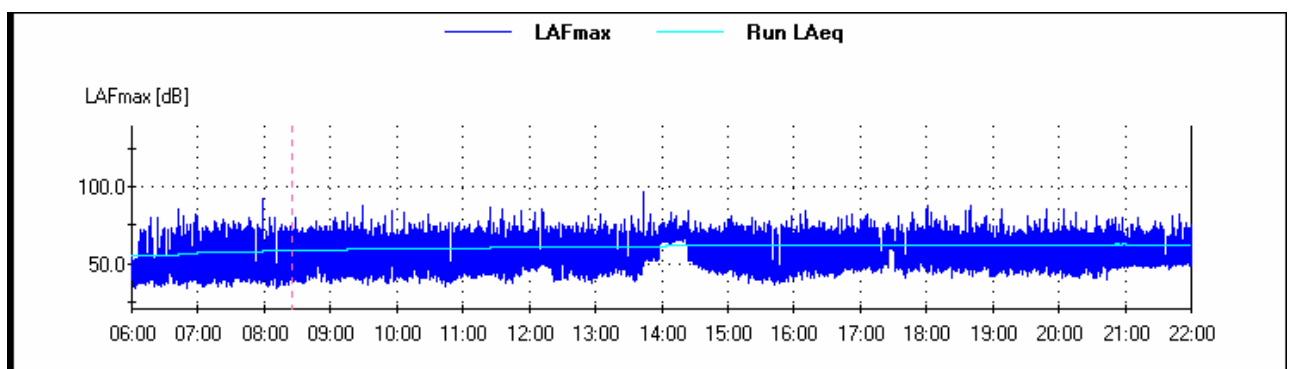
**LIVELLI DI IMPULS- FAST E SLOW
MAX NOTTURNI**

LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
86.1	79.1	82.3
75.3	73	74.8
101.6	92.8	99.1
101.6	92.8	99.1

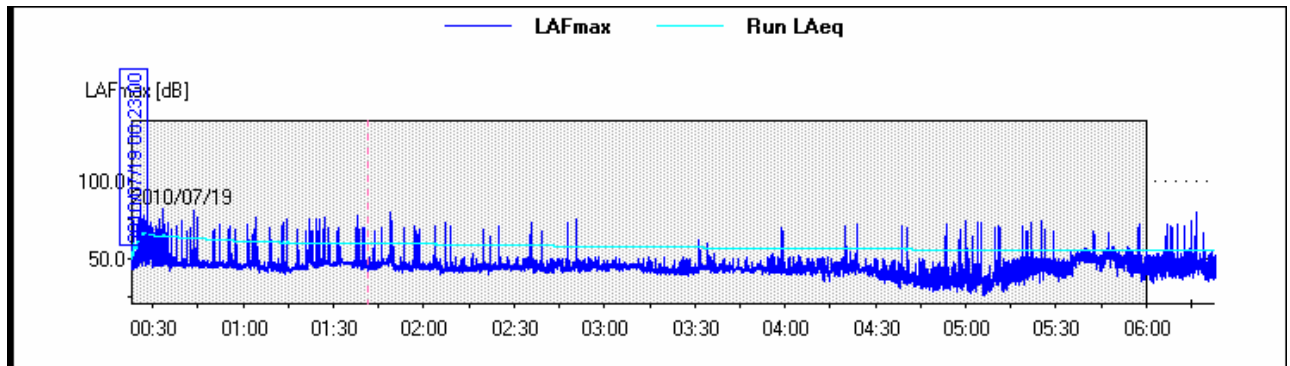
TIME HISTORY L10 – L90



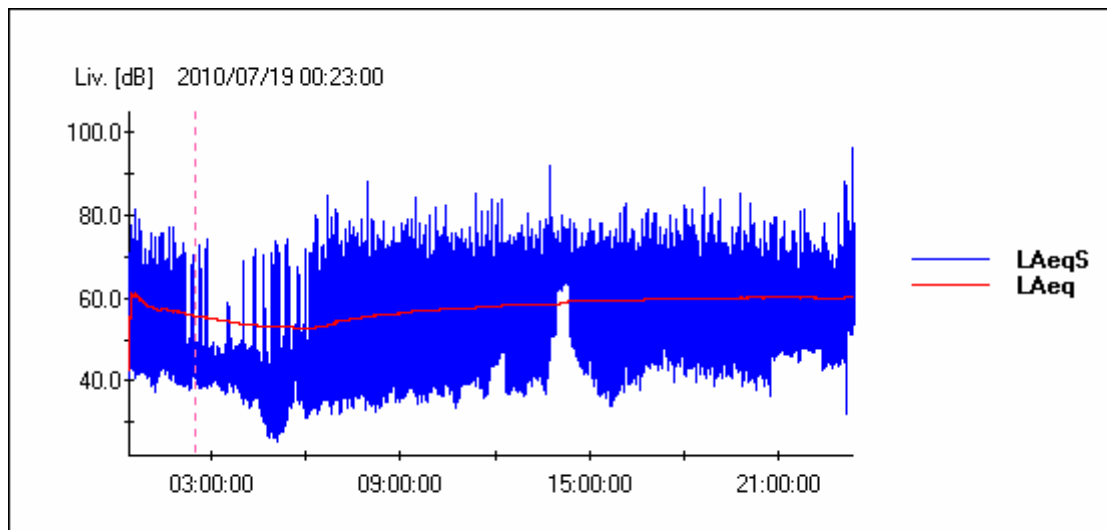
RUNNING Leq DIURNO



RUNNING Leq NOTTURNO



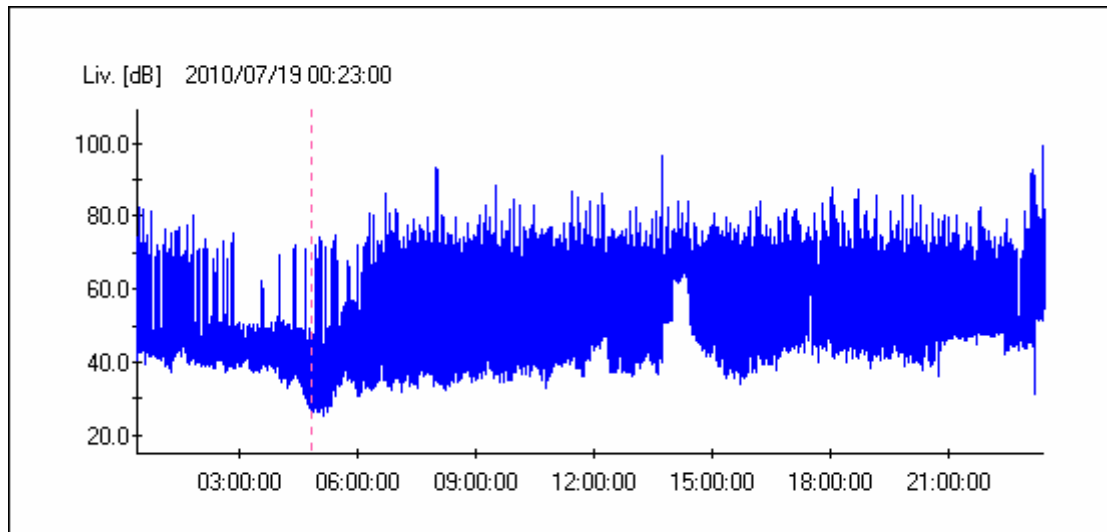
LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"

**MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO**
Codice documento
AC0053_F0.docx_F0

Rev
F0

Data
20/06/2011

R2 - MISURE DI 24 ORE CON POSTAZIONE SEMI-FISSE

Punto

Ricettore

Indirizzo

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

	R_11_C	VIA MESSINA
Descrizione del punto di misura/ricettore <i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sulla banchina adiacente la carreggiata stradale ad una distanza di mt 10 dal fabbricato prospiciente la sede stradale</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 /40 dB(a)
☐	Classe II	55 / 45 dB(a)
☒	Classe III	60 / 50 dB(a)
☐	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826		
Punto	Ricettore	Indirizzo
	R_11_C	VIA MESSINA

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)								
Periodo	TR	Data	L_{AeqTR} [dBA]	K_I [dBA]	K_T [dBA]	K_B [dBA]	L_{AeqTRC} [dBA]	L_{lim} [dBA]
Giorno	6-22h	17/07/10	63.0	0	0		63.0	60
Notte	22-6h	17/07/10	58.1	0	0	0	58.1	50

RISULTATI MISURE	
Codice misura	R_11_C
Data inizio	17/07/2010
Ora inizio	0.23.30
Note	

Parametri		24 ore	Giorno (T_R = 6/22)	Notte (T_R = 22/6)
L _{AeqTR}	[dBA]	62.0	63.0	58.1
L ₁	[dBA]	72.0	73.0	69.0
L ₅	[dBA]	68.0	69.0	62.0
L ₁₀	[dBA]	65.5	66.7	57.0
L ₅₀	[dBA]	50.5	54.0	41.2
L ₉₀	[dBA]	38.0	44.8	35.0
L ₉₅	[dBA]	35.7	43.3	34.2
L ₉₉	[dBA]	34.0	41.0	33.0
L _I max	[dBA]	103.3	92.4	103.3
L _F max	[dBA]	99.4	91.0	99.4
L _S max	[dBA]	91.0	86.4	91.0
K _I	[dBA]	0	0	0
K _T	[dBA]	0	0	0
K _B	[dBA]	0	0	0
L_{AeqTRC}		62.0	63.0	58.1

Note:		
Punto	Ricettore	Indirizzo
	R_11_C	VIA MESSINA

Sorgente stradale:

	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	53	48	67	38	51.5	41	21	31
Veic. Pesanti / 10'	0	0	0	0	0	0	0	0
Motocicli / 10'	10	3	7	7	6.75	5	3	4

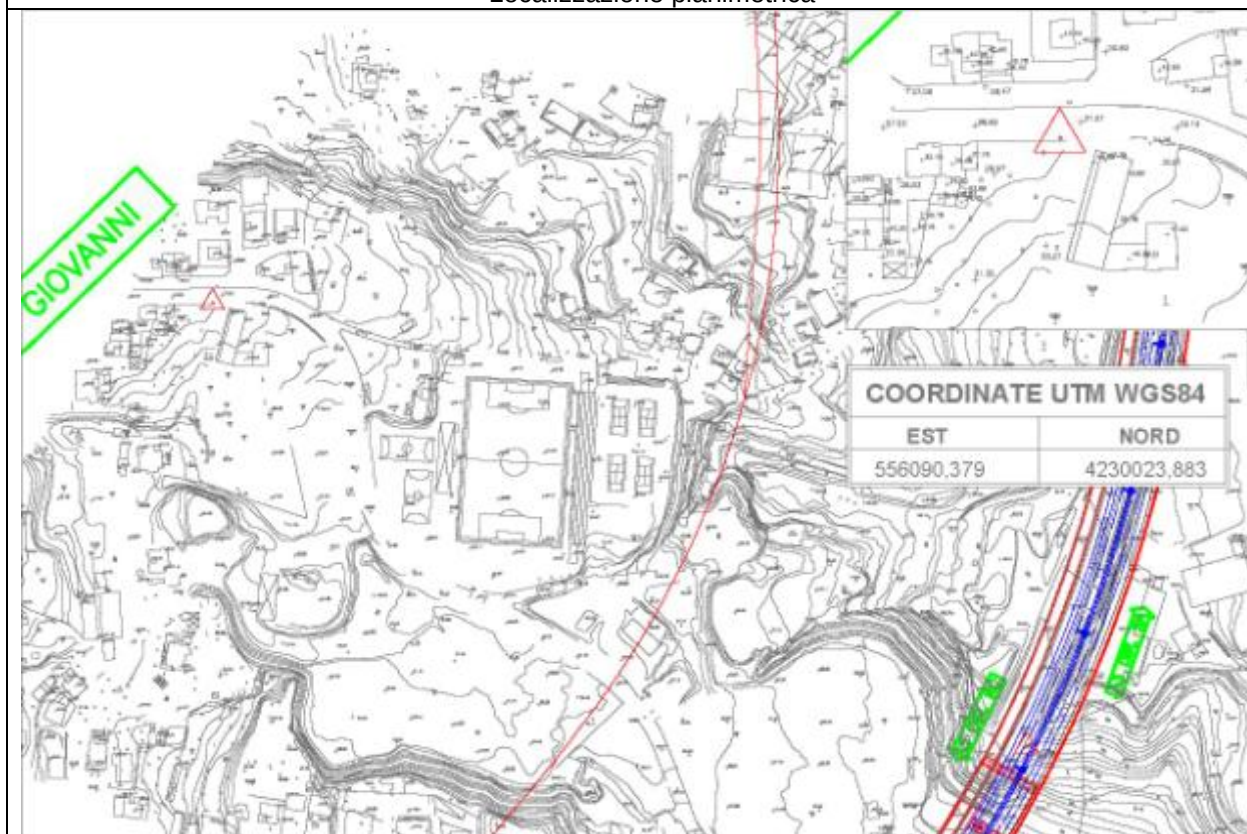
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	24	30.8	33	28	28.95	26	23	24.5
Umidità relativa	77	69	69	77	73	67	63	65
Velocità vento	4.9	4.8	4.5	1.6	3.95	2.2	1.5	1.85
Direzione vento	W N W	W	N W	S W		S W	S	

Fotografia del punto di misura



Punto	Ricettore	Indirizzo
	R 11_C	VIA MESSINA

Localizzazione planimetrica



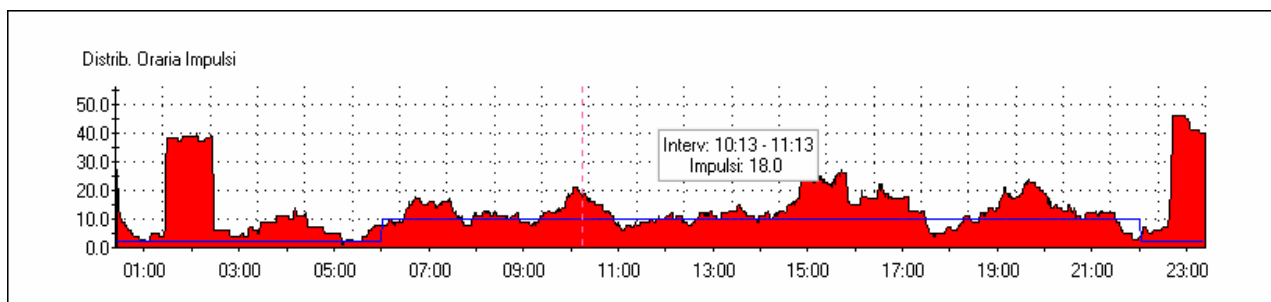
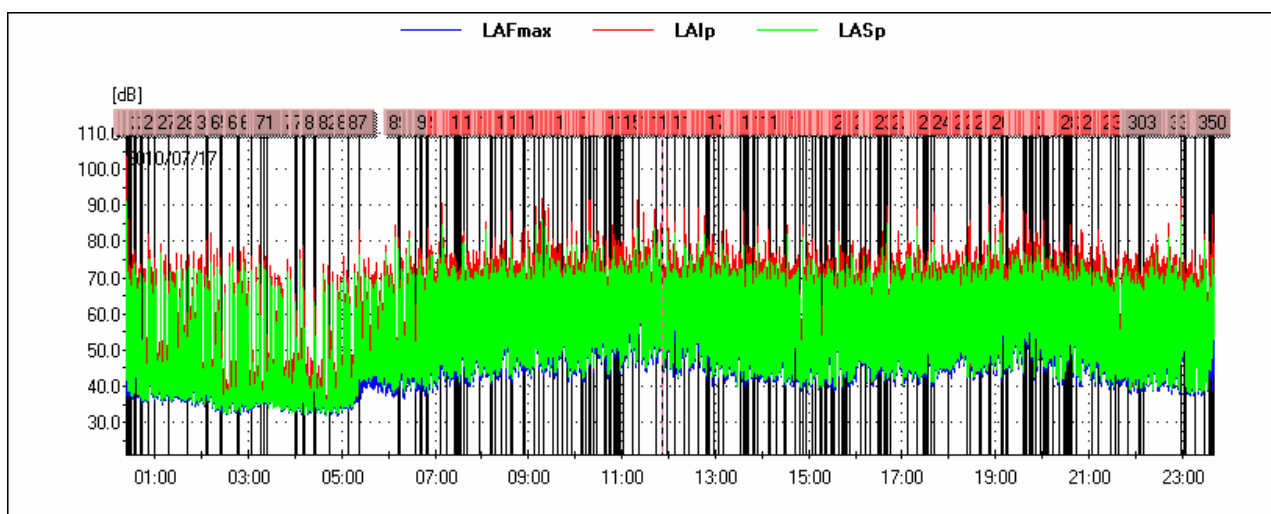
DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/17 00:24:05	0.750	58.7	9.0
2	2010/07/17 00:24:13	0.625	60.9	12.1
3	2010/07/17 00:24:20	0.625	91.9	10.8
4	2010/07/17 00:24:24	0.625	93.4	11.6
5	2010/07/17 00:24:26	0.875	55.9	13.9
6	2010/07/17 00:24:27	0.625	91.7	11.3
7	2010/07/17 00:24:28	0.625	63.6	12.5

8	2010/07/17 00:24:30	0.875	57.0	14.5
9	2010/07/17 00:24:32	0.750	55.6	17.4
10	2010/07/17 00:24:45	0.625	65.4	12.5
11	2010/07/17 00:24:48	1.000	50.4	14.3
12	2010/07/17 00:24:50	0.750	48.6	13.4
13	2010/07/17 00:25:53	0.875	58.6	7.8
14	2010/07/17 00:26:00	0.625	55.5	8.6
15	2010/07/17 00:26:11	0.750	60.5	9.5
16	2010/07/17 00:26:13	1.000	57.1	7.7
17	2010/07/17 00:28:25	0.750	54.0	9.0
18	2010/07/17 00:29:17	0.625	60.7	11.1
19	2010/07/17 00:33:59	0.875	55.0	10.5
20	2010/07/17 00:36:03	0.750	58.2	10.3
21	2010/07/17 00:36:20	0.750	59.1	9.4
22	2010/07/17 00:41:19	0.750	53.4	10.8
23	2010/07/17 00:41:39	0.875	49.0	10.5
24	2010/07/17 00:44:25	0.875	49.2	8.3
25	2010/07/17 00:52:34	0.625	55.7	11.1
26	2010/07/17 01:00:22	0.750	49.9	9.7
27	2010/07/17 01:17:59	0.875	54.4	9.7
28	2010/07/17 01:41:57	1.000	51.3	7.5
29	2010/07/17 02:05:10	0.750	51.6	8.6
30	2010/07/17 02:06:15	1.000	54.5	6.7
31	2010/07/17 02:06:59	1.000	49.8	8.3
32	2010/07/17 02:24:54	0.875	51.7	7.4
33	2010/07/17 02:24:56	0.750	51.5	6.9
34	2010/07/17 02:24:57	0.875	50.1	6.8
35	2010/07/17 02:25:00	0.875	48.9	7.2
36	2010/07/17 02:25:01	0.750	51.4	8.5
37	2010/07/17 02:25:02	0.875	48.7	7.5
38	2010/07/17 02:25:04	0.625	51.5	8.2
39	2010/07/17 02:25:05	0.750	51.0	7.2
40	2010/07/17 02:25:08	0.750	49.1	8.1
41	2010/07/17 02:25:10	0.750	49.7	8.2

42	2010/07/17 02:25:18	0.750	50.8	7.3
43	2010/07/17 02:25:19	0.750	48.0	6.2
44	2010/07/17 02:25:20	0.750	48.2	7.2
45	2010/07/17 02:25:23	0.875	48.7	8.7
46	2010/07/17 02:25:25	0.750	50.6	7.8
47	2010/07/17 02:25:28	0.750	51.1	8.2
48	2010/07/17 02:25:30	0.750	49.1	8.9
49	2010/07/17 02:25:33	0.875	51.1	8.5
50	2010/07/17 02:25:36	0.750	51.3	9.7
51	2010/07/17 02:25:44	1.000	47.6	8.5
52	2010/07/17 02:25:47	0.875	49.6	8.2
53	2010/07/17 02:25:48	0.750	47.7	7.6
54	2010/07/17 02:25:51	1.000	46.1	7.1
55	2010/07/17 02:25:56	1.000	46.0	7.0
56	2010/07/17 02:26:00	0.875	46.1	7.1
57	2010/07/17 02:26:02	0.875	47.4	9.0
58	2010/07/17 02:26:06	1.000	47.1	8.5
59	2010/07/17 02:26:15	0.875	47.0	7.7
60	2010/07/17 02:26:22	1.000	49.6	9.2
61	2010/07/17 02:26:24	0.875	49.9	8.8
62	2010/07/17 02:26:41	0.750	49.9	9.3
63	2010/07/17 02:26:44	0.625	51.4	10.6
64	2010/07/17 02:26:46	1.000	46.0	8.3
65	2010/07/17 02:26:54	0.875	48.1	9.1
66	2010/07/17 02:46:54	0.750	62.8	8.4
67	2010/07/17 02:47:44	0.875	47.0	7.0
68	2010/07/17 03:04:45	0.875	46.5	9.4
69	2010/07/17 03:15:42	0.625	64.3	11.8
70	2010/07/17 03:21:06	0.625	58.6	11.3
71	2010/07/17 03:25:05	0.875	50.5	10.4
72	2010/07/17 04:01:16	0.875	60.5	7.8
73	2010/07/17 04:10:36	0.750	68.3	10.4
74	2010/07/17 04:10:45	0.625	75.0	11.6
75	2010/07/17 04:11:42	0.750	62.6	10.6

76	2010/07/17 04:23:57	0.875	55.0	8.6
77	2010/07/17 04:24:53	0.750	60.0	10.9
78	2010/07/17 04:25:04	0.625	63.5	11.4
79	2010/07/17 04:25:07	0.750	63.1	8.9
80	2010/07/17 04:25:27	0.875	59.2	8.4
81	2010/07/17 04:45:16	0.750	54.2	9.2
82	2010/07/17 04:45:19	0.750	50.1	10.1
83	2010/07/17 05:07:52	0.875	53.2	6.7
84	2010/07/17 05:07:59	0.750	54.6	9.6
85	2010/07/17 05:08:03	0.750	52.6	8.6
86	2010/07/17 05:08:21	0.875	51.1	8.0
87	2010/07/17 05:22:59	0.875	55.0	7.7
88	2010/07/17 06:11:51	0.875	52.4	10.6
89	2010/07/17 06:14:55	1.000	53.4	7.6
90	2010/07/17 06:33:57	0.625	59.5	10.3
91	2010/07/17 06:34:10	1.000	51.7	8.3
92	2010/07/17 06:41:50	1.000	51.9	8.5
93	2010/07/17 06:42:10	0.750	73.2	10.3
94	2010/07/17 06:47:57	1.000	53.9	6.2
95	2010/07/17 06:50:20	0.875	64.0	7.7
96	2010/07/17 07:06:47	0.625	63.6	10.0
97	2010/07/17 07:07:03	0.750	60.7	10.1
98	2010/07/17 07:15:17	0.625	65.0	11.5
99	2010/07/17 07:25:37	0.750	59.5	9.3
100	2010/07/17 07:27:24	0.750	55.9	9.7
101	2010/07/17 07:28:21	0.875	61.3	9.7
102	2010/07/17 07:29:34	1.000	60.3	9.2
103	2010/07/17 07:30:41	0.750	55.8	9.3
104	2010/07/17 07:33:24	0.625	59.8	9.5
105	2010/07/17 07:33:41	0.750	57.1	9.7
106	2010/07/17 07:33:42	0.875	63.7	9.3
107	2010/07/17 07:37:45	0.750	59.5	10.4
108	2010/07/17 07:40:29	0.875	55.5	10.5
109	2010/07/17 07:40:45	0.875	55.4	8.9

110	2010/07/17 07:42:03	1.000	59.3	9.1
111	2010/07/17 07:58:02	0.750	62.3	10.2
112	2010/07/17 08:10:15	0.750	61.3	9.8
113	2010/07/17 08:14:05	0.750	60.7	9.6
114	2010/07/17 08:16:58	1.000	62.6	7.8
115	2010/07/17 08:24:37	1.000	62.2	8.1
116	2010/07/17 08:32:10	0.875	61.0	8.7
117	2010/07/17 08:36:40	0.875	87.5	6.2
118	2010/07/17 08:39:54	0.625	63.7	9.7
119	2010/07/17 08:53:46	0.625	65.2	11.5
120	2010/07/17 08:53:50	0.625	65.9	11.0
121	2010/07/17 08:53:54	0.875	59.6	8.7
122	2010/07/17 08:56:07	1.000	81.6	8.2
123	2010/07/17 09:06:52	0.750	61.1	9.4
124	2010/07/17 09:07:26	0.750	73.1	8.4
125	2010/07/17 09:12:36	0.750	63.5	9.1
126	2010/07/17 09:20:04	1.000	58.0	9.4
127	2010/07/17 09:32:08	0.875	67.2	8.2
128	2010/07/17 09:38:15	0.875	66.5	8.5
129	2010/07/17 09:43:44	1.000	64.6	7.9
130	2010/07/17 09:49:15	0.625	76.8	9.7
131	2010/07/17 09:56:15	0.750	81.2	11.9
132	2010/07/17 10:07:10	1.000	60.7	9.1
133	2010/07/17 10:10:05	0.875	60.4	8.3
134	2010/07/17 10:13:29	1.000	56.3	8.4
135	2010/07/17 10:18:05	1.000	88.9	8.5
136	2010/07/17 10:19:58	0.625	87.7	11.3
137	2010/07/17 10:20:00	0.625	85.7	10.1
138	2010/07/17 10:23:43	0.750	61.2	10.0
139	2010/07/17 10:28:22	0.750	66.6	7.5
140	2010/07/17 10:38:31	0.875	70.4	7.8
141	2010/07/17 10:39:54	0.625	66.3	10.2
142	2010/07/17 10:42:58	0.750	65.1	10.1
143	2010/07/17 10:46:18	0.750	63.4	8.4

144	2010/07/17 10:49:57	0.625	70.7	11.0
145	2010/07/17 10:51:35	0.750	75.1	10.1
146	2010/07/17 10:52:11	0.625	69.8	10.2
147	2010/07/17 10:52:35	0.625	75.7	13.3
148	2010/07/17 10:53:34	0.625	76.3	9.8
149	2010/07/17 10:55:00	0.875	78.6	7.9
150	2010/07/17 10:58:35	0.750	60.3	9.9
151	2010/07/17 11:01:19	0.625	76.6	9.4
152	2010/07/17 11:01:21	0.750	75.0	8.1
153	2010/07/17 11:14:01	0.750	63.1	10.5
154	2010/07/17 11:21:10	0.750	69.6	8.2
155	2010/07/17 11:43:14	0.875	60.2	8.5
156	2010/07/17 11:51:20	0.625	61.0	8.7
157	2010/07/17 11:52:06	0.875	66.8	11.8
158	2010/07/17 11:57:34	0.875	72.6	10.3
159	2010/07/17 12:07:03	0.875	71.8	8.1
160	2010/07/17 12:07:27	0.625	81.1	9.4
161	2010/07/17 12:19:42	0.625	87.0	9.9
162	2010/07/17 12:19:43	0.750	81.1	8.9
163	2010/07/17 12:26:22	0.875	71.2	8.2
164	2010/07/17 12:38:18	0.625	87.2	9.4
165	2010/07/17 12:47:51	1.000	71.5	7.5
166	2010/07/17 12:50:42	0.625	74.5	12.8
167	2010/07/17 12:52:48	0.625	75.6	10.6
168	2010/07/17 12:57:37	0.875	56.4	7.9
169	2010/07/17 12:58:57	0.500	61.0	12.2
170	2010/07/17 13:04:26	0.875	59.7	8.6
171	2010/07/17 13:11:11	0.875	56.2	9.5
172	2010/07/17 13:32:04	1.000	59.2	8.9
173	2010/07/17 13:35:48	0.625	84.3	10.0
174	2010/07/17 13:38:10	0.750	55.5	8.5
175	2010/07/17 13:40:17	0.750	55.6	9.7
176	2010/07/17 13:41:36	0.750	58.7	9.2
177	2010/07/17 13:41:36	0.750	61.8	9.2

178	2010/07/17 13:49:21	0.750	54.7	10.8
179	2010/07/17 13:51:23	0.875	59.4	9.0
180	2010/07/17 13:53:52	0.750	57.2	8.2
181	2010/07/17 13:54:00	0.750	58.9	9.0
182	2010/07/17 14:09:21	0.750	76.3	7.0
183	2010/07/17 14:09:22	0.750	80.9	8.6
184	2010/07/17 14:11:18	0.875	59.3	10.0
185	2010/07/17 14:18:15	0.875	54.9	9.4
186	2010/07/17 14:28:54	0.750	64.6	9.2
187	2010/07/17 14:29:44	0.750	56.2	9.6
188	2010/07/17 14:41:39	0.875	71.1	9.6
189	2010/07/17 14:49:10	0.625	57.9	10.8
190	2010/07/17 14:53:36	0.625	58.6	10.4
191	2010/07/17 14:56:08	1.000	62.8	8.4
192	2010/07/17 14:56:09	0.750	61.9	8.2
193	2010/07/17 15:04:03	1.000	65.7	6.6
194	2010/07/17 15:08:38	0.875	54.7	8.1
195	2010/07/17 15:15:26	0.750	57.7	8.9
196	2010/07/17 15:17:18	0.750	60.0	8.1
197	2010/07/17 15:20:20	0.875	56.1	8.5
198	2010/07/17 15:23:42	0.750	54.1	8.0
199	2010/07/17 15:28:16	0.625	63.0	11.0
200	2010/07/17 15:31:16	0.500	65.8	10.5
201	2010/07/17 15:32:10	0.750	56.0	9.5
202	2010/07/17 15:33:38	0.750	61.8	9.8
203	2010/07/17 15:39:47	0.875	62.2	10.0
204	2010/07/17 15:42:55	1.000	55.1	9.1
205	2010/07/17 15:44:01	0.750	58.3	9.5
206	2010/07/17 15:47:01	0.875	58.0	8.9
207	2010/07/17 15:47:03	1.000	55.8	6.8
208	2010/07/17 15:47:04	0.875	55.9	7.3
209	2010/07/17 15:48:12	0.750	60.6	10.4
210	2010/07/17 15:48:15	0.750	64.1	11.0
211	2010/07/17 15:48:45	0.750	61.0	9.4

212	2010/07/17 15:49:01	0.750	61.2	7.1
213	2010/07/17 15:49:16	0.625	61.9	9.9
214	2010/07/17 15:49:19	0.750	58.1	7.6
215	2010/07/17 15:49:24	0.875	62.7	7.2
216	2010/07/17 15:52:36	0.875	57.4	9.6
217	2010/07/17 16:07:30	0.625	64.6	10.3
218	2010/07/17 16:07:40	1.000	61.5	8.7
219	2010/07/17 16:13:51	0.750	67.0	8.8
220	2010/07/17 16:19:00	0.875	60.1	9.1
221	2010/07/17 16:29:56	0.625	72.6	10.4
222	2010/07/17 16:30:08	0.750	66.9	9.6
223	2010/07/17 16:30:35	0.625	71.2	10.2
224	2010/07/17 16:33:20	0.750	56.9	9.2
225	2010/07/17 16:33:22	0.875	69.3	10.0
226	2010/07/17 16:33:30	0.875	71.2	10.3
227	2010/07/17 16:33:32	0.750	63.0	10.1
228	2010/07/17 16:36:28	0.875	74.6	7.1
229	2010/07/17 16:40:00	0.750	57.8	9.9
230	2010/07/17 16:40:59	0.625	59.3	10.3
231	2010/07/17 16:44:59	0.625	66.5	11.8
232	2010/07/17 17:06:34	0.625	66.3	9.8
233	2010/07/17 17:06:35	0.750	63.2	7.7
234	2010/07/17 17:06:36	0.750	63.7	7.5
235	2010/07/17 17:06:39	0.750	64.3	7.8
236	2010/07/17 17:06:41	0.750	63.9	8.5
237	2010/07/17 17:19:53	0.750	70.7	10.3
238	2010/07/17 17:26:50	1.000	65.2	7.1
239	2010/07/17 17:27:27	1.000	58.5	8.6
240	2010/07/17 17:27:32	0.750	58.9	10.0
241	2010/07/17 17:27:54	0.875	59.8	6.9
242	2010/07/17 17:27:55	1.000	58.0	7.2
243	2010/07/17 17:29:05	0.750	58.9	9.3
244	2010/07/17 17:31:01	0.750	63.3	9.0
245	2010/07/17 17:31:38	0.875	68.9	10.3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

246	2010/07/17 17:33:30	0.875	66.8	8.6
247	2010/07/17 17:37:42	0.625	66.4	12.8
248	2010/07/17 17:41:05	0.625	85.4	8.8
249	2010/07/17 18:00:08	0.875	69.5	6.6
250	2010/07/17 18:23:23	0.875	57.8	8.7
251	2010/07/17 18:26:29	0.625	82.2	11.9
252	2010/07/17 18:39:57	0.875	69.3	7.6
253	2010/07/17 18:41:42	0.875	70.0	7.3
254	2010/07/17 18:52:19	0.875	88.1	7.8
255	2010/07/17 18:54:14	0.625	70.8	11.3
256	2010/07/17 19:08:26	0.750	89.2	10.1
257	2010/07/17 19:09:30	0.625	84.4	11.8
258	2010/07/17 19:12:54	0.750	61.1	8.5
259	2010/07/17 19:15:02	0.625	67.3	11.0
260	2010/07/17 19:16:21	0.750	63.2	9.6
261	2010/07/17 19:35:48	0.750	81.2	9.7
262	2010/07/17 19:36:02	0.625	85.0	11.2
263	2010/07/17 19:37:07	0.875	70.9	8.4
264	2010/07/17 19:39:57	0.625	83.8	11.4
265	2010/07/17 19:43:30	0.750	80.3	9.5
266	2010/07/17 19:46:17	1.000	64.9	6.3
267	2010/07/17 19:47:17	0.750	63.5	9.1
268	2010/07/17 19:52:08	0.875	64.7	8.8
269	2010/07/17 19:57:49	1.000	79.3	6.4
270	2010/07/17 20:01:10	0.875	64.4	6.7
271	2010/07/17 20:02:30	0.875	67.9	9.5
272	2010/07/17 20:02:53	1.000	63.1	7.3
273	2010/07/17 20:03:23	1.000	68.9	9.4
274	2010/07/17 20:05:45	0.875	72.3	8.4
275	2010/07/17 20:06:11	0.875	65.3	8.7
276	2010/07/17 20:06:51	0.625	71.8	9.8
277	2010/07/17 20:14:17	1.000	65.6	8.1
278	2010/07/17 20:21:37	0.625	60.3	12.2
279	2010/07/17 20:27:31	0.875	63.9	9.4

280	2010/07/17 20:30:24	0.875	59.7	8.2
281	2010/07/17 20:31:31	0.875	65.7	10.1
282	2010/07/17 20:32:21	1.000	59.8	8.6
283	2010/07/17 20:34:22	0.625	61.8	9.8
284	2010/07/17 20:36:20	0.750	81.9	10.4
285	2010/07/17 20:36:59	0.875	74.6	10.9
286	2010/07/17 20:37:04	0.625	65.3	10.2
287	2010/07/17 20:37:05	0.750	62.1	7.7
288	2010/07/17 20:43:39	0.875	53.1	8.9
289	2010/07/17 21:04:22	1.000	56.9	7.1
290	2010/07/17 21:04:46	1.000	59.9	6.2
291	2010/07/17 21:11:33	0.625	79.7	11.4
292	2010/07/17 21:27:38	0.750	61.4	9.8
293	2010/07/17 21:28:16	0.750	63.0	10.3
294	2010/07/17 21:28:59	1.000	57.8	7.5
295	2010/07/17 21:34:13	0.625	66.1	11.4
296	2010/07/17 21:34:16	0.875	69.9	9.6
297	2010/07/17 21:34:17	0.625	67.2	8.9
298	2010/07/17 21:38:14	1.000	67.6	7.6
299	2010/07/17 21:49:29	1.000	61.0	8.8
300	2010/07/17 21:50:38	0.625	62.4	9.3
301	2010/07/17 22:03:37	1.000	53.7	7.4
302	2010/07/17 22:07:11	0.750	55.1	8.3
303	2010/07/17 22:09:48	0.750	55.7	8.1
304	2010/07/17 22:57:54	1.000	89.7	6.3
305	2010/07/17 23:01:43	0.625	72.6	10.0
306	2010/07/17 23:02:19	0.625	67.1	11.6
307	2010/07/17 23:02:37	1.000	67.9	9.1
308	2010/07/17 23:03:30	0.625	63.7	9.4
309	2010/07/17 23:15:37	1.000	68.2	7.5
310	2010/07/17 23:27:44	0.750	57.1	8.6
311	2010/07/17 23:34:55	1.000	58.9	10.2
312	2010/07/17 23:34:57	0.750	77.1	10.1
313	2010/07/17 23:35:00	0.750	71.7	11.6

314	2010/07/17 23:36:05	0.750	68.5	9.8
315	2010/07/17 23:36:19	1.000	65.2	11.2
316	2010/07/17 23:36:30	0.625	68.7	11.3
317	2010/07/17 23:36:31	0.625	72.2	11.9
318	2010/07/17 23:36:46	0.625	68.3	10.1
319	2010/07/17 23:37:31	0.750	69.5	8.9
320	2010/07/17 23:37:38	1.000	60.7	10.0
321	2010/07/17 23:37:45	0.750	76.3	12.1
322	2010/07/17 23:37:52	0.625	73.4	12.1
323	2010/07/17 23:38:03	0.625	81.9	11.3
324	2010/07/17 23:38:08	1.000	65.1	10.4
325	2010/07/17 23:38:10	0.875	78.0	11.0
326	2010/07/17 23:38:12	0.750	68.8	11.0
327	2010/07/17 23:38:15	0.625	57.8	11.9
328	2010/07/17 23:38:43	0.750	65.4	8.9
329	2010/07/17 23:38:46	0.875	64.6	8.7
330	2010/07/17 23:39:03	0.625	75.4	10.1
331	2010/07/17 23:39:07	0.625	71.3	10.6
332	2010/07/17 23:39:08	0.625	74.6	11.7
333	2010/07/17 23:39:09	0.500	83.5	12.3
334	2010/07/17 23:39:13	1.000	69.5	12.1
335	2010/07/17 23:39:14	1.000	66.6	9.9
336	2010/07/17 23:39:16	0.625	73.1	11.6
337	2010/07/17 23:39:17	1.000	69.5	9.3
338	2010/07/17 23:39:19	0.875	75.3	10.9
339	2010/07/17 23:39:23	1.000	68.7	9.6
340	2010/07/17 23:39:27	0.625	76.6	11.9
341	2010/07/17 23:39:35	0.875	69.0	8.2
342	2010/07/17 23:39:45	0.875	77.0	8.3
343	2010/07/17 23:40:07	0.875	73.9	9.7
344	2010/07/17 23:40:19	0.625	75.8	9.4
345	2010/07/17 23:40:21	0.625	63.6	10.5
346	2010/07/17 23:40:21	0.625	63.1	10.5
347	2010/07/17 23:40:23	0.750	62.9	10.6

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

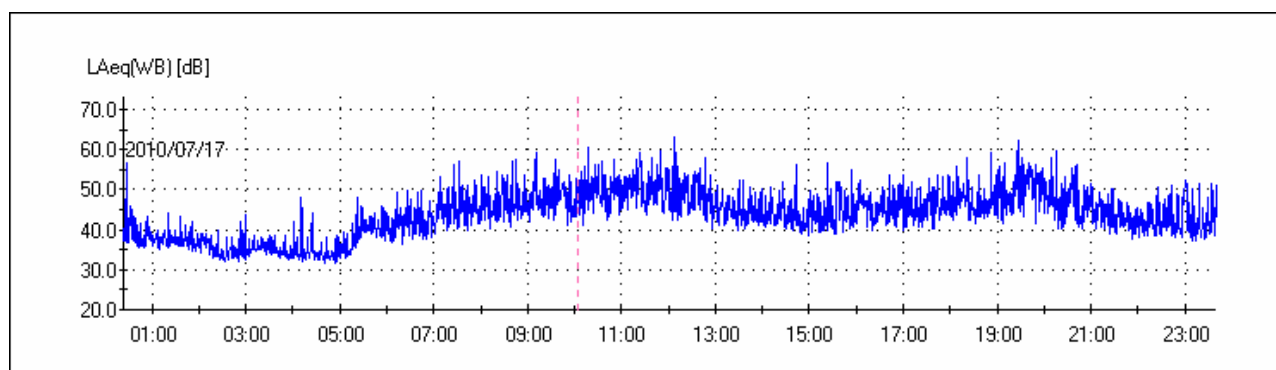
348	2010/07/17 23:40:24	0.625	60.9	9.3
349	2010/07/17 23:40:26	0.625	71.9	13.4
350	2010/07/17 23:40:29	0.625	67.4	11.4

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 250	0.0
Freq: 315	0.1
Freq: 400	0.1
Freq: 500	0.3
Freq: 630	0.1
Freq: 800	0.2
Freq: 1.25 k	0.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Freq: 1.6 k	0.0
Freq: 2 k	0.0
Freq: 2.5 k	0.0
Freq: 3.15 k	0.1
Freq: 4 k	0.4
Freq: 5 k	0.1
Freq: 6.3 k	0.0
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

TIME HISTORY COMPONENTI TONALI

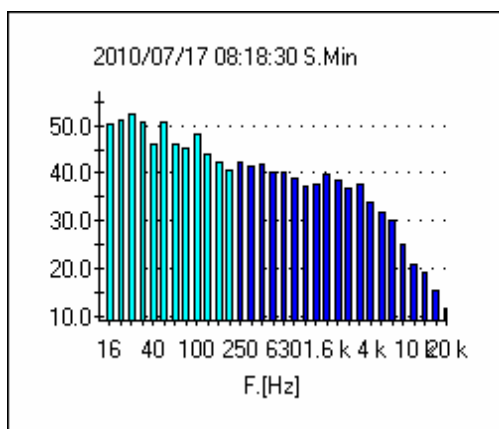
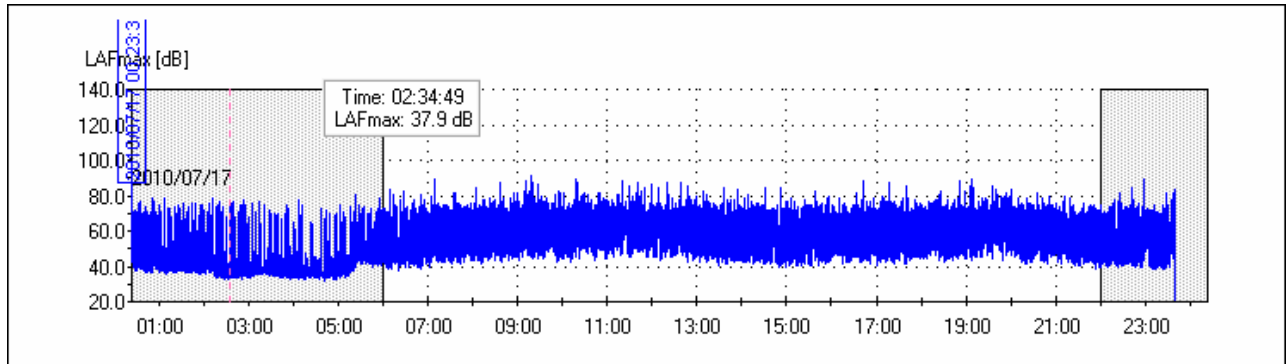
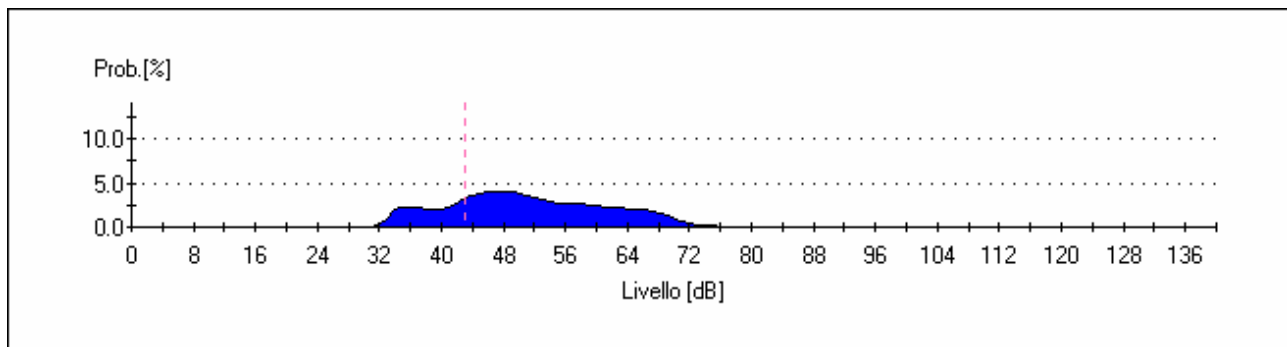


_GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

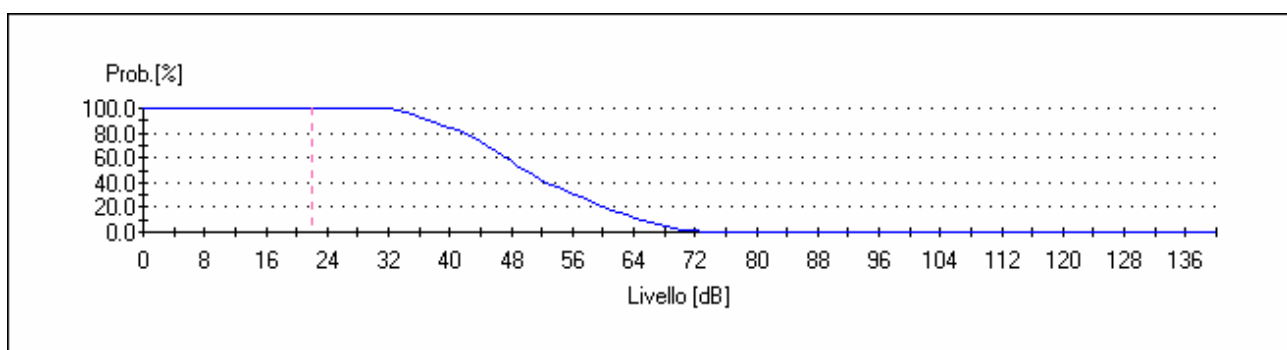
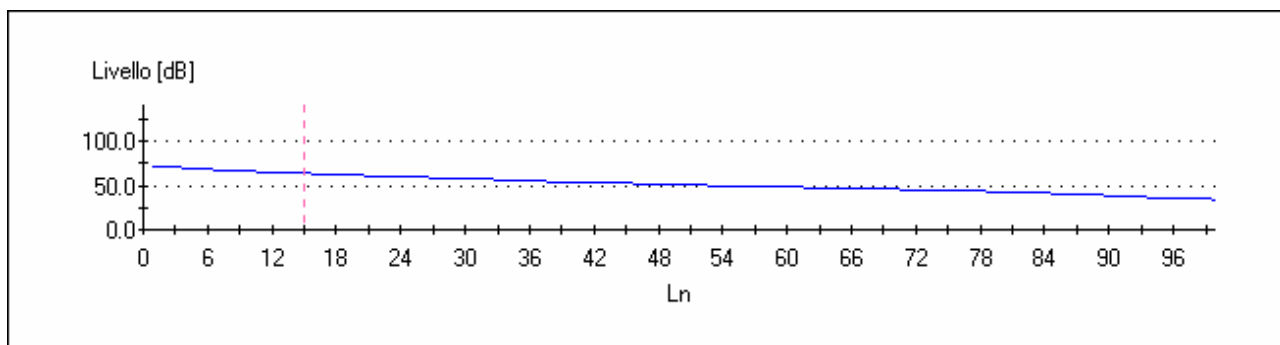


GRAFICO PERCENTILI



Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile	Leq.[dB]
0	72.0
1	72.0
2	71.0
3	70.0
4	69.0
5	68.0
6	67.5
7	67.0
8	66.5
9	66.0
10	65.5
11	65.0
12	64.5
13	64.0
14	63.5
15	63.0
16	62.7
17	62.3
18	62.0
19	61.5
20	61.0
21	60.5
22	60.0

23	59.7
24	59.3
25	59.0
26	58.5
27	58.0
28	57.7
29	57.3
30	57.0
31	56.7
32	56.3
33	56.0
34	55.5
35	55.0
36	54.7
37	54.3
38	54.0
39	53.7
40	53.3
41	53.0
42	52.8
43	52.5
44	52.3
45	52.0
46	51.7
47	51.3
48	51.0
49	50.8
50	50.5
51	50.3
52	50.0
53	49.8
54	49.5
55	49.3
56	49.0

57	48.8
58	48.5
59	48.3
60	48.0
61	47.8
62	47.5
63	47.3
64	47.0
65	46.8
66	46.5
67	46.3
68	46.0
69	45.8
70	45.5
71	45.3
72	45.0
73	44.8
74	44.5
75	44.3
76	44.0
77	43.7
78	43.3
79	43.0
80	42.7
81	42.3
82	42.0
83	41.5
84	41.0
85	40.5
86	40.0
87	39.5
88	39.0
89	38.5
90	38.0

91	37.5
92	37.0
93	36.5
94	36.0
95	35.7
96	35.3
97	35.0
98	34.5
99	34.0

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	73.0
1	73.0
2	71.0
3	70.0
4	69.5
5	69.0
6	68.5
7	68.0
8	67.5
9	67.0
10	66.7
11	66.3
12	66.0
13	65.7
14	65.3
15	65.0
16	64.5
17	64.0
18	63.7
19	63.3
20	63.0

21	62.7
22	62.3
23	62.0
24	61.7
25	61.3
26	61.0
27	60.7
28	60.3
29	60.0
30	59.7
31	59.3
32	59.0
33	58.8
34	58.5
35	58.3
36	58.0
37	57.7
38	57.3
39	57.0
40	56.7
41	56.3
42	56.0
43	55.8
44	55.5
45	55.3
46	55.0
47	54.8
48	54.5
49	54.3
50	54.0
51	53.7
52	53.3
53	53.0
54	52.8

55	52.6
56	52.4
57	52.2
58	52.0
59	51.8
60	51.5
61	51.3
62	51.0
63	50.8
64	50.5
65	50.3
66	50.0
67	49.8
68	49.6
69	49.4
70	49.2
71	49.0
72	48.8
73	48.6
74	48.4
75	48.2
76	48.0
77	47.8
78	47.6
79	47.4
80	47.2
81	47.0
82	46.8
83	46.5
84	46.3
85	46.0
86	45.8
87	45.5
88	45.3

89	45.0
90	44.8
91	44.5
92	44.3
93	44.0
94	43.7
95	43.3
96	43.0
97	42.0
98	41.5
99	41.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	69.0
1	69.0
2	67.0
3	65.0
4	64.0
5	62.0
6	61.0
7	60.0
8	59.0
9	58.0
10	57.0
11	56.0
12	55.0
13	54.5
14	54.0
15	53.0
16	52.5
17	52.0
18	51.5

19	51.0
20	50.5
21	50.0
22	49.5
23	49.0
24	48.5
25	48.0
26	47.7
27	47.3
28	47.0
29	46.7
30	46.3
31	46.0
32	45.7
33	45.3
34	45.0
35	44.8
36	44.5
37	44.3
38	44.0
39	43.8
40	43.5
41	43.3
42	43.0
43	42.8
44	42.5
45	42.3
46	42.0
47	41.8
48	41.6
49	41.4
50	41.2
51	41.0
52	40.8

53	40.6
54	40.4
55	40.2
56	40.0
57	39.8
58	39.7
59	39.5
60	39.3
61	39.2
62	39.0
63	38.9
64	38.7
65	38.6
66	38.4
67	38.3
68	38.1
69	38.0
70	37.9
71	37.7
72	37.6
73	37.4
74	37.3
75	37.1
76	37.0
77	36.9
78	36.7
79	36.6
80	36.4
81	36.3
82	36.1
83	36.0
84	35.9
85	35.7
86	35.6

87	35.4
88	35.3
89	35.1
90	35.0
91	34.8
92	34.7
93	34.5
94	34.3
95	34.2
96	34.0
97	33.7
98	33.3
99	33.0

LIVELLI DI IMPULS- FAST E SLOW MAX NELLE 24 ORE		
LAlp [dB]	LASp [dB]	LAFp [dB]
103.3	91	99.4
90.7	84.7	89.1
92	86.4	91
89.7	85	88.6
92.4	84	89.2
92.3	85.6	89.7
103.3	91	99.4

LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

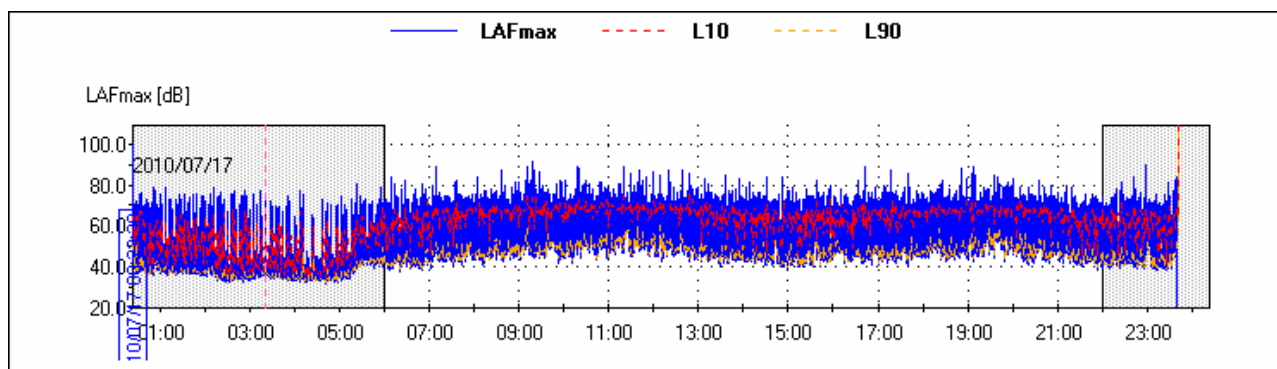
		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
90.7	84.7	89.1
92	86.4	91
89.7	85	88.6
92.4	84	89.2
79.1	76.1	78.5
92.4	86.4	91

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

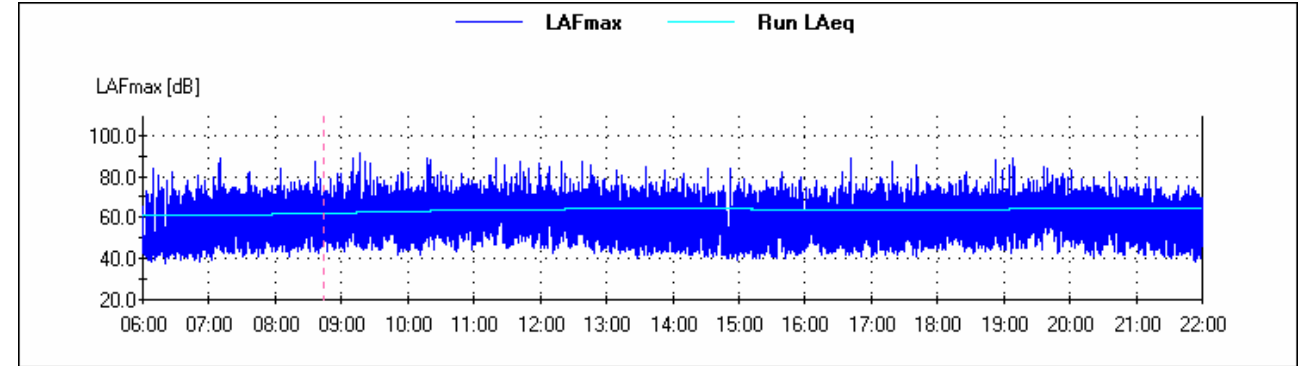
LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
103.3	91	99.4
83.2	76.9	80.4
92.3	85.6	89.7
103.3	91	99.4

TIME HISTORY L10 – L90

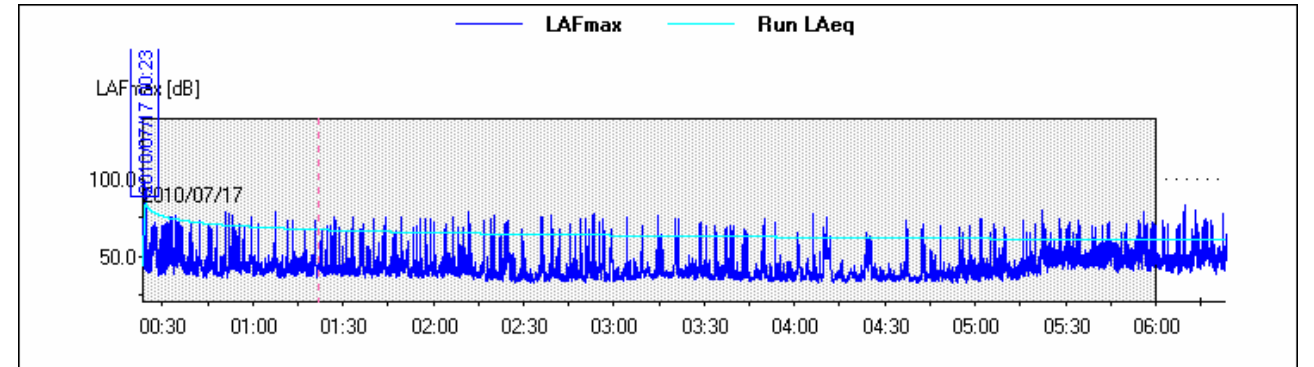


RUNNING Leq DIURNO

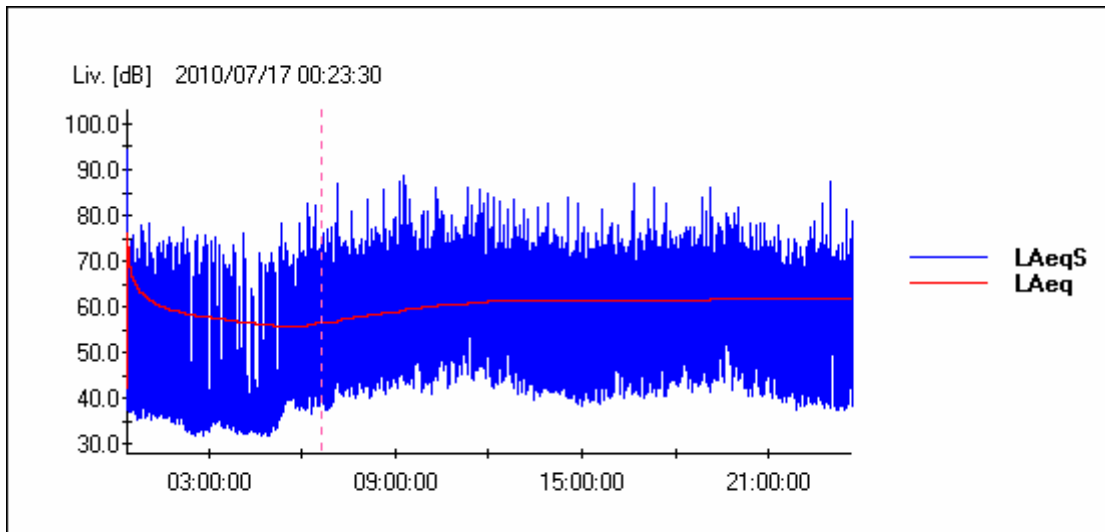
		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011



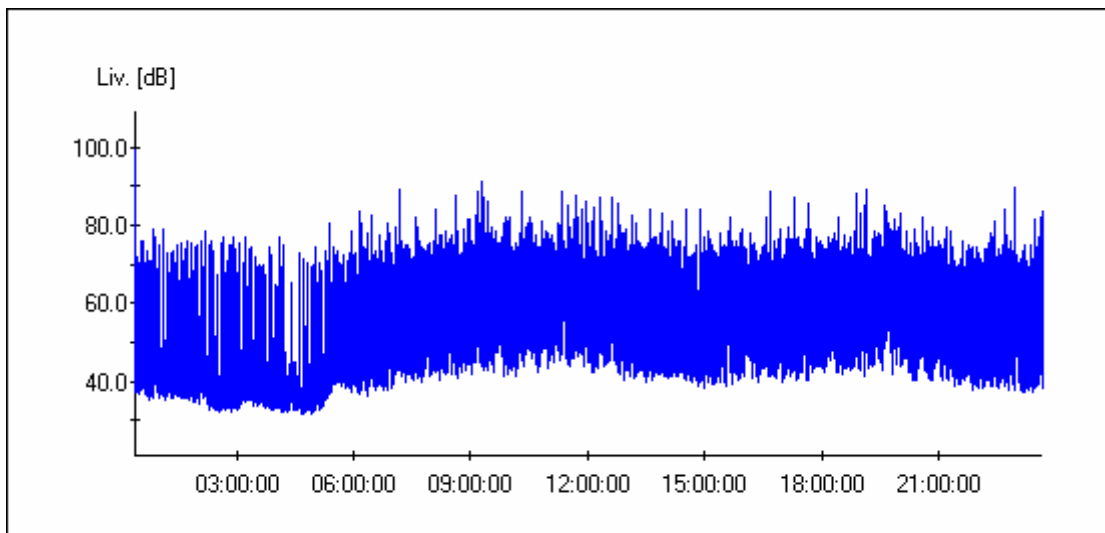
RUNNING Leq NOTTURNO



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

R2 - MISURE DI 24 ORE CON POSTAZIONE SEMI-FISSE		
Punto	Ricettore	Indirizzo

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

	R_12_C	VIA ZONA INDUSTRIALE
Descrizione del punto di misura/ricettore <i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sul marciapiede adiacente la carreggiata stradale ad una distanza di mt 1 dalla recinzione del fondo attiguo il fabbricato più vicino</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 /40 dB(a)
☐	Classe II	55 / 45 dB(a)
☒	Classe III	60 / 50 dB(a)
☐	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826		
Punto	Ricettore	Indirizzo
	R_12_C	VIA ZONA INDUSTRIALE

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)								
Periodo	TR	Data	L_{AeqTR} [dBA]	K_I [dBA]	K_T [dBA]	K_B [dBA]	L_{AeqTRC} [dBA]	L_{lim} [dBA]
Giorno	6-22h	16/07/10	71.8	0	0		71.8	60
Notte	22-6h	16/07/10	66.3	0	0	0	66.3	50

RISULTATI MISURE	
Codice misura	R_12_C
Data inizio	16/07/2010
Ora inizio	0.25.22
Note	

Parametri		24 ore	Giorno (T_R = 6/22)	Notte (T_R = 22/6)
L _{AeqTR}	[dBA]	70.7	71.8	66.3
L ₁	[dBA]	81.0	82.0	79.0
L ₅	[dBA]	77.5	78.5	72.0
L ₁₀	[dBA]	75.0	76.3	67.0
L ₅₀	[dBA]	58.3	62.3	52.1
L ₉₀	[dBA]	47.0	49.5	42.5
L ₉₅	[dBA]	44.0	47.0	39.5
L ₉₉	[dBA]	38.0	43.0	36.0
L _I max	[dBA]	108.3	108.3	105.3
L _F max	[dBA]	106.0	106.0	101.3
L _S max	[dBA]	99.0	99.0	94.3
K _I	[dBA]	0	0	0
K _T	[dBA]	0	0	0
K _B	[dBA]	0	0	0
L _{AeqTRC}		70.7	71.8	66.3

Note:		
Punto	Ricettore R_12_C	Indirizzo VIA ZONA INDUSTRIALE

Sorgente stradale:

	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	42	48	67	38	48.75	41	21	31
Veic. Pesanti / 10'	0	0	0	0	0	0	0	0
Motocicli / 10'	7	3	7	7	6	5	3	4
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	24	30.8	33	28	28.95	26	23	24.5
Umidità relativa	77	69	69	77	73	67	63	65
Velocità vento	4.9	4.8	4.5	1.6	3.95	2.2	1.5	1.85
Direzione vento	W N W	W	N W	S W		S W	S	

Fotografia del punto di misura



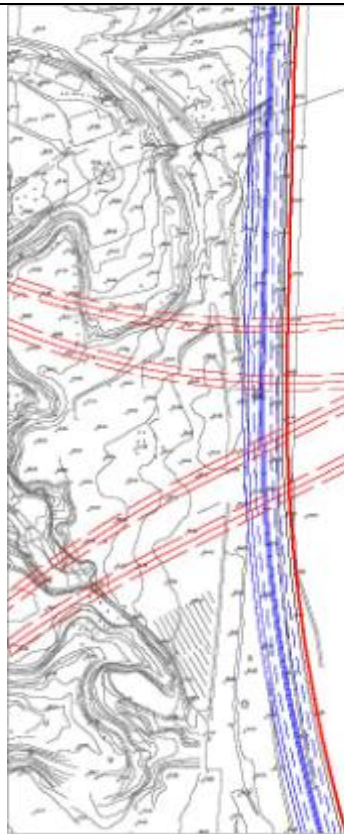
Punto

Ricettore

R_12_C

Indirizzo

VIA ZONA INDUSTRIALE

Localizzazione planimetrica


COORDINATE UTM WGS84	
EST	NORD
556481,544	4228416,755



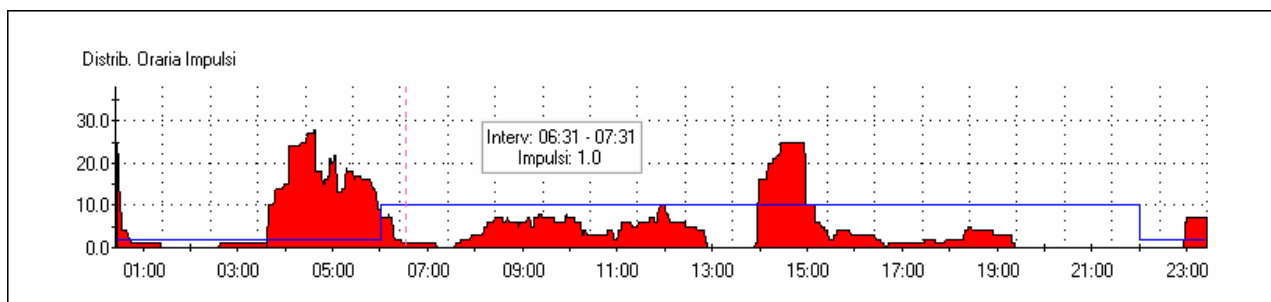
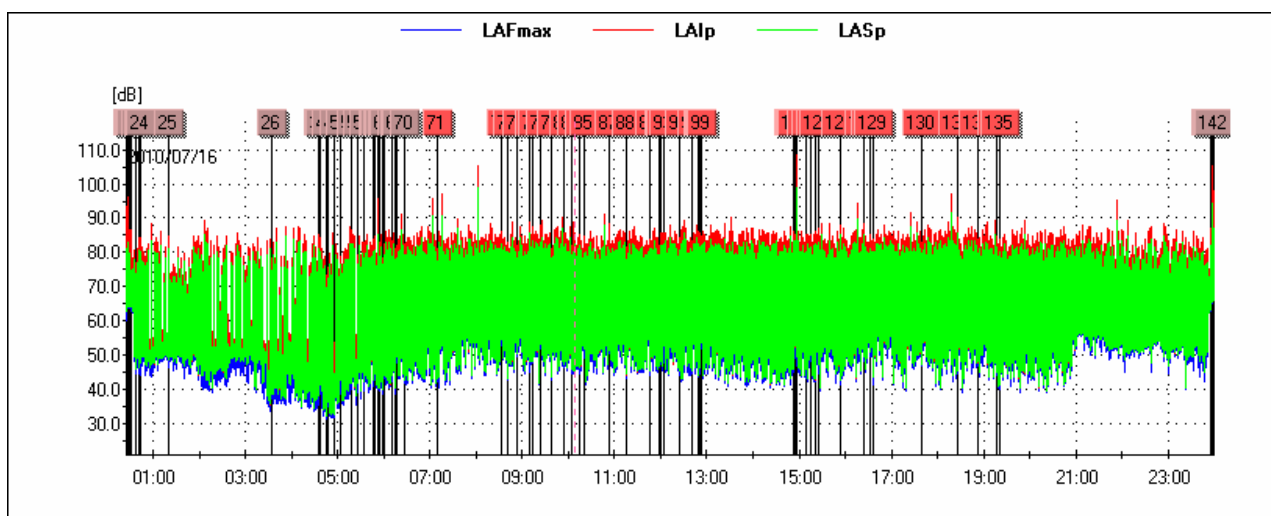
DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/16 00:25:36	0.750	78.5	10.7
2	2010/07/16 00:25:46	0.500	87.0	12.8
3	2010/07/16 00:26:20	0.625	87.0	13.2
4	2010/07/16 00:27:01	0.625	79.9	11.3
5	2010/07/16 00:27:08	0.625	86.7	11.5
6	2010/07/16 00:27:30	0.625	82.9	12.0
7	2010/07/16 00:27:33	1.000	84.9	10.1

8	2010/07/16 00:27:34	0.750	77.8	8.6
9	2010/07/16 00:27:41	0.750	80.6	10.0
10	2010/07/16 00:27:58	0.625	91.3	13.3
11	2010/07/16 00:28:01	0.875	82.2	8.6
12	2010/07/16 00:28:20	0.750	81.2	12.8
13	2010/07/16 00:28:39	0.750	76.8	10.0
14	2010/07/16 00:29:14	0.625	82.9	11.3
15	2010/07/16 00:29:16	1.000	76.2	8.6
16	2010/07/16 00:30:44	0.750	77.1	12.0
17	2010/07/16 00:30:52	0.625	82.7	11.5
18	2010/07/16 00:30:54	0.625	76.5	9.6
19	2010/07/16 00:31:08	0.750	78.1	8.8
20	2010/07/16 00:31:46	0.875	81.2	10.6
21	2010/07/16 00:31:53	0.875	78.2	9.9
22	2010/07/16 00:38:12	0.625	64.3	11.1
23	2010/07/16 00:40:38	0.750	63.7	10.2
24	2010/07/16 00:43:00	0.875	60.3	10.1
25	2010/07/16 01:21:01	0.625	76.7	10.4
26	2010/07/16 03:35:00	0.625	56.3	11.7
27	2010/07/16 04:36:02	0.625	55.7	8.6
28	2010/07/16 04:36:03	0.625	57.9	8.7
29	2010/07/16 04:36:04	0.625	59.7	8.4
30	2010/07/16 04:36:07	0.625	57.9	6.1
31	2010/07/16 04:36:08	0.625	62.0	8.8
32	2010/07/16 04:36:12	0.625	59.3	7.6
33	2010/07/16 04:36:13	0.750	58.8	7.4
34	2010/07/16 04:36:14	0.750	58.6	7.8
35	2010/07/16 04:36:15	0.625	57.4	7.9
36	2010/07/16 04:36:16	0.625	57.3	8.0
37	2010/07/16 04:44:46	1.000	49.1	9.8
38	2010/07/16 04:45:46	0.625	53.7	10.5
39	2010/07/16 04:45:48	0.625	57.1	10.3
40	2010/07/16 04:46:24	1.000	48.8	7.2
41	2010/07/16 04:56:09	0.625	49.6	10.8

42	2010/07/16 05:03:34	0.750	59.0	7.8
43	2010/07/16 05:03:36	0.750	55.2	6.9
44	2010/07/16 05:03:40	0.750	55.8	7.6
45	2010/07/16 05:03:43	1.000	51.2	6.6
46	2010/07/16 05:03:45	0.750	54.4	8.8
47	2010/07/16 05:03:47	0.750	53.0	8.8
48	2010/07/16 05:03:48	0.875	53.9	8.4
49	2010/07/16 05:03:51	1.000	51.6	8.1
50	2010/07/16 05:03:52	0.875	54.5	8.9
51	2010/07/16 05:17:00	1.000	67.1	9.2
52	2010/07/16 05:25:43	1.000	55.1	7.5
53	2010/07/16 05:25:54	0.875	62.2	10.3
54	2010/07/16 05:34:39	0.875	55.8	8.7
55	2010/07/16 05:46:56	1.000	67.5	10.0
56	2010/07/16 05:48:26	0.750	66.2	9.8
57	2010/07/16 05:52:22	0.875	92.6	10.3
58	2010/07/16 05:54:14	0.625	57.5	12.0
59	2010/07/16 05:54:17	0.750	59.4	8.1
60	2010/07/16 05:54:30	0.750	57.9	10.3
61	2010/07/16 05:54:31	0.875	66.4	9.8
62	2010/07/16 05:59:27	1.000	58.9	10.1
63	2010/07/16 06:00:48	0.625	64.9	12.6
64	2010/07/16 06:10:34	0.750	62.9	9.9
65	2010/07/16 06:14:29	0.750	49.0	9.1
66	2010/07/16 06:14:30	0.750	53.1	9.6
67	2010/07/16 06:14:33	1.000	66.5	8.1
68	2010/07/16 06:15:19	0.625	62.8	8.9
69	2010/07/16 06:16:34	0.875	68.3	9.4
70	2010/07/16 06:26:43	1.000	57.3	6.9
71	2010/07/16 07:09:41	0.750	54.6	9.1
72	2010/07/16 08:33:30	0.875	84.5	7.6
73	2010/07/16 08:40:46	0.750	65.1	9.2
74	2010/07/16 08:53:03	0.750	62.8	9.5
75	2010/07/16 09:08:56	1.000	61.9	7.8

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

76	2010/07/16 09:09:00	1.000	60.4	8.0
77	2010/07/16 09:13:37	0.750	70.1	10.3
78	2010/07/16 09:22:55	0.750	66.0	8.0
79	2010/07/16 09:38:29	0.750	66.9	10.1
80	2010/07/16 09:54:04	1.000	64.4	7.1
81	2010/07/16 10:04:16	0.875	63.4	8.3
82	2010/07/16 10:13:47	0.875	65.8	6.9
83	2010/07/16 10:13:49	1.000	68.0	7.5
84	2010/07/16 10:13:55	1.000	63.8	7.4
85	2010/07/16 10:19:52	0.875	82.2	8.8
86	2010/07/16 10:52:30	0.750	64.5	10.8
87	2010/07/16 10:53:14	0.625	85.5	10.4
88	2010/07/16 11:16:10	1.000	62.1	6.3
89	2010/07/16 11:45:45	0.500	59.7	12.1
90	2010/07/16 11:58:31	0.875	62.9	9.0
91	2010/07/16 11:59:59	0.875	60.5	8.7
92	2010/07/16 12:03:49	0.750	64.3	10.1
93	2010/07/16 12:03:50	0.625	64.9	8.7
94	2010/07/16 12:24:08	1.000	61.2	8.5
95	2010/07/16 12:39:48	0.875	67.1	6.6
96	2010/07/16 12:49:27	0.625	63.6	8.3
97	2010/07/16 12:49:54	0.750	65.2	8.8
98	2010/07/16 12:50:05	0.625	67.8	10.0
99	2010/07/16 12:52:39	0.625	71.8	10.9
100	2010/07/16 14:52:56	0.625	69.9	10.2
101	2010/07/16 14:55:04	0.625	71.8	11.4
102	2010/07/16 14:55:06	0.625	63.2	10.4
103	2010/07/16 14:55:48	0.625	64.1	8.8
104	2010/07/16 14:55:50	0.750	63.9	8.7
105	2010/07/16 14:55:52	0.750	62.6	8.6
106	2010/07/16 14:56:05	0.625	73.4	7.9
107	2010/07/16 14:56:06	0.625	67.5	7.6
108	2010/07/16 14:56:07	0.750	64.5	8.0
109	2010/07/16 14:56:15	0.625	62.5	10.0

110	2010/07/16 14:56:16	0.625	62.2	9.3
111	2010/07/16 14:56:17	0.625	60.3	8.4
112	2010/07/16 14:56:17	0.625	58.7	6.9
113	2010/07/16 14:56:19	0.625	59.0	7.7
114	2010/07/16 14:56:39	0.750	65.7	10.3
115	2010/07/16 14:56:40	0.625	67.1	9.9
116	2010/07/16 14:57:10	0.750	106.0	9.3
117	2010/07/16 15:08:13	0.625	59.0	10.7
118	2010/07/16 15:08:22	0.625	59.9	11.3
119	2010/07/16 15:08:23	1.000	63.5	10.0
120	2010/07/16 15:08:26	0.625	66.7	10.7
121	2010/07/16 15:15:03	0.750	73.9	9.2
122	2010/07/16 15:20:20	0.750	71.1	8.1
123	2010/07/16 15:24:28	0.875	72.3	7.5
124	2010/07/16 15:25:00	0.750	83.2	9.0
125	2010/07/16 15:25:16	0.750	67.4	8.7
126	2010/07/16 15:52:57	0.625	80.3	11.0
127	2010/07/16 16:24:07	0.625	69.3	9.8
128	2010/07/16 16:32:54	1.000	63.4	8.0
129	2010/07/16 16:36:43	1.000	63.6	8.5
130	2010/07/16 17:40:09	0.625	66.2	10.0
131	2010/07/16 18:26:03	0.625	61.9	9.1
132	2010/07/16 18:53:11	0.750	70.4	9.7
133	2010/07/16 19:17:08	0.625	66.1	10.0
134	2010/07/16 19:17:09	0.625	64.2	8.1
135	2010/07/16 19:21:26	0.625	57.4	9.5
136	2010/07/16 23:54:44	0.500	83.3	11.8
137	2010/07/16 23:55:23	0.625	76.7	10.2
138	2010/07/16 23:56:28	0.500	94.1	12.9
139	2010/07/16 23:56:29	0.875	101.3	11.0
140	2010/07/16 23:56:36	0.875	84.7	8.1
141	2010/07/16 23:56:43	0.875	78.9	9.6
142	2010/07/16 23:58:22	0.750	94.3	10.8

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

RICONOSCIMENTO COMPONENTI TONALI

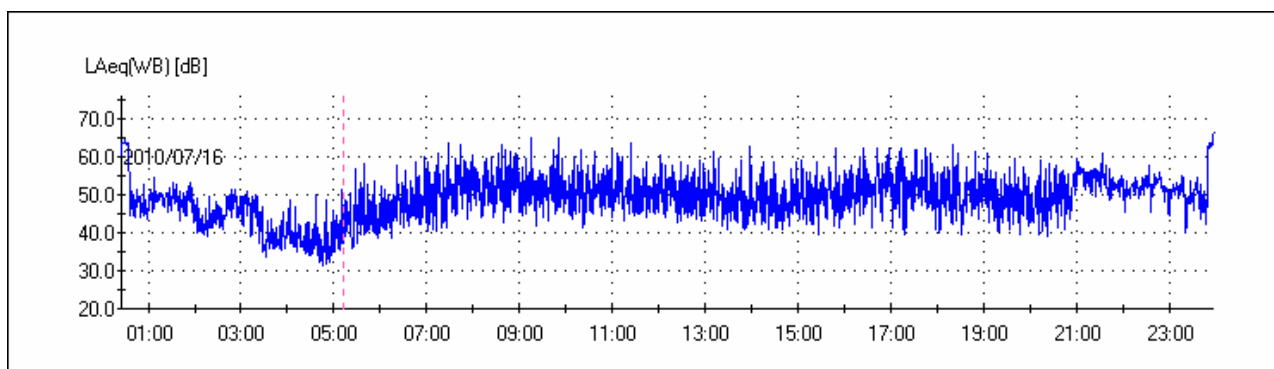
Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 160	0.1
Freq: 250	0.1
Freq: 315	0.1
Freq: 3.15 k	0.1
Freq: 4 k	8.1
Freq: 5 k	0.2
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME HISTORY COMPONENTI TONALI

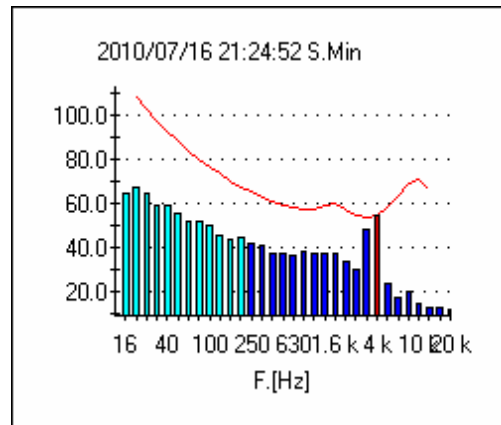
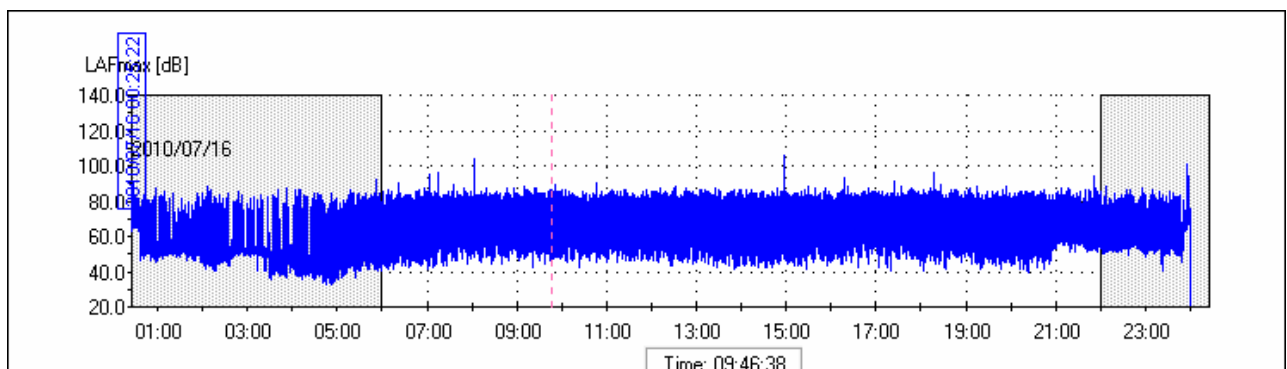
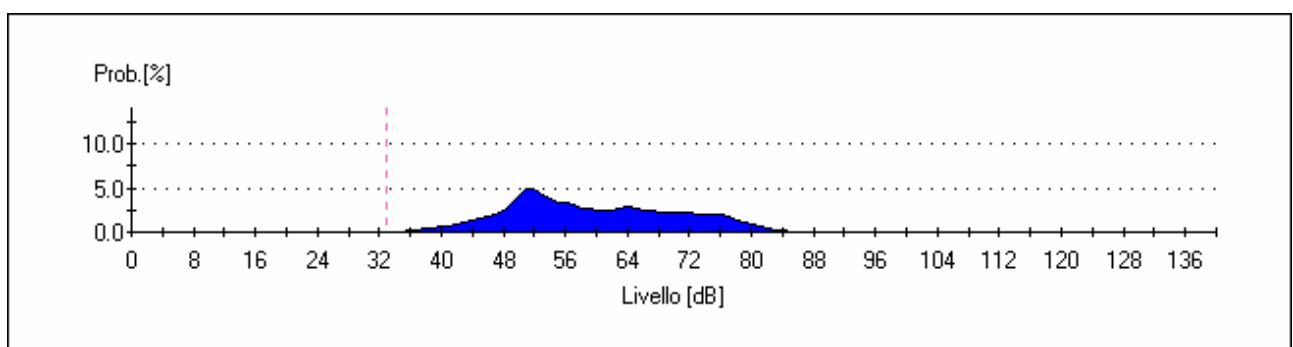


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

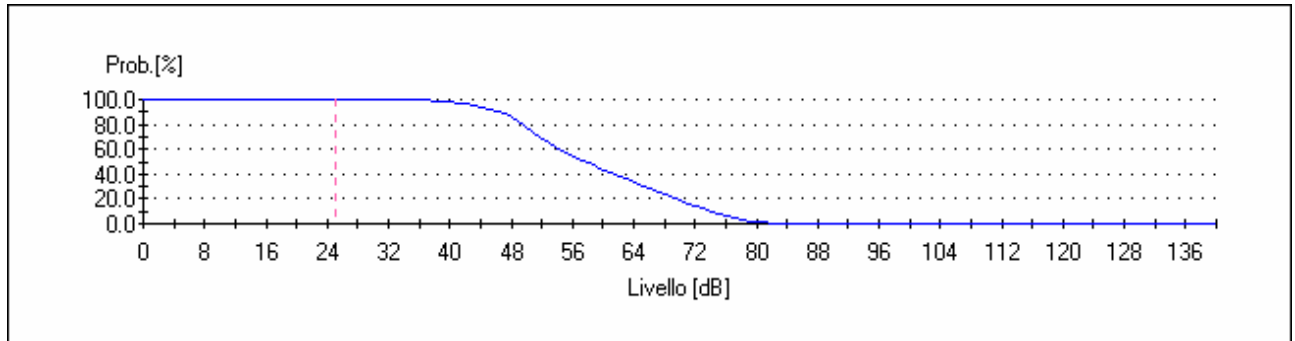
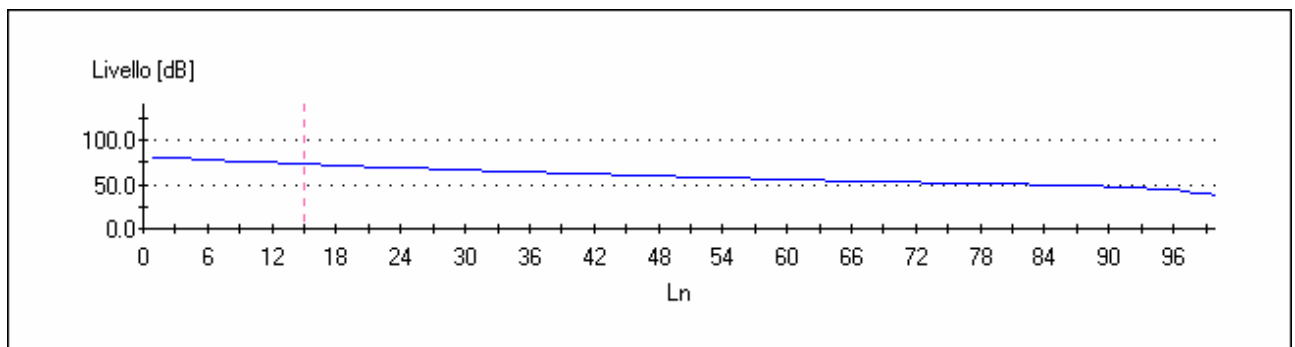


GRAFICO PERCENTILI



Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile	Leq.[dB]
0	81.0
1	81.0
2	80.0
3	79.0
4	78.0
5	77.5
6	77.0
7	76.5
8	76.0
9	75.5
10	75.0
11	74.5

12	74.0
13	73.5
14	73.0
15	72.5
16	72.0
17	71.5
18	71.0
19	70.5
20	70.0
21	69.7
22	69.3
23	69.0
24	68.5
25	68.0
26	67.5
27	67.0
28	66.7
29	66.3
30	66.0
31	65.5
32	65.0
33	64.7
34	64.3
35	64.0
36	63.7
37	63.3
38	63.0
39	62.5
40	62.0
41	61.7
42	61.3
43	61.0
44	60.5
45	60.0

46	59.7
47	59.3
48	59.0
49	58.7
50	58.3
51	58.0
52	57.7
53	57.3
54	57.0
55	56.7
56	56.3
57	56.0
58	55.7
59	55.3
60	55.0
61	54.8
62	54.5
63	54.3
64	54.0
65	53.8
66	53.5
67	53.3
68	53.0
69	52.8
70	52.6
71	52.4
72	52.2
73	52.0
74	51.8
75	51.6
76	51.4
77	51.2
78	51.0
79	50.8

80	50.5
81	50.3
82	50.0
83	49.7
84	49.3
85	49.0
86	48.7
87	48.3
88	48.0
89	47.5
90	47.0
91	46.5
92	46.0
93	45.0
94	44.5
95	44.0
96	43.0
97	41.0
98	40.0
99	38.0

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	82.0
1	82.0
2	80.0
3	79.5
4	79.0
5	78.5
6	78.0
7	77.5
8	77.0
9	76.7

10	76.3
11	76.0
12	75.5
13	75.0
14	74.7
15	74.3
16	74.0
17	73.7
18	73.3
19	73.0
20	72.7
21	72.3
22	72.0
23	71.5
24	71.0
25	70.7
26	70.3
27	70.0
28	69.7
29	69.3
30	69.0
31	68.7
32	68.3
33	68.0
34	67.7
35	67.3
36	67.0
37	66.7
38	66.3
39	66.0
40	65.7
41	65.3
42	65.0
43	64.7

44	64.3
45	64.0
46	63.7
47	63.3
48	63.0
49	62.7
50	62.3
51	62.0
52	61.7
53	61.3
54	61.0
55	60.7
56	60.3
57	60.0
58	59.7
59	59.3
60	59.0
61	58.7
62	58.3
63	58.0
64	57.8
65	57.5
66	57.3
67	57.0
68	56.8
69	56.5
70	56.3
71	56.0
72	55.7
73	55.3
74	55.0
75	54.7
76	54.3
77	54.0

78	53.8
79	53.5
80	53.3
81	53.0
82	52.5
83	52.0
84	51.7
85	51.3
86	51.0
87	50.7
88	50.3
89	50.0
90	49.5
91	49.0
92	48.5
93	48.0
94	47.5
95	47.0
96	46.0
97	45.0
98	44.0
99	43.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	79.0
1	79.0
2	76.0
3	75.0
4	73.0
5	72.0
6	71.0
7	69.0

8	68.0
9	67.5
10	67.0
11	66.0
12	65.5
13	65.0
14	64.5
15	64.0
16	63.5
17	63.0
18	62.0
19	61.0
20	60.5
21	60.0
22	59.0
23	58.5
24	58.0
25	57.5
26	57.0
27	56.5
28	56.0
29	55.7
30	55.3
31	55.0
32	54.8
33	54.6
34	54.4
35	54.2
36	54.0
37	53.8
38	53.7
39	53.5
40	53.3
41	53.2

42	53.0
43	52.9
44	52.8
45	52.7
46	52.6
47	52.4
48	52.3
49	52.2
50	52.1
51	52.0
52	51.9
53	51.8
54	51.7
55	51.6
56	51.5
57	51.4
58	51.3
59	51.2
60	51.1
61	51.0
62	50.9
63	50.7
64	50.6
65	50.4
66	50.3
67	50.1
68	50.0
69	49.8
70	49.7
71	49.5
72	49.3
73	49.2
74	49.0
75	48.7

76	48.3
77	48.0
78	47.5
79	47.0
80	46.7
81	46.3
82	46.0
83	45.5
84	45.0
85	44.5
86	44.0
87	43.7
88	43.3
89	43.0
90	42.5
91	42.0
92	41.0
93	40.5
94	40.0
95	39.5
96	39.0
97	38.0
98	37.0
99	36.0

**LIVELLI DI IMPULS- FAST E SLOW
MAX NELLE 24 ORE**

LAIp [dB]

LASp [dB]

LAFp [dB]

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

96.2	85.1	91.3
105.4	99	104.3
91.2	88	90.3
108.3	99	106
97	91.8	95.8
105.3	94.3	101.3
108.3	99	106

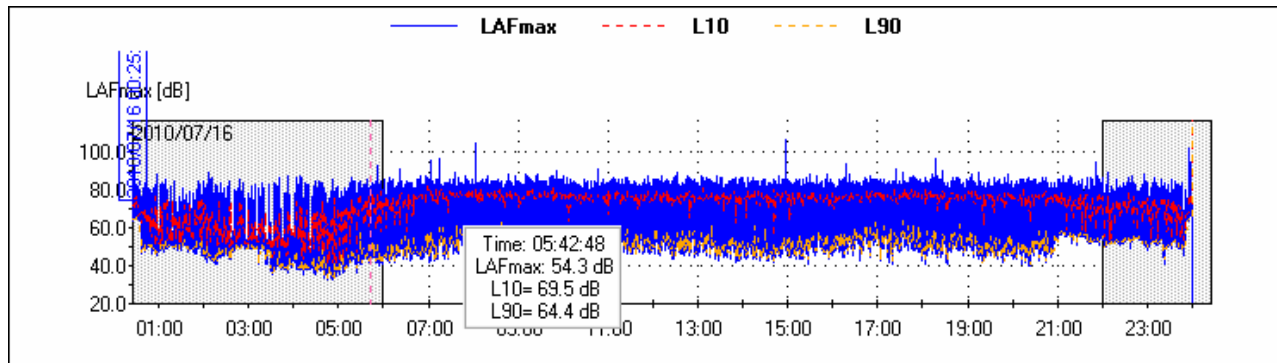
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
105.4	99	104.3
91.2	88	90.3
108.3	99	106
97	91.8	95.8
95.1	89.2	94.3
108.3	99	106

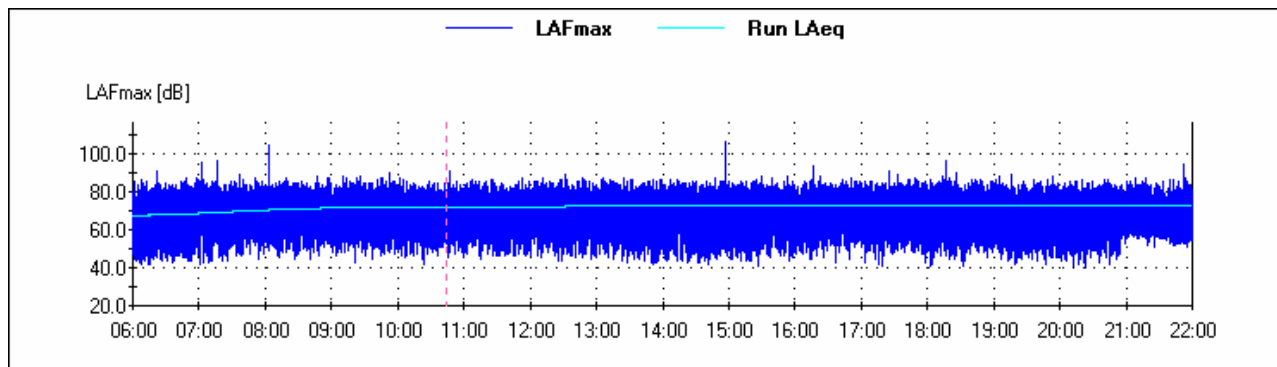
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

LIVELLI DI IMPULS- FAST E SLOW MAX NOTTURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
96.2	85.1	91.3
95.5	85.2	92.6
105.3	94.3	101.3
105.3	94.3	101.3

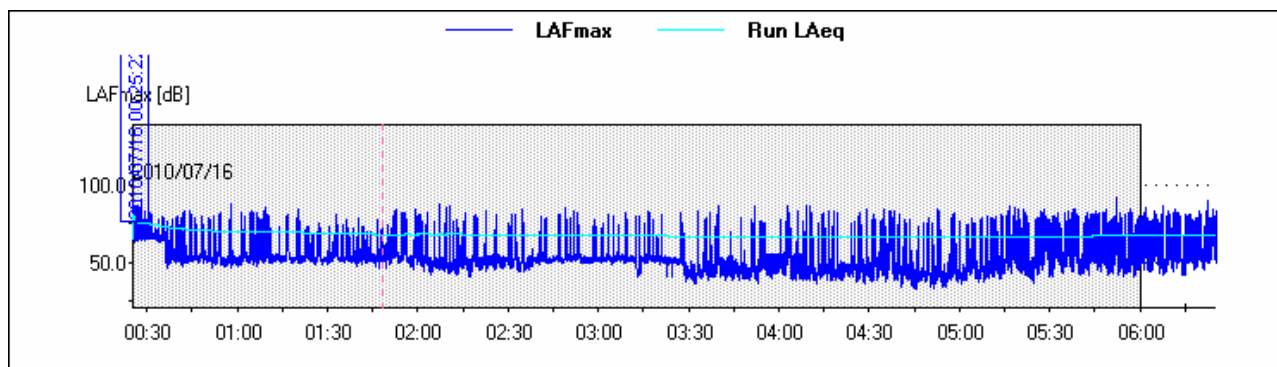
TIME HISTORY L10 – L90



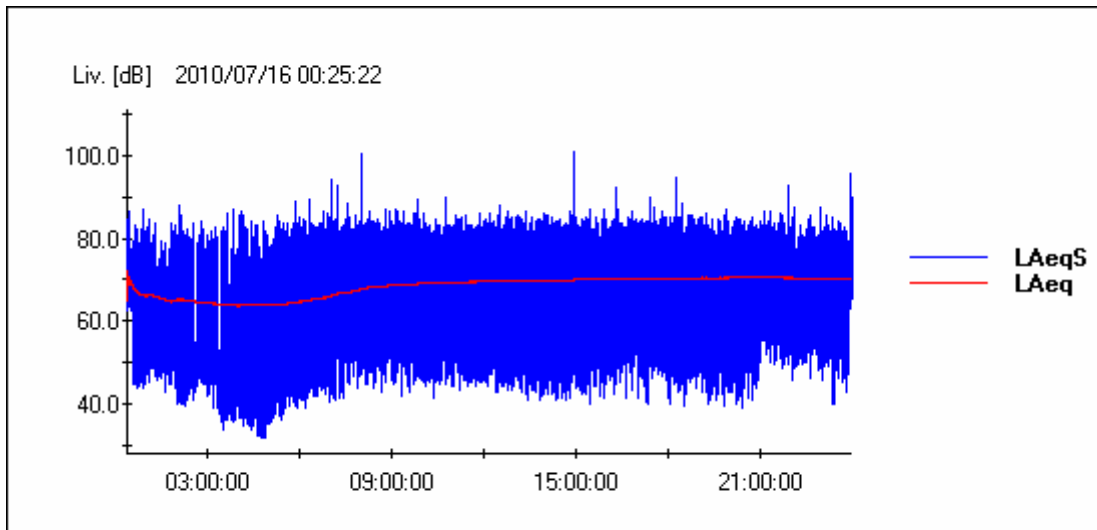
RUNNING Leq DIURNO



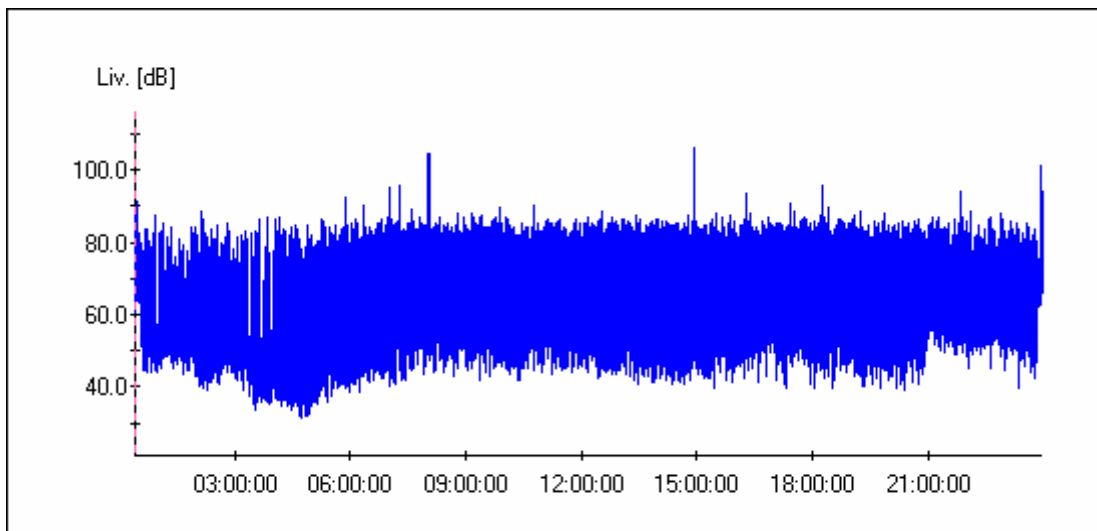
RUNNING Leq NOTTURNO



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Punto	Ricettore R_14_C	Indirizzo VIA FIUMARA
Descrizione del punto di misura/ricettore <i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sul marciapiede adiacente la carreggiata stradale ad una distanza di mt 15 dal fabbricato più vicino</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 / 40 dB(a)
☒	Classe II	55 / 45 dB(a)
☐	Classe III	60 / 50 dB(a)
☐	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826		
Punto	Ricettore R_14_C	Indirizzo VIA FIUMARA

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)								
Periodo	TR	Data	L_{AeqTR} [dBA]	K_I [dBA]	K_T [dBA]	K_B [dBA]	L_{AeqTRC} [dBA]	L_{lim} [dBA]
Giorno	6-22h	13/07/10	59.8	0	0		59.8	55
Notte	22-6h	13/07/10	56.2	0	0	0	56.2	45

RISULTATI MISURE	
Codice misura	R 14 C
Data inizio	13/07/2010
Ora inizio	0.47.47
Note	

Parametri		24 ore	Giorno (T_R = 6/22)	Notte (T_R = 22/6)
L _{AeqTR}	[dBA]	59.0	59.8	56.2
L ₁	[dBA]	69.0	70.0	66.0
L ₅	[dBA]	64.0	65.0	60.0
L ₁₀	[dBA]	61.0	62.0	55.0
L ₅₀	[dBA]	46.4	47.9	43.3
L ₉₀	[dBA]	40.7	43.4	38.1
L ₉₅	[dBA]	39.0	42.7	37.2
L ₉₉	[dBA]	36.0	40.0	35.0
L _I max	[dBA]	96.0	96.0	88.8
L _F max	[dBA]	93.8	93.8	87.2
L _S max	[dBA]	86.9	86.9	86.9
K _I	[dBA]	0	0	0
K _T	[dBA]	0	0	0
K _B	[dBA]	0	0	0
L_{AeqTRC}		59.0	59.8	56.2

Note:		
Punto	Ricettore R 14 C	Indirizzo VIA FIUMARA

**MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO**
Codice documento

AC0053_F0.docx_F0

Rev

F0

Data

20/06/2011

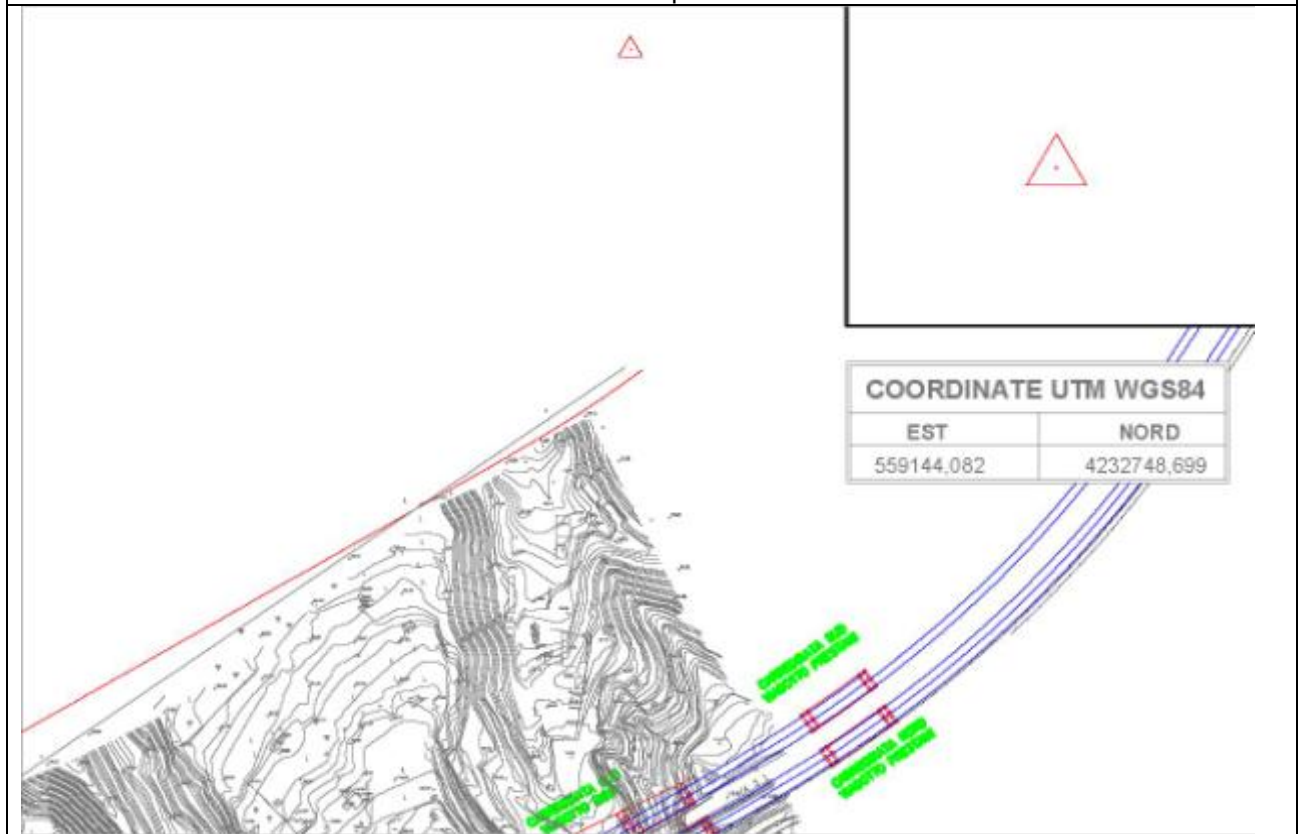
Sorgente stradale: _____

	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	53	34	56	102	61.25	37	16	26.5
Veic. Pesanti / 10'	0	0	0	0	0	0	0	0
Motocicli / 10'	8	6	16	23	13.25	4	1	2.5
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	23	27.4	25.6	24.5	25.13	24	19	21.5
Umidità relativa	81	71	75	77	76	79	70	74.5
Velocità vento	4.5	4.9	4.1	2.8	4.075	1.8	0.7	1.25
Direzione vento	N N E	N N E	N N E	N N E		N N E	N N E	

Fotografia del punto di misura


Punto	Ricettore	Indirizzo
	R_14_C	VIA FIUMARA

Localizzazione planimetrica



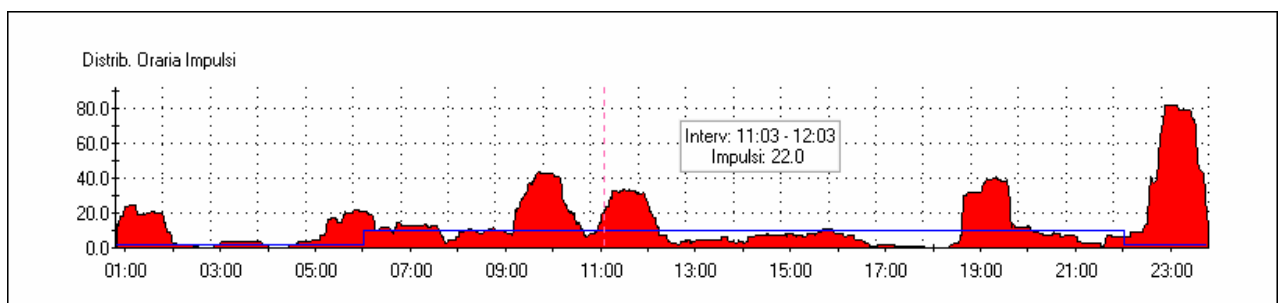
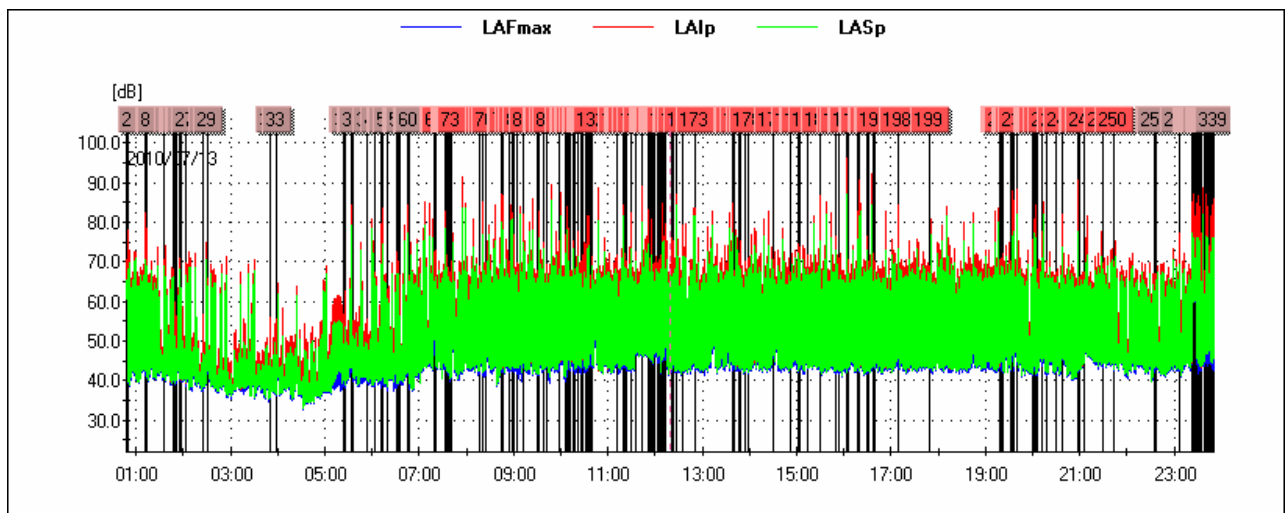
DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/13 00:48:58	0.875	72.3	10.2
2	2010/07/13 00:49:49	0.750	74.9	9.8
3	2010/07/13 01:11:30	0.750	59.1	8.8
4	2010/07/13 01:11:39	0.750	75.7	9.7
5	2010/07/13 01:11:54	0.625	78.3	11.7

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

6	2010/07/13 01:12:03	0.750	68.3	10.5
7	2010/07/13 01:13:17	0.875	55.9	9.8
8	2010/07/13 01:13:26	1.000	74.5	10.0
9	2010/07/13 01:35:15	0.875	54.0	8.8
10	2010/07/13 01:46:35	0.875	54.4	9.7
11	2010/07/13 01:46:44	1.000	53.4	8.1
12	2010/07/13 01:47:21	0.750	55.3	9.2
13	2010/07/13 01:47:23	0.875	54.6	9.8
14	2010/07/13 01:47:26	0.875	50.6	7.4
15	2010/07/13 01:49:49	0.875	56.8	9.3
16	2010/07/13 01:50:10	1.000	53.4	7.7
17	2010/07/13 01:50:12	1.000	52.0	7.8
18	2010/07/13 01:50:15	0.750	56.3	8.0
19	2010/07/13 01:50:17	0.875	56.2	9.6
20	2010/07/13 01:50:27	0.875	53.6	7.6
21	2010/07/13 01:55:31	1.000	57.0	7.1
22	2010/07/13 01:55:53	0.750	57.7	8.6
23	2010/07/13 01:56:52	0.750	55.8	8.5
24	2010/07/13 01:56:55	0.750	56.0	9.4
25	2010/07/13 01:57:08	0.875	55.4	8.0
26	2010/07/13 01:57:38	0.875	55.4	8.1
27	2010/07/13 02:02:52	0.750	56.9	9.5
28	2010/07/13 02:24:20	0.750	53.3	10.2
29	2010/07/13 02:30:09	0.750	55.2	10.0
30	2010/07/13 03:50:54	0.750	51.8	8.5
31	2010/07/13 03:51:18	0.750	52.4	10.1
32	2010/07/13 03:59:11	0.875	52.9	9.0
33	2010/07/13 03:59:20	0.875	52.9	8.9
34	2010/07/13 05:23:51	1.000	53.9	8.8
35	2010/07/13 05:25:27	0.625	59.5	9.4
36	2010/07/13 05:33:26	1.000	60.8	9.0
37	2010/07/13 05:36:11	1.000	51.5	8.7
38	2010/07/13 05:53:34	0.625	52.9	9.2
39	2010/07/13 06:04:07	1.000	60.4	10.4

40	2010/07/13 06:04:14	1.000	56.8	8.9
41	2010/07/13 06:10:53	0.875	73.6	10.7
42	2010/07/13 06:11:02	0.625	73.9	11.2
43	2010/07/13 06:12:52	0.625	78.4	11.8
44	2010/07/13 06:12:58	0.875	76.9	8.8
45	2010/07/13 06:13:19	0.625	72.3	7.9
46	2010/07/13 06:13:24	0.625	68.4	8.2
47	2010/07/13 06:13:26	0.625	69.3	7.9
48	2010/07/13 06:13:28	0.750	71.6	9.0
49	2010/07/13 06:13:30	0.625	73.2	9.4
50	2010/07/13 06:13:30	0.625	75.5	9.2
51	2010/07/13 06:18:39	0.875	59.1	7.6
52	2010/07/13 06:31:17	0.625	53.4	10.5
53	2010/07/13 06:32:54	0.750	52.3	9.6
54	2010/07/13 06:33:03	0.875	51.3	8.4
55	2010/07/13 06:33:21	0.750	55.2	9.2
56	2010/07/13 06:33:25	0.750	56.0	9.6
57	2010/07/13 06:35:28	0.625	63.6	10.2
58	2010/07/13 06:35:56	1.000	52.9	8.0
59	2010/07/13 06:45:56	0.750	83.0	7.1
60	2010/07/13 06:46:50	0.625	55.2	9.1
61	2010/07/13 07:18:41	0.750	70.0	9.1
62	2010/07/13 07:20:37	0.875	67.8	9.2
63	2010/07/13 07:20:54	1.000	68.2	7.7
64	2010/07/13 07:32:49	0.625	68.1	10.1
65	2010/07/13 07:33:42	0.750	65.6	10.5
66	2010/07/13 07:35:32	0.750	65.0	9.0
67	2010/07/13 07:36:11	0.875	60.9	8.0
68	2010/07/13 07:36:36	0.750	65.5	9.3
69	2010/07/13 07:37:19	0.750	63.8	9.6
70	2010/07/13 07:38:52	0.875	64.9	8.3
71	2010/07/13 07:40:20	0.875	56.6	7.2
72	2010/07/13 07:40:22	0.750	59.6	6.7
73	2010/07/13 07:40:30	0.750	67.6	9.1

74	2010/07/13 08:15:57	1.000	54.6	9.5
75	2010/07/13 08:20:54	0.750	82.7	8.8
76	2010/07/13 08:24:11	1.000	56.4	6.4
77	2010/07/13 08:44:39	1.000	84.9	6.9
78	2010/07/13 08:46:25	1.000	84.1	8.7
79	2010/07/13 08:55:23	0.625	66.1	10.8
80	2010/07/13 08:59:22	0.750	57.9	10.2
81	2010/07/13 08:59:23	0.625	70.4	12.5
82	2010/07/13 08:59:31	0.625	72.7	10.2
83	2010/07/13 09:05:18	0.750	61.1	7.2
84	2010/07/13 09:11:30	1.000	80.3	7.0
85	2010/07/13 09:30:57	0.625	57.3	11.3
86	2010/07/13 09:32:08	0.875	81.8	6.5
87	2010/07/13 09:37:30	1.000	54.9	6.6
88	2010/07/13 09:42:19	1.000	55.8	7.0
89	2010/07/13 09:58:45	0.875	60.9	8.4
90	2010/07/13 09:59:01	0.750	61.0	7.8
91	2010/07/13 10:06:18	0.625	72.4	9.4
92	2010/07/13 10:07:51	0.750	61.7	8.7
93	2010/07/13 10:08:09	0.750	68.1	10.2
94	2010/07/13 10:08:30	0.625	64.6	9.3
95	2010/07/13 10:08:36	1.000	59.0	10.1
96	2010/07/13 10:08:41	0.625	64.7	9.6
97	2010/07/13 10:09:06	0.750	68.3	10.9
98	2010/07/13 10:09:16	0.750	70.6	7.9
99	2010/07/13 10:09:39	0.750	59.8	7.1
100	2010/07/13 10:09:48	0.750	60.4	9.9
101	2010/07/13 10:09:49	0.625	68.2	11.2
102	2010/07/13 10:10:00	0.750	76.4	8.2
103	2010/07/13 10:10:11	0.750	65.5	10.5
104	2010/07/13 10:10:12	0.625	60.3	9.6
105	2010/07/13 10:10:53	1.000	60.9	7.8
106	2010/07/13 10:12:06	0.875	54.1	8.0
107	2010/07/13 10:12:46	1.000	58.3	7.8

108	2010/07/13 10:15:22	0.750	71.2	8.3
109	2010/07/13 10:16:16	0.750	66.6	10.2
110	2010/07/13 10:16:27	0.625	64.4	9.7
111	2010/07/13 10:17:09	0.750	56.7	8.1
112	2010/07/13 10:18:30	1.000	55.7	9.4
113	2010/07/13 10:21:30	1.000	68.4	6.9
114	2010/07/13 10:21:48	0.750	59.1	7.9
115	2010/07/13 10:22:13	0.750	60.5	8.4
116	2010/07/13 10:25:45	0.750	64.2	7.6
117	2010/07/13 10:25:49	0.750	67.2	8.1
118	2010/07/13 10:26:04	0.875	60.8	7.7
119	2010/07/13 10:26:32	0.750	60.8	8.4
120	2010/07/13 10:26:36	0.750	59.2	9.0
121	2010/07/13 10:27:25	0.625	67.6	11.9
122	2010/07/13 10:32:43	0.875	62.0	9.2
123	2010/07/13 10:32:45	0.750	59.3	8.0
124	2010/07/13 10:32:50	0.750	71.7	9.7
125	2010/07/13 10:34:30	0.875	78.4	10.8
126	2010/07/13 10:34:41	0.750	62.7	8.8
127	2010/07/13 10:36:44	0.625	62.9	6.3
128	2010/07/13 10:36:45	0.750	65.9	9.0
129	2010/07/13 10:36:45	0.625	64.8	8.6
130	2010/07/13 10:37:21	0.875	59.7	9.6
131	2010/07/13 10:37:34	0.625	64.0	9.8
132	2010/07/13 10:39:08	0.750	65.3	7.0
133	2010/07/13 11:11:17	0.875	60.9	9.0
134	2010/07/13 11:19:51	0.875	54.4	10.1
135	2010/07/13 11:21:32	0.875	56.0	8.9
136	2010/07/13 11:23:11	0.750	59.7	9.3
137	2010/07/13 11:29:30	0.875	80.2	9.1
138	2010/07/13 11:35:36	0.750	63.5	9.6
139	2010/07/13 11:42:54	0.750	60.6	9.8
140	2010/07/13 11:44:07	0.875	86.7	9.3
141	2010/07/13 11:51:47	0.625	66.2	8.8

142	2010/07/13 11:53:18	0.625	62.9	10.6
143	2010/07/13 11:54:22	0.750	78.2	9.1
144	2010/07/13 11:55:28	0.875	59.2	9.2
145	2010/07/13 11:55:55	0.750	77.6	10.0
146	2010/07/13 11:56:46	0.750	65.1	10.6
147	2010/07/13 11:57:39	0.750	57.7	9.3
148	2010/07/13 11:59:28	0.750	58.8	8.7
149	2010/07/13 11:59:32	0.750	62.6	8.9
150	2010/07/13 11:59:35	0.750	62.9	9.6
151	2010/07/13 11:59:40	0.750	64.1	7.6
152	2010/07/13 12:00:04	0.750	66.1	10.5
153	2010/07/13 12:03:00	0.875	60.5	8.4
154	2010/07/13 12:03:47	0.875	62.6	6.2
155	2010/07/13 12:05:06	0.625	63.0	9.7
156	2010/07/13 12:05:25	0.750	61.2	9.0
157	2010/07/13 12:08:13	0.875	66.4	8.8
158	2010/07/13 12:08:57	0.625	70.1	10.4
159	2010/07/13 12:09:02	1.000	59.5	7.3
160	2010/07/13 12:09:15	0.625	81.9	10.3
161	2010/07/13 12:09:28	0.750	65.6	8.0
162	2010/07/13 12:12:07	0.750	68.2	11.8
163	2010/07/13 12:12:31	0.625	75.8	11.1
164	2010/07/13 12:12:34	0.625	67.4	10.2
165	2010/07/13 12:12:57	0.750	62.1	8.7
166	2010/07/13 12:12:59	0.750	61.3	9.1
167	2010/07/13 12:21:48	0.750	72.8	10.1
168	2010/07/13 12:22:47	0.750	72.0	9.3
169	2010/07/13 12:23:44	1.000	57.2	8.5
170	2010/07/13 12:26:58	0.750	65.9	10.2
171	2010/07/13 12:34:50	0.875	76.9	7.7
172	2010/07/13 12:51:07	0.750	55.4	9.2
173	2010/07/13 12:51:08	0.625	68.0	11.5
174	2010/07/13 13:38:33	0.750	82.8	7.8
175	2010/07/13 13:39:54	1.000	55.6	6.1

176	2010/07/13 13:47:37	0.875	52.8	9.7
177	2010/07/13 13:53:38	0.875	55.9	7.8
178	2010/07/13 13:58:17	0.750	55.7	10.1
179	2010/07/13 14:30:19	0.750	62.3	7.1
180	2010/07/13 14:51:31	0.875	56.6	8.9
181	2010/07/13 14:52:43	1.000	56.7	8.8
182	2010/07/13 15:01:44	0.750	61.6	9.4
183	2010/07/13 15:04:32	0.875	63.3	9.8
184	2010/07/13 15:04:38	0.750	58.8	9.2
185	2010/07/13 15:13:36	0.875	60.9	8.0
186	2010/07/13 15:28:59	0.750	82.6	11.3
187	2010/07/13 15:50:30	1.000	64.5	6.3
188	2010/07/13 15:53:38	1.000	58.8	8.6
189	2010/07/13 15:53:47	0.625	56.8	8.1
190	2010/07/13 16:04:03	0.750	93.8	9.1
191	2010/07/13 16:05:24	0.875	60.4	8.4
192	2010/07/13 16:18:04	0.750	72.5	7.1
193	2010/07/13 16:19:20	1.000	86.9	9.2
194	2010/07/13 16:29:30	0.625	56.2	8.2
195	2010/07/13 16:32:11	0.875	53.9	8.1
196	2010/07/13 16:37:09	0.625	67.4	12.3
197	2010/07/13 16:38:38	0.875	61.0	8.8
198	2010/07/13 17:09:04	0.625	81.1	11.1
199	2010/07/13 17:48:29	1.000	55.7	8.4
200	2010/07/13 19:18:12	1.000	61.1	7.2
201	2010/07/13 19:19:50	0.875	60.6	7.9
202	2010/07/13 19:23:08	0.875	55.2	8.8
203	2010/07/13 19:31:44	1.000	59.9	7.3
204	2010/07/13 19:31:52	0.750	58.9	7.3
205	2010/07/13 19:32:10	0.875	60.3	8.1
206	2010/07/13 19:32:17	1.000	61.3	8.7
207	2010/07/13 19:34:21	0.625	70.9	6.1
208	2010/07/13 19:34:28	0.625	70.3	9.3
209	2010/07/13 19:34:30	0.625	76.3	12.0

210	2010/07/13 19:34:33	0.500	78.0	9.3
211	2010/07/13 19:34:35	0.625	74.6	9.0
212	2010/07/13 19:34:40	0.625	77.6	9.5
213	2010/07/13 19:34:44	0.625	74.5	7.2
214	2010/07/13 19:34:45	0.625	74.7	9.3
215	2010/07/13 19:34:53	0.625	79.3	11.2
216	2010/07/13 19:34:57	0.875	77.6	6.6
217	2010/07/13 19:35:05	1.000	63.4	7.9
218	2010/07/13 19:35:40	1.000	77.2	8.5
219	2010/07/13 19:35:42	0.625	78.8	10.4
220	2010/07/13 19:35:47	0.625	79.4	10.4
221	2010/07/13 19:35:55	0.750	79.2	6.9
222	2010/07/13 19:35:58	0.625	78.6	8.0
223	2010/07/13 19:35:59	0.625	72.8	7.8
224	2010/07/13 19:36:02	0.625	76.9	7.3
225	2010/07/13 19:36:04	0.625	71.6	8.2
226	2010/07/13 19:36:12	0.750	61.8	9.4
227	2010/07/13 19:36:13	0.750	76.6	10.6
228	2010/07/13 19:36:28	1.000	59.0	8.5
229	2010/07/13 19:36:39	0.625	62.0	11.7
230	2010/07/13 19:40:58	0.625	82.6	11.5
231	2010/07/13 19:41:14	0.875	78.7	7.6
232	2010/07/13 19:59:55	0.625	71.0	9.7
233	2010/07/13 20:00:28	0.750	61.5	11.7
234	2010/07/13 20:00:31	0.750	53.9	8.6
235	2010/07/13 20:01:39	1.000	58.2	8.3
236	2010/07/13 20:01:53	1.000	54.8	9.6
237	2010/07/13 20:04:48	0.750	72.9	6.7
238	2010/07/13 20:05:19	0.625	59.7	9.6
239	2010/07/13 20:12:48	0.750	59.3	10.2
240	2010/07/13 20:17:37	0.750	58.6	8.8
241	2010/07/13 20:30:28	0.625	59.3	10.7
242	2010/07/13 20:38:03	0.750	75.0	9.0
243	2010/07/13 20:38:05	0.875	78.0	7.2

244	2010/07/13 20:57:54	0.625	85.6	12.8
245	2010/07/13 21:00:00	0.750	60.4	10.1
246	2010/07/13 21:00:04	0.750	57.1	8.6
247	2010/07/13 21:05:23	0.750	58.1	8.4
248	2010/07/13 21:29:00	0.875	54.0	8.3
249	2010/07/13 21:29:03	0.875	56.6	8.8
250	2010/07/13 21:43:50	0.875	55.8	8.6
251	2010/07/13 22:34:39	0.875	57.2	8.6
252	2010/07/13 22:34:40	1.000	53.0	6.6
253	2010/07/13 22:35:11	0.750	57.7	9.5
254	2010/07/13 22:35:24	0.875	55.7	8.3
255	2010/07/13 22:36:17	0.750	56.2	9.0
256	2010/07/13 22:36:19	0.625	58.7	8.7
257	2010/07/13 23:07:33	1.000	74.3	7.4
258	2010/07/13 23:07:49	0.750	62.9	9.5
259	2010/07/13 23:07:53	0.750	61.5	8.7
260	2010/07/13 23:23:36	1.000	80.0	7.5
261	2010/07/13 23:24:16	0.750	75.3	10.1
262	2010/07/13 23:24:35	0.625	83.2	11.7
263	2010/07/13 23:25:50	0.625	75.3	10.0
264	2010/07/13 23:26:08	0.625	78.1	10.6
265	2010/07/13 23:29:15	0.875	80.1	11.4
266	2010/07/13 23:29:17	0.750	75.4	9.1
267	2010/07/13 23:29:35	0.625	67.8	8.2
268	2010/07/13 23:29:37	0.625	61.6	8.5
269	2010/07/13 23:29:59	0.750	77.8	8.1
270	2010/07/13 23:30:19	0.625	75.1	9.2
271	2010/07/13 23:30:21	0.625	82.9	11.7
272	2010/07/13 23:30:25	0.625	77.3	9.0
273	2010/07/13 23:30:26	0.625	78.0	9.5
274	2010/07/13 23:30:28	0.625	74.9	9.2
275	2010/07/13 23:30:41	0.750	80.9	9.7
276	2010/07/13 23:30:45	0.625	63.9	13.2
277	2010/07/13 23:30:51	0.625	75.2	7.7

278	2010/07/13 23:30:54	0.750	69.6	10.4
279	2010/07/13 23:31:00	0.625	57.1	8.9
280	2010/07/13 23:31:14	0.625	68.6	7.2
281	2010/07/13 23:31:28	1.000	82.1	11.4
282	2010/07/13 23:31:52	0.875	57.0	8.9
283	2010/07/13 23:32:07	1.000	77.3	9.3
284	2010/07/13 23:32:08	0.625	78.0	8.1
285	2010/07/13 23:32:14	0.875	67.7	9.2
286	2010/07/13 23:32:16	0.625	68.2	10.9
287	2010/07/13 23:32:16	0.625	62.2	10.2
288	2010/07/13 23:32:18	0.875	64.5	10.5
289	2010/07/13 23:32:46	1.000	56.9	6.6
290	2010/07/13 23:32:49	1.000	62.7	8.8
291	2010/07/13 23:32:52	1.000	58.0	7.1
292	2010/07/13 23:33:16	0.750	59.3	9.6
293	2010/07/13 23:34:47	0.750	63.4	9.5
294	2010/07/13 23:35:22	0.625	73.4	12.4
295	2010/07/13 23:37:49	0.875	54.9	10.7
296	2010/07/13 23:39:29	0.750	65.6	6.9
297	2010/07/13 23:40:09	0.625	71.5	7.2
298	2010/07/13 23:40:26	0.625	82.2	11.0
299	2010/07/13 23:40:29	0.875	82.2	10.5
300	2010/07/13 23:41:14	0.625	66.0	9.7
301	2010/07/13 23:41:26	0.625	68.3	6.9
302	2010/07/13 23:41:36	0.750	67.8	7.7
303	2010/07/13 23:41:43	0.750	75.4	9.0
304	2010/07/13 23:41:54	0.625	61.6	11.6
305	2010/07/13 23:42:02	0.500	77.7	12.6
306	2010/07/13 23:42:03	0.875	70.6	12.3
307	2010/07/13 23:42:05	0.750	67.8	11.1
308	2010/07/13 23:42:12	1.000	63.1	11.0
309	2010/07/13 23:42:33	0.625	65.4	8.4
310	2010/07/13 23:42:48	0.500	67.7	6.5
311	2010/07/13 23:42:56	1.000	68.1	11.2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

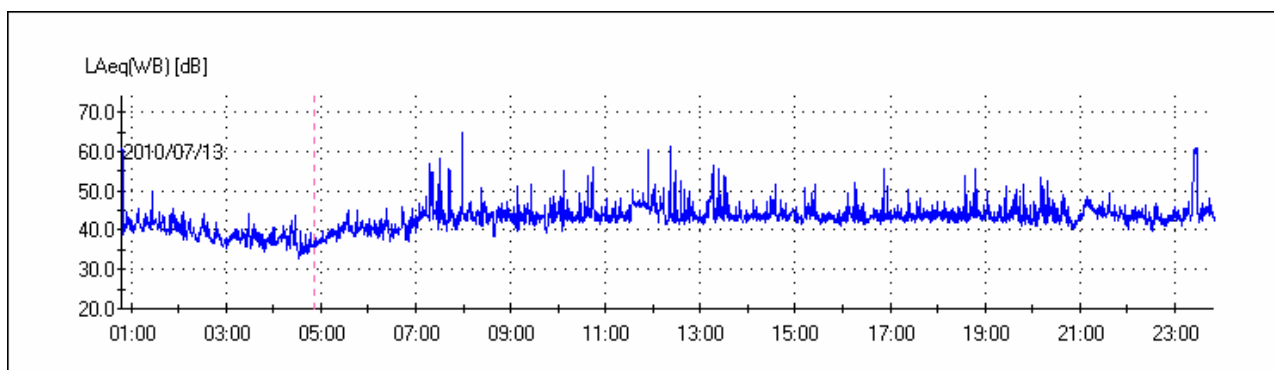
312	2010/07/13 23:43:00	0.625	72.9	12.2
313	2010/07/13 23:43:02	0.625	80.7	10.6
314	2010/07/13 23:43:04	0.750	64.4	12.2
315	2010/07/13 23:43:06	0.625	72.8	10.9
316	2010/07/13 23:43:07	0.750	75.4	12.6
317	2010/07/13 23:43:11	0.750	73.0	10.8
318	2010/07/13 23:43:12	1.000	74.3	10.7
319	2010/07/13 23:43:37	0.500	66.3	12.2
320	2010/07/13 23:44:17	0.750	57.5	6.1
321	2010/07/13 23:44:26	0.750	65.5	8.5
322	2010/07/13 23:45:01	0.750	57.7	10.5
323	2010/07/13 23:45:04	0.875	69.1	12.0
324	2010/07/13 23:45:35	1.000	72.6	6.6
325	2010/07/13 23:46:29	0.750	62.1	8.9
326	2010/07/13 23:46:38	0.750	69.7	9.5
327	2010/07/13 23:47:11	0.625	75.0	7.4
328	2010/07/13 23:47:52	1.000	61.4	8.9
329	2010/07/13 23:48:39	1.000	64.1	10.6
330	2010/07/13 23:48:55	0.500	66.6	12.1
331	2010/07/13 23:49:18	0.875	53.6	10.2
332	2010/07/13 23:49:31	0.625	75.9	8.4
333	2010/07/13 23:49:39	0.625	71.5	6.9
334	2010/07/13 23:49:44	0.625	75.5	10.4
335	2010/07/13 23:49:52	0.625	81.9	10.7
336	2010/07/13 23:49:55	0.625	82.0	11.3
337	2010/07/13 23:50:31	0.750	60.5	12.3
338	2010/07/13 23:50:33	0.625	58.9	9.8
339	2010/07/13 23:50:36	0.750	68.3	10.1

RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 80	0.0
Freq: 160	0.1
Freq: 315	0.0
Freq: 400	0.0
Freq: 500	0.3
Freq: 630	0.1
Freq: 800	0.0
Freq: 3.15 k	14.6
Freq: 4 k	0.1
Freq: 5 k	0.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

TIME HISTORY COMPONENTI TONALI

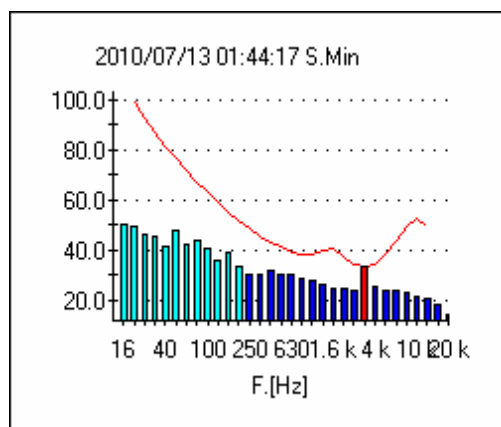
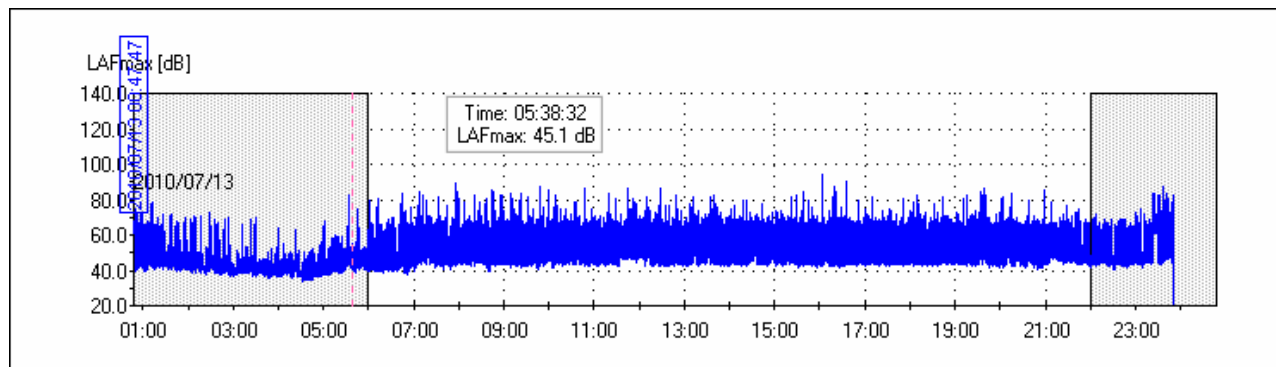
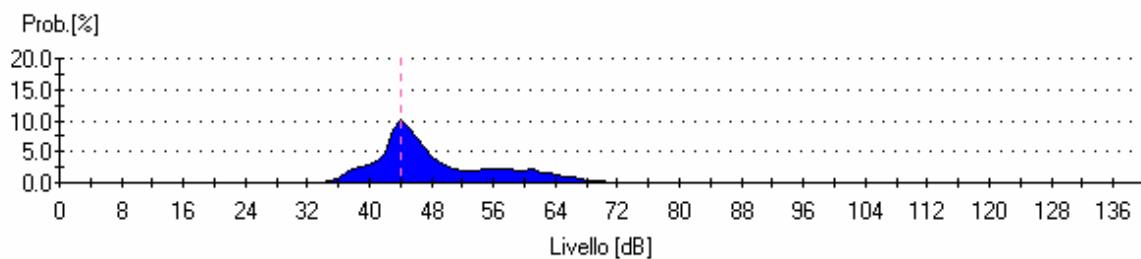


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

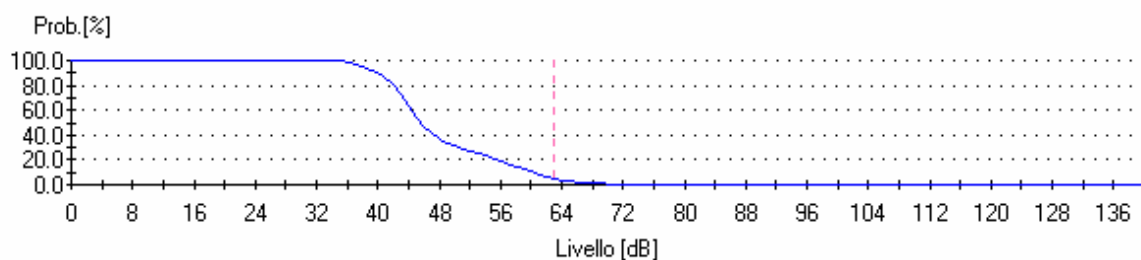
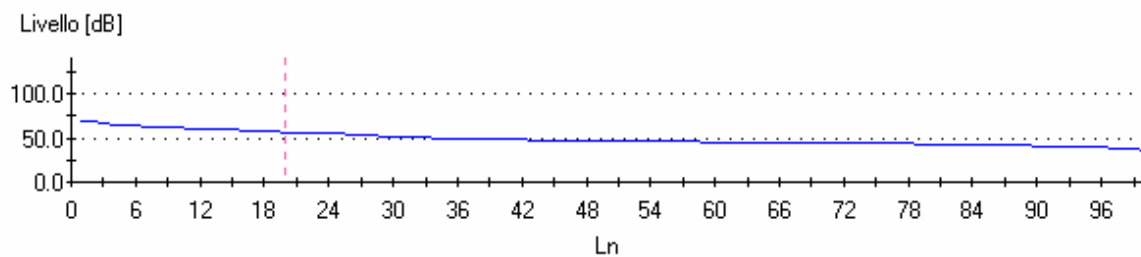


GRAFICO PERCENTILI



Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile	Leq.[dB]
0	69.0
1	69.0
2	67.0
3	65.0
4	64.5
5	64.0
6	63.0
7	62.5
8	62.0
9	61.5
10	61.0
11	60.5
12	60.0
13	59.5
14	59.0
15	58.5
16	58.0
17	57.5
18	57.0
19	56.5
20	56.0
21	55.7
22	55.3
23	55.0
24	54.5
25	54.0
26	53.5
27	53.0
28	52.0
29	51.7
30	51.3
31	51.0

32	50.5
33	50.0
34	49.7
35	49.3
36	49.0
37	48.8
38	48.5
39	48.3
40	48.0
41	47.8
42	47.7
43	47.5
44	47.3
45	47.2
46	47.0
47	46.9
48	46.7
49	46.6
50	46.4
51	46.3
52	46.1
53	46.0
54	45.9
55	45.8
56	45.7
57	45.6
58	45.4
59	45.3
60	45.2
61	45.1
62	45.0
63	44.9
64	44.8
65	44.7

66	44.6
67	44.5
68	44.4
69	44.3
70	44.2
71	44.1
72	44.0
73	43.9
74	43.8
75	43.7
76	43.6
77	43.4
78	43.3
79	43.2
80	43.1
81	43.0
82	42.8
83	42.6
84	42.4
85	42.2
86	42.0
87	41.7
88	41.3
89	41.0
90	40.7
91	40.3
92	40.0
93	39.7
94	39.3
95	39.0
96	38.5
97	38.0
98	37.0
99	36.0

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	70.0
1	70.0
2	67.0
3	66.0
4	65.5
5	65.0
6	64.0
7	63.5
8	63.0
9	62.5
10	62.0
11	61.7
12	61.3
13	61.0
14	60.5
15	60.0
16	59.5
17	59.0
18	58.7
19	58.3
20	58.0
21	57.7
22	57.3
23	57.0
24	56.7
25	56.3
26	56.0
27	55.5
28	55.0

29	54.7
30	54.3
31	54.0
32	53.5
33	53.0
34	52.5
35	52.0
36	51.7
37	51.3
38	51.0
39	50.7
40	50.3
41	50.0
42	49.7
43	49.3
44	49.0
45	48.8
46	48.6
47	48.4
48	48.2
49	48.0
50	47.9
51	47.7
52	47.6
53	47.4
54	47.3
55	47.1
56	47.0
57	46.9
58	46.8
59	46.6
60	46.5
61	46.4
62	46.3

63	46.1
64	46.0
65	45.9
66	45.8
67	45.7
68	45.6
69	45.5
70	45.4
71	45.3
72	45.2
73	45.1
74	45.0
75	44.9
76	44.8
77	44.7
78	44.6
79	44.5
80	44.5
81	44.4
82	44.3
83	44.2
84	44.1
85	44.0
86	43.9
87	43.8
88	43.7
89	43.6
90	43.4
91	43.3
92	43.2
93	43.1
94	43.0
95	42.7
96	42.3

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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97	42.0
98	41.0
99	40.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	66.0
1	66.0
2	63.0
3	62.0
4	61.0
5	60.0
6	59.0
7	58.0
8	57.0
9	56.0
10	55.0
11	54.0
12	53.0
13	52.0
14	51.0
15	50.0
16	49.5
17	49.0
18	48.5
19	48.0
20	47.8
21	47.5
22	47.3
23	47.0
24	46.8
25	46.6
26	46.4

27	46.2
28	46.0
29	45.9
30	45.7
31	45.6
32	45.4
33	45.3
34	45.1
35	45.0
36	44.9
37	44.8
38	44.7
39	44.6
40	44.4
41	44.3
42	44.2
43	44.1
44	44.0
45	43.9
46	43.8
47	43.7
48	43.6
49	43.4
50	43.3
51	43.2
52	43.1
53	43.0
54	42.9
55	42.8
56	42.6
57	42.5
58	42.4
59	42.3
60	42.1

61	42.0
62	41.9
63	41.8
64	41.6
65	41.5
66	41.4
67	41.3
68	41.1
69	41.0
70	40.9
71	40.8
72	40.6
73	40.5
74	40.4
75	40.3
76	40.1
77	40.0
78	39.9
79	39.7
80	39.6
81	39.4
82	39.3
83	39.1
84	39.0
85	38.9
86	38.7
87	38.6
88	38.4
89	38.3
90	38.1
91	38.0
92	37.8
93	37.6
94	37.4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

95	37.2
96	37.0
97	36.5
98	36.0
99	35.0

LIVELLI DI IMPULS- FAST E SLOW MAX NELLE 24 ORE		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
82.2	71	78.3
91.5	83.6	89.2
89.6	85.4	87.6
96	86.9	93.8
90.6	82	86.4
88.8	82.1	87.2
96	86.9	93.8

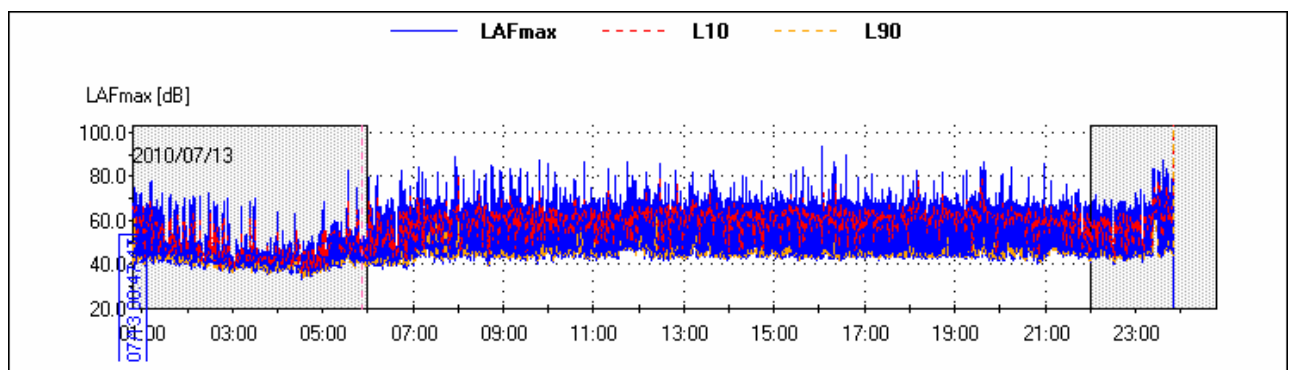
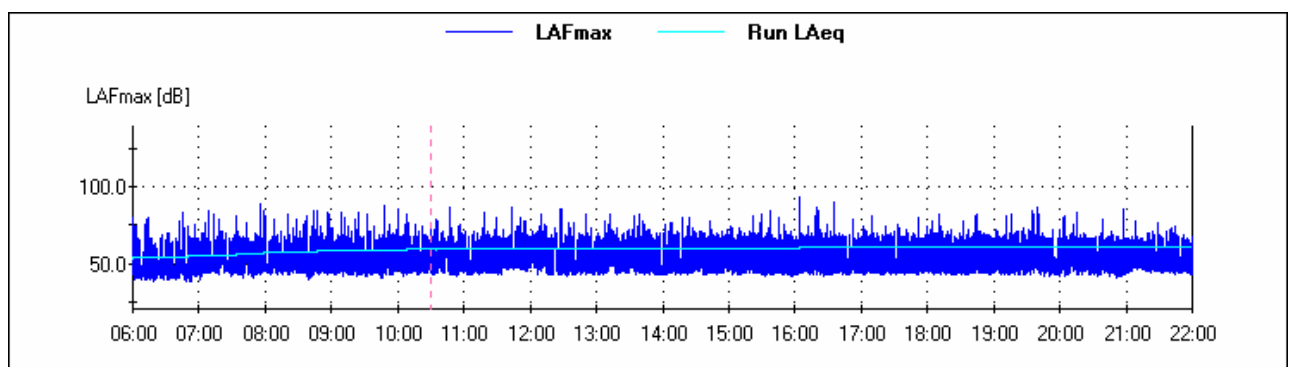
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

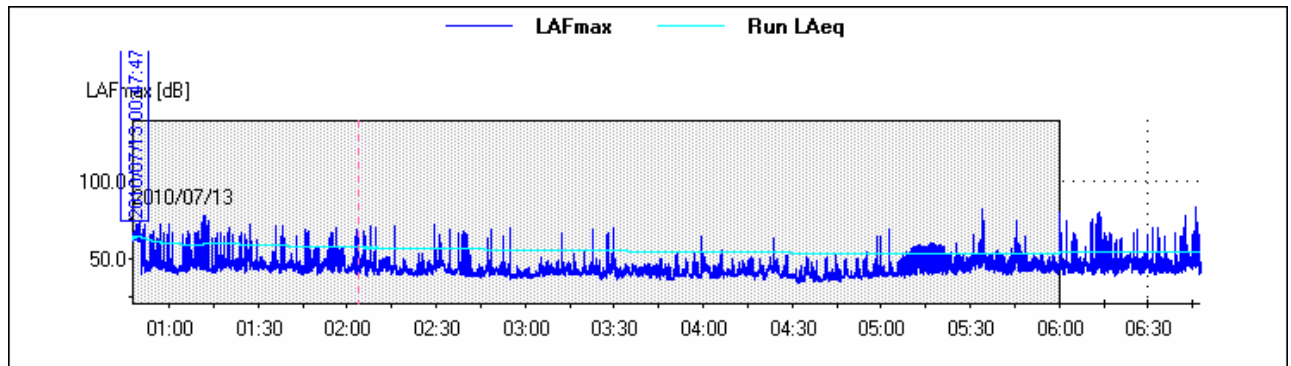
LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA _{Sp} [dB]	LA _{Fp} [dB]
91.5	83.6	89.2
89.6	85.4	87.6
96	86.9	93.8
90.6	82	86.4
75.1	71.4	74.2
96	86.9	93.8

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

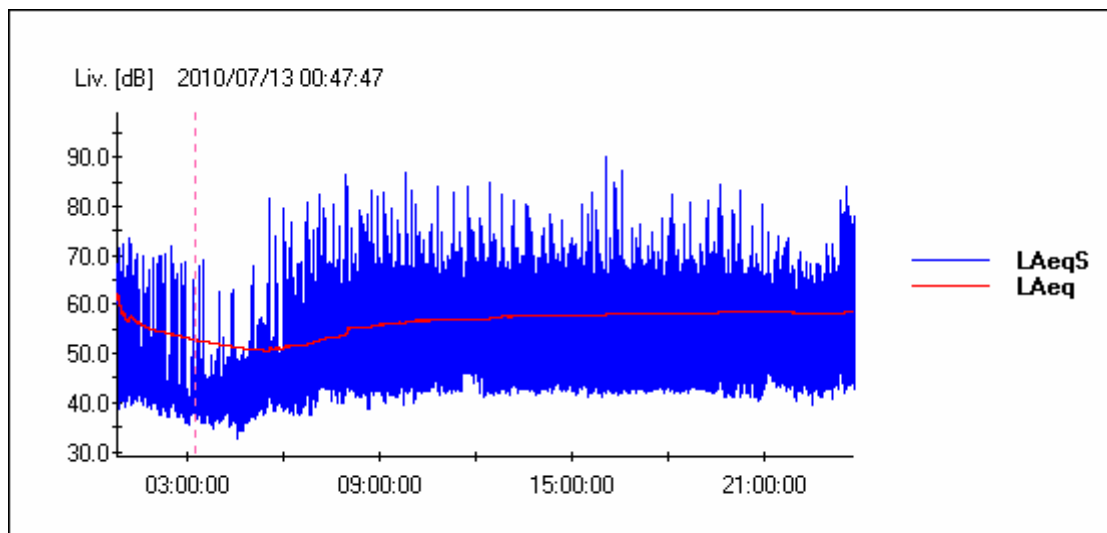
**LIVELLI DI IMPULS- FAST E SLOW
MAX NOTTURNI**

LAIp [dB]	LASp [dB]	LAFp [dB]
82.2	71	78.3
84.2	79.2	82.8
88.8	82.1	87.2
88.8	82.1	87.2

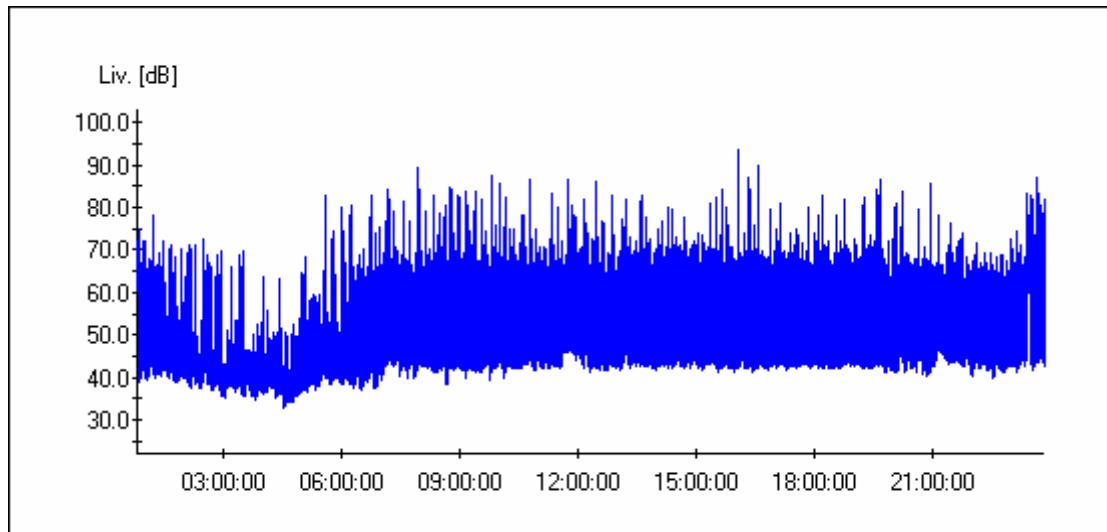
TIME HISTORY L10 – L90

RUNNING Leq DIURNO

RUNNING Leq NOTTURNO



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Punto	Ricettore R_15_C	Indirizzo SCUOLA
Descrizione del punto di misura/ricettore <i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sul piazzale adiacente la scuola ad una distanza di mt 20 dal prospetto del corpo più vicino al piazzale</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 / 40 dB(a)
☒	Classe II	55 / 45 dB(a)
☐	Classe III	60 / 50 dB(a)
☐	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826		
Punto	Ricettore R_15_C	Indirizzo SCUOLA

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)								
Periodo	TR	Data	L_{AeqTR} [dBA]	K_I [dBA]	K_T [dBA]	K_B [dBA]	L_{AeqTRC} [dBA]	L_{lim} [dBA]
Giorno	6-22h	24/07/10	48.6	0	0		48.6	55
Notte	22-6h	24/07/10	51.0	0	0	0	51.0	45

RISULTATI MISURE	
Codice misura	R_15_C
Data inizio	24/07/2010
Ora inizio	0.23.57
Note	

Parametri		24 ore	Giorno (T_R = 6/22)	Notte (T_R = 22/6)
L _{AeqTR}	[dBA]	49.5	48.6	51.0
L ₁	[dBA]	58.0	57.0	61.0
L ₅	[dBA]	52.7	52.7	52.7
L ₁₀	[dBA]	51.3	51.0	51.5
L ₅₀	[dBA]	44.6	44.6	44.7
L ₉₀	[dBA]	39.3	40.0	37.8
L ₉₅	[dBA]	38.0	38.7	36.3
L ₉₉	[dBA]	35.0	37.0	34.0
L _I max	[dBA]	88.0	82.6	88.0
L _F max	[dBA]	85.3	80.5	85.3
L _S max	[dBA]	77.7	73.0	77.7
K _I	[dBA]	0	0	0
K _T	[dBA]	0	0	0
K _B	[dBA]	0	0	0
L_{AeqTRC}		49.5	48.6	51.0

Note:		
Punto	Ricettore R_15_C	Indirizzo SCUOLA

Sorgente stradale: _____

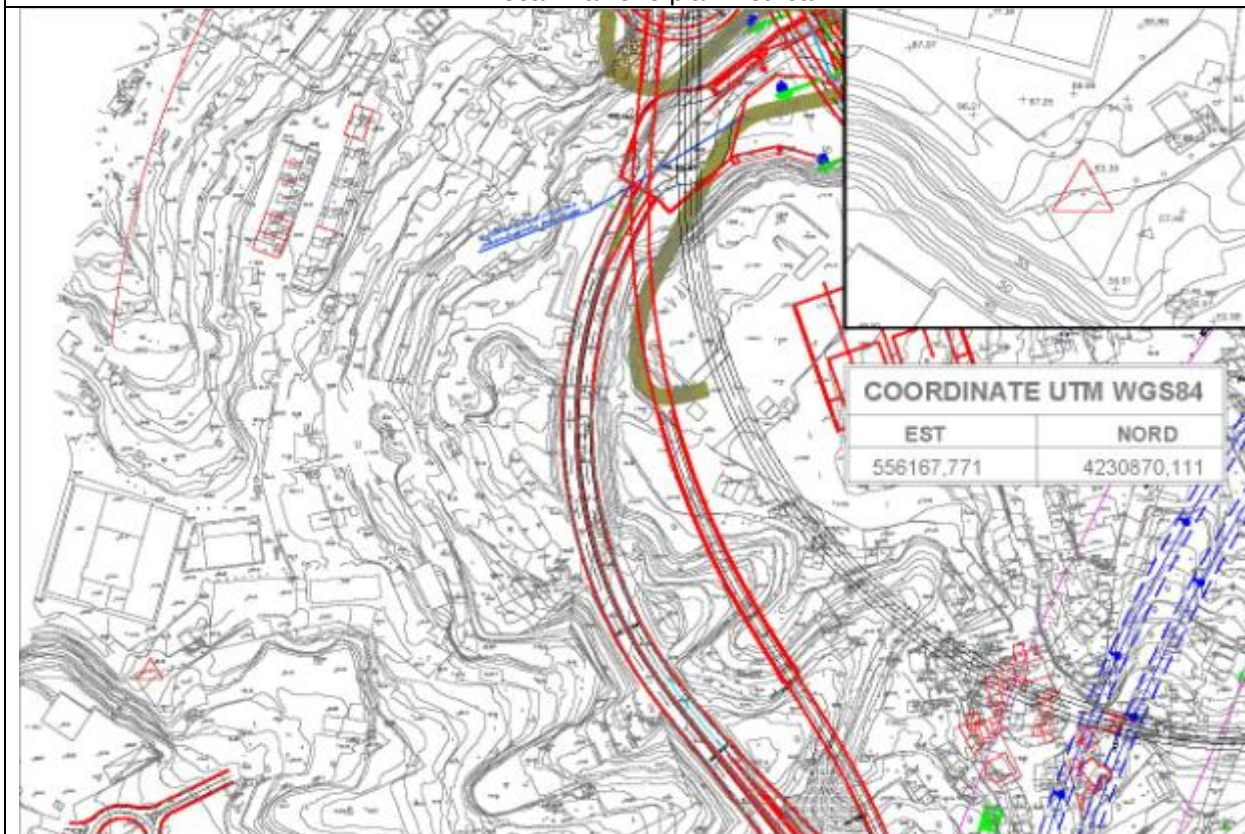
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	14	25	18	34	22.75	18	9	13.5
Veic. Pesanti / 10'	0	0	0	0	0	0	0	0
Motocicli / 10'	2	1	2	6	2.75	2	1	1.5
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	25	32.3	29	26	28.08	25	23	24
Umidità relativa	70	60	70	77	69.25	83	75	79
Velocità vento	4.9	4.3	3.2	4.8	4.3	1	2.2	1.6
Direzione vento	E	S S W	S E	S		N W	N N W	

Fotografia del punto di misura



Punto	Ricettore	Indirizzo
	R_15_C	SCUOLA

Localizzazione planimetrica



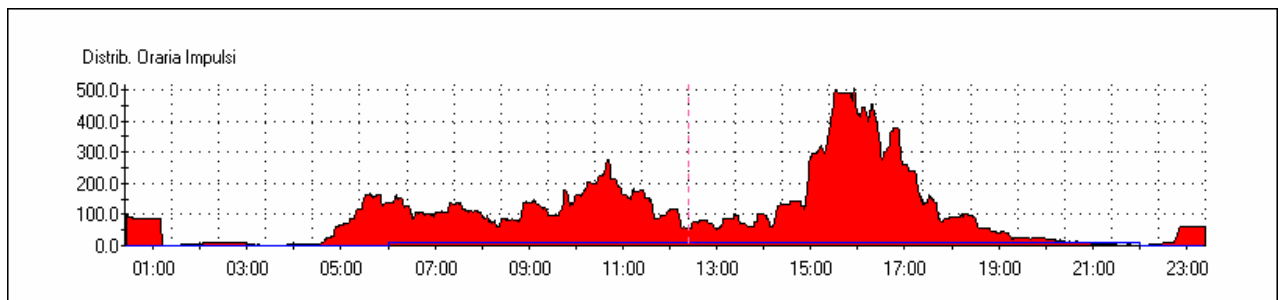
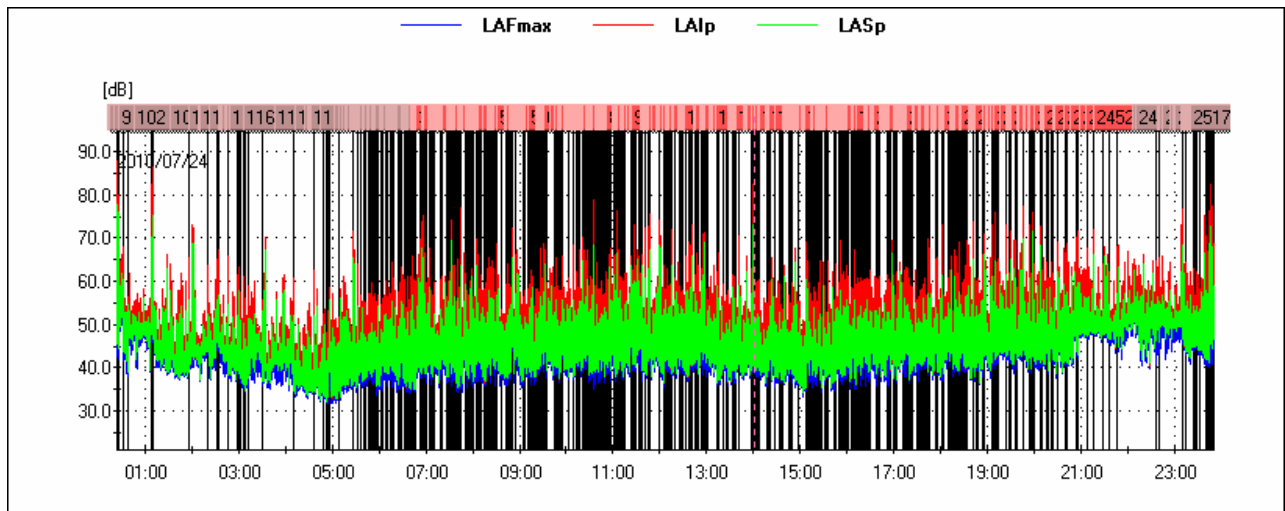
DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

RICONOSCIMENTO COMPONENTI IMPULSIVE

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/24 00:24:03	0.625	74.9	10.0
2	2010/07/24 00:24:08	0.625	85.3	9.9
3	2010/07/24 00:25:56	0.750	62.2	12.1
4	2010/07/24 00:25:58	0.750	61.4	9.1
5	2010/07/24 00:26:05	1.000	56.3	6.4
6	2010/07/24 00:26:07	0.625	72.1	11.2
7	2010/07/24 00:26:23	0.625	70.0	10.1

8	2010/07/24 00:31:33	1.000	59.4	6.6
9	2010/07/24 00:37:33	0.750	53.0	9.3
10	2010/07/24 01:07:09	0.625	72.3	13.5
11	2010/07/24 01:07:09	0.500	71.5	11.6
12	2010/07/24 01:07:11	0.625	72.3	12.2
13	2010/07/24 01:07:12	0.625	72.4	12.3
14	2010/07/24 01:07:14	0.500	71.1	12.1
15	2010/07/24 01:07:15	0.625	73.6	13.0
16	2010/07/24 01:07:17	0.500	71.6	11.8
17	2010/07/24 01:07:18	0.625	77.4	13.3
18	2010/07/24 01:07:19	0.625	68.9	13.6
19	2010/07/24 01:07:20	0.500	70.6	11.5
20	2010/07/24 01:07:22	0.625	71.2	12.3
21	2010/07/24 01:07:23	0.625	74.3	12.5
22	2010/07/24 01:07:24	0.500	72.8	11.3
23	2010/07/24 01:07:25	1.000	76.3	10.8
24	2010/07/24 01:07:27	0.625	72.4	10.0
25	2010/07/24 01:07:28	0.750	70.3	9.4
26	2010/07/24 01:07:30	0.625	69.1	9.9
27	2010/07/24 01:07:31	0.750	66.2	9.4
28	2010/07/24 01:07:33	0.875	70.2	12.4
29	2010/07/24 01:07:36	0.500	71.0	12.5
30	2010/07/24 01:07:37	0.625	73.6	12.5
31	2010/07/24 01:07:40	0.500	72.1	11.9
32	2010/07/24 01:07:41	0.625	69.7	10.7
33	2010/07/24 01:07:44	0.500	70.9	11.2
34	2010/07/24 01:07:45	0.750	72.2	11.0
35	2010/07/24 01:07:46	0.500	72.0	11.5
36	2010/07/24 01:07:47	0.500	70.8	10.4
37	2010/07/24 01:07:50	0.625	70.8	12.2
38	2010/07/24 01:07:51	0.625	67.6	10.8
39	2010/07/24 01:07:52	0.625	65.7	9.4
40	2010/07/24 01:07:57	0.500	70.6	12.0
41	2010/07/24 01:07:58	0.500	74.3	12.5

42	2010/07/24 01:07:59	0.625	73.3	11.6
43	2010/07/24 01:08:01	0.750	74.3	12.2
44	2010/07/24 01:08:03	0.500	64.5	12.3
45	2010/07/24 01:08:06	0.625	66.3	12.5
46	2010/07/24 01:08:07	0.750	62.4	10.8
47	2010/07/24 01:08:09	0.625	68.5	12.7
48	2010/07/24 01:08:10	0.625	72.3	12.8
49	2010/07/24 01:08:12	0.625	66.6	12.2
50	2010/07/24 01:08:13	0.625	70.3	11.5
51	2010/07/24 01:08:14	0.500	65.1	11.3
52	2010/07/24 01:08:15	0.625	69.7	11.4
53	2010/07/24 01:08:16	0.500	71.2	11.3
54	2010/07/24 01:08:18	0.500	71.1	13.0
55	2010/07/24 01:08:20	0.500	73.7	13.6
56	2010/07/24 01:08:21	0.625	68.0	13.2
57	2010/07/24 01:08:23	0.625	68.6	10.6
58	2010/07/24 01:08:24	0.625	67.6	11.0
59	2010/07/24 01:08:26	0.625	63.6	10.2
60	2010/07/24 01:08:27	0.500	66.9	11.5
61	2010/07/24 01:08:28	0.625	65.0	9.9
62	2010/07/24 01:08:30	0.625	71.0	12.3
63	2010/07/24 01:08:30	0.625	69.0	10.2
64	2010/07/24 01:08:42	0.875	67.4	10.5
65	2010/07/24 01:08:44	0.625	69.4	11.6
66	2010/07/24 01:08:45	0.625	69.9	11.9
67	2010/07/24 01:08:46	0.625	70.7	12.2
68	2010/07/24 01:08:47	0.500	72.8	12.7
69	2010/07/24 01:08:49	0.625	71.6	12.3
70	2010/07/24 01:08:50	0.500	71.6	12.1
71	2010/07/24 01:08:51	0.500	69.2	10.6
72	2010/07/24 01:08:52	0.625	70.4	11.1
73	2010/07/24 01:08:55	0.625	63.9	9.9
74	2010/07/24 01:08:56	0.625	65.1	11.2
75	2010/07/24 01:09:03	0.500	68.0	12.7

**MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO**
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Data

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79	2010/07/24 01:09:12	0.750	72.0	9.8
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82	2010/07/24 01:09:16	0.875	67.5	8.7
83	2010/07/24 01:09:18	0.625	68.6	9.8
84	2010/07/24 01:09:19	0.500	66.7	9.7
85	2010/07/24 01:09:19	0.750	66.9	10.1
86	2010/07/24 01:09:20	0.875	67.3	9.1
87	2010/07/24 01:09:22	0.625	67.2	9.3
88	2010/07/24 01:09:24	0.750	61.2	8.8
89	2010/07/24 01:09:25	0.500	64.1	10.2
90	2010/07/24 01:09:26	0.625	61.3	8.7
91	2010/07/24 01:09:28	0.625	64.6	11.2
92	2010/07/24 01:09:29	0.625	63.7	11.4
93	2010/07/24 01:09:30	0.625	73.0	13.7
94	2010/07/24 01:09:31	0.625	73.2	12.5
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96	2010/07/24 01:09:34	0.500	72.0	11.3
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98	2010/07/24 01:09:37	0.625	69.0	11.8
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105	2010/07/24 02:32:47	1.000	60.9	9.4
106	2010/07/24 02:33:19	0.750	63.6	10.2
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114	2010/07/24 03:07:36	0.750	53.0	9.5
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131	2010/07/24 05:36:38	0.750	52.5	9.9
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138	2010/07/24 05:37:22	0.875	51.6	8.5
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193	2010/07/24 06:04:57	0.875	52.6	9.4
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195	2010/07/24 06:08:30	0.750	53.6	9.0
196	2010/07/24 06:08:36	0.625	53.8	9.6
197	2010/07/24 06:08:38	1.000	51.0	7.6
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237	2010/07/24 06:18:17	0.750	49.9	8.7
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322	2010/07/24 06:55:24	1.000	63.6	11.5
323	2010/07/24 06:56:14	1.000	59.5	8.8
324	2010/07/24 06:56:15	0.625	69.4	11.3
325	2010/07/24 06:56:54	1.000	62.3	9.2
326	2010/07/24 06:57:33	0.750	71.9	9.7
327	2010/07/24 06:57:52	0.750	56.6	6.5
328	2010/07/24 06:59:44	1.000	57.7	7.5
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335	2010/07/24 07:06:25	0.750	51.0	8.4
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355	2010/07/24 07:08:30	0.750	53.2	8.8
356	2010/07/24 07:09:04	0.875	49.6	9.5
357	2010/07/24 07:09:27	0.750	54.3	9.3
358	2010/07/24 07:09:30	1.000	49.8	7.2
359	2010/07/24 07:09:55	0.750	54.7	8.7
360	2010/07/24 07:10:00	0.750	55.4	9.0
361	2010/07/24 07:10:07	0.750	54.6	8.4
362	2010/07/24 07:10:11	0.875	53.1	6.5
363	2010/07/24 07:11:07	0.875	53.4	8.5
364	2010/07/24 07:19:37	0.750	56.4	9.5
365	2010/07/24 07:19:42	1.000	56.7	7.4
366	2010/07/24 07:19:45	1.000	54.9	8.4
367	2010/07/24 07:19:48	0.625	58.0	9.7
368	2010/07/24 07:19:49	0.750	56.6	8.6
369	2010/07/24 07:20:22	1.000	53.0	8.2
370	2010/07/24 07:20:59	0.875	52.4	6.8
371	2010/07/24 07:27:44	0.750	53.6	8.7
372	2010/07/24 07:27:47	1.000	50.9	7.8
373	2010/07/24 07:27:52	0.750	53.6	7.9
374	2010/07/24 07:31:27	0.750	58.0	8.0
375	2010/07/24 07:31:29	0.875	54.1	7.1
376	2010/07/24 07:31:34	0.750	55.3	8.5
377	2010/07/24 07:31:37	0.750	55.6	9.7
378	2010/07/24 07:31:39	0.750	56.7	8.9
379	2010/07/24 07:31:42	0.750	51.9	6.8
380	2010/07/24 07:31:43	1.000	52.5	7.6
381	2010/07/24 07:31:46	0.750	51.9	7.8

382	2010/07/24 07:31:47	0.750	53.0	7.3
383	2010/07/24 07:31:52	0.750	51.8	8.7
384	2010/07/24 07:31:54	0.750	54.0	9.1
385	2010/07/24 07:31:56	0.750	54.5	7.7
386	2010/07/24 07:31:57	0.750	53.8	7.9
387	2010/07/24 07:32:00	0.750	51.5	7.6
388	2010/07/24 07:32:02	0.875	52.0	8.1
389	2010/07/24 07:32:04	0.875	54.4	9.2
390	2010/07/24 07:32:08	0.750	53.7	8.3
391	2010/07/24 07:32:21	0.750	56.3	7.2
392	2010/07/24 07:32:23	0.625	54.6	6.3
393	2010/07/24 07:32:42	0.625	55.4	8.4
394	2010/07/24 07:34:40	0.750	50.7	7.0
395	2010/07/24 07:34:59	1.000	54.5	8.6
396	2010/07/24 07:36:06	0.750	57.1	9.7
397	2010/07/24 07:36:19	0.750	56.5	8.9
398	2010/07/24 07:36:25	0.750	59.0	8.5
399	2010/07/24 07:36:28	0.875	55.3	7.0
400	2010/07/24 07:36:37	0.750	57.2	7.9
401	2010/07/24 07:36:48	0.750	57.2	8.7
402	2010/07/24 07:36:56	0.750	55.7	9.2
403	2010/07/24 07:36:59	0.875	54.5	8.8
404	2010/07/24 07:39:39	0.625	51.4	8.3
405	2010/07/24 07:40:21	1.000	61.6	9.2
406	2010/07/24 07:42:40	0.625	52.2	9.8
407	2010/07/24 07:42:54	0.750	56.1	9.4
408	2010/07/24 07:44:50	0.750	50.5	8.9
409	2010/07/24 07:44:55	0.625	51.5	10.2
410	2010/07/24 07:45:23	0.750	48.9	9.0
411	2010/07/24 07:45:27	0.875	48.8	7.8
412	2010/07/24 07:45:35	0.750	72.3	13.4
413	2010/07/24 07:50:39	0.875	52.9	9.5
414	2010/07/24 07:52:38	1.000	48.4	7.4
415	2010/07/24 07:52:43	0.750	50.0	8.1

416	2010/07/24 07:52:47	0.875	49.1	7.2
417	2010/07/24 07:52:52	0.625	49.3	7.8
418	2010/07/24 07:52:53	0.750	49.4	8.5
419	2010/07/24 07:55:04	1.000	54.6	8.0
420	2010/07/24 07:57:13	0.750	52.1	9.4
421	2010/07/24 07:57:15	1.000	54.6	9.3
422	2010/07/24 07:57:20	0.750	52.8	9.3
423	2010/07/24 07:57:24	0.875	50.9	8.4
424	2010/07/24 07:57:26	0.875	50.2	8.2
425	2010/07/24 07:57:34	0.750	53.4	9.7
426	2010/07/24 07:57:51	0.625	51.8	9.0
427	2010/07/24 07:57:55	0.750	50.4	8.1
428	2010/07/24 07:58:09	0.875	51.4	9.0
429	2010/07/24 07:58:13	0.750	51.1	8.4
430	2010/07/24 07:58:14	0.750	50.7	8.8
431	2010/07/24 07:58:17	0.750	54.7	9.3
432	2010/07/24 07:58:19	0.750	52.4	7.4
433	2010/07/24 07:58:20	0.875	52.0	8.1
434	2010/07/24 07:58:22	0.625	52.7	9.0
435	2010/07/24 07:58:36	1.000	54.3	9.9
436	2010/07/24 08:00:30	1.000	53.5	7.9
437	2010/07/24 08:05:04	0.875	52.7	6.9
438	2010/07/24 08:05:09	1.000	52.5	6.8
439	2010/07/24 08:05:11	0.875	52.6	8.2
440	2010/07/24 08:05:12	1.000	54.2	7.2
441	2010/07/24 08:05:19	0.625	52.9	8.9
442	2010/07/24 08:05:21	0.625	53.8	10.1
443	2010/07/24 08:05:25	0.750	52.1	8.1
444	2010/07/24 08:05:26	1.000	52.8	8.4
445	2010/07/24 08:06:00	1.000	61.3	12.0
446	2010/07/24 08:06:40	0.875	52.5	8.3
447	2010/07/24 08:06:43	0.750	53.2	8.2
448	2010/07/24 08:06:45	0.875	52.0	7.3
449	2010/07/24 08:06:46	1.000	54.3	8.4

450	2010/07/24 08:06:48	0.875	51.3	7.1
451	2010/07/24 08:06:48	0.750	51.4	7.4
452	2010/07/24 08:06:50	1.000	48.5	6.8
453	2010/07/24 08:06:54	1.000	50.9	7.5
454	2010/07/24 08:06:55	0.875	52.7	7.1
455	2010/07/24 08:06:57	0.750	52.4	7.8
456	2010/07/24 08:06:58	1.000	53.1	8.7
457	2010/07/24 08:07:03	0.750	52.0	6.4
458	2010/07/24 08:07:04	0.625	51.7	7.4
459	2010/07/24 08:07:07	0.875	52.8	8.0
460	2010/07/24 08:07:14	0.875	52.1	7.9
461	2010/07/24 08:07:30	0.625	53.6	8.7
462	2010/07/24 08:08:08	0.875	51.1	7.9
463	2010/07/24 08:08:21	0.875	54.3	10.0
464	2010/07/24 08:08:24	0.875	52.2	7.6
465	2010/07/24 08:08:38	0.875	52.7	7.9
466	2010/07/24 08:09:02	0.750	54.2	9.2
467	2010/07/24 08:09:11	0.875	53.5	8.5
468	2010/07/24 08:10:48	0.875	48.5	9.1
469	2010/07/24 08:10:49	0.750	52.4	10.1
470	2010/07/24 08:10:50	0.625	54.0	9.3
471	2010/07/24 08:10:53	0.875	52.6	9.5
472	2010/07/24 08:10:54	0.875	52.5	8.3
473	2010/07/24 08:14:29	0.875	53.3	8.6
474	2010/07/24 08:14:43	0.750	52.8	8.0
475	2010/07/24 08:14:51	0.750	51.8	8.8
476	2010/07/24 08:14:53	0.625	53.3	9.6
477	2010/07/24 08:14:56	0.750	50.5	9.0
478	2010/07/24 08:14:59	0.750	51.5	8.4
479	2010/07/24 08:15:12	1.000	48.1	7.4
480	2010/07/24 08:15:16	0.750	50.0	9.8
481	2010/07/24 08:15:17	0.750	51.3	8.2
482	2010/07/24 08:15:19	0.750	52.6	8.5
483	2010/07/24 08:15:21	0.625	50.4	7.9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

484	2010/07/24 08:15:22	0.750	51.2	8.9
485	2010/07/24 08:15:28	0.625	53.5	8.1
486	2010/07/24 08:15:30	0.625	52.6	8.7
487	2010/07/24 08:15:33	0.875	51.5	9.0
488	2010/07/24 08:15:38	0.625	51.9	9.3
489	2010/07/24 08:15:40	0.625	55.2	8.9
490	2010/07/24 08:15:41	0.750	55.0	8.6
491	2010/07/24 08:15:43	0.750	54.6	7.7
492	2010/07/24 08:15:44	0.750	55.8	8.6
493	2010/07/24 08:15:48	1.000	52.7	7.7
494	2010/07/24 08:15:50	0.875	53.4	8.8
495	2010/07/24 08:15:52	0.875	53.7	8.3
496	2010/07/24 08:16:00	0.875	54.0	8.2
497	2010/07/24 08:16:01	0.750	55.9	9.3
498	2010/07/24 08:16:13	1.000	51.8	8.2
499	2010/07/24 08:16:17	0.750	52.6	10.3
500	2010/07/24 08:16:33	1.000	53.8	11.0
501	2010/07/24 08:16:49	0.750	50.2	6.7
502	2010/07/24 08:18:44	0.875	59.2	10.3
503	2010/07/24 08:21:42	1.000	63.3	7.6
504	2010/07/24 08:21:54	0.875	60.5	8.5
505	2010/07/24 08:22:56	1.000	53.1	9.3
506	2010/07/24 08:23:57	0.875	62.2	8.8
507	2010/07/24 08:24:37	0.750	60.4	9.7
508	2010/07/24 08:26:45	0.875	60.1	9.0
509	2010/07/24 08:27:08	1.000	61.1	7.2
510	2010/07/24 08:28:35	0.875	50.6	9.0
511	2010/07/24 08:28:37	0.875	51.7	8.7
512	2010/07/24 08:29:42	0.750	54.7	7.9
513	2010/07/24 08:31:17	1.000	51.3	8.5
514	2010/07/24 08:31:51	0.750	64.5	11.9
515	2010/07/24 08:37:48	1.000	52.3	6.5
516	2010/07/24 08:41:58	0.750	49.8	9.6
517	2010/07/24 08:42:57	0.625	54.1	9.0

518	2010/07/24 08:42:58	0.750	54.5	9.2
519	2010/07/24 08:43:40	0.625	56.1	10.3
520	2010/07/24 08:44:01	0.875	59.5	11.9
521	2010/07/24 08:44:13	0.625	56.0	10.7
522	2010/07/24 08:44:14	0.625	58.3	9.8
523	2010/07/24 08:47:22	0.750	56.2	10.1
524	2010/07/24 08:47:57	1.000	52.3	7.9
525	2010/07/24 08:50:42	0.750	68.3	9.0
526	2010/07/24 08:55:35	0.750	62.7	9.1
527	2010/07/24 09:03:59	0.750	49.3	8.1
528	2010/07/24 09:04:01	0.750	49.9	9.2
529	2010/07/24 09:04:05	0.875	47.4	8.6
530	2010/07/24 09:04:06	0.875	47.9	8.9
531	2010/07/24 09:04:14	0.750	49.2	9.4
532	2010/07/24 09:04:23	0.750	50.5	9.8
533	2010/07/24 09:04:24	0.625	50.4	9.0
534	2010/07/24 09:04:25	0.750	49.0	7.8
535	2010/07/24 09:06:52	0.750	52.8	7.9
536	2010/07/24 09:07:08	0.875	52.4	8.8
537	2010/07/24 09:07:12	0.750	54.4	9.2
538	2010/07/24 09:07:16	0.625	53.9	8.9
539	2010/07/24 09:07:19	0.875	55.0	9.9
540	2010/07/24 09:07:23	0.875	54.5	9.3
541	2010/07/24 09:07:30	0.625	54.8	9.4
542	2010/07/24 09:07:33	0.875	54.7	9.7
543	2010/07/24 09:07:35	0.750	52.9	8.8
544	2010/07/24 09:11:22	0.625	51.7	8.9
545	2010/07/24 09:11:24	0.750	52.8	8.9
546	2010/07/24 09:11:28	0.875	50.6	9.5
547	2010/07/24 09:11:57	0.875	50.7	8.2
548	2010/07/24 09:12:02	0.875	49.9	8.7
549	2010/07/24 09:13:21	0.750	53.8	8.5
550	2010/07/24 09:13:25	0.625	54.9	8.3
551	2010/07/24 09:13:26	1.000	54.3	8.8

552	2010/07/24 09:13:30	0.750	53.7	7.3
553	2010/07/24 09:13:32	0.750	54.5	8.9
554	2010/07/24 09:13:33	0.750	55.7	8.2
555	2010/07/24 09:13:51	1.000	56.3	8.3
556	2010/07/24 09:14:53	0.875	52.7	9.3
557	2010/07/24 09:14:59	0.625	52.0	10.0
558	2010/07/24 09:15:04	1.000	60.5	6.7
559	2010/07/24 09:15:09	0.625	55.7	10.1
560	2010/07/24 09:16:11	0.750	54.4	10.2
561	2010/07/24 09:16:15	0.750	51.8	8.5
562	2010/07/24 09:16:46	0.875	55.1	9.9
563	2010/07/24 09:19:14	0.875	50.8	8.4
564	2010/07/24 09:19:17	0.750	51.4	9.0
565	2010/07/24 09:19:30	0.750	49.6	9.0
566	2010/07/24 09:20:01	1.000	47.9	7.9
567	2010/07/24 09:20:16	0.750	52.4	8.5
568	2010/07/24 09:20:55	1.000	52.7	8.0
569	2010/07/24 09:21:00	1.000	53.5	8.6
570	2010/07/24 09:21:05	0.875	51.7	8.0
571	2010/07/24 09:21:08	0.750	51.5	8.6
572	2010/07/24 09:21:10	0.750	55.6	9.5
573	2010/07/24 09:21:13	0.750	55.0	9.3
574	2010/07/24 09:21:18	0.875	54.4	8.2
575	2010/07/24 09:21:20	0.750	55.8	9.2
576	2010/07/24 09:21:22	0.875	55.6	8.8
577	2010/07/24 09:21:24	0.625	55.4	8.1
578	2010/07/24 09:21:34	1.000	54.6	9.1
579	2010/07/24 09:21:37	1.000	54.7	8.4
580	2010/07/24 09:22:00	0.750	55.3	8.7
581	2010/07/24 09:22:11	0.750	54.5	9.1
582	2010/07/24 09:22:15	0.750	53.2	8.8
583	2010/07/24 09:22:20	0.875	52.8	8.6
584	2010/07/24 09:22:26	0.625	54.0	10.7
585	2010/07/24 09:22:27	0.625	53.2	8.0

586	2010/07/24 09:22:29	0.750	53.6	8.4
587	2010/07/24 09:22:30	0.750	52.9	8.5
588	2010/07/24 09:22:35	0.875	51.7	8.0
589	2010/07/24 09:22:38	0.750	53.9	9.0
590	2010/07/24 09:22:43	0.750	52.0	8.5
591	2010/07/24 09:22:44	0.750	52.5	8.0
592	2010/07/24 09:22:57	0.750	51.6	7.1
593	2010/07/24 09:24:59	0.750	52.4	7.8
594	2010/07/24 09:27:26	0.625	64.3	11.1
595	2010/07/24 09:28:22	0.750	59.0	7.3
596	2010/07/24 09:29:15	0.875	55.4	8.0
597	2010/07/24 09:30:10	0.750	64.1	9.1
598	2010/07/24 09:32:00	0.750	64.4	11.9
599	2010/07/24 09:35:49	1.000	55.9	8.6
600	2010/07/24 09:45:31	0.875	50.9	8.5
601	2010/07/24 09:45:35	0.875	50.3	7.2
602	2010/07/24 09:45:37	0.750	53.4	9.6
603	2010/07/24 09:45:41	0.875	52.5	8.7
604	2010/07/24 09:45:58	0.875	52.1	8.1
605	2010/07/24 09:46:12	0.750	53.8	8.7
606	2010/07/24 09:46:14	0.875	52.8	9.2
607	2010/07/24 09:46:37	0.625	53.8	9.2
608	2010/07/24 09:46:38	1.000	57.5	10.2
609	2010/07/24 09:46:47	0.875	52.0	9.3
610	2010/07/24 09:46:49	0.625	53.9	8.8
611	2010/07/24 09:47:02	0.625	53.7	10.0
612	2010/07/24 09:47:03	0.750	54.8	8.7
613	2010/07/24 09:47:05	0.750	54.3	8.6
614	2010/07/24 09:47:10	0.875	53.8	10.3
615	2010/07/24 09:47:12	0.875	53.5	8.7
616	2010/07/24 09:47:29	1.000	60.8	11.7
617	2010/07/24 09:47:51	1.000	59.7	6.9
618	2010/07/24 09:48:08	0.750	55.0	9.1
619	2010/07/24 09:48:24	1.000	52.9	7.3

620	2010/07/24 09:48:26	0.875	54.2	8.9
621	2010/07/24 09:48:34	0.750	56.1	9.4
622	2010/07/24 09:48:37	0.750	54.3	8.8
623	2010/07/24 09:48:38	0.875	53.3	7.6
624	2010/07/24 09:48:46	1.000	52.7	8.1
625	2010/07/24 09:48:47	0.875	53.3	8.4
626	2010/07/24 09:48:48	0.625	54.3	8.8
627	2010/07/24 09:48:50	0.750	55.3	8.7
628	2010/07/24 09:48:51	0.750	55.6	9.1
629	2010/07/24 09:48:53	0.750	52.1	7.6
630	2010/07/24 09:48:54	0.625	54.4	9.4
631	2010/07/24 09:48:56	0.625	54.7	8.8
632	2010/07/24 09:49:04	0.875	56.1	8.5
633	2010/07/24 09:49:05	0.750	56.3	7.6
634	2010/07/24 09:49:08	0.875	54.9	7.7
635	2010/07/24 09:49:10	0.750	54.4	8.4
636	2010/07/24 09:49:11	0.750	56.6	8.4
637	2010/07/24 09:49:17	0.875	54.2	7.3
638	2010/07/24 09:49:19	0.750	53.2	7.8
639	2010/07/24 09:49:21	0.750	53.7	8.5
640	2010/07/24 09:49:43	0.750	53.5	9.0
641	2010/07/24 09:49:45	0.750	53.5	9.0
642	2010/07/24 09:49:47	0.750	54.4	8.5
643	2010/07/24 09:49:51	0.750	52.8	8.7
644	2010/07/24 09:49:53	0.750	52.9	8.9
645	2010/07/24 09:49:55	0.750	54.8	8.5
646	2010/07/24 09:49:57	0.875	52.5	8.0
647	2010/07/24 09:50:12	0.750	54.8	8.2
648	2010/07/24 09:50:13	1.000	54.2	8.6
649	2010/07/24 09:50:16	0.750	51.7	8.4
650	2010/07/24 09:50:21	0.875	52.1	7.2
651	2010/07/24 09:50:22	0.750	53.7	7.8
652	2010/07/24 09:50:25	0.750	52.8	8.2
653	2010/07/24 09:50:29	0.750	52.5	9.0

654	2010/07/24 09:50:35	0.875	52.6	8.5
655	2010/07/24 09:50:37	0.625	54.1	8.6
656	2010/07/24 09:50:38	0.750	55.8	8.6
657	2010/07/24 09:50:40	0.750	54.1	7.4
658	2010/07/24 09:50:42	0.625	54.1	8.5
659	2010/07/24 09:50:43	0.625	54.7	8.5
660	2010/07/24 09:50:45	0.625	53.2	7.2
661	2010/07/24 09:50:47	0.625	54.9	9.7
662	2010/07/24 09:50:52	0.875	51.5	8.9
663	2010/07/24 09:50:54	0.750	53.6	8.9
664	2010/07/24 09:51:00	0.875	53.2	8.7
665	2010/07/24 09:52:15	1.000	54.4	8.0
666	2010/07/24 09:54:46	0.875	62.2	10.2
667	2010/07/24 10:02:42	0.750	58.5	8.8
668	2010/07/24 10:02:46	0.750	56.0	7.6
669	2010/07/24 10:02:59	0.750	55.4	7.6
670	2010/07/24 10:03:02	0.750	52.9	7.2
671	2010/07/24 10:03:05	0.750	55.8	8.1
672	2010/07/24 10:03:07	0.750	55.5	8.2
673	2010/07/24 10:03:11	0.750	52.8	8.1
674	2010/07/24 10:03:13	0.750	56.2	9.0
675	2010/07/24 10:03:21	0.750	53.3	8.3
676	2010/07/24 10:03:28	0.750	53.5	8.2
677	2010/07/24 10:09:41	0.625	63.9	12.4
678	2010/07/24 10:13:27	0.750	57.6	11.3
679	2010/07/24 10:13:51	0.750	57.3	9.0
680	2010/07/24 10:14:26	0.875	53.8	8.4
681	2010/07/24 10:14:32	1.000	52.7	8.4
682	2010/07/24 10:16:42	0.875	62.5	12.3
683	2010/07/24 10:17:34	1.000	59.1	12.2
684	2010/07/24 10:20:22	0.875	57.5	11.8
685	2010/07/24 10:20:24	0.875	58.5	11.1
686	2010/07/24 10:21:03	0.875	57.7	8.4
687	2010/07/24 10:22:49	0.625	62.6	12.5

688	2010/07/24 10:24:42	0.875	57.7	9.3
689	2010/07/24 10:25:08	0.750	56.6	11.8
690	2010/07/24 10:26:04	1.000	62.0	8.3
691	2010/07/24 10:27:20	0.750	58.6	12.2
692	2010/07/24 10:28:03	0.750	57.6	9.0
693	2010/07/24 10:29:57	0.875	54.8	11.9
694	2010/07/24 10:31:03	1.000	56.5	10.7
695	2010/07/24 10:33:32	0.875	55.9	11.7
696	2010/07/24 10:34:23	0.625	75.7	10.6
697	2010/07/24 10:35:03	0.750	48.9	7.1
698	2010/07/24 10:35:51	0.750	49.8	8.0
699	2010/07/24 10:36:05	0.750	49.3	6.6
700	2010/07/24 10:36:14	0.875	50.0	7.2
701	2010/07/24 10:37:02	0.875	51.9	8.6
702	2010/07/24 10:37:09	0.625	55.5	9.1
703	2010/07/24 10:37:13	0.750	52.3	9.7
704	2010/07/24 10:37:26	0.875	49.4	8.0
705	2010/07/24 10:37:28	0.875	50.2	9.1
706	2010/07/24 10:37:31	0.750	49.7	6.9
707	2010/07/24 10:37:34	0.750	51.6	8.2
708	2010/07/24 10:37:41	0.625	52.5	8.5
709	2010/07/24 10:37:46	0.750	51.5	8.2
710	2010/07/24 10:37:48	0.875	50.2	7.2
711	2010/07/24 10:38:31	0.750	51.1	8.6
712	2010/07/24 10:38:37	0.875	60.0	9.7
713	2010/07/24 10:39:19	1.000	52.2	8.2
714	2010/07/24 10:39:25	0.875	56.0	9.4
715	2010/07/24 10:40:32	0.750	53.4	7.5
716	2010/07/24 10:40:50	1.000	48.3	8.1
717	2010/07/24 10:41:10	0.875	52.2	7.9
718	2010/07/24 10:41:12	0.875	51.8	7.9
719	2010/07/24 10:41:14	0.750	50.9	7.4
720	2010/07/24 10:41:17	0.750	51.4	8.3
721	2010/07/24 10:41:20	0.750	53.3	7.9

722	2010/07/24 10:41:22	0.750	52.9	7.7
723	2010/07/24 10:41:25	0.750	53.7	7.6
724	2010/07/24 10:41:26	1.000	49.1	6.7
725	2010/07/24 10:41:27	0.625	53.2	8.3
726	2010/07/24 10:41:28	0.750	50.5	7.7
727	2010/07/24 10:41:31	0.625	53.9	9.2
728	2010/07/24 10:41:32	0.875	51.2	7.1
729	2010/07/24 10:41:40	0.750	50.6	6.7
730	2010/07/24 10:41:41	0.625	51.6	7.7
731	2010/07/24 10:41:45	0.625	53.9	7.4
732	2010/07/24 10:41:46	0.625	51.9	6.9
733	2010/07/24 10:41:47	0.625	51.7	6.6
734	2010/07/24 10:41:48	0.875	49.8	6.3
735	2010/07/24 10:41:49	0.625	53.8	8.1
736	2010/07/24 10:41:52	0.750	54.6	8.4
737	2010/07/24 10:41:54	0.625	54.2	8.4
738	2010/07/24 10:41:56	0.625	55.4	9.2
739	2010/07/24 10:41:58	0.625	54.8	8.8
740	2010/07/24 10:41:59	0.625	52.7	7.5
741	2010/07/24 10:42:00	1.000	52.1	7.0
742	2010/07/24 10:42:02	0.875	53.3	8.2
743	2010/07/24 10:42:03	0.750	51.2	7.0
744	2010/07/24 10:42:04	0.625	54.9	8.6
745	2010/07/24 10:42:07	0.625	53.0	7.9
746	2010/07/24 10:42:08	0.875	52.0	6.4
747	2010/07/24 10:42:09	0.625	54.1	8.1
748	2010/07/24 10:42:10	0.625	53.7	8.3
749	2010/07/24 10:42:11	0.750	50.6	7.0
750	2010/07/24 10:42:12	0.750	53.9	8.8
751	2010/07/24 10:42:14	0.750	53.0	8.3
752	2010/07/24 10:42:15	0.750	51.7	6.9
753	2010/07/24 10:42:16	0.625	53.3	8.4
754	2010/07/24 10:42:17	0.750	51.3	7.7
755	2010/07/24 10:42:18	0.750	53.6	7.9

756	2010/07/24 10:42:19	0.625	53.4	7.9
757	2010/07/24 10:42:21	0.750	49.4	7.4
758	2010/07/24 10:42:21	0.750	51.2	7.7
759	2010/07/24 10:42:22	0.625	56.1	8.6
760	2010/07/24 10:42:23	0.625	53.2	7.5
761	2010/07/24 10:42:25	0.625	54.0	8.5
762	2010/07/24 10:42:28	0.875	51.9	7.7
763	2010/07/24 10:42:31	0.750	52.5	7.4
764	2010/07/24 10:42:33	0.750	52.6	6.8
765	2010/07/24 10:42:33	0.625	55.2	8.2
766	2010/07/24 10:42:35	0.750	50.7	8.1
767	2010/07/24 10:42:36	0.625	54.7	9.3
768	2010/07/24 10:42:37	0.750	50.6	7.9
769	2010/07/24 10:42:38	0.750	53.0	8.4
770	2010/07/24 10:42:40	0.625	51.2	7.0
771	2010/07/24 10:42:41	0.625	54.2	9.3
772	2010/07/24 10:42:42	0.750	51.9	8.7
773	2010/07/24 10:42:43	0.625	51.5	7.1
774	2010/07/24 10:42:44	0.875	53.7	8.5
775	2010/07/24 10:42:47	0.750	50.6	7.0
776	2010/07/24 10:42:48	0.750	50.8	8.4
777	2010/07/24 10:42:50	0.750	51.3	8.1
778	2010/07/24 10:42:53	0.625	53.9	9.3
779	2010/07/24 10:44:01	0.750	54.9	9.3
780	2010/07/24 10:46:05	0.875	50.3	7.2
781	2010/07/24 10:46:08	0.625	54.6	9.4
782	2010/07/24 10:49:45	0.875	48.3	7.4
783	2010/07/24 10:50:16	0.750	54.1	9.2
784	2010/07/24 10:50:18	0.750	53.7	8.1
785	2010/07/24 10:50:21	0.750	53.8	8.7
786	2010/07/24 10:50:28	0.875	54.0	9.3
787	2010/07/24 10:50:34	0.750	54.6	10.2
788	2010/07/24 10:50:35	0.875	52.2	7.5
789	2010/07/24 10:50:37	0.875	54.2	8.6

790	2010/07/24 10:50:52	0.750	54.5	8.1
791	2010/07/24 10:50:54	0.750	54.0	8.0
792	2010/07/24 10:50:58	0.750	54.2	8.1
793	2010/07/24 10:51:00	0.750	54.4	7.5
794	2010/07/24 10:51:01	0.750	53.9	7.2
795	2010/07/24 10:51:04	0.750	53.9	7.8
796	2010/07/24 10:51:28	0.750	53.4	7.8
797	2010/07/24 10:51:29	0.750	55.1	8.6
798	2010/07/24 10:51:31	0.625	55.7	9.7
799	2010/07/24 10:51:32	0.875	52.4	8.0
800	2010/07/24 10:51:33	0.750	52.6	7.5
801	2010/07/24 10:52:22	0.875	53.8	8.8
802	2010/07/24 10:52:26	0.625	57.5	9.6
803	2010/07/24 10:52:36	0.875	53.8	7.7
804	2010/07/24 10:55:07	0.750	55.2	8.0
805	2010/07/24 10:55:31	1.000	53.6	7.7
806	2010/07/24 10:55:34	0.625	54.1	9.2
807	2010/07/24 10:55:35	0.750	54.0	8.3
808	2010/07/24 10:55:37	0.750	55.2	7.1
809	2010/07/24 10:55:40	0.875	52.1	7.9
810	2010/07/24 10:55:47	0.875	54.1	8.1
811	2010/07/24 10:56:06	0.875	55.4	8.5
812	2010/07/24 10:56:09	0.625	53.2	8.2
813	2010/07/24 10:56:25	0.875	52.0	8.3
814	2010/07/24 10:56:27	0.750	54.7	9.0
815	2010/07/24 10:56:32	0.750	54.7	9.7
816	2010/07/24 10:56:38	1.000	51.5	8.4
817	2010/07/24 10:56:42	1.000	54.2	8.8
818	2010/07/24 10:56:44	0.750	55.5	8.7
819	2010/07/24 10:56:49	0.750	51.0	8.9
820	2010/07/24 10:56:52	0.750	53.1	8.9
821	2010/07/24 10:56:56	0.875	51.2	8.3
822	2010/07/24 10:56:57	0.875	53.8	8.6
823	2010/07/24 10:57:00	1.000	51.9	7.9

824	2010/07/24 10:57:01	0.750	53.0	8.6
825	2010/07/24 10:57:11	0.875	51.2	8.5
826	2010/07/24 10:57:18	0.750	55.2	9.0
827	2010/07/24 10:57:20	1.000	53.2	8.4
828	2010/07/24 10:57:30	1.000	53.6	7.8
829	2010/07/24 10:57:59	0.750	63.1	12.0
830	2010/07/24 11:00:11	0.875	51.7	8.7
831	2010/07/24 11:00:12	0.750	52.5	8.4
832	2010/07/24 11:00:51	0.750	51.4	8.7
833	2010/07/24 11:00:52	0.750	53.8	9.2
834	2010/07/24 11:00:53	0.750	52.0	8.1
835	2010/07/24 11:02:35	0.625	52.9	9.7
836	2010/07/24 11:03:50	1.000	52.6	8.2
837	2010/07/24 11:03:56	0.875	61.9	10.7
838	2010/07/24 11:03:58	0.625	55.2	8.4
839	2010/07/24 11:04:00	0.875	53.0	7.8
840	2010/07/24 11:04:50	1.000	51.1	9.0
841	2010/07/24 11:04:56	0.875	51.4	8.0
842	2010/07/24 11:05:00	0.750	52.4	8.5
843	2010/07/24 11:05:02	0.875	51.5	9.0
844	2010/07/24 11:06:34	0.750	53.1	8.9
845	2010/07/24 11:07:19	0.875	54.8	8.5
846	2010/07/24 11:07:27	0.750	54.2	8.7
847	2010/07/24 11:07:30	0.750	51.4	9.3
848	2010/07/24 11:07:36	0.875	50.1	8.4
849	2010/07/24 11:07:39	0.750	52.6	8.9
850	2010/07/24 11:07:41	0.750	54.9	9.0
851	2010/07/24 11:07:44	0.750	52.3	8.7
852	2010/07/24 11:07:45	0.875	51.9	8.0
853	2010/07/24 11:07:47	0.750	62.7	11.0
854	2010/07/24 11:07:48	0.750	53.1	11.7
855	2010/07/24 11:07:51	0.625	53.3	9.3
856	2010/07/24 11:08:54	0.875	56.4	8.8
857	2010/07/24 11:09:35	0.750	52.0	9.5

858	2010/07/24 11:10:06	0.625	52.9	7.6
859	2010/07/24 11:10:22	0.750	55.9	9.1
860	2010/07/24 11:10:23	0.750	54.8	7.4
861	2010/07/24 11:11:00	0.750	54.5	9.1
862	2010/07/24 11:11:02	0.750	55.7	9.1
863	2010/07/24 11:11:08	0.750	56.3	9.5
864	2010/07/24 11:11:08	0.750	55.9	8.2
865	2010/07/24 11:11:10	1.000	57.8	9.0
866	2010/07/24 11:11:11	0.750	56.6	7.7
867	2010/07/24 11:11:21	0.750	56.9	8.7
868	2010/07/24 11:11:26	0.750	56.7	8.5
869	2010/07/24 11:11:28	0.750	55.8	7.7
870	2010/07/24 11:11:30	0.625	55.9	7.6
871	2010/07/24 11:11:31	0.750	54.0	7.1
872	2010/07/24 11:11:34	0.750	54.1	9.2
873	2010/07/24 11:12:15	0.750	50.7	8.8
874	2010/07/24 11:12:20	0.750	53.8	9.5
875	2010/07/24 11:12:21	0.625	55.6	9.0
876	2010/07/24 11:12:23	0.875	49.7	8.7
877	2010/07/24 11:12:24	0.625	53.6	8.6
878	2010/07/24 11:12:25	0.875	53.6	8.9
879	2010/07/24 11:12:26	0.625	55.7	8.5
880	2010/07/24 11:12:28	1.000	51.9	7.7
881	2010/07/24 11:12:29	1.000	53.1	8.5
882	2010/07/24 11:12:35	0.625	53.3	9.4
883	2010/07/24 11:12:36	0.750	52.0	8.2
884	2010/07/24 11:12:37	0.625	57.2	9.2
885	2010/07/24 11:12:38	0.750	54.6	8.0
886	2010/07/24 11:12:39	0.750	53.5	7.7
887	2010/07/24 11:14:23	0.875	57.9	11.2
888	2010/07/24 11:23:31	1.000	56.3	8.5
889	2010/07/24 11:23:41	0.875	57.8	7.8
890	2010/07/24 11:24:45	0.750	58.6	8.6
891	2010/07/24 11:25:02	1.000	54.7	8.1

892	2010/07/24 11:25:06	0.750	56.5	8.0
893	2010/07/24 11:25:08	0.875	54.1	7.3
894	2010/07/24 11:25:09	0.750	55.8	8.1
895	2010/07/24 11:25:11	0.750	54.0	6.8
896	2010/07/24 11:25:22	0.750	54.5	7.7
897	2010/07/24 11:25:28	0.750	53.0	8.6
898	2010/07/24 11:25:29	0.875	52.5	8.4
899	2010/07/24 11:25:32	0.750	54.4	8.4
900	2010/07/24 11:25:34	0.750	54.1	8.8
901	2010/07/24 11:25:36	0.750	57.3	9.9
902	2010/07/24 11:25:41	0.750	52.8	8.5
903	2010/07/24 11:25:43	0.750	54.8	9.4
904	2010/07/24 11:25:45	1.000	52.8	6.8
905	2010/07/24 11:25:47	0.750	52.4	7.8
906	2010/07/24 11:25:53	1.000	57.8	9.2
907	2010/07/24 11:25:59	0.625	56.1	8.9
908	2010/07/24 11:26:15	0.750	53.3	8.8
909	2010/07/24 11:26:18	0.750	52.0	7.8
910	2010/07/24 11:26:25	0.750	52.6	7.8
911	2010/07/24 11:26:38	0.875	54.8	9.7
912	2010/07/24 11:26:42	0.750	53.1	8.6
913	2010/07/24 11:26:49	0.625	53.0	8.7
914	2010/07/24 11:26:53	0.750	54.2	8.9
915	2010/07/24 11:26:55	0.875	52.0	8.1
916	2010/07/24 11:27:32	0.875	56.6	8.8
917	2010/07/24 11:27:56	0.750	68.3	12.8
918	2010/07/24 11:28:01	0.875	52.8	11.1
919	2010/07/24 11:28:09	1.000	63.4	9.1
920	2010/07/24 11:29:35	0.875	59.4	9.9
921	2010/07/24 11:32:31	0.750	58.0	9.5
922	2010/07/24 11:32:34	0.875	57.0	10.1
923	2010/07/24 11:32:42	0.625	57.4	9.9
924	2010/07/24 11:32:44	0.750	58.5	10.1
925	2010/07/24 11:32:45	0.750	55.3	8.2

926	2010/07/24 11:32:47	0.750	57.2	9.4
927	2010/07/24 11:32:52	0.750	57.9	9.4
928	2010/07/24 11:32:54	0.625	57.7	9.7
929	2010/07/24 11:32:56	0.750	59.0	10.1
930	2010/07/24 11:35:02	1.000	54.7	7.3
931	2010/07/24 11:35:04	0.750	54.7	8.4
932	2010/07/24 11:35:07	0.875	55.3	9.4
933	2010/07/24 11:35:09	0.625	55.7	8.9
934	2010/07/24 11:35:13	0.625	57.0	9.9
935	2010/07/24 11:35:14	0.625	55.3	7.9
936	2010/07/24 11:35:18	1.000	56.1	9.9
937	2010/07/24 11:35:24	0.750	55.5	9.0
938	2010/07/24 11:35:28	0.875	54.4	8.5
939	2010/07/24 11:35:37	1.000	54.2	9.0
940	2010/07/24 11:35:42	0.750	52.9	9.3
941	2010/07/24 11:35:43	0.750	54.5	9.4
942	2010/07/24 11:35:44	0.625	55.4	9.0
943	2010/07/24 11:35:45	0.625	55.0	8.7
944	2010/07/24 11:35:47	0.750	51.6	7.9
945	2010/07/24 11:35:48	0.625	55.8	10.3
946	2010/07/24 11:35:49	0.750	55.1	9.0
947	2010/07/24 11:35:50	0.625	56.2	9.4
948	2010/07/24 11:35:52	0.750	52.0	8.4
949	2010/07/24 11:35:53	0.625	53.8	9.2
950	2010/07/24 11:35:55	0.625	56.8	10.1
951	2010/07/24 11:35:56	0.750	55.4	8.5
952	2010/07/24 11:35:57	0.750	53.9	8.0
953	2010/07/24 11:35:58	0.625	55.6	9.8
954	2010/07/24 11:36:00	0.625	54.4	8.2
955	2010/07/24 11:36:01	0.750	54.5	8.5
956	2010/07/24 11:36:02	0.625	56.1	9.3
957	2010/07/24 11:36:03	0.750	54.2	8.5
958	2010/07/24 11:36:04	0.750	56.4	10.0
959	2010/07/24 11:36:05	0.750	55.2	8.2

960	2010/07/24 11:36:06	0.625	56.6	8.5
961	2010/07/24 11:37:01	0.625	55.8	9.5
962	2010/07/24 11:37:02	0.625	54.8	8.8
963	2010/07/24 11:37:03	0.875	53.8	8.1
964	2010/07/24 11:37:05	0.750	54.4	8.4
965	2010/07/24 11:37:06	0.750	54.7	8.4
966	2010/07/24 11:37:07	0.750	53.9	8.5
967	2010/07/24 11:37:08	0.875	51.4	7.7
968	2010/07/24 11:37:10	0.750	54.6	9.5
969	2010/07/24 11:37:11	0.625	55.6	9.4
970	2010/07/24 11:37:12	0.750	53.4	8.0
971	2010/07/24 11:37:13	0.625	56.2	9.2
972	2010/07/24 11:37:15	0.750	54.4	8.4
973	2010/07/24 11:37:16	0.875	54.6	8.6
974	2010/07/24 11:37:17	0.875	53.3	7.9
975	2010/07/24 11:37:24	0.875	53.6	9.3
976	2010/07/24 11:37:29	0.750	54.2	9.1
977	2010/07/24 11:37:31	0.625	53.7	9.6
978	2010/07/24 11:37:32	0.750	54.3	9.5
979	2010/07/24 11:37:34	0.625	54.8	10.1
980	2010/07/24 11:37:36	0.750	53.4	9.4
981	2010/07/24 11:37:40	0.750	52.7	9.7
982	2010/07/24 11:37:42	0.750	50.2	8.3
983	2010/07/24 11:37:44	0.625	53.7	10.2
984	2010/07/24 11:37:50	0.750	51.5	9.0
985	2010/07/24 11:37:51	0.625	56.5	10.5
986	2010/07/24 11:37:55	0.625	55.7	10.1
987	2010/07/24 11:37:57	0.625	52.3	9.3
988	2010/07/24 11:38:00	0.750	49.3	9.0
989	2010/07/24 11:38:01	0.750	49.5	8.8
990	2010/07/24 11:38:03	0.750	50.1	10.0
991	2010/07/24 11:38:09	0.875	51.6	9.3
992	2010/07/24 11:40:36	0.750	67.7	12.9
993	2010/07/24 11:40:52	0.625	67.7	9.8

994	2010/07/24 11:44:21	0.875	52.7	9.7
995	2010/07/24 11:46:24	0.625	71.3	12.5
996	2010/07/24 11:59:50	0.625	66.7	11.1
997	2010/07/24 12:00:00	0.625	66.1	10.1
998	2010/07/24 12:05:43	0.750	60.2	10.1
999	2010/07/24 12:07:26	0.750	52.3	8.7
1000	2010/07/24 12:07:27	0.750	53.1	7.7
1001	2010/07/24 12:07:29	0.750	54.3	9.2
1002	2010/07/24 12:07:30	0.750	55.4	8.9
1003	2010/07/24 12:07:32	0.750	53.9	7.8
1004	2010/07/24 12:07:34	0.625	54.7	9.5
1005	2010/07/24 12:07:38	0.875	53.1	8.7
1006	2010/07/24 12:07:39	0.750	55.2	9.0
1007	2010/07/24 12:08:03	0.750	54.6	8.6
1008	2010/07/24 12:08:17	0.875	54.6	7.9
1009	2010/07/24 12:08:20	1.000	56.2	8.3
1010	2010/07/24 12:08:25	0.750	55.2	9.3
1011	2010/07/24 12:08:31	0.750	54.9	10.4
1012	2010/07/24 12:08:34	0.875	54.2	8.9
1013	2010/07/24 12:08:35	0.750	53.5	7.9
1014	2010/07/24 12:08:36	0.750	54.7	8.8
1015	2010/07/24 12:08:38	0.750	53.0	8.9
1016	2010/07/24 12:08:39	0.750	52.7	7.5
1017	2010/07/24 12:08:49	0.875	55.4	8.6
1018	2010/07/24 12:09:21	0.875	55.5	7.7
1019	2010/07/24 12:09:55	0.750	53.3	9.0
1020	2010/07/24 12:09:58	0.750	54.0	9.3
1021	2010/07/24 12:10:01	1.000	51.1	8.1
1022	2010/07/24 12:10:03	0.625	55.1	9.6
1023	2010/07/24 12:10:06	1.000	52.1	8.7
1024	2010/07/24 12:10:07	0.625	54.9	9.8
1025	2010/07/24 12:10:10	0.750	53.5	8.7
1026	2010/07/24 12:10:12	0.750	54.9	8.8
1027	2010/07/24 12:10:13	0.625	55.0	9.1

1028	2010/07/24 12:10:15	0.750	54.4	8.3
1029	2010/07/24 12:10:16	0.750	52.8	7.8
1030	2010/07/24 12:10:17	0.875	53.1	8.5
1031	2010/07/24 12:10:19	0.875	51.3	8.1
1032	2010/07/24 12:10:21	0.875	51.7	8.8
1033	2010/07/24 12:10:22	0.750	53.1	8.5
1034	2010/07/24 12:10:24	0.750	51.8	8.2
1035	2010/07/24 12:10:28	0.875	52.7	8.8
1036	2010/07/24 12:10:33	0.750	51.4	8.8
1037	2010/07/24 12:10:35	0.750	54.1	10.3
1038	2010/07/24 12:10:47	0.750	53.0	9.4
1039	2010/07/24 12:10:48	0.625	53.4	9.0
1040	2010/07/24 12:10:52	0.750	51.7	9.2
1041	2010/07/24 12:10:55	0.750	53.3	9.2
1042	2010/07/24 12:10:59	0.875	55.2	9.4
1043	2010/07/24 12:11:00	0.750	53.9	7.7
1044	2010/07/24 12:11:04	0.875	54.2	9.5
1045	2010/07/24 12:11:24	0.750	54.1	7.9
1046	2010/07/24 12:11:28	1.000	54.7	8.8
1047	2010/07/24 12:11:30	0.875	54.4	8.6
1048	2010/07/24 12:11:33	0.750	55.0	8.3
1049	2010/07/24 12:11:39	0.875	51.7	7.4
1050	2010/07/24 12:11:40	0.750	52.8	8.6
1051	2010/07/24 12:11:43	0.750	51.7	7.9
1052	2010/07/24 12:11:45	0.750	52.2	9.1
1053	2010/07/24 12:11:46	1.000	53.2	7.6
1054	2010/07/24 12:11:47	0.750	52.3	7.6
1055	2010/07/24 12:11:48	0.750	52.8	8.2
1056	2010/07/24 12:11:49	0.750	52.3	7.3
1057	2010/07/24 12:11:50	0.750	52.6	7.7
1058	2010/07/24 12:12:00	0.875	54.2	10.2
1059	2010/07/24 12:12:41	0.750	56.2	8.1
1060	2010/07/24 12:12:42	0.750	55.0	7.3
1061	2010/07/24 12:12:49	0.875	53.6	7.9

1062	2010/07/24 12:16:13	0.875	68.7	7.4
1063	2010/07/24 12:18:31	0.875	56.8	10.0
1064	2010/07/24 12:19:46	1.000	52.0	8.8
1065	2010/07/24 12:19:55	0.750	53.8	9.1
1066	2010/07/24 12:19:57	1.000	50.9	7.2
1067	2010/07/24 12:20:02	0.875	52.5	8.6
1068	2010/07/24 12:25:11	0.875	52.3	8.5
1069	2010/07/24 12:27:22	0.750	54.5	8.7
1070	2010/07/24 12:28:23	0.750	54.8	7.9
1071	2010/07/24 12:28:48	0.750	55.4	7.9
1072	2010/07/24 12:28:48	1.000	55.0	8.0
1073	2010/07/24 12:32:54	0.875	60.4	8.6
1074	2010/07/24 12:33:34	1.000	63.2	8.4
1075	2010/07/24 12:33:41	0.750	52.7	8.7
1076	2010/07/24 12:33:44	1.000	52.2	8.9
1077	2010/07/24 12:33:57	0.875	55.3	7.4
1078	2010/07/24 12:33:59	0.750	56.3	9.0
1079	2010/07/24 12:37:41	0.750	52.9	9.7
1080	2010/07/24 12:40:03	0.625	60.4	12.3
1081	2010/07/24 12:41:20	1.000	56.7	8.8
1082	2010/07/24 12:41:33	1.000	71.1	7.0
1083	2010/07/24 12:41:38	1.000	62.8	8.7
1084	2010/07/24 12:45:37	0.750	54.3	7.8
1085	2010/07/24 12:45:38	0.875	52.2	7.4
1086	2010/07/24 12:46:29	1.000	58.0	9.4
1087	2010/07/24 12:46:30	0.625	56.8	8.0
1088	2010/07/24 12:46:31	0.625	56.7	7.5
1089	2010/07/24 12:46:35	0.750	54.3	8.2
1090	2010/07/24 12:46:38	0.750	60.9	11.5
1091	2010/07/24 12:46:41	0.750	54.1	7.8
1092	2010/07/24 12:47:46	0.750	52.2	9.5
1093	2010/07/24 12:47:49	0.750	51.5	9.3
1094	2010/07/24 12:47:53	0.750	53.0	8.5
1095	2010/07/24 12:48:22	0.875	62.2	12.4

1096	2010/07/24 12:52:27	0.750	54.1	8.9
1097	2010/07/24 12:52:28	0.750	53.2	7.2
1098	2010/07/24 12:53:56	0.750	55.3	7.6
1099	2010/07/24 12:54:19	0.750	53.6	8.9
1100	2010/07/24 12:54:20	0.750	55.9	8.7
1101	2010/07/24 12:54:21	0.750	52.7	6.9
1102	2010/07/24 12:54:23	0.625	54.8	8.6
1103	2010/07/24 12:54:27	0.875	50.9	7.9
1104	2010/07/24 12:54:31	1.000	51.8	7.8
1105	2010/07/24 12:54:38	0.750	52.8	8.1
1106	2010/07/24 12:54:40	1.000	51.7	7.9
1107	2010/07/24 12:54:41	0.625	68.5	9.3
1108	2010/07/24 12:55:38	0.750	54.4	9.4
1109	2010/07/24 12:56:49	0.750	53.9	7.5
1110	2010/07/24 12:56:58	0.625	56.0	8.7
1111	2010/07/24 12:57:15	0.750	54.0	8.5
1112	2010/07/24 12:57:17	0.875	54.2	8.5
1113	2010/07/24 12:59:00	1.000	53.9	8.2
1114	2010/07/24 12:59:08	0.750	52.3	7.9
1115	2010/07/24 12:59:10	0.750	52.7	8.5
1116	2010/07/24 12:59:56	0.875	54.0	9.1
1117	2010/07/24 13:01:39	0.875	52.0	6.6
1118	2010/07/24 13:01:59	0.875	49.9	8.4
1119	2010/07/24 13:13:39	0.750	53.8	10.7
1120	2010/07/24 13:13:54	0.625	59.2	10.6
1121	2010/07/24 13:14:57	0.875	62.3	11.9
1122	2010/07/24 13:21:21	0.625	55.3	11.2
1123	2010/07/24 13:24:26	0.875	52.3	9.0
1124	2010/07/24 13:24:28	0.875	51.9	8.1
1125	2010/07/24 13:25:08	0.875	50.1	7.4
1126	2010/07/24 13:25:10	1.000	50.3	7.5
1127	2010/07/24 13:25:20	0.625	50.4	7.3
1128	2010/07/24 13:25:20	0.875	49.8	7.3
1129	2010/07/24 13:25:21	0.750	51.1	8.3

1130	2010/07/24 13:25:22	0.750	51.1	7.4
1131	2010/07/24 13:25:25	0.750	52.3	8.8
1132	2010/07/24 13:25:26	0.750	50.1	7.8
1133	2010/07/24 13:25:27	0.750	49.8	7.2
1134	2010/07/24 13:25:28	0.750	49.3	7.1
1135	2010/07/24 13:25:29	0.750	50.3	7.8
1136	2010/07/24 13:25:31	0.750	50.3	8.6
1137	2010/07/24 13:25:35	0.750	52.9	8.3
1138	2010/07/24 13:25:35	0.750	51.3	7.6
1139	2010/07/24 13:25:37	1.000	51.0	7.4
1140	2010/07/24 13:25:39	0.875	53.7	9.1
1141	2010/07/24 13:25:59	0.875	52.0	9.0
1142	2010/07/24 13:26:02	0.875	50.0	7.8
1143	2010/07/24 13:26:08	1.000	51.9	8.6
1144	2010/07/24 13:26:23	0.750	51.1	9.3
1145	2010/07/24 13:26:33	0.750	54.6	9.5
1146	2010/07/24 13:26:40	1.000	50.6	8.1
1147	2010/07/24 13:27:02	0.750	49.2	7.5
1148	2010/07/24 13:27:13	0.875	54.0	8.9
1149	2010/07/24 13:27:26	0.750	52.1	7.1
1150	2010/07/24 13:27:30	0.750	54.8	9.4
1151	2010/07/24 13:27:31	0.625	54.2	8.9
1152	2010/07/24 13:32:58	0.625	55.5	9.9
1153	2010/07/24 13:33:18	0.875	49.4	9.2
1154	2010/07/24 13:34:37	0.875	51.5	7.4
1155	2010/07/24 13:34:42	0.875	51.8	8.6
1156	2010/07/24 13:34:45	0.750	52.5	9.1
1157	2010/07/24 13:34:49	0.750	50.1	9.2
1158	2010/07/24 13:34:52	0.875	49.0	7.7
1159	2010/07/24 13:35:40	0.750	51.4	9.0
1160	2010/07/24 13:35:42	0.750	50.7	9.3
1161	2010/07/24 13:35:45	1.000	50.0	8.4
1162	2010/07/24 13:35:58	0.750	54.9	9.2
1163	2010/07/24 13:36:03	1.000	57.4	8.7

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

1164	2010/07/24 13:36:56	0.875	51.0	8.8
1165	2010/07/24 13:41:11	0.750	62.5	12.3
1166	2010/07/24 13:41:13	0.625	66.6	11.5
1167	2010/07/24 13:57:56	0.875	50.1	8.9
1168	2010/07/24 13:58:31	0.750	75.3	11.3
1169	2010/07/24 13:58:43	0.875	70.9	11.8
1170	2010/07/24 13:58:51	0.625	80.5	9.6
1171	2010/07/24 13:59:13	0.875	50.3	8.4
1172	2010/07/24 13:59:38	0.750	51.5	7.5
1173	2010/07/24 14:01:01	0.750	52.6	8.4
1174	2010/07/24 14:01:02	0.875	52.2	7.0
1175	2010/07/24 14:01:03	0.750	52.7	8.1
1176	2010/07/24 14:01:15	0.750	52.3	7.5
1177	2010/07/24 14:01:17	0.750	52.7	8.1
1178	2010/07/24 14:01:18	0.750	51.8	6.8
1179	2010/07/24 14:01:30	1.000	52.4	8.1
1180	2010/07/24 14:01:50	0.875	52.9	8.1
1181	2010/07/24 14:01:59	0.750	54.2	8.2
1182	2010/07/24 14:02:00	0.750	53.3	7.8
1183	2010/07/24 14:02:09	1.000	51.8	8.0
1184	2010/07/24 14:03:40	1.000	52.0	8.4
1185	2010/07/24 14:03:42	0.875	52.1	8.1
1186	2010/07/24 14:04:05	1.000	50.5	7.7
1187	2010/07/24 14:04:39	0.625	56.8	9.1
1188	2010/07/24 14:04:51	0.750	56.9	9.1
1189	2010/07/24 14:04:52	0.750	57.0	8.1
1190	2010/07/24 14:04:53	0.625	54.8	7.3
1191	2010/07/24 14:04:54	0.750	55.3	6.6
1192	2010/07/24 14:04:59	0.750	56.0	7.5
1193	2010/07/24 14:05:00	0.750	56.9	8.2
1194	2010/07/24 14:05:06	0.875	53.4	8.9
1195	2010/07/24 14:05:07	0.750	56.6	9.7
1196	2010/07/24 14:05:14	0.875	53.7	8.4
1197	2010/07/24 14:05:19	0.750	53.8	8.9

1198	2010/07/24 14:05:23	0.875	52.0	8.4
1199	2010/07/24 14:05:26	0.875	52.5	7.8
1200	2010/07/24 14:05:28	0.875	55.0	8.8
1201	2010/07/24 14:05:30	0.750	54.7	8.0
1202	2010/07/24 14:05:40	0.875	52.8	8.7
1203	2010/07/24 14:05:43	0.750	54.1	8.8
1204	2010/07/24 14:05:46	0.750	52.1	8.6
1205	2010/07/24 14:05:50	0.875	51.9	8.9
1206	2010/07/24 14:05:59	0.750	54.9	9.1
1207	2010/07/24 14:07:50	1.000	50.6	8.7
1208	2010/07/24 14:08:00	0.875	51.8	8.8
1209	2010/07/24 14:16:36	0.750	50.0	10.0
1210	2010/07/24 14:17:28	0.875	49.8	9.1
1211	2010/07/24 14:18:55	0.750	55.0	10.4
1212	2010/07/24 14:18:58	0.875	51.2	8.1
1213	2010/07/24 14:19:06	0.750	50.6	8.0
1214	2010/07/24 14:19:07	0.750	50.5	8.5
1215	2010/07/24 14:20:00	0.875	52.4	7.9
1216	2010/07/24 14:20:12	0.625	56.3	10.1
1217	2010/07/24 14:20:17	0.875	52.1	7.5
1218	2010/07/24 14:20:24	0.875	50.6	7.3
1219	2010/07/24 14:20:38	0.750	51.1	7.9
1220	2010/07/24 14:20:42	0.625	53.7	9.4
1221	2010/07/24 14:20:43	1.000	52.3	7.4
1222	2010/07/24 14:20:45	1.000	55.0	9.0
1223	2010/07/24 14:20:48	0.750	53.6	7.8
1224	2010/07/24 14:27:47	0.875	53.5	8.4
1225	2010/07/24 14:32:35	0.750	55.6	12.0
1226	2010/07/24 14:35:10	0.875	50.8	8.5
1227	2010/07/24 14:36:39	0.875	49.5	7.9
1228	2010/07/24 14:45:19	0.750	50.0	9.5
1229	2010/07/24 14:45:20	0.750	50.3	9.3
1230	2010/07/24 14:45:21	0.750	50.2	9.1
1231	2010/07/24 14:45:22	0.750	50.8	9.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

1232	2010/07/24 14:45:24	0.875	49.2	7.9
1233	2010/07/24 14:45:28	0.625	51.6	9.6
1234	2010/07/24 14:45:30	0.750	52.6	8.7
1235	2010/07/24 14:45:30	0.750	51.5	7.4
1236	2010/07/24 14:45:32	0.625	52.2	8.5
1237	2010/07/24 14:45:33	0.625	50.9	7.6
1238	2010/07/24 14:45:34	0.750	50.4	7.5
1239	2010/07/24 14:45:37	0.750	51.9	8.3
1240	2010/07/24 14:45:38	0.750	51.8	8.3
1241	2010/07/24 14:45:39	0.750	49.7	7.0
1242	2010/07/24 14:45:41	0.750	52.4	9.9
1243	2010/07/24 14:45:46	0.625	53.4	9.7
1244	2010/07/24 14:45:58	0.750	50.0	8.1
1245	2010/07/24 14:47:02	1.000	50.2	8.1
1246	2010/07/24 14:47:27	1.000	50.9	8.2
1247	2010/07/24 14:49:01	0.750	50.6	7.7
1248	2010/07/24 14:49:07	0.625	53.9	9.3
1249	2010/07/24 14:49:08	0.625	53.9	8.9
1250	2010/07/24 14:49:10	0.750	51.7	8.2
1251	2010/07/24 14:49:23	1.000	49.7	7.9
1252	2010/07/24 14:49:24	0.625	51.5	9.2
1253	2010/07/24 14:49:25	0.625	53.6	9.5
1254	2010/07/24 14:49:26	0.625	52.1	8.1
1255	2010/07/24 14:49:28	0.750	54.7	9.4
1256	2010/07/24 14:49:29	0.625	53.6	8.3
1257	2010/07/24 14:49:31	0.625	57.0	9.3
1258	2010/07/24 14:49:33	0.750	51.2	7.9
1259	2010/07/24 14:49:34	0.750	51.1	8.0
1260	2010/07/24 14:49:37	0.625	54.3	9.6
1261	2010/07/24 14:49:38	0.750	49.4	8.8
1262	2010/07/24 14:49:39	0.625	54.1	8.9
1263	2010/07/24 14:49:40	0.625	50.0	7.8
1264	2010/07/24 14:49:41	0.625	53.3	9.2
1265	2010/07/24 14:49:44	0.625	54.4	9.8

1266	2010/07/24 14:49:46	0.750	52.4	9.0
1267	2010/07/24 14:49:49	0.625	53.1	9.2
1268	2010/07/24 14:50:01	1.000	50.8	9.0
1269	2010/07/24 14:57:27	1.000	53.3	7.2
1270	2010/07/24 15:07:50	0.750	66.9	8.4
1271	2010/07/24 15:08:41	1.000	61.0	9.6
1272	2010/07/24 15:10:18	0.750	53.4	8.7
1273	2010/07/24 15:10:23	0.750	54.1	7.7
1274	2010/07/24 15:10:23	0.875	54.3	7.4
1275	2010/07/24 15:10:30	0.750	53.8	8.4
1276	2010/07/24 15:10:31	0.750	52.7	7.6
1277	2010/07/24 15:10:38	0.750	52.7	7.8
1278	2010/07/24 15:10:46	0.875	50.6	9.1
1279	2010/07/24 15:10:49	0.750	50.3	8.0
1280	2010/07/24 15:10:49	0.875	49.2	6.2
1281	2010/07/24 15:10:57	0.875	50.3	8.7
1282	2010/07/24 15:11:00	0.875	50.7	7.5
1283	2010/07/24 15:11:03	0.625	53.4	7.5
1284	2010/07/24 15:11:10	0.625	51.5	8.3
1285	2010/07/24 15:11:13	0.750	54.2	9.5
1286	2010/07/24 15:11:17	0.750	51.7	8.2
1287	2010/07/24 15:11:22	0.875	50.7	9.3
1288	2010/07/24 15:11:24	0.875	48.5	6.8
1289	2010/07/24 15:11:26	1.000	53.1	10.0
1290	2010/07/24 15:11:28	0.750	52.6	6.8
1291	2010/07/24 15:11:32	0.750	52.8	8.4
1292	2010/07/24 15:11:41	0.750	52.9	7.0
1293	2010/07/24 15:11:53	0.750	53.8	10.2
1294	2010/07/24 15:11:54	0.625	51.1	8.4
1295	2010/07/24 15:11:57	0.875	51.2	8.3
1296	2010/07/24 15:12:00	0.750	52.2	9.3
1297	2010/07/24 15:12:04	0.750	54.2	8.3
1298	2010/07/24 15:12:11	1.000	54.4	8.8
1299	2010/07/24 15:12:19	0.625	55.8	9.2

1300	2010/07/24 15:12:26	0.750	55.6	9.2
1301	2010/07/24 15:12:37	0.750	52.5	8.3
1302	2010/07/24 15:13:13	0.750	53.1	8.7
1303	2010/07/24 15:13:15	0.750	50.0	7.1
1304	2010/07/24 15:13:19	0.750	50.8	7.9
1305	2010/07/24 15:13:21	0.625	50.8	8.3
1306	2010/07/24 15:13:23	0.875	50.3	8.2
1307	2010/07/24 15:13:25	0.750	49.5	7.2
1308	2010/07/24 15:13:29	0.750	51.9	8.3
1309	2010/07/24 15:13:39	0.625	54.6	8.4
1310	2010/07/24 15:13:42	0.750	52.8	8.1
1311	2010/07/24 15:13:43	0.750	50.6	6.9
1312	2010/07/24 15:13:53	0.625	53.6	8.0
1313	2010/07/24 15:13:55	0.750	50.8	7.1
1314	2010/07/24 15:13:56	0.625	51.3	7.2
1315	2010/07/24 15:13:57	0.750	50.3	7.3
1316	2010/07/24 15:13:58	0.750	48.7	7.0
1317	2010/07/24 15:13:59	0.625	50.2	8.6
1318	2010/07/24 15:14:00	0.750	48.3	7.9
1319	2010/07/24 15:14:03	0.750	51.5	7.2
1320	2010/07/24 15:14:03	0.625	52.3	7.7
1321	2010/07/24 15:14:07	0.625	52.2	8.7
1322	2010/07/24 15:14:08	0.750	50.3	7.5
1323	2010/07/24 15:14:09	0.875	49.5	6.1
1324	2010/07/24 15:14:10	0.625	52.1	8.9
1325	2010/07/24 15:14:15	0.875	50.4	6.5
1326	2010/07/24 15:14:17	0.625	53.8	8.9
1327	2010/07/24 15:14:18	0.875	51.1	8.2
1328	2010/07/24 15:14:22	0.625	53.4	10.0
1329	2010/07/24 15:14:25	0.750	50.2	7.7
1330	2010/07/24 15:14:31	0.625	50.7	8.7
1331	2010/07/24 15:14:39	0.750	48.6	6.7
1332	2010/07/24 15:14:41	0.625	52.4	9.0
1333	2010/07/24 15:14:43	0.750	50.4	6.6

1334	2010/07/24 15:14:44	0.625	51.2	7.6
1335	2010/07/24 15:15:04	0.750	50.0	8.9
1336	2010/07/24 15:15:05	0.750	50.1	8.8
1337	2010/07/24 15:15:11	0.875	52.3	8.7
1338	2010/07/24 15:15:22	0.750	50.5	7.1
1339	2010/07/24 15:16:07	0.750	48.7	8.7
1340	2010/07/24 15:16:08	0.750	48.3	8.2
1341	2010/07/24 15:16:30	0.750	50.6	8.4
1342	2010/07/24 15:17:14	0.750	50.4	9.2
1343	2010/07/24 15:17:17	0.625	52.7	9.1
1344	2010/07/24 15:17:27	0.875	49.9	8.1
1345	2010/07/24 15:18:28	0.750	53.3	7.5
1346	2010/07/24 15:18:54	0.750	52.7	8.7
1347	2010/07/24 15:18:59	0.625	54.5	8.5
1348	2010/07/24 15:19:03	0.625	52.4	8.1
1349	2010/07/24 15:19:10	0.625	52.6	9.6
1350	2010/07/24 15:19:37	0.625	51.3	9.0
1351	2010/07/24 15:19:44	0.750	49.2	8.6
1352	2010/07/24 15:19:47	0.750	48.9	8.4
1353	2010/07/24 15:19:55	0.750	50.3	9.0
1354	2010/07/24 15:19:57	0.750	49.0	8.0
1355	2010/07/24 15:20:34	0.625	50.5	9.3
1356	2010/07/24 15:20:43	0.750	52.3	9.9
1357	2010/07/24 15:20:56	0.750	48.9	9.2
1358	2010/07/24 15:20:58	0.750	48.6	8.7
1359	2010/07/24 15:23:55	1.000	55.6	8.7
1360	2010/07/24 15:25:33	0.750	60.1	12.2
1361	2010/07/24 15:27:55	0.875	46.5	8.4
1362	2010/07/24 15:31:17	0.750	51.8	9.5
1363	2010/07/24 15:31:31	0.750	50.8	9.6
1364	2010/07/24 15:31:39	0.750	51.9	9.4
1365	2010/07/24 15:31:46	0.625	53.8	10.4
1366	2010/07/24 15:31:49	0.625	54.0	10.1
1367	2010/07/24 15:31:53	0.750	52.5	8.2

1368	2010/07/24 15:31:54	0.625	51.6	8.6
1369	2010/07/24 15:31:57	0.750	55.6	9.4
1370	2010/07/24 15:32:01	0.625	51.7	9.7
1371	2010/07/24 15:32:02	0.750	52.0	9.0
1372	2010/07/24 15:32:05	0.625	53.9	9.3
1373	2010/07/24 15:33:25	0.875	48.8	8.2
1374	2010/07/24 15:35:47	0.750	60.6	11.7
1375	2010/07/24 15:43:38	0.625	49.2	10.5
1376	2010/07/24 15:43:41	0.750	46.4	9.4
1377	2010/07/24 15:46:31	0.750	61.1	10.6
1378	2010/07/24 15:49:09	0.875	49.9	9.8
1379	2010/07/24 15:49:10	0.750	48.3	8.7
1380	2010/07/24 15:49:12	0.875	50.4	9.5
1381	2010/07/24 15:49:13	0.750	52.3	9.4
1382	2010/07/24 15:49:16	0.625	53.1	9.4
1383	2010/07/24 15:49:17	0.750	51.2	8.5
1384	2010/07/24 15:49:18	0.625	51.6	9.4
1385	2010/07/24 15:49:35	0.875	51.4	9.0
1386	2010/07/24 15:50:00	1.000	54.1	8.6
1387	2010/07/24 15:50:02	0.750	53.2	9.8
1388	2010/07/24 15:50:04	0.625	54.0	10.2
1389	2010/07/24 15:50:11	0.750	52.8	9.8
1390	2010/07/24 15:50:13	1.000	50.1	7.5
1391	2010/07/24 15:50:25	1.000	51.7	9.2
1392	2010/07/24 15:50:27	0.625	56.9	10.1
1393	2010/07/24 15:50:29	0.625	52.1	9.7
1394	2010/07/24 15:50:31	0.625	53.2	10.1
1395	2010/07/24 15:50:33	0.750	52.5	9.2
1396	2010/07/24 15:50:36	0.625	54.8	9.3
1397	2010/07/24 15:50:37	0.750	51.5	8.4
1398	2010/07/24 15:50:38	0.750	50.8	8.1
1399	2010/07/24 15:50:40	0.750	54.4	9.5
1400	2010/07/24 15:50:42	0.875	51.2	8.7
1401	2010/07/24 15:50:52	0.750	52.8	8.4

1402	2010/07/24 15:50:56	0.625	54.8	9.0
1403	2010/07/24 15:50:58	0.750	52.7	7.5
1404	2010/07/24 15:50:59	0.625	55.0	9.5
1405	2010/07/24 15:51:00	0.750	54.3	8.4
1406	2010/07/24 15:51:01	0.625	53.9	8.1
1407	2010/07/24 15:51:02	0.750	54.9	8.8
1408	2010/07/24 15:51:02	0.750	53.3	7.8
1409	2010/07/24 15:51:05	0.750	52.4	9.1
1410	2010/07/24 15:51:06	0.625	54.6	9.3
1411	2010/07/24 15:51:07	0.750	53.3	8.3
1412	2010/07/24 15:51:08	0.750	52.9	8.5
1413	2010/07/24 15:51:09	0.750	54.2	8.4
1414	2010/07/24 15:51:10	0.750	54.4	8.4
1415	2010/07/24 15:51:11	0.875	51.7	7.2
1416	2010/07/24 15:51:17	0.875	53.5	9.2
1417	2010/07/24 15:51:19	0.875	64.9	11.5
1418	2010/07/24 15:51:23	0.875	53.3	9.4
1419	2010/07/24 15:51:25	0.750	52.4	7.3
1420	2010/07/24 15:51:27	0.750	53.6	8.1
1421	2010/07/24 15:51:31	0.625	56.0	9.3
1422	2010/07/24 15:51:31	0.875	54.1	8.3
1423	2010/07/24 15:51:32	0.625	55.6	8.4
1424	2010/07/24 15:51:33	0.625	52.9	7.6
1425	2010/07/24 15:51:34	0.625	57.1	8.9
1426	2010/07/24 15:51:35	0.875	52.2	9.2
1427	2010/07/24 15:51:40	0.750	55.3	8.8
1428	2010/07/24 15:51:47	0.625	58.5	9.8
1429	2010/07/24 15:52:22	1.000	55.4	9.8
1430	2010/07/24 15:52:29	0.875	50.0	9.1
1431	2010/07/24 15:52:30	0.625	52.4	9.7
1432	2010/07/24 15:52:35	0.875	49.4	8.7
1433	2010/07/24 15:52:37	0.750	51.4	9.4
1434	2010/07/24 15:52:39	0.750	50.0	8.6
1435	2010/07/24 15:52:40	0.875	50.3	8.0

1436	2010/07/24 15:52:41	0.875	48.9	7.8
1437	2010/07/24 15:52:42	0.750	49.7	8.3
1438	2010/07/24 15:52:43	0.750	49.9	7.5
1439	2010/07/24 15:52:51	0.750	51.7	9.0
1440	2010/07/24 15:52:52	0.750	50.9	8.1
1441	2010/07/24 15:53:00	0.750	50.8	8.7
1442	2010/07/24 15:53:02	0.750	54.0	9.0
1443	2010/07/24 15:53:04	1.000	52.8	8.1
1444	2010/07/24 15:53:06	0.625	53.3	9.6
1445	2010/07/24 15:53:07	0.625	52.8	9.6
1446	2010/07/24 15:53:08	0.625	55.1	9.6
1447	2010/07/24 15:53:09	1.000	52.7	7.3
1448	2010/07/24 15:53:10	0.750	54.9	8.4
1449	2010/07/24 15:53:12	0.750	51.8	6.9
1450	2010/07/24 15:53:13	0.750	52.4	8.3
1451	2010/07/24 15:53:15	0.625	54.2	9.1
1452	2010/07/24 15:53:17	0.625	52.4	8.6
1453	2010/07/24 15:53:18	0.625	53.3	9.3
1454	2010/07/24 15:53:20	0.875	51.9	7.9
1455	2010/07/24 15:53:22	0.750	56.1	9.1
1456	2010/07/24 15:53:29	0.625	53.1	6.8
1457	2010/07/24 15:53:31	0.750	52.7	8.4
1458	2010/07/24 15:53:31	0.625	52.7	8.2
1459	2010/07/24 15:53:32	0.625	55.5	9.3
1460	2010/07/24 15:53:42	0.750	53.7	8.3
1461	2010/07/24 15:53:49	0.750	58.2	9.0
1462	2010/07/24 15:53:53	1.000	57.3	8.5
1463	2010/07/24 15:54:01	1.000	54.0	8.2
1464	2010/07/24 15:54:03	0.750	54.2	8.0
1465	2010/07/24 15:54:09	0.875	54.6	8.8
1466	2010/07/24 15:54:11	0.750	56.2	9.0
1467	2010/07/24 15:54:21	0.625	54.5	8.8
1468	2010/07/24 15:54:23	0.625	54.1	7.7
1469	2010/07/24 15:54:24	0.625	53.5	8.6

1470	2010/07/24 15:54:25	0.875	52.6	7.0
1471	2010/07/24 15:54:26	0.625	57.0	9.0
1472	2010/07/24 15:54:26	0.750	52.8	8.4
1473	2010/07/24 15:54:27	0.625	56.6	8.3
1474	2010/07/24 15:54:30	0.625	57.0	7.9
1475	2010/07/24 15:54:35	0.625	55.8	8.5
1476	2010/07/24 15:54:36	0.625	58.7	9.3
1477	2010/07/24 15:54:37	0.750	53.2	8.2
1478	2010/07/24 15:54:38	0.625	54.1	7.9
1479	2010/07/24 15:54:39	0.750	55.2	7.9
1480	2010/07/24 15:54:40	0.750	54.9	8.7
1481	2010/07/24 15:54:41	0.750	54.7	8.1
1482	2010/07/24 15:54:43	0.750	54.5	8.6
1483	2010/07/24 15:54:45	0.625	52.9	8.4
1484	2010/07/24 15:54:46	0.750	52.4	7.1
1485	2010/07/24 15:54:47	0.750	53.3	8.9
1486	2010/07/24 15:54:48	0.750	54.5	7.8
1487	2010/07/24 15:54:49	0.750	55.2	8.1
1488	2010/07/24 15:54:50	0.625	54.9	8.9
1489	2010/07/24 15:54:51	0.625	53.0	8.3
1490	2010/07/24 15:54:52	0.625	57.8	10.0
1491	2010/07/24 15:54:53	0.625	58.3	9.5
1492	2010/07/24 15:54:54	0.750	58.8	8.6
1493	2010/07/24 15:54:55	0.625	58.3	7.7
1494	2010/07/24 15:54:56	0.625	52.0	8.2
1495	2010/07/24 15:54:56	0.625	57.7	8.5
1496	2010/07/24 15:54:58	0.625	57.8	9.0
1497	2010/07/24 15:54:59	0.625	56.2	7.7
1498	2010/07/24 15:55:00	0.625	56.3	8.0
1499	2010/07/24 15:55:04	0.625	52.5	7.3
1500	2010/07/24 15:55:05	0.625	56.2	9.3
1501	2010/07/24 15:55:07	0.750	57.6	9.1
1502	2010/07/24 15:55:08	0.625	55.2	7.4
1503	2010/07/24 15:55:09	0.625	56.4	8.2

1504	2010/07/24 15:55:10	0.750	53.0	7.8
1505	2010/07/24 15:55:11	0.625	56.4	8.8
1506	2010/07/24 15:55:19	0.625	57.7	9.6
1507	2010/07/24 15:55:21	0.625	57.6	8.6
1508	2010/07/24 15:55:22	0.625	56.8	8.1
1509	2010/07/24 15:55:22	0.625	52.6	7.4
1510	2010/07/24 15:55:23	0.625	55.1	8.3
1511	2010/07/24 15:55:24	0.750	56.5	7.8
1512	2010/07/24 15:55:25	0.625	55.2	7.6
1513	2010/07/24 15:55:26	0.750	56.0	8.2
1514	2010/07/24 15:55:27	0.625	57.8	8.7
1515	2010/07/24 15:55:29	0.750	55.1	7.2
1516	2010/07/24 15:55:30	0.750	57.7	9.6
1517	2010/07/24 15:55:31	0.625	57.8	7.9
1518	2010/07/24 15:55:33	0.750	53.1	7.9
1519	2010/07/24 15:55:34	0.625	57.8	9.2
1520	2010/07/24 15:55:35	0.625	52.2	9.0
1521	2010/07/24 15:55:35	0.750	53.9	7.6
1522	2010/07/24 15:55:36	0.625	51.2	6.6
1523	2010/07/24 15:55:37	0.750	54.7	8.3
1524	2010/07/24 15:55:38	0.625	52.1	8.0
1525	2010/07/24 15:55:38	0.750	55.4	7.9
1526	2010/07/24 15:55:40	0.875	51.8	7.3
1527	2010/07/24 15:55:40	0.750	54.5	8.6
1528	2010/07/24 15:55:42	0.625	57.2	9.6
1529	2010/07/24 15:55:43	0.625	53.7	8.5
1530	2010/07/24 15:55:44	0.625	58.3	9.4
1531	2010/07/24 15:55:45	0.750	54.1	9.5
1532	2010/07/24 15:55:46	0.750	59.6	9.1
1533	2010/07/24 15:55:50	0.750	55.6	8.4
1534	2010/07/24 15:55:52	0.625	58.9	9.6
1535	2010/07/24 15:56:00	0.625	58.2	8.5
1536	2010/07/24 15:56:01	0.625	58.2	9.2
1537	2010/07/24 15:56:03	0.750	56.5	8.3

1538	2010/07/24 15:56:04	0.750	52.8	8.4
1539	2010/07/24 15:56:05	0.625	55.1	8.2
1540	2010/07/24 15:56:06	0.625	56.8	9.2
1541	2010/07/24 15:56:07	0.750	51.8	8.4
1542	2010/07/24 15:56:10	0.625	54.2	7.7
1543	2010/07/24 15:56:10	0.625	56.9	8.7
1544	2010/07/24 15:56:12	0.625	57.9	9.0
1545	2010/07/24 15:56:13	0.625	54.9	8.0
1546	2010/07/24 15:56:13	0.625	56.9	8.3
1547	2010/07/24 15:56:22	0.625	53.8	9.1
1548	2010/07/24 15:56:22	0.625	52.6	8.5
1549	2010/07/24 15:56:24	0.750	56.1	9.2
1550	2010/07/24 15:56:26	0.625	56.9	8.9
1551	2010/07/24 15:56:27	0.625	54.8	7.3
1552	2010/07/24 15:56:28	0.750	52.4	6.7
1553	2010/07/24 15:56:29	0.625	53.1	7.9
1554	2010/07/24 15:56:33	0.625	56.8	9.6
1555	2010/07/24 15:56:37	0.625	57.5	8.5
1556	2010/07/24 15:56:39	0.625	56.7	8.3
1557	2010/07/24 15:56:39	0.625	54.1	8.2
1558	2010/07/24 15:56:42	0.625	54.8	7.8
1559	2010/07/24 15:56:46	0.625	54.5	7.7
1560	2010/07/24 15:56:47	0.625	56.6	8.8
1561	2010/07/24 15:56:48	0.625	55.4	8.1
1562	2010/07/24 15:56:49	0.625	57.3	8.3
1563	2010/07/24 15:56:50	0.750	53.9	8.4
1564	2010/07/24 15:56:51	0.625	55.8	8.7
1565	2010/07/24 15:56:51	0.625	55.5	8.2
1566	2010/07/24 15:56:52	0.625	57.5	8.0
1567	2010/07/24 15:56:53	0.750	55.3	7.2
1568	2010/07/24 15:56:54	0.625	57.6	9.4
1569	2010/07/24 15:56:55	0.625	55.8	8.3
1570	2010/07/24 15:56:56	0.625	57.8	8.3
1571	2010/07/24 15:56:57	0.625	54.6	8.2

1572	2010/07/24 15:56:58	0.625	57.2	8.7
1573	2010/07/24 15:56:59	0.625	53.6	8.0
1574	2010/07/24 15:58:27	0.750	55.0	9.9
1575	2010/07/24 15:59:06	0.625	52.8	8.8
1576	2010/07/24 15:59:35	0.750	58.5	9.0
1577	2010/07/24 15:59:36	0.625	56.4	8.8
1578	2010/07/24 15:59:38	0.625	56.4	6.5
1579	2010/07/24 15:59:42	1.000	54.9	8.2
1580	2010/07/24 15:59:46	0.625	54.4	8.1
1581	2010/07/24 15:59:49	0.875	52.3	8.6
1582	2010/07/24 15:59:50	0.750	51.4	7.9
1583	2010/07/24 16:00:17	0.625	55.9	9.9
1584	2010/07/24 16:01:25	0.625	57.6	10.1
1585	2010/07/24 16:05:13	1.000	54.0	12.4
1586	2010/07/24 16:07:52	0.750	51.7	8.9
1587	2010/07/24 16:08:06	0.875	53.9	8.2
1588	2010/07/24 16:08:07	0.875	53.9	8.1
1589	2010/07/24 16:08:09	1.000	54.2	8.4
1590	2010/07/24 16:08:20	0.750	55.0	8.3
1591	2010/07/24 16:08:24	0.625	53.9	9.6
1592	2010/07/24 16:08:27	0.750	53.1	9.0
1593	2010/07/24 16:08:29	0.750	52.8	7.7
1594	2010/07/24 16:08:30	0.750	54.5	9.1
1595	2010/07/24 16:08:31	0.625	55.1	8.6
1596	2010/07/24 16:08:35	0.625	54.6	8.7
1597	2010/07/24 16:08:36	0.625	54.7	7.9
1598	2010/07/24 16:08:37	0.875	55.2	8.6
1599	2010/07/24 16:08:42	0.625	53.9	8.8
1600	2010/07/24 16:08:44	0.750	53.0	8.1
1601	2010/07/24 16:09:42	0.625	62.9	11.5
1602	2010/07/24 16:09:44	0.750	58.8	8.4
1603	2010/07/24 16:09:56	0.750	56.0	8.6
1604	2010/07/24 16:09:58	0.750	57.3	9.1
1605	2010/07/24 16:10:00	0.875	55.0	8.6

1606	2010/07/24 16:10:02	0.750	55.1	9.0
1607	2010/07/24 16:10:04	0.750	56.9	9.1
1608	2010/07/24 16:10:06	0.875	54.1	8.8
1609	2010/07/24 16:10:07	0.750	55.8	8.1
1610	2010/07/24 16:10:09	0.750	55.5	9.5
1611	2010/07/24 16:10:12	0.625	54.9	8.0
1612	2010/07/24 16:10:24	1.000	52.4	8.5
1613	2010/07/24 16:10:31	0.625	52.2	9.4
1614	2010/07/24 16:10:36	0.750	52.1	9.2
1615	2010/07/24 16:10:40	0.750	52.4	9.1
1616	2010/07/24 16:10:41	0.750	53.2	8.7
1617	2010/07/24 16:10:48	0.875	48.6	9.4
1618	2010/07/24 16:10:57	0.750	50.7	10.1
1619	2010/07/24 16:11:01	0.625	52.6	9.9
1620	2010/07/24 16:11:02	0.750	51.3	9.2
1621	2010/07/24 16:11:04	0.750	53.9	10.4
1622	2010/07/24 16:11:09	0.625	56.5	10.5
1623	2010/07/24 16:11:18	1.000	53.6	8.5
1624	2010/07/24 16:11:32	0.750	51.7	9.1
1625	2010/07/24 16:11:42	0.750	49.1	8.5
1626	2010/07/24 16:11:43	0.750	52.9	9.2
1627	2010/07/24 16:12:16	0.875	51.8	8.2
1628	2010/07/24 16:13:24	0.625	55.4	10.3
1629	2010/07/24 16:13:27	0.750	54.7	8.5
1630	2010/07/24 16:13:28	0.750	53.1	7.3
1631	2010/07/24 16:13:28	0.625	53.9	8.4
1632	2010/07/24 16:13:29	0.750	55.3	9.2
1633	2010/07/24 16:13:34	0.625	55.5	6.7
1634	2010/07/24 16:13:48	0.875	54.3	7.7
1635	2010/07/24 16:13:49	0.625	54.0	8.7
1636	2010/07/24 16:13:50	0.625	54.1	8.5
1637	2010/07/24 16:13:51	0.625	54.1	8.1
1638	2010/07/24 16:13:51	0.750	55.8	8.5
1639	2010/07/24 16:13:52	0.750	56.0	8.7

1640	2010/07/24 16:13:54	0.750	54.1	8.1
1641	2010/07/24 16:13:56	0.625	54.9	9.0
1642	2010/07/24 16:13:58	0.625	56.5	8.7
1643	2010/07/24 16:14:00	0.750	56.8	7.9
1644	2010/07/24 16:14:07	0.625	53.3	8.3
1645	2010/07/24 16:14:07	0.750	56.7	9.1
1646	2010/07/24 16:14:13	0.750	54.6	8.9
1647	2010/07/24 16:14:15	0.875	50.2	8.0
1648	2010/07/24 16:14:15	0.750	52.8	8.7
1649	2010/07/24 16:14:16	0.750	51.3	7.6
1650	2010/07/24 16:14:19	0.625	57.8	9.6
1651	2010/07/24 16:14:21	0.625	55.8	8.4
1652	2010/07/24 16:14:21	0.750	55.0	7.6
1653	2010/07/24 16:14:22	0.625	57.1	9.2
1654	2010/07/24 16:14:25	0.625	54.9	7.3
1655	2010/07/24 16:16:02	0.750	53.2	8.7
1656	2010/07/24 16:16:06	0.625	55.7	9.1
1657	2010/07/24 16:16:10	0.625	54.6	8.0
1658	2010/07/24 16:16:12	0.625	55.6	8.6
1659	2010/07/24 16:16:36	0.750	55.2	8.4
1660	2010/07/24 16:16:37	0.875	54.1	8.0
1661	2010/07/24 16:16:38	0.750	54.5	8.0
1662	2010/07/24 16:16:39	0.750	55.2	7.8
1663	2010/07/24 16:16:40	0.875	53.4	6.3
1664	2010/07/24 16:16:41	0.625	55.5	7.5
1665	2010/07/24 16:16:43	0.750	55.9	8.5
1666	2010/07/24 16:16:49	0.750	52.5	6.2
1667	2010/07/24 16:16:51	0.750	55.0	8.7
1668	2010/07/24 16:16:55	0.625	55.7	9.7
1669	2010/07/24 16:17:08	0.750	54.9	9.7
1670	2010/07/24 16:17:12	0.625	53.8	9.5
1671	2010/07/24 16:17:14	0.625	57.2	10.6
1672	2010/07/24 16:17:39	0.875	54.1	6.7
1673	2010/07/24 16:17:42	0.875	53.6	9.1

1674	2010/07/24 16:17:52	0.750	53.0	8.1
1675	2010/07/24 16:17:53	0.750	55.5	8.8
1676	2010/07/24 16:17:55	0.750	55.5	9.3
1677	2010/07/24 16:17:59	0.750	52.3	9.6
1678	2010/07/24 16:18:00	0.750	51.9	8.1
1679	2010/07/24 16:18:04	0.750	48.6	7.8
1680	2010/07/24 16:18:07	0.750	51.6	10.0
1681	2010/07/24 16:18:08	0.750	52.3	9.5
1682	2010/07/24 16:18:10	0.750	53.1	8.8
1683	2010/07/24 16:18:19	0.875	50.0	8.9
1684	2010/07/24 16:18:20	0.750	50.5	8.6
1685	2010/07/24 16:18:22	0.625	51.8	9.7
1686	2010/07/24 16:18:24	0.750	51.9	9.3
1687	2010/07/24 16:18:25	0.625	53.8	8.8
1688	2010/07/24 16:18:26	0.750	54.9	8.9
1689	2010/07/24 16:18:27	0.625	55.3	9.3
1690	2010/07/24 16:18:28	0.750	52.2	7.3
1691	2010/07/24 16:18:29	0.625	54.8	8.9
1692	2010/07/24 16:18:34	0.750	55.4	8.3
1693	2010/07/24 16:18:34	0.750	55.7	7.5
1694	2010/07/24 16:18:36	0.750	55.8	8.0
1695	2010/07/24 16:18:38	0.750	52.6	6.9
1696	2010/07/24 16:18:39	0.750	53.8	7.8
1697	2010/07/24 16:18:41	0.750	52.8	8.5
1698	2010/07/24 16:18:43	0.750	54.2	8.7
1699	2010/07/24 16:18:49	0.750	54.7	8.5
1700	2010/07/24 16:18:54	0.750	52.2	7.3
1701	2010/07/24 16:18:55	0.625	52.0	7.7
1702	2010/07/24 16:18:58	0.750	53.5	8.7
1703	2010/07/24 16:19:00	0.750	56.3	9.5
1704	2010/07/24 16:19:02	0.625	57.0	9.5
1705	2010/07/24 16:19:04	0.750	55.5	8.8
1706	2010/07/24 16:19:07	1.000	51.5	9.0
1707	2010/07/24 16:19:09	0.750	52.8	9.8

1708	2010/07/24 16:19:10	1.000	54.1	10.0
1709	2010/07/24 16:19:16	0.750	54.9	9.1
1710	2010/07/24 16:19:18	0.750	53.2	8.3
1711	2010/07/24 16:19:20	0.625	52.9	7.9
1712	2010/07/24 16:19:21	0.750	50.3	7.5
1713	2010/07/24 16:19:22	0.750	51.5	8.0
1714	2010/07/24 16:19:24	0.625	54.8	9.0
1715	2010/07/24 16:19:27	0.625	53.1	8.6
1716	2010/07/24 16:19:28	0.625	54.1	8.1
1717	2010/07/24 16:19:29	0.750	52.4	7.3
1718	2010/07/24 16:19:32	1.000	52.4	7.8
1719	2010/07/24 16:19:36	0.750	53.1	8.5
1720	2010/07/24 16:19:37	0.750	55.6	9.4
1721	2010/07/24 16:19:40	0.625	52.3	7.7
1722	2010/07/24 16:20:02	0.750	51.1	9.8
1723	2010/07/24 16:20:13	0.750	54.8	7.6
1724	2010/07/24 16:20:16	0.750	52.3	7.9
1725	2010/07/24 16:20:20	0.625	54.9	8.9
1726	2010/07/24 16:20:22	0.750	55.7	8.6
1727	2010/07/24 16:20:27	0.750	55.1	8.3
1728	2010/07/24 16:20:30	0.750	53.2	7.8
1729	2010/07/24 16:20:31	0.750	52.5	7.7
1730	2010/07/24 16:20:32	0.750	52.6	7.9
1731	2010/07/24 16:20:36	0.750	51.7	7.4
1732	2010/07/24 16:20:46	0.750	55.8	9.1
1733	2010/07/24 16:20:50	0.875	52.5	7.9
1734	2010/07/24 16:20:52	0.750	54.0	8.5
1735	2010/07/24 16:20:53	0.750	54.9	9.2
1736	2010/07/24 16:20:54	0.625	56.1	8.9
1737	2010/07/24 16:21:20	0.750	53.8	8.7
1738	2010/07/24 16:21:21	0.750	55.5	8.8
1739	2010/07/24 16:21:25	0.750	55.4	8.7
1740	2010/07/24 16:21:30	0.750	54.9	8.3
1741	2010/07/24 16:21:33	0.750	55.2	8.6

1742	2010/07/24 16:21:34	0.625	55.2	8.2
1743	2010/07/24 16:21:35	0.750	54.2	7.3
1744	2010/07/24 16:21:36	0.750	54.3	7.4
1745	2010/07/24 16:21:37	0.750	54.5	7.9
1746	2010/07/24 16:21:40	0.625	55.5	7.8
1747	2010/07/24 16:21:45	0.750	53.7	9.8
1748	2010/07/24 16:21:47	0.750	53.4	8.9
1749	2010/07/24 16:21:49	0.750	55.7	8.6
1750	2010/07/24 16:21:51	0.625	56.6	9.1
1751	2010/07/24 16:21:51	0.750	56.0	7.7
1752	2010/07/24 16:21:53	0.875	53.3	7.2
1753	2010/07/24 16:21:54	0.625	55.7	9.1
1754	2010/07/24 16:21:55	0.750	56.2	8.5
1755	2010/07/24 16:21:56	0.750	55.4	7.6
1756	2010/07/24 16:21:57	0.750	55.3	8.7
1757	2010/07/24 16:21:57	0.625	57.4	8.5
1758	2010/07/24 16:21:58	0.750	54.8	7.5
1759	2010/07/24 16:22:39	0.875	55.4	8.0
1760	2010/07/24 16:22:43	0.875	57.1	9.2
1761	2010/07/24 16:22:51	0.875	54.1	7.9
1762	2010/07/24 16:22:59	0.875	54.8	6.7
1763	2010/07/24 16:23:03	0.875	54.6	8.5
1764	2010/07/24 16:23:04	0.750	55.7	8.5
1765	2010/07/24 16:23:06	0.750	54.0	8.4
1766	2010/07/24 16:23:07	1.000	54.5	8.3
1767	2010/07/24 16:23:09	0.625	54.5	8.7
1768	2010/07/24 16:23:10	0.750	55.3	8.6
1769	2010/07/24 16:23:11	0.625	56.7	8.9
1770	2010/07/24 16:23:12	0.625	55.0	7.5
1771	2010/07/24 16:23:15	0.625	57.4	8.7
1772	2010/07/24 16:23:16	0.625	56.6	8.0
1773	2010/07/24 16:23:17	0.750	56.2	7.2
1774	2010/07/24 16:23:19	0.625	55.7	8.4
1775	2010/07/24 16:23:20	0.750	56.7	8.2

1776	2010/07/24 16:23:23	0.750	50.5	8.9
1777	2010/07/24 16:23:24	0.625	55.1	10.5
1778	2010/07/24 16:23:27	0.750	54.1	9.2
1779	2010/07/24 16:23:29	0.625	53.7	9.5
1780	2010/07/24 16:23:31	0.625	54.1	9.8
1781	2010/07/24 16:23:39	0.625	52.8	9.4
1782	2010/07/24 16:23:41	0.750	51.1	9.3
1783	2010/07/24 16:23:42	0.750	52.8	9.2
1784	2010/07/24 16:23:46	0.750	53.1	9.4
1785	2010/07/24 16:23:48	0.625	51.7	8.9
1786	2010/07/24 16:23:49	0.750	49.6	8.3
1787	2010/07/24 16:23:50	0.625	54.7	9.2
1788	2010/07/24 16:23:57	0.750	52.5	9.5
1789	2010/07/24 16:23:59	0.750	52.6	8.8
1790	2010/07/24 16:24:01	0.750	53.1	9.8
1791	2010/07/24 16:24:03	0.750	53.0	8.8
1792	2010/07/24 16:24:06	0.625	55.6	9.3
1793	2010/07/24 16:24:09	0.750	55.4	9.7
1794	2010/07/24 16:24:11	0.750	54.5	8.1
1795	2010/07/24 16:24:13	0.750	54.9	8.7
1796	2010/07/24 16:24:18	0.875	55.0	9.0
1797	2010/07/24 16:24:20	0.750	56.0	9.2
1798	2010/07/24 16:24:34	0.750	56.7	9.0
1799	2010/07/24 16:24:52	0.750	53.9	7.8
1800	2010/07/24 16:25:03	0.875	52.5	8.2
1801	2010/07/24 16:25:05	0.625	55.8	8.9
1802	2010/07/24 16:25:06	0.750	55.6	8.5
1803	2010/07/24 16:25:07	0.750	54.7	7.7
1804	2010/07/24 16:25:09	0.625	56.3	8.6
1805	2010/07/24 16:25:10	0.625	57.8	9.6
1806	2010/07/24 16:25:12	0.750	55.4	7.8
1807	2010/07/24 16:25:14	0.750	55.5	7.6
1808	2010/07/24 16:25:21	0.750	54.7	8.0
1809	2010/07/24 16:25:22	0.750	53.8	8.0

1810	2010/07/24 16:25:23	0.750	55.2	7.5
1811	2010/07/24 16:25:33	0.750	54.8	8.2
1812	2010/07/24 16:25:39	0.625	53.8	9.2
1813	2010/07/24 16:25:45	0.750	51.8	8.8
1814	2010/07/24 16:25:54	1.000	52.5	10.1
1815	2010/07/24 16:26:29	0.750	53.1	8.7
1816	2010/07/24 16:26:30	0.750	52.7	7.8
1817	2010/07/24 16:26:30	0.625	57.3	9.9
1818	2010/07/24 16:26:32	0.750	56.5	9.7
1819	2010/07/24 16:26:34	0.750	53.9	7.8
1820	2010/07/24 16:26:36	0.625	54.8	9.3
1821	2010/07/24 16:26:37	0.750	53.7	8.4
1822	2010/07/24 16:26:39	0.625	54.4	9.3
1823	2010/07/24 16:26:41	0.750	52.9	8.5
1824	2010/07/24 16:26:44	0.750	50.7	8.8
1825	2010/07/24 16:26:45	0.750	50.0	8.2
1826	2010/07/24 16:26:46	0.625	54.6	10.2
1827	2010/07/24 16:26:48	0.625	53.9	9.2
1828	2010/07/24 16:26:49	0.625	54.0	8.8
1829	2010/07/24 16:26:50	0.625	51.9	7.4
1830	2010/07/24 16:26:50	0.625	57.4	10.0
1831	2010/07/24 16:26:52	0.625	54.5	8.6
1832	2010/07/24 16:26:53	0.750	53.3	7.8
1833	2010/07/24 16:26:54	0.750	53.7	8.6
1834	2010/07/24 16:26:55	0.625	55.7	9.3
1835	2010/07/24 16:26:57	0.750	53.6	8.8
1836	2010/07/24 16:27:01	0.625	52.9	9.1
1837	2010/07/24 16:27:06	0.750	56.3	10.5
1838	2010/07/24 16:27:08	0.750	51.8	8.5
1839	2010/07/24 16:27:10	0.625	54.1	9.1
1840	2010/07/24 16:27:10	0.625	50.8	7.6
1841	2010/07/24 16:27:11	0.625	56.2	9.3
1842	2010/07/24 16:27:12	0.625	51.5	8.5
1843	2010/07/24 16:27:14	0.625	53.0	9.1

1844	2010/07/24 16:27:16	0.625	53.7	9.4
1845	2010/07/24 16:27:17	0.625	52.4	8.3
1846	2010/07/24 16:27:18	0.750	49.0	7.6
1847	2010/07/24 16:27:19	0.625	52.5	8.6
1848	2010/07/24 16:27:20	0.750	55.3	9.7
1849	2010/07/24 16:27:22	0.625	56.9	10.1
1850	2010/07/24 16:27:24	0.625	53.5	8.8
1851	2010/07/24 16:27:24	0.625	50.5	7.2
1852	2010/07/24 16:27:25	0.625	54.2	9.2
1853	2010/07/24 16:27:27	0.625	53.2	9.0
1854	2010/07/24 16:27:28	0.625	52.7	8.7
1855	2010/07/24 16:27:29	0.625	52.7	8.7
1856	2010/07/24 16:27:30	0.625	54.6	10.3
1857	2010/07/24 16:27:31	0.750	51.0	8.9
1858	2010/07/24 16:27:32	0.625	52.9	8.5
1859	2010/07/24 16:27:33	0.750	52.8	9.0
1860	2010/07/24 16:27:34	0.875	51.2	8.1
1861	2010/07/24 16:27:35	0.625	55.2	9.1
1862	2010/07/24 16:27:36	0.625	54.8	8.2
1863	2010/07/24 16:27:38	0.625	55.8	9.4
1864	2010/07/24 16:27:42	0.750	52.1	7.6
1865	2010/07/24 16:27:44	0.625	53.5	8.7
1866	2010/07/24 16:27:44	0.625	56.7	9.8
1867	2010/07/24 16:27:45	0.750	52.0	9.6
1868	2010/07/24 16:27:46	0.750	54.7	8.8
1869	2010/07/24 16:27:48	0.625	55.2	10.3
1870	2010/07/24 16:27:50	0.750	55.7	10.2
1871	2010/07/24 16:27:52	0.750	52.7	7.2
1872	2010/07/24 16:27:52	0.625	56.1	9.5
1873	2010/07/24 16:27:56	0.750	53.7	9.1
1874	2010/07/24 16:27:58	0.750	54.7	9.0
1875	2010/07/24 16:28:01	0.750	53.3	9.2
1876	2010/07/24 16:28:04	0.750	54.5	10.4
1877	2010/07/24 16:28:05	0.750	54.1	9.3

1878	2010/07/24 16:28:07	0.625	55.8	9.5
1879	2010/07/24 16:28:09	0.625	56.8	9.9
1880	2010/07/24 16:28:11	0.625	55.3	9.3
1881	2010/07/24 16:28:12	0.625	54.0	8.7
1882	2010/07/24 16:28:13	0.750	53.2	7.9
1883	2010/07/24 16:28:25	0.625	54.2	8.9
1884	2010/07/24 16:28:26	0.625	54.0	8.0
1885	2010/07/24 16:28:31	0.750	50.8	9.3
1886	2010/07/24 16:28:35	0.750	52.9	9.9
1887	2010/07/24 16:28:37	0.625	52.6	9.6
1888	2010/07/24 16:28:55	0.875	50.7	10.0
1889	2010/07/24 16:29:34	1.000	52.3	9.3
1890	2010/07/24 16:30:39	1.000	50.6	7.1
1891	2010/07/24 16:30:40	0.625	58.8	10.8
1892	2010/07/24 16:36:46	0.875	49.6	8.8
1893	2010/07/24 16:38:50	1.000	56.7	11.2
1894	2010/07/24 16:41:37	1.000	59.8	7.5
1895	2010/07/24 16:50:52	0.750	54.1	8.8
1896	2010/07/24 16:50:54	0.875	53.9	8.7
1897	2010/07/24 16:50:56	0.875	51.1	8.4
1898	2010/07/24 16:50:59	0.750	54.0	9.1
1899	2010/07/24 16:51:02	0.750	53.3	9.0
1900	2010/07/24 16:51:04	0.750	51.3	8.4
1901	2010/07/24 16:51:06	1.000	54.6	9.1
1902	2010/07/24 16:51:07	0.750	57.4	9.5
1903	2010/07/24 16:51:08	0.750	54.5	8.3
1904	2010/07/24 16:51:10	0.750	54.8	8.6
1905	2010/07/24 16:51:13	0.625	55.5	8.3
1906	2010/07/24 16:51:15	0.625	55.6	7.2
1907	2010/07/24 16:51:18	0.750	53.5	7.1
1908	2010/07/24 16:51:19	0.750	56.1	9.0
1909	2010/07/24 16:51:20	0.625	55.3	7.9
1910	2010/07/24 16:51:21	0.750	57.1	8.3
1911	2010/07/24 16:51:23	0.750	56.9	7.9

1912	2010/07/24 16:51:25	0.750	55.1	8.1
1913	2010/07/24 16:51:25	0.625	55.1	7.9
1914	2010/07/24 16:51:26	0.750	55.0	7.8
1915	2010/07/24 16:51:27	0.625	55.5	8.2
1916	2010/07/24 16:51:28	0.625	55.4	8.1
1917	2010/07/24 16:51:32	0.625	57.6	9.1
1918	2010/07/24 16:51:33	0.625	57.7	8.8
1919	2010/07/24 16:51:35	0.625	57.3	9.2
1920	2010/07/24 16:51:35	0.750	56.8	7.5
1921	2010/07/24 16:51:37	0.625	56.6	8.6
1922	2010/07/24 16:51:38	0.625	58.1	9.3
1923	2010/07/24 16:51:40	0.625	57.0	7.3
1924	2010/07/24 16:51:42	0.625	57.7	8.6
1925	2010/07/24 16:51:44	0.750	56.7	8.8
1926	2010/07/24 16:51:45	0.625	52.8	7.8
1927	2010/07/24 16:51:46	0.625	53.5	8.2
1928	2010/07/24 16:51:48	0.625	55.5	9.8
1929	2010/07/24 16:51:50	0.875	52.4	8.2
1930	2010/07/24 16:51:51	0.625	57.5	9.9
1931	2010/07/24 16:51:55	0.750	58.0	9.7
1932	2010/07/24 16:51:57	0.625	52.4	8.5
1933	2010/07/24 16:51:58	0.625	56.0	9.6
1934	2010/07/24 16:51:59	0.625	50.8	9.4
1935	2010/07/24 16:52:00	0.750	57.9	9.5
1936	2010/07/24 16:52:02	0.625	52.1	6.4
1937	2010/07/24 16:52:05	0.625	59.0	8.6
1938	2010/07/24 16:52:06	0.875	51.9	8.5
1939	2010/07/24 16:52:07	0.625	55.2	8.8
1940	2010/07/24 16:52:09	0.625	52.0	8.8
1941	2010/07/24 16:52:10	0.625	56.8	10.3
1942	2010/07/24 16:52:11	0.750	53.1	8.9
1943	2010/07/24 16:52:12	0.750	53.7	8.4
1944	2010/07/24 16:52:13	0.625	56.1	9.1
1945	2010/07/24 16:52:14	0.750	50.5	8.2

1946	2010/07/24 16:52:15	0.750	51.2	7.4
1947	2010/07/24 16:52:16	0.750	57.3	9.6
1948	2010/07/24 16:52:18	0.625	53.4	7.8
1949	2010/07/24 16:52:18	0.625	57.1	9.0
1950	2010/07/24 16:52:23	0.625	53.3	7.3
1951	2010/07/24 16:52:24	0.625	57.7	8.5
1952	2010/07/24 16:52:27	0.750	55.4	7.1
1953	2010/07/24 16:52:28	0.625	56.4	7.8
1954	2010/07/24 16:52:29	0.750	52.1	8.4
1955	2010/07/24 16:52:33	0.750	49.7	7.2
1956	2010/07/24 16:52:34	0.625	51.6	8.9
1957	2010/07/24 16:52:36	0.625	54.8	9.5
1958	2010/07/24 16:52:38	0.875	51.4	8.3
1959	2010/07/24 16:52:40	0.875	52.6	9.3
1960	2010/07/24 16:52:49	0.625	53.6	9.5
1961	2010/07/24 16:52:50	0.625	52.9	9.3
1962	2010/07/24 16:52:51	0.625	50.8	8.1
1963	2010/07/24 16:52:52	0.625	56.9	9.7
1964	2010/07/24 16:52:53	0.875	50.5	9.7
1965	2010/07/24 16:52:54	0.750	52.3	8.7
1966	2010/07/24 16:52:55	0.625	55.2	9.6
1967	2010/07/24 16:52:56	0.625	55.5	8.3
1968	2010/07/24 16:52:57	0.750	53.1	7.4
1969	2010/07/24 16:53:03	0.750	51.2	8.7
1970	2010/07/24 16:53:04	0.625	53.6	9.5
1971	2010/07/24 16:53:05	0.625	51.0	8.7
1972	2010/07/24 16:53:07	0.750	51.6	9.2
1973	2010/07/24 16:53:08	0.625	52.0	8.0
1974	2010/07/24 16:53:10	0.625	55.6	9.6
1975	2010/07/24 16:53:11	0.625	54.8	8.9
1976	2010/07/24 16:53:13	0.750	57.4	9.1
1977	2010/07/24 16:53:15	0.625	54.4	7.6
1978	2010/07/24 16:53:16	0.625	55.0	8.2
1979	2010/07/24 16:53:17	0.625	52.7	8.3

1980	2010/07/24 16:53:19	0.625	55.3	9.9
1981	2010/07/24 16:53:20	0.625	53.8	9.3
1982	2010/07/24 16:53:21	0.625	52.5	8.6
1983	2010/07/24 16:53:24	0.625	55.0	10.2
1984	2010/07/24 16:53:26	0.875	49.1	9.9
1985	2010/07/24 16:53:27	0.625	55.9	10.4
1986	2010/07/24 16:53:28	0.625	53.0	8.7
1987	2010/07/24 16:53:29	0.750	56.1	10.1
1988	2010/07/24 16:53:31	0.750	53.8	8.3
1989	2010/07/24 16:53:31	0.625	53.4	7.9
1990	2010/07/24 16:53:32	0.625	56.2	9.8
1991	2010/07/24 16:53:33	0.625	54.9	7.7
1992	2010/07/24 16:53:34	0.750	52.2	6.8
1993	2010/07/24 16:53:38	0.625	56.8	8.6
1994	2010/07/24 16:53:40	0.750	57.0	7.6
1995	2010/07/24 16:53:43	1.000	53.6	7.8
1996	2010/07/24 16:53:49	0.750	51.8	7.4
1997	2010/07/24 16:53:59	0.625	53.8	8.5
1998	2010/07/24 16:54:08	0.875	55.2	8.4
1999	2010/07/24 16:54:11	0.875	55.2	9.0
2000	2010/07/24 16:54:12	0.625	53.4	7.2
2001	2010/07/24 16:54:14	0.625	52.5	8.6
2002	2010/07/24 16:54:16	0.750	52.3	7.8
2003	2010/07/24 16:54:18	0.750	54.4	8.3
2004	2010/07/24 16:54:19	0.750	53.7	8.1
2005	2010/07/24 16:54:34	0.625	53.8	8.7
2006	2010/07/24 16:54:37	0.625	54.2	9.3
2007	2010/07/24 16:54:46	0.750	52.2	7.5
2008	2010/07/24 16:54:52	0.625	52.6	8.6
2009	2010/07/24 16:54:58	0.750	54.1	8.1
2010	2010/07/24 16:55:00	0.750	54.2	7.7
2011	2010/07/24 16:55:01	0.625	57.1	8.7
2012	2010/07/24 16:55:02	0.750	53.9	7.4
2013	2010/07/24 16:55:03	0.750	55.1	7.4

2014	2010/07/24 16:55:04	0.750	55.7	8.3
2015	2010/07/24 16:55:20	0.625	52.7	9.0
2016	2010/07/24 16:55:21	1.000	52.3	6.9
2017	2010/07/24 16:59:31	0.750	52.8	8.9
2018	2010/07/24 17:01:29	0.750	52.7	9.2
2019	2010/07/24 17:01:54	0.750	50.8	9.2
2020	2010/07/24 17:02:03	0.750	53.1	8.9
2021	2010/07/24 17:02:18	0.875	52.8	9.1
2022	2010/07/24 17:02:19	0.750	52.5	9.4
2023	2010/07/24 17:02:36	1.000	53.3	10.0
2024	2010/07/24 17:02:37	0.625	52.9	9.2
2025	2010/07/24 17:02:45	0.625	52.7	9.9
2026	2010/07/24 17:02:46	0.625	53.0	9.0
2027	2010/07/24 17:02:50	0.750	53.9	8.7
2028	2010/07/24 17:02:53	0.625	53.7	8.8
2029	2010/07/24 17:02:54	0.625	54.5	8.7
2030	2010/07/24 17:02:55	0.625	52.8	7.4
2031	2010/07/24 17:02:56	0.750	51.8	7.7
2032	2010/07/24 17:02:57	0.875	53.3	9.3
2033	2010/07/24 17:02:58	0.750	52.9	8.2
2034	2010/07/24 17:02:59	0.750	52.0	8.3
2035	2010/07/24 17:03:09	0.750	52.2	9.1
2036	2010/07/24 17:03:11	0.750	53.8	8.9
2037	2010/07/24 17:03:18	0.875	53.1	9.2
2038	2010/07/24 17:03:20	1.000	52.3	8.2
2039	2010/07/24 17:03:23	0.750	51.3	8.6
2040	2010/07/24 17:03:24	0.750	53.8	9.8
2041	2010/07/24 17:03:25	0.625	54.8	9.0
2042	2010/07/24 17:03:26	0.750	52.3	8.2
2043	2010/07/24 17:03:28	0.750	51.8	8.1
2044	2010/07/24 17:03:29	0.750	54.7	9.6
2045	2010/07/24 17:03:33	1.000	58.0	10.8
2046	2010/07/24 17:12:26	0.875	53.5	7.9
2047	2010/07/24 17:12:30	0.750	54.0	8.1

2048	2010/07/24 17:12:31	0.750	55.5	7.9
2049	2010/07/24 17:12:33	0.750	54.7	7.9
2050	2010/07/24 17:12:35	0.625	55.2	8.8
2051	2010/07/24 17:12:38	0.875	53.4	7.2
2052	2010/07/24 17:12:39	1.000	52.4	7.6
2053	2010/07/24 17:12:41	0.750	53.5	8.2
2054	2010/07/24 17:12:43	0.750	53.2	8.4
2055	2010/07/24 17:12:44	0.625	53.2	8.4
2056	2010/07/24 17:12:45	0.625	52.5	7.5
2057	2010/07/24 17:12:46	0.750	51.8	8.2
2058	2010/07/24 17:12:47	0.750	52.9	8.5
2059	2010/07/24 17:12:50	0.750	54.8	7.2
2060	2010/07/24 17:12:51	0.750	53.6	6.7
2061	2010/07/24 17:12:52	0.625	53.7	7.7
2062	2010/07/24 17:12:53	0.750	53.0	7.4
2063	2010/07/24 17:12:54	0.625	55.3	9.1
2064	2010/07/24 17:12:55	0.625	54.8	8.2
2065	2010/07/24 17:12:56	0.625	53.8	7.1
2066	2010/07/24 17:12:57	0.625	53.8	7.3
2067	2010/07/24 17:12:58	0.750	52.4	6.9
2068	2010/07/24 17:12:59	0.750	52.7	7.1
2069	2010/07/24 17:13:05	0.625	56.5	8.1
2070	2010/07/24 17:13:06	0.750	52.0	7.9
2071	2010/07/24 17:13:09	0.625	54.6	8.4
2072	2010/07/24 17:13:10	0.625	54.2	8.2
2073	2010/07/24 17:13:10	0.625	55.4	8.4
2074	2010/07/24 17:13:11	0.750	53.7	7.5
2075	2010/07/24 17:13:12	0.750	53.2	7.2
2076	2010/07/24 17:13:13	0.750	52.1	6.6
2077	2010/07/24 17:13:14	0.750	53.7	7.6
2078	2010/07/24 17:13:15	0.750	53.9	7.4
2079	2010/07/24 17:13:17	0.750	53.9	7.9
2080	2010/07/24 17:13:17	0.625	54.2	7.5
2081	2010/07/24 17:13:18	0.750	53.7	6.7

2082	2010/07/24 17:13:19	0.625	53.9	7.6
2083	2010/07/24 17:13:20	0.625	52.1	7.3
2084	2010/07/24 17:13:21	0.750	50.0	6.9
2085	2010/07/24 17:13:24	0.750	56.0	7.6
2086	2010/07/24 17:13:24	0.750	55.3	6.7
2087	2010/07/24 17:13:31	0.625	55.8	9.6
2088	2010/07/24 17:13:33	0.750	53.0	7.1
2089	2010/07/24 17:13:36	0.625	58.7	9.6
2090	2010/07/24 17:13:38	0.625	53.5	7.5
2091	2010/07/24 17:13:41	0.750	54.6	9.1
2092	2010/07/24 17:13:43	0.750	56.7	8.5
2093	2010/07/24 17:13:46	0.750	56.3	8.1
2094	2010/07/24 17:13:47	0.625	57.1	9.1
2095	2010/07/24 17:13:52	0.625	56.9	9.1
2096	2010/07/24 17:13:54	0.750	55.0	7.7
2097	2010/07/24 17:14:09	1.000	58.0	10.6
2098	2010/07/24 17:14:27	0.750	54.8	7.7
2099	2010/07/24 17:14:28	0.750	57.1	8.5
2100	2010/07/24 17:14:31	0.750	56.8	7.6
2101	2010/07/24 17:14:44	0.750	59.3	8.6
2102	2010/07/24 17:14:46	0.625	58.4	8.9
2103	2010/07/24 17:14:48	0.625	57.2	8.2
2104	2010/07/24 17:14:54	0.875	54.9	9.5
2105	2010/07/24 17:14:58	0.750	55.8	8.6
2106	2010/07/24 17:15:00	0.625	56.6	8.4
2107	2010/07/24 17:15:01	0.750	58.5	9.0
2108	2010/07/24 17:15:16	0.875	56.8	9.2
2109	2010/07/24 17:15:19	0.875	57.3	7.2
2110	2010/07/24 17:15:26	0.750	58.7	8.2
2111	2010/07/24 17:15:27	0.625	58.8	8.0
2112	2010/07/24 17:15:30	0.750	57.8	8.2
2113	2010/07/24 17:15:33	0.750	58.5	8.6
2114	2010/07/24 17:15:35	0.750	57.9	8.6
2115	2010/07/24 17:15:37	0.625	57.2	8.0

2116	2010/07/24 17:15:38	0.750	54.9	7.2
2117	2010/07/24 17:15:41	0.750	56.2	8.7
2118	2010/07/24 17:15:42	0.625	53.2	7.3
2119	2010/07/24 17:15:45	0.625	56.4	8.0
2120	2010/07/24 17:15:47	0.625	60.4	9.7
2121	2010/07/24 17:15:49	0.625	58.1	8.4
2122	2010/07/24 17:15:51	0.625	59.9	9.0
2123	2010/07/24 17:15:54	0.750	54.7	6.4
2124	2010/07/24 17:15:59	0.625	55.9	6.2
2125	2010/07/24 17:16:00	0.750	57.0	7.3
2126	2010/07/24 17:16:02	0.875	56.9	7.5
2127	2010/07/24 17:16:04	0.750	58.0	7.8
2128	2010/07/24 17:16:07	0.750	57.4	8.0
2129	2010/07/24 17:16:09	0.625	57.7	7.6
2130	2010/07/24 17:16:10	0.875	49.9	8.5
2131	2010/07/24 17:16:15	0.625	53.1	6.8
2132	2010/07/24 17:16:16	0.625	53.8	7.1
2133	2010/07/24 17:16:17	0.625	55.6	8.1
2134	2010/07/24 17:16:18	0.750	54.0	6.9
2135	2010/07/24 17:16:19	0.625	56.4	8.1
2136	2010/07/24 17:16:21	0.625	55.4	7.4
2137	2010/07/24 17:16:30	0.625	56.5	8.5
2138	2010/07/24 17:16:47	0.750	57.3	8.2
2139	2010/07/24 17:17:19	0.875	56.1	7.5
2140	2010/07/24 17:17:33	0.625	57.1	8.7
2141	2010/07/24 17:17:35	0.750	56.9	7.8
2142	2010/07/24 17:17:56	0.625	59.8	9.1
2143	2010/07/24 17:18:12	0.750	57.9	8.7
2144	2010/07/24 17:18:13	0.750	56.0	7.8
2145	2010/07/24 17:18:15	0.750	57.7	9.1
2146	2010/07/24 17:18:18	0.625	60.0	9.3
2147	2010/07/24 17:18:19	0.750	57.7	7.5
2148	2010/07/24 17:19:23	0.625	58.0	8.2
2149	2010/07/24 17:19:25	0.875	53.1	6.6

2150	2010/07/24 17:19:27	0.750	56.3	8.5
2151	2010/07/24 17:19:29	0.750	57.5	8.1
2152	2010/07/24 17:19:31	0.750	56.7	8.4
2153	2010/07/24 17:19:33	0.625	54.7	7.8
2154	2010/07/24 17:19:33	0.625	56.0	7.7
2155	2010/07/24 17:19:36	0.625	56.3	9.5
2156	2010/07/24 17:19:38	0.750	57.5	8.4
2157	2010/07/24 17:19:40	0.750	56.2	8.0
2158	2010/07/24 17:19:45	0.625	54.9	8.9
2159	2010/07/24 17:19:46	0.750	53.5	8.3
2160	2010/07/24 17:19:50	0.875	50.3	7.9
2161	2010/07/24 17:19:54	0.625	57.1	9.5
2162	2010/07/24 17:19:54	1.000	53.9	7.8
2163	2010/07/24 17:20:26	0.750	54.9	9.5
2164	2010/07/24 17:20:30	0.750	52.6	8.8
2165	2010/07/24 17:20:55	0.875	55.5	8.3
2166	2010/07/24 17:21:16	0.750	54.2	9.1
2167	2010/07/24 17:21:18	0.750	54.4	8.4
2168	2010/07/24 17:21:24	0.750	54.6	8.3
2169	2010/07/24 17:21:40	0.750	53.2	8.4
2170	2010/07/24 17:21:42	0.875	52.9	8.3
2171	2010/07/24 17:21:46	0.750	56.4	8.5
2172	2010/07/24 17:21:55	0.750	51.9	9.9
2173	2010/07/24 17:22:12	0.875	51.8	8.9
2174	2010/07/24 17:23:29	0.750	56.3	9.3
2175	2010/07/24 17:24:43	1.000	53.7	8.3
2176	2010/07/24 17:30:11	1.000	51.8	8.3
2177	2010/07/24 17:30:19	0.750	52.7	8.4
2178	2010/07/24 17:30:20	0.875	51.6	7.4
2179	2010/07/24 17:30:23	0.875	53.1	8.9
2180	2010/07/24 17:30:26	1.000	50.7	6.8
2181	2010/07/24 17:30:35	0.875	52.8	8.6
2182	2010/07/24 17:30:37	1.000	52.9	7.9
2183	2010/07/24 17:30:38	0.875	50.6	6.6

2184	2010/07/24 17:30:41	0.750	52.1	8.2
2185	2010/07/24 17:30:42	0.750	51.9	7.5
2186	2010/07/24 17:30:47	1.000	52.3	6.7
2187	2010/07/24 17:30:48	0.875	50.8	6.5
2188	2010/07/24 17:30:50	0.875	51.8	8.3
2189	2010/07/24 17:30:55	0.750	50.6	6.8
2190	2010/07/24 17:30:56	0.750	51.1	7.8
2191	2010/07/24 17:31:04	0.875	51.5	7.7
2192	2010/07/24 17:31:07	0.750	50.4	6.7
2193	2010/07/24 17:31:15	0.875	52.2	8.3
2194	2010/07/24 17:31:17	0.625	51.7	8.3
2195	2010/07/24 17:31:20	1.000	52.2	8.4
2196	2010/07/24 17:31:21	0.625	51.7	8.0
2197	2010/07/24 17:31:24	0.750	50.7	9.0
2198	2010/07/24 17:31:29	0.875	50.6	8.4
2199	2010/07/24 17:31:31	1.000	52.2	8.5
2200	2010/07/24 17:31:34	0.875	51.8	8.7
2201	2010/07/24 17:31:35	1.000	50.9	6.9
2202	2010/07/24 17:32:21	0.875	50.5	7.5
2203	2010/07/24 17:32:29	1.000	51.0	9.1
2204	2010/07/24 17:34:36	0.875	54.6	9.3
2205	2010/07/24 17:34:51	0.750	53.6	8.5
2206	2010/07/24 17:34:57	0.625	54.9	8.4
2207	2010/07/24 17:35:02	0.875	53.9	9.8
2208	2010/07/24 17:35:12	0.750	53.2	9.6
2209	2010/07/24 17:35:26	0.875	53.3	7.7
2210	2010/07/24 17:35:31	1.000	53.6	6.9
2211	2010/07/24 17:35:43	0.750	54.7	8.5
2212	2010/07/24 17:35:53	0.875	52.3	8.4
2213	2010/07/24 17:35:54	0.750	53.2	8.7
2214	2010/07/24 17:36:01	0.875	51.7	9.3
2215	2010/07/24 17:36:05	0.750	55.1	9.5
2216	2010/07/24 17:36:18	1.000	54.2	8.6
2217	2010/07/24 17:36:46	0.750	53.2	9.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

2218	2010/07/24 17:38:41	1.000	53.7	8.1
2219	2010/07/24 17:38:43	0.750	53.5	8.4
2220	2010/07/24 17:38:44	0.875	53.3	7.7
2221	2010/07/24 17:38:45	0.750	55.1	8.6
2222	2010/07/24 17:38:47	0.875	54.8	8.7
2223	2010/07/24 17:38:56	0.750	53.6	9.5
2224	2010/07/24 17:38:57	0.750	54.0	8.4
2225	2010/07/24 17:38:58	0.625	54.0	7.5
2226	2010/07/24 17:39:01	0.750	54.6	8.5
2227	2010/07/24 17:39:04	0.750	55.0	8.8
2228	2010/07/24 17:39:06	0.625	56.3	7.0
2229	2010/07/24 17:39:07	0.625	54.0	6.4
2230	2010/07/24 17:39:07	0.750	54.0	6.7
2231	2010/07/24 17:39:09	0.625	53.7	7.3
2232	2010/07/24 17:39:10	0.625	56.9	9.5
2233	2010/07/24 17:39:10	0.750	54.6	7.9
2234	2010/07/24 17:39:13	0.625	52.8	6.4
2235	2010/07/24 17:39:14	0.625	55.8	8.7
2236	2010/07/24 17:39:15	0.625	55.3	7.4
2237	2010/07/24 17:39:18	0.625	55.0	7.5
2238	2010/07/24 17:39:19	0.625	56.7	8.6
2239	2010/07/24 17:39:20	0.750	53.8	6.6
2240	2010/07/24 17:39:23	0.625	57.5	9.2
2241	2010/07/24 17:39:24	0.750	53.8	7.4
2242	2010/07/24 17:39:25	0.750	53.8	7.0
2243	2010/07/24 17:39:27	0.750	51.5	6.2
2244	2010/07/24 17:39:30	0.875	53.3	7.4
2245	2010/07/24 17:39:31	0.625	54.8	8.7
2246	2010/07/24 17:39:32	0.750	55.0	8.5
2247	2010/07/24 17:39:35	0.875	51.3	8.5
2248	2010/07/24 17:39:37	0.625	54.2	8.9
2249	2010/07/24 17:39:37	0.875	52.3	6.6
2250	2010/07/24 17:39:42	0.750	51.5	8.4
2251	2010/07/24 17:39:43	0.875	52.3	7.8

2252	2010/07/24 17:39:44	0.750	53.7	7.2
2253	2010/07/24 17:39:45	0.750	53.6	7.5
2254	2010/07/24 17:39:47	0.750	53.0	7.6
2255	2010/07/24 17:39:48	0.750	54.1	8.8
2256	2010/07/24 17:39:49	0.875	54.3	7.0
2257	2010/07/24 17:39:50	0.750	55.0	8.0
2258	2010/07/24 17:39:51	0.750	54.7	8.1
2259	2010/07/24 17:39:52	0.875	52.0	6.3
2260	2010/07/24 17:39:54	0.750	54.4	8.5
2261	2010/07/24 17:39:55	0.625	55.2	8.3
2262	2010/07/24 17:39:56	0.750	52.9	6.8
2263	2010/07/24 17:40:06	0.875	53.2	7.6
2264	2010/07/24 17:40:08	0.875	55.7	7.5
2265	2010/07/24 17:40:10	0.750	54.5	8.0
2266	2010/07/24 17:40:12	0.750	53.9	7.8
2267	2010/07/24 17:40:15	0.750	52.8	8.5
2268	2010/07/24 17:40:15	0.750	55.5	7.7
2269	2010/07/24 17:40:16	0.750	55.0	6.9
2270	2010/07/24 17:40:18	0.875	54.1	6.7
2271	2010/07/24 17:40:19	0.875	55.8	8.4
2272	2010/07/24 17:40:23	0.750	55.1	7.6
2273	2010/07/24 17:40:50	1.000	51.4	8.2
2274	2010/07/24 17:42:57	0.750	53.0	7.8
2275	2010/07/24 17:43:14	0.625	65.5	12.8
2276	2010/07/24 17:43:17	0.500	63.8	12.0
2277	2010/07/24 17:43:20	0.750	51.8	12.3
2278	2010/07/24 17:43:27	0.750	53.8	8.3
2279	2010/07/24 17:43:29	0.750	53.1	7.2
2280	2010/07/24 17:43:30	0.625	54.3	8.4
2281	2010/07/24 17:43:32	0.625	54.6	7.9
2282	2010/07/24 17:43:34	0.750	52.3	7.2
2283	2010/07/24 17:43:36	0.750	52.0	6.8
2284	2010/07/24 17:46:02	0.750	63.0	11.7
2285	2010/07/24 17:53:43	0.875	57.0	10.2

2286	2010/07/24 17:54:00	0.625	61.3	11.3
2287	2010/07/24 17:54:36	0.875	60.3	11.5
2288	2010/07/24 17:56:12	0.750	60.6	12.8
2289	2010/07/24 18:01:01	0.875	69.0	11.7
2290	2010/07/24 18:02:53	0.875	50.8	8.1
2291	2010/07/24 18:03:01	0.625	49.7	7.9
2292	2010/07/24 18:03:37	0.875	53.4	9.0
2293	2010/07/24 18:10:22	0.750	57.4	8.7
2294	2010/07/24 18:10:23	0.750	57.8	8.8
2295	2010/07/24 18:10:38	1.000	53.0	7.2
2296	2010/07/24 18:11:00	0.750	55.7	6.8
2297	2010/07/24 18:12:14	0.875	56.8	9.5
2298	2010/07/24 18:12:18	0.875	59.5	8.8
2299	2010/07/24 18:12:20	0.875	56.5	8.9
2300	2010/07/24 18:12:22	0.875	57.2	9.7
2301	2010/07/24 18:12:27	0.750	54.7	9.8
2302	2010/07/24 18:12:29	1.000	55.6	9.4
2303	2010/07/24 18:12:31	0.875	57.5	8.2
2304	2010/07/24 18:12:37	0.875	55.8	9.9
2305	2010/07/24 18:12:40	1.000	54.0	9.0
2306	2010/07/24 18:13:09	0.750	61.4	11.9
2307	2010/07/24 18:14:57	0.875	59.1	11.5
2308	2010/07/24 18:18:19	0.875	57.5	9.6
2309	2010/07/24 18:18:31	0.750	64.6	10.0
2310	2010/07/24 18:19:21	1.000	61.6	12.3
2311	2010/07/24 18:20:14	0.750	56.3	9.8
2312	2010/07/24 18:22:23	1.000	58.6	7.6
2313	2010/07/24 18:23:54	0.875	60.0	7.3
2314	2010/07/24 18:23:59	0.750	56.3	10.6
2315	2010/07/24 18:24:56	0.750	57.4	10.4
2316	2010/07/24 18:24:58	0.625	65.2	11.8
2317	2010/07/24 18:27:46	0.750	55.5	8.3
2318	2010/07/24 18:27:47	0.750	55.4	8.0
2319	2010/07/24 18:27:49	1.000	55.6	8.4

2320	2010/07/24 18:27:51	0.750	56.8	8.3
2321	2010/07/24 18:27:52	0.750	57.2	8.5
2322	2010/07/24 18:27:55	0.625	56.1	9.0
2323	2010/07/24 18:27:57	0.625	55.0	8.8
2324	2010/07/24 18:28:25	0.625	55.8	7.8
2325	2010/07/24 18:28:39	0.750	53.5	9.3
2326	2010/07/24 18:28:42	0.625	51.6	9.2
2327	2010/07/24 18:28:43	0.625	53.7	8.9
2328	2010/07/24 18:28:45	0.750	55.1	9.4
2329	2010/07/24 18:28:46	0.625	56.6	8.9
2330	2010/07/24 18:28:47	0.625	52.4	9.1
2331	2010/07/24 18:28:48	0.750	51.9	7.3
2332	2010/07/24 18:28:52	0.750	52.4	8.1
2333	2010/07/24 18:29:03	0.625	56.4	9.1
2334	2010/07/24 18:29:05	0.875	54.2	8.4
2335	2010/07/24 18:29:06	0.750	56.4	8.6
2336	2010/07/24 18:29:15	0.875	55.1	9.2
2337	2010/07/24 18:29:16	0.625	54.0	8.8
2338	2010/07/24 18:29:18	1.000	53.7	8.2
2339	2010/07/24 18:29:19	0.750	54.5	8.6
2340	2010/07/24 18:29:20	0.875	56.9	9.1
2341	2010/07/24 18:29:21	0.750	57.0	9.0
2342	2010/07/24 18:29:25	0.750	53.3	8.8
2343	2010/07/24 18:29:26	0.750	56.4	10.0
2344	2010/07/24 18:29:30	0.750	53.8	8.2
2345	2010/07/24 18:29:34	0.875	52.2	8.7
2346	2010/07/24 18:30:31	1.000	52.1	7.8
2347	2010/07/24 18:30:32	0.625	55.9	9.9
2348	2010/07/24 18:30:33	1.000	52.9	8.3
2349	2010/07/24 18:30:40	0.875	53.7	10.3
2350	2010/07/24 18:30:42	0.625	51.5	9.2
2351	2010/07/24 18:30:43	0.750	52.6	9.3
2352	2010/07/24 18:30:45	0.750	51.5	9.1
2353	2010/07/24 18:30:47	0.625	52.4	9.6

2354	2010/07/24 18:31:10	0.750	51.7	9.3
2355	2010/07/24 18:31:25	1.000	55.3	8.0
2356	2010/07/24 18:31:31	0.750	52.0	9.6
2357	2010/07/24 18:31:39	0.875	61.8	7.2
2358	2010/07/24 18:33:52	0.625	65.0	12.6
2359	2010/07/24 18:41:14	0.875	72.1	8.6
2360	2010/07/24 18:44:58	0.875	49.4	9.2
2361	2010/07/24 18:46:56	0.750	54.4	8.4
2362	2010/07/24 18:46:58	0.750	56.4	8.1
2363	2010/07/24 18:47:01	0.750	55.8	7.9
2364	2010/07/24 18:47:17	0.875	55.8	7.6
2365	2010/07/24 18:47:20	0.750	56.0	8.6
2366	2010/07/24 18:47:21	0.750	55.2	8.6
2367	2010/07/24 18:47:25	0.750	55.7	8.0
2368	2010/07/24 18:47:54	0.750	52.1	9.4
2369	2010/07/24 18:47:56	0.875	53.6	9.8
2370	2010/07/24 18:48:05	0.625	56.6	8.4
2371	2010/07/24 18:48:10	0.875	53.2	10.0
2372	2010/07/24 18:48:16	0.875	51.7	8.6
2373	2010/07/24 18:54:24	0.875	52.7	8.9
2374	2010/07/24 18:54:33	0.750	52.9	10.2
2375	2010/07/24 18:54:35	1.000	48.7	8.6
2376	2010/07/24 18:54:39	0.750	50.8	8.2
2377	2010/07/24 18:54:56	1.000	61.8	10.7
2378	2010/07/24 18:55:05	0.750	61.2	10.8
2379	2010/07/24 18:55:52	0.750	62.4	9.1
2380	2010/07/24 18:55:57	0.750	55.1	10.2
2381	2010/07/24 18:56:03	0.625	59.9	10.4
2382	2010/07/24 18:56:12	0.625	60.7	12.0
2383	2010/07/24 19:05:25	0.625	69.3	11.5
2384	2010/07/24 19:06:14	0.625	57.0	8.4
2385	2010/07/24 19:06:15	0.875	57.4	8.5
2386	2010/07/24 19:06:41	1.000	58.0	9.5
2387	2010/07/24 19:08:40	1.000	54.1	9.3

2388	2010/07/24 19:10:01	1.000	70.1	11.8
2389	2010/07/24 19:10:04	0.750	69.6	10.5
2390	2010/07/24 19:10:09	0.750	70.1	11.4
2391	2010/07/24 19:10:20	0.625	59.3	9.8
2392	2010/07/24 19:10:26	0.625	61.5	11.3
2393	2010/07/24 19:10:27	0.625	60.3	9.7
2394	2010/07/24 19:10:36	0.750	72.5	10.7
2395	2010/07/24 19:10:55	1.000	57.2	10.2
2396	2010/07/24 19:11:25	0.750	60.9	10.4
2397	2010/07/24 19:11:27	1.000	57.1	9.7
2398	2010/07/24 19:11:30	0.625	60.1	10.9
2399	2010/07/24 19:13:17	1.000	54.2	8.2
2400	2010/07/24 19:13:19	0.750	56.4	9.4
2401	2010/07/24 19:13:20	0.750	55.1	8.1
2402	2010/07/24 19:13:47	0.875	54.8	8.1
2403	2010/07/24 19:13:50	0.750	57.5	9.1
2404	2010/07/24 19:13:52	0.750	56.2	8.7
2405	2010/07/24 19:13:55	0.750	56.9	9.3
2406	2010/07/24 19:13:58	0.625	55.4	8.1
2407	2010/07/24 19:14:00	0.750	57.2	9.5
2408	2010/07/24 19:14:09	0.625	61.3	11.8
2409	2010/07/24 19:23:16	0.625	69.3	11.5
2410	2010/07/24 19:27:33	1.000	56.3	7.5
2411	2010/07/24 19:27:37	1.000	58.2	10.1
2412	2010/07/24 19:27:56	0.875	55.5	8.7
2413	2010/07/24 19:29:49	1.000	70.1	6.1
2414	2010/07/24 19:35:06	1.000	53.6	7.6
2415	2010/07/24 19:37:15	0.625	55.3	10.2
2416	2010/07/24 19:45:54	0.875	64.0	10.3
2417	2010/07/24 19:46:57	0.750	75.8	7.6
2418	2010/07/24 19:53:50	0.625	62.1	10.9
2419	2010/07/24 19:54:05	0.875	58.4	10.2
2420	2010/07/24 19:55:32	0.625	57.9	11.2
2421	2010/07/24 19:56:32	0.750	54.2	9.4

2422	2010/07/24 19:57:21	0.625	65.8	10.8
2423	2010/07/24 19:57:33	0.625	71.4	12.1
2424	2010/07/24 19:57:36	0.625	70.9	11.0
2425	2010/07/24 19:57:42	0.625	71.7	11.5
2426	2010/07/24 20:00:52	1.000	62.1	8.2
2427	2010/07/24 20:08:15	0.875	55.8	8.3
2428	2010/07/24 20:09:24	1.000	53.7	8.7
2429	2010/07/24 20:10:16	1.000	54.7	8.3
2430	2010/07/24 20:10:24	1.000	52.9	8.7
2431	2010/07/24 20:16:42	0.875	56.4	7.4
2432	2010/07/24 20:17:03	0.625	60.8	9.3
2433	2010/07/24 20:17:41	0.750	57.0	11.2
2434	2010/07/24 20:17:48	1.000	56.1	9.0
2435	2010/07/24 20:22:04	0.875	60.1	11.3
2436	2010/07/24 20:23:55	1.000	57.9	9.9
2437	2010/07/24 20:29:32	0.750	64.5	12.4
2438	2010/07/24 20:39:10	1.000	65.5	8.4
2439	2010/07/24 20:41:11	0.875	62.5	9.5
2440	2010/07/24 20:41:48	1.000	64.4	12.5
2441	2010/07/24 20:43:03	1.000	59.9	8.0
2442	2010/07/24 20:53:41	0.875	63.4	9.7
2443	2010/07/24 20:54:01	0.750	66.4	11.7
2444	2010/07/24 20:55:32	0.875	66.9	12.2
2445	2010/07/24 21:08:02	1.000	59.8	11.0
2446	2010/07/24 21:08:08	0.875	60.2	9.8
2447	2010/07/24 21:09:04	1.000	63.0	11.5
2448	2010/07/24 21:15:48	0.750	64.6	8.2
2449	2010/07/24 21:28:40	1.000	59.7	10.4
2450	2010/07/24 21:35:51	0.875	58.1	7.3
2451	2010/07/24 21:35:51	0.750	60.0	7.1
2452	2010/07/24 21:46:53	0.875	63.7	10.8
2453	2010/07/24 22:35:48	1.000	60.9	10.7
2454	2010/07/24 22:41:04	0.750	62.1	10.3
2455	2010/07/24 23:09:29	0.875	69.0	10.9

2456	2010/07/24 23:10:51	0.750	58.9	8.4
2457	2010/07/24 23:15:06	0.875	60.0	11.0
2458	2010/07/24 23:23:43	0.750	59.1	9.5
2459	2010/07/24 23:25:32	0.875	59.6	7.2
2460	2010/07/24 23:27:52	0.875	60.4	7.9
2461	2010/07/24 23:31:31	1.000	58.0	8.8
2462	2010/07/24 23:39:32	0.625	68.0	10.4
2463	2010/07/24 23:39:37	0.625	71.8	11.0
2464	2010/07/24 23:39:43	0.625	64.1	10.9
2465	2010/07/24 23:41:20	0.625	54.6	9.4
2466	2010/07/24 23:41:22	0.625	57.7	10.3
2467	2010/07/24 23:42:22	1.000	56.3	8.9
2468	2010/07/24 23:42:31	0.625	60.5	11.0
2469	2010/07/24 23:42:32	0.625	63.3	10.5
2470	2010/07/24 23:42:36	0.875	58.3	11.5
2471	2010/07/24 23:43:04	0.625	61.4	11.1
2472	2010/07/24 23:43:31	0.875	63.6	8.9
2473	2010/07/24 23:43:56	0.875	60.1	9.0
2474	2010/07/24 23:44:21	1.000	61.4	6.3
2475	2010/07/24 23:44:44	0.625	57.4	11.3
2476	2010/07/24 23:44:45	0.750	55.4	9.9
2477	2010/07/24 23:44:47	0.875	73.6	9.1
2478	2010/07/24 23:44:51	0.625	64.0	10.1
2479	2010/07/24 23:44:59	0.625	64.2	11.4
2480	2010/07/24 23:45:00	0.625	66.8	9.7
2481	2010/07/24 23:45:11	0.750	64.7	8.5
2482	2010/07/24 23:45:20	1.000	68.4	8.6
2483	2010/07/24 23:45:52	1.000	70.6	7.9
2484	2010/07/24 23:46:06	1.000	72.2	7.9
2485	2010/07/24 23:46:07	1.000	73.5	9.7
2486	2010/07/24 23:46:11	0.500	74.4	9.5
2487	2010/07/24 23:46:15	0.750	74.6	9.4
2488	2010/07/24 23:46:19	0.875	70.6	7.2
2489	2010/07/24 23:46:31	0.750	62.2	11.7

2490	2010/07/24 23:46:32	0.500	67.4	12.4
2491	2010/07/24 23:46:34	0.500	63.8	11.2
2492	2010/07/24 23:46:46	0.500	78.1	13.2
2493	2010/07/24 23:46:56	0.875	76.6	9.2
2494	2010/07/24 23:47:02	0.625	54.7	13.8
2495	2010/07/24 23:47:05	0.625	65.2	12.1
2496	2010/07/24 23:47:08	0.625	64.3	13.5
2497	2010/07/24 23:47:09	0.750	72.4	11.3
2498	2010/07/24 23:47:10	0.500	72.2	10.4
2499	2010/07/24 23:47:21	0.875	59.3	10.3
2500	2010/07/24 23:47:25	1.000	61.2	8.6
2501	2010/07/24 23:47:38	0.875	66.5	6.7
2502	2010/07/24 23:47:49	1.000	61.6	7.6
2503	2010/07/24 23:48:06	0.875	67.5	6.9
2504	2010/07/24 23:48:18	0.875	62.1	9.7
2505	2010/07/24 23:48:21	1.000	66.2	9.0
2506	2010/07/24 23:48:27	1.000	70.3	9.6
2507	2010/07/24 23:48:33	0.625	68.5	9.3
2508	2010/07/24 23:48:37	1.000	73.9	9.4
2509	2010/07/24 23:48:49	1.000	69.2	10.3
2510	2010/07/24 23:48:51	0.750	71.9	8.9
2511	2010/07/24 23:49:09	0.625	67.0	9.7
2512	2010/07/24 23:49:10	1.000	70.2	6.4
2513	2010/07/24 23:49:25	0.625	62.8	11.3
2514	2010/07/24 23:49:28	1.000	58.9	8.5
2515	2010/07/24 23:49:39	0.625	64.1	10.7
2516	2010/07/24 23:50:00	0.875	65.4	9.9
2517	2010/07/24 23:50:12	0.625	59.6	11.4

RICONOSCIMENTO COMPONENTI TONALI

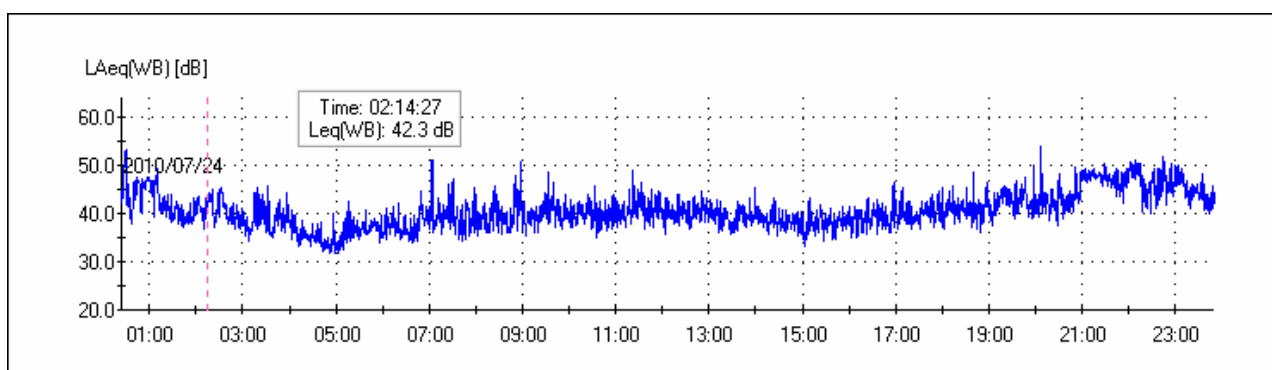
Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi

EuroLink S.C.p.A.

carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGGIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 315	0.0
Freq: 400	0.1
Freq: 500	0.1
Freq: 630	0.1
Freq: 800	0.1
Freq: 1 k	0.1
Freq: 3.15 k	0.1
Freq: 4 k	20.6
Freq: 5 k	0.4
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: 3dB	

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

TIME HISTORY COMPONENTI TONALI

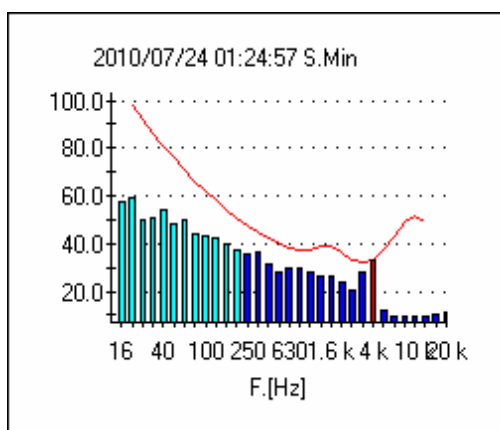
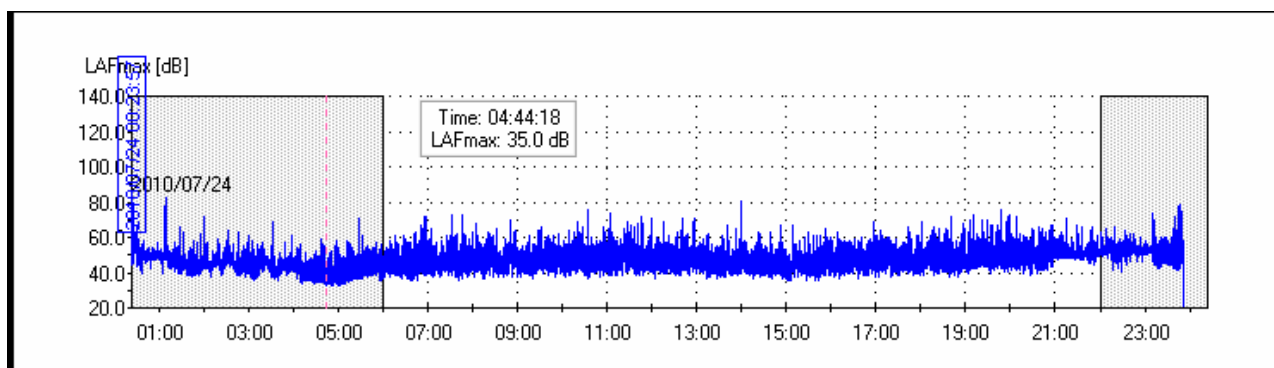
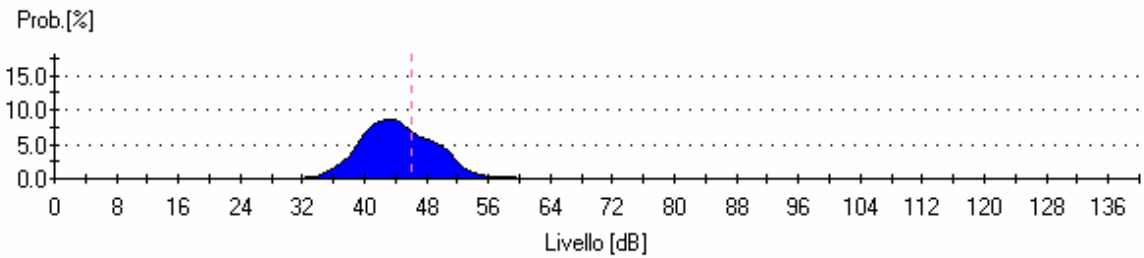


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

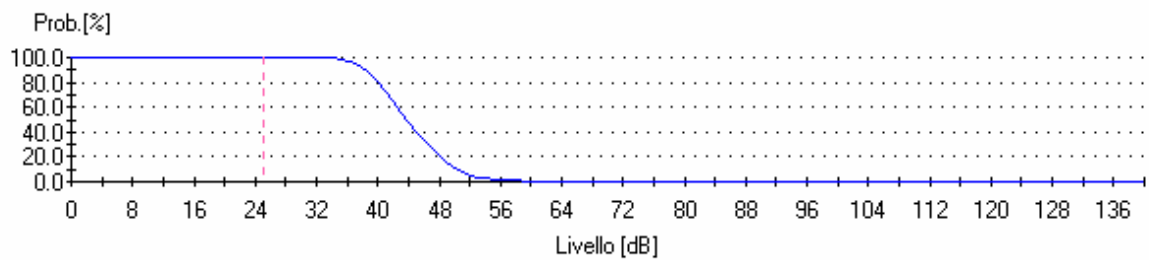
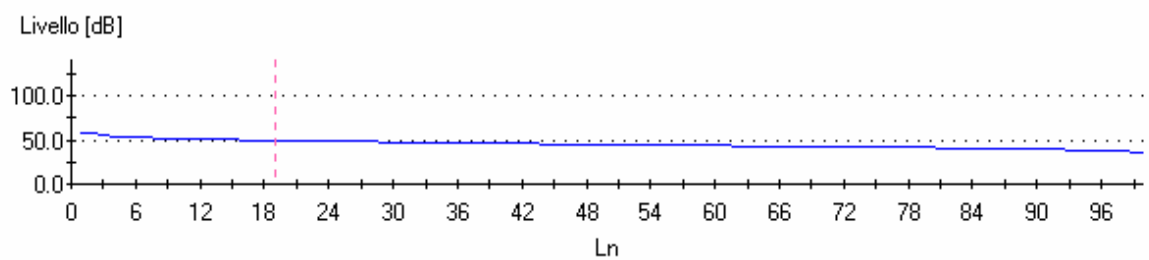


GRAFICO PERCENTILI



Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile	Leq.[dB]
0	58.0
1	58.0
2	55.0
3	54.0
4	53.0
5	52.7
6	52.3
7	52.0
8	51.8
9	51.5
10	51.3
11	51.0
12	50.8
13	50.5
14	50.3
15	50.0
16	49.8
17	49.6
18	49.4
19	49.2
20	49.0
21	48.8
22	48.7
23	48.5
24	48.3
25	48.2
26	48.0
27	47.8
28	47.7
29	47.5
30	47.3
31	47.2
32	47.0

33	46.9
34	46.7
35	46.6
36	46.4
37	46.3
38	46.1
39	46.0
40	45.9
41	45.8
42	45.6
43	45.5
44	45.4
45	45.3
46	45.1
47	45.0
48	44.9
49	44.8
50	44.6
51	44.5
52	44.4
53	44.3
54	44.1
55	44.0
56	43.9
57	43.8
58	43.7
59	43.6
60	43.4
61	43.3
62	43.2
63	43.1
64	43.0
65	42.9
66	42.8

67	42.7
68	42.6
69	42.4
70	42.3
71	42.2
72	42.1
73	42.0
74	41.9
75	41.7
76	41.6
77	41.4
78	41.3
79	41.1
80	41.0
81	40.9
82	40.7
83	40.6
84	40.4
85	40.3
86	40.1
87	40.0
88	39.8
89	39.5
90	39.3
91	39.0
92	38.8
93	38.5
94	38.3
95	38.0
96	37.5
97	37.0
98	36.0
99	35.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	57.0
1	57.0
2	55.0
3	54.0
4	53.0
5	52.7
6	52.3
7	52.0
8	51.7
9	51.3
10	51.0
11	50.8
12	50.5
13	50.3
14	50.0
15	49.8
16	49.7
17	49.5
18	49.3
19	49.2
20	49.0
21	48.8
22	48.7
23	48.5
24	48.3
25	48.2
26	48.0
27	47.8
28	47.7
29	47.5
30	47.3

31	47.2
32	47.0
33	46.9
34	46.7
35	46.6
36	46.4
37	46.3
38	46.1
39	46.0
40	45.9
41	45.8
42	45.6
43	45.5
44	45.4
45	45.3
46	45.1
47	45.0
48	44.9
49	44.8
50	44.6
51	44.5
52	44.4
53	44.3
54	44.1
55	44.0
56	43.9
57	43.8
58	43.7
59	43.6
60	43.5
61	43.4
62	43.3
63	43.2
64	43.1

65	43.0
66	42.9
67	42.8
68	42.7
69	42.6
70	42.4
71	42.3
72	42.2
73	42.1
74	42.0
75	41.9
76	41.8
77	41.7
78	41.6
79	41.4
80	41.3
81	41.2
82	41.1
83	41.0
84	40.9
85	40.7
86	40.6
87	40.4
88	40.3
89	40.1
90	40.0
91	39.8
92	39.5
93	39.3
94	39.0
95	38.7
96	38.3
97	38.0
98	37.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

99	37.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	61.0
1	61.0
2	55.0
3	54.0
4	53.0
5	52.7
6	52.3
7	52.0
8	51.8
9	51.7
10	51.5
11	51.3
12	51.2
13	51.0
14	50.8
15	50.6
16	50.4
17	50.2
18	50.0
19	49.8
20	49.5
21	49.3
22	49.0
23	48.8
24	48.6
25	48.4
26	48.2
27	48.0
28	47.8

29	47.7
30	47.5
31	47.3
32	47.2
33	47.0
34	46.9
35	46.7
36	46.6
37	46.4
38	46.3
39	46.1
40	46.0
41	45.9
42	45.8
43	45.6
44	45.5
45	45.4
46	45.3
47	45.1
48	45.0
49	44.9
50	44.7
51	44.6
52	44.4
53	44.3
54	44.1
55	44.0
56	43.9
57	43.7
58	43.6
59	43.4
60	43.3
61	43.1
62	43.0

63	42.8
64	42.7
65	42.5
66	42.3
67	42.2
68	42.0
69	41.8
70	41.7
71	41.5
72	41.3
73	41.2
74	41.0
75	40.8
76	40.7
77	40.5
78	40.3
79	40.2
80	40.0
81	39.8
82	39.6
83	39.4
84	39.2
85	39.0
86	38.8
87	38.5
88	38.3
89	38.0
90	37.8
91	37.5
92	37.3
93	37.0
94	36.7
95	36.3
96	36.0

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

97	35.5
98	35.0
99	34.0

LIVELLI DI IMPULS- FAST E SLOW MAX NELLE 24 ORE		
LAIp [dB]	LASp [dB]	LAHp [dB]
88	77.7	85.3
77.2	69.4	72.4
78.8	68.4	75.7
82.6	73	80.5
77.3	71.7	75.8
82.4	72.8	78.1
88	77.7	85.3

LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

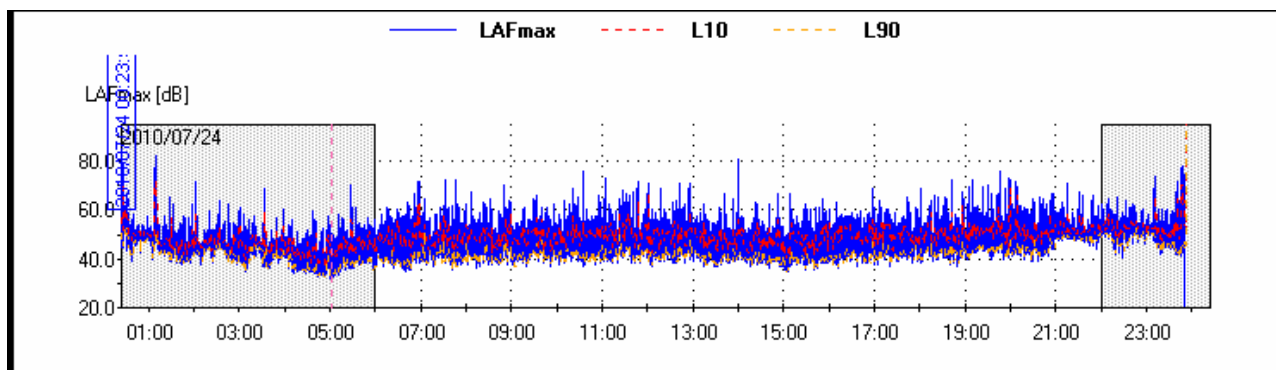
LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAIp [dB]	LASp [dB]	LAHp [dB]
77.2	69.4	72.4
78.8	68.4	75.7
82.6	73	80.5
77.3	71.7	75.8
71.9	66.1	70.7
82.6	73	80.5

LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

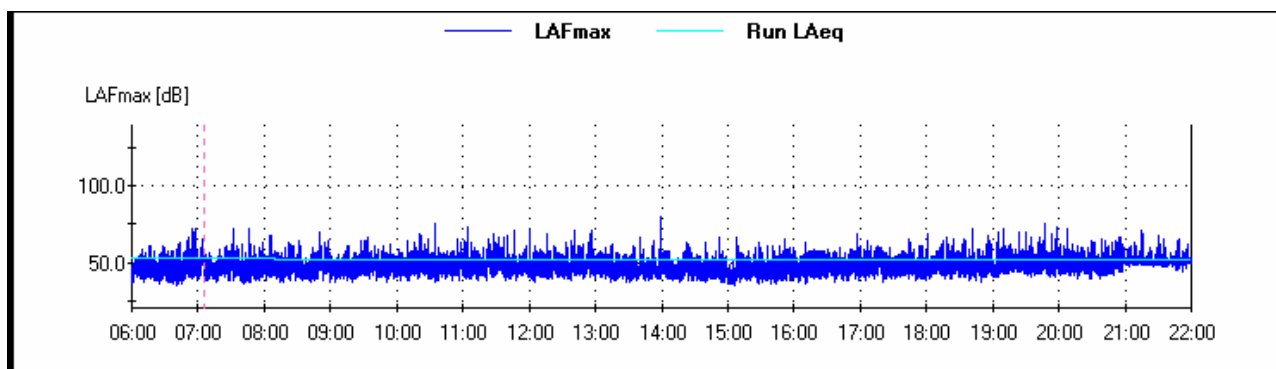
**LIVELLI DI IMPULS- FAST E SLOW
MAX NOTTURNI**

LAIp [dB]	LASp [dB]	LAFp [dB]
88	77.7	85.3
71.6	65.5	70.3
82.4	72.8	78.1
88	77.7	85.3

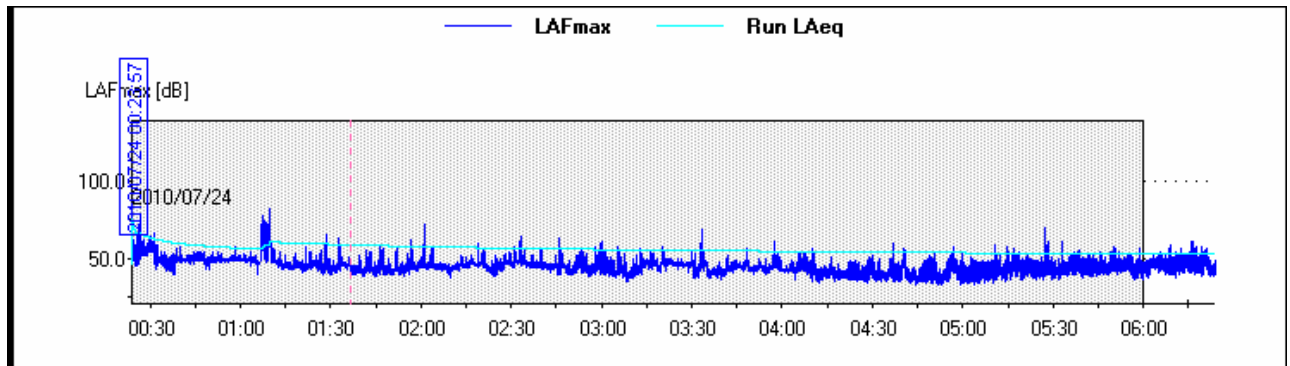
TIME HISTORY L10 – L90



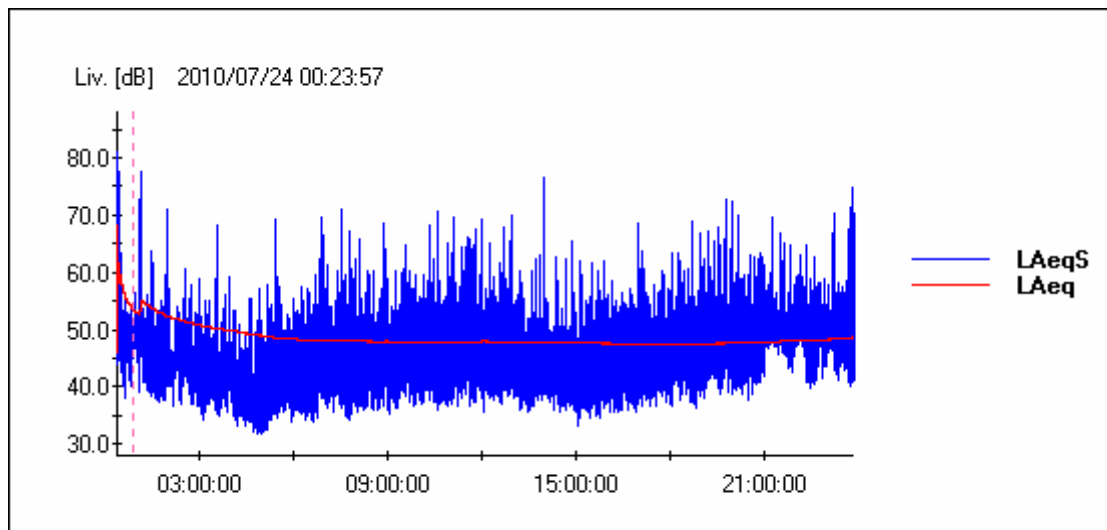
RUNNING Leq DIURNO



RUNNING Leq NOTTURNO



LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"

MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO*Codice documento*

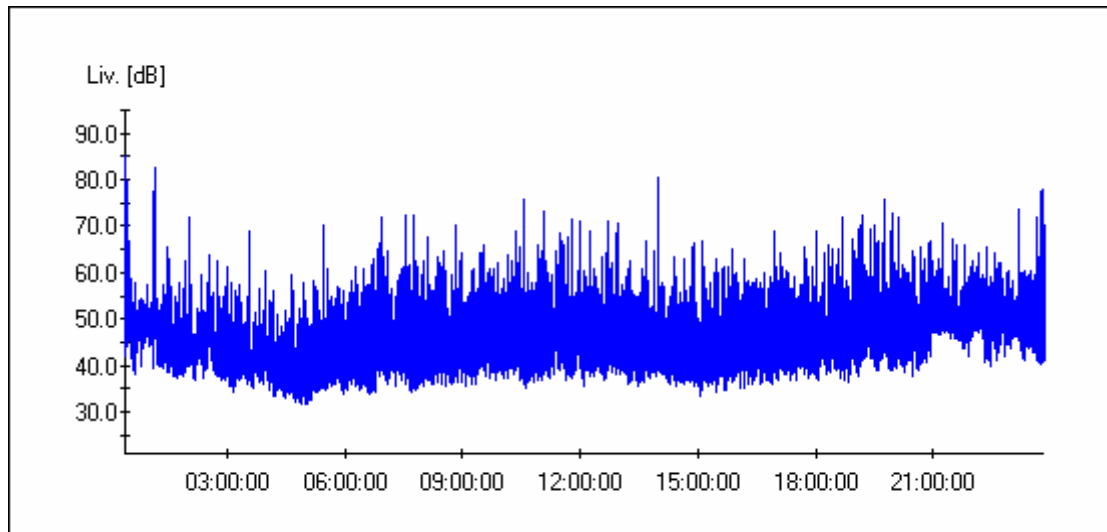
AC0053_F0.docx_F0

Rev

F0

Data

20/06/2011



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Punto	Ricettore R_16_C	Indirizzo VIA NAZIONALE CATONA
Descrizione del punto di misura/ricettore <i>L'asta estensibile con il microfono posto all'altezza di mt. 4,00 dal piano di campagna è stata collocata sulla banchina adiacente la carreggiata stradale di Via Catona e lo spazio di pertinenza del tracciato ferroviario esistente Reggio Calabria - Villa S. Giovanni</i>		

Caratterizzazione del punto di misura/ricettore		
Zonizzazione acustica e limiti diurni/notturni		
☐	Classe I	50 / 40 dB(a)
☐	Classe II	55 / 45 dB(a)
☒	Classe III	60 / 50 dB(a)
☐	Classe IV	65 / 55 dB(a)
☐	Classe V	70 / 60 dB(a)
☐	Classe VI	70 / 70 dB(a)
Caratterizzazione delle sorgenti di rumore		
Tipologia	☒	Traffico stradale
	☐	Traffico ferroviario
	☐	Cantiere
	☐	Altro
Descrizione		
Strumentazione adottata		
N° 1 Fonometro modello HD 2110 Classe 1, numero di serie 10060132244, - preamplificatore HD 2110 P, - microfono MK 221, numero di serie 34111 - Calibratore HD 2020 Classe 1 090 29826		
Punto	Ricettore R_16_C	Indirizzo VIA NAZIONALE CATONA

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Sintesi misure (ante e post mascheramenti eventi anomali o sorgenti regolamentate da DPR)								
Periodo	TR	Data	L_{AeqTR} [dBA]	K_I [dBA]	K_T [dBA]	K_B [dBA]	L_{AeqTRC} [dBA]	L_{lim} [dBA]
Giorno	6-22h	21/07/10	67.8	0	0		67.8	60
Notte	22-6h	21/07/10	62.5	0	0	0	62.5	50

RISULTATI MISURE	
Codice misura	R_16_C
Data inizio	21/07/2010
Ora inizio	0.17.19
Note	

Parametri		24 ore	Giorno (T_R = 6/22)	Notte (T_R = 22/6)
L _{AeqTR}	[dBA]	66.7	67.8	62.5
L ₁	[dBA]	77.0	78.0	73.0
L ₅	[dBA]	71.7	72.5	68.0
L ₁₀	[dBA]	69.7	70.7	64.5
L ₅₀	[dBA]	57.0	60.5	47.5
L ₉₀	[dBA]	42.5	49.3	39.4
L ₉₅	[dBA]	40.0	46.5	38.3
L ₉₉	[dBA]	37.0	42.0	37.0
L _I max	[dBA]	104.8	104.8	97.5
L _F max	[dBA]	100.1	100.1	94.4
L _S max	[dBA]	91.5	91.5	88.1
K _I	[dBA]	0	0	0
K _T	[dBA]	0	0	0
K _B	[dBA]	0	0	0
L_{AeqTRC}		66.7	67.8	62.5

Note:		
Punto	Ricettore R_16_C	Indirizzo VIA NAZIONALE CATONA

Sorgente stradale:

	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Veic. Leggeri / 10'	103	78	126	151	114.5	89	73	81
Veic. Pesanti / 10'	4	2	2	0	2	0	0	0
Motocicli / 10'	8	12	13	19	13	15	9	12
	6/9h	9/14h	14/19h	19/22h	Media	22/2h	2/6 h	Media
Condizioni cielo	SERENO	SERENO	SERENO	SERENO		SERENO	SERENO	
Temperatura	27.5	32	31	28.8	29.83	26.8	25	25.9
Umidità relativa	68	58	70	73	67.25	71	65	68
Velocità vento	3.2	4.9	3	3.6	3.675	0.1	0.5	0.3
Direzione vento	N	N	W	N		N	N	

Fotografia del punto di misura


Punto

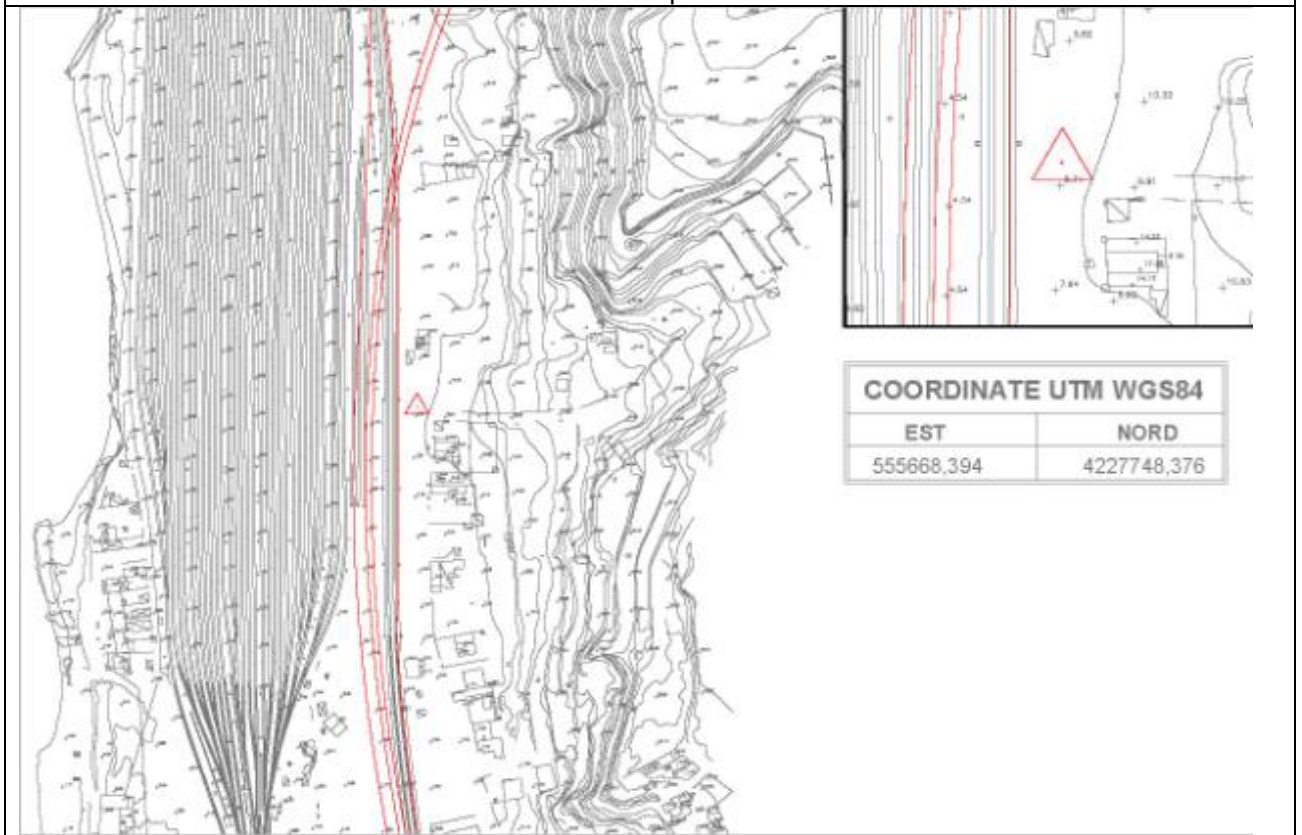
Ricettore

Indirizzo

R_16_C

VIA NAZIONALE CATONA

Localizzazione planimetrica



DATA	Tecnico competente: Studio tecnico ing. Giovanni Chiovetta	
	geom. Antonino Campione	Ing. Giovanni Chiovetta

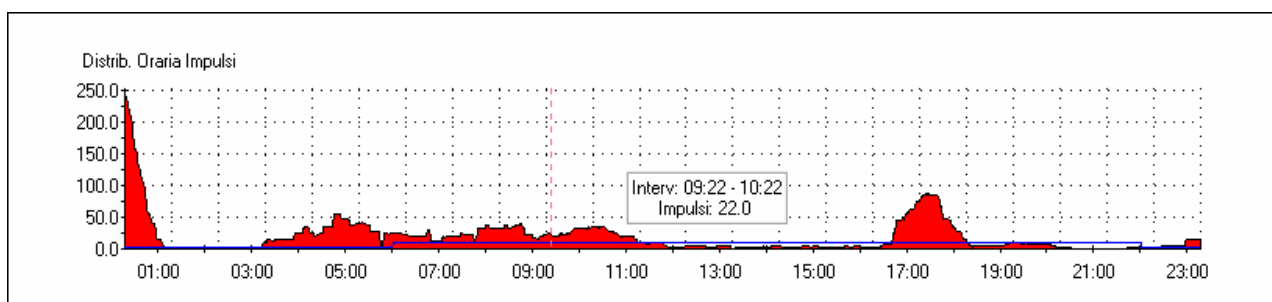
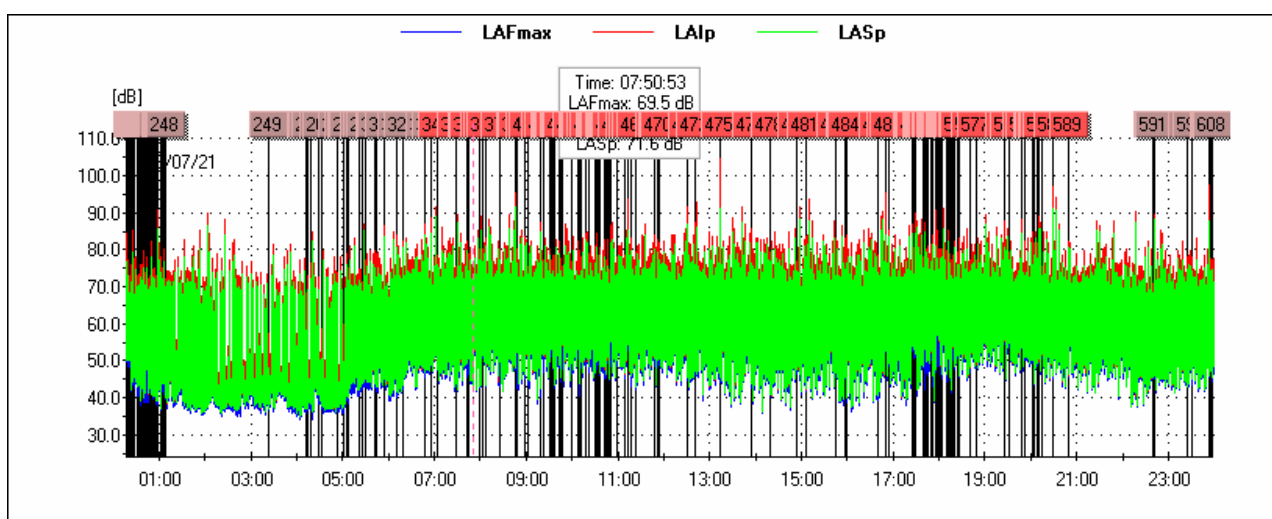
RICONOSCIMENTO COMPONENTI IMPULSIVE

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Il rumore presenta Componenti Impulsive (CI) quando sono verificate le condizioni seguenti:

- ripetitività di n° eventi impulsivi (n°10/ora di giorno e n°2/ora di notte);
- differenza tra LAImax e LASmax superiore a 6 dB;
- durata dell'evento a -10 dB dal valore LAFmax inferiore a 1 s.

La ripetitività viene dimostrata mediante registrazione grafica del livello di pressione sonora ponderato A fast effettuata durante il tempo di misura TM.



Lista degli impulsi nelle 24 ore

Ev	Inizio	Durata LAFmax-10dB[s]	LAFmax[dB]	LAImax - LASmax [dB]
1	2010/07/21 00:17:39	0.625	76.6	11.2
2	2010/07/21 00:17:56	1.000	67.9	6.4
3	2010/07/21 00:18:04	0.750	67.9	9.5
4	2010/07/21 00:18:06	0.625	68.9	10.4
5	2010/07/21 00:18:14	0.625	80.4	9.8
6	2010/07/21 00:18:30	0.625	66.9	10.0

7	2010/07/21 00:18:37	0.500	68.4	11.0
8	2010/07/21 00:19:08	0.750	62.8	8.5
9	2010/07/21 00:19:31	0.875	73.3	11.2
10	2010/07/21 00:19:45	1.000	70.2	10.6
11	2010/07/21 00:20:25	0.625	64.7	10.1
12	2010/07/21 00:20:34	1.000	64.6	7.9
13	2010/07/21 00:20:40	0.625	64.0	9.9
14	2010/07/21 00:20:41	0.625	63.2	8.9
15	2010/07/21 00:20:45	0.625	67.6	8.4
16	2010/07/21 00:20:47	0.875	69.1	9.8
17	2010/07/21 00:20:51	0.875	67.4	10.5
18	2010/07/21 00:21:03	0.875	68.7	9.6
19	2010/07/21 00:21:22	0.625	66.3	11.2
20	2010/07/21 00:21:32	0.625	66.3	8.6
21	2010/07/21 00:21:34	0.625	66.2	10.4
22	2010/07/21 00:21:40	0.625	67.2	10.4
23	2010/07/21 00:21:54	0.625	64.7	7.9
24	2010/07/21 00:21:58	1.000	62.7	9.0
25	2010/07/21 00:22:01	1.000	64.2	7.7
26	2010/07/21 00:22:12	0.625	67.5	10.3
27	2010/07/21 00:22:37	1.000	64.1	8.9
28	2010/07/21 00:22:40	1.000	64.6	10.4
29	2010/07/21 00:22:44	1.000	65.8	9.3
30	2010/07/21 00:22:48	0.625	64.1	10.5
31	2010/07/21 00:22:48	0.625	63.3	8.7
32	2010/07/21 00:22:54	0.750	61.2	8.9
33	2010/07/21 00:23:02	0.625	67.5	11.3
34	2010/07/21 00:23:46	0.875	62.9	7.9
35	2010/07/21 00:24:32	0.750	56.3	9.6
36	2010/07/21 00:24:35	1.000	61.7	8.6
37	2010/07/21 00:24:49	0.625	66.2	9.3
38	2010/07/21 00:24:49	1.000	64.2	7.1
39	2010/07/21 00:24:53	0.625	63.6	9.7
40	2010/07/21 00:24:55	0.625	64.9	10.0

41	2010/07/21 00:25:00	0.625	62.7	10.5
42	2010/07/21 00:25:28	0.750	68.9	6.1
43	2010/07/21 00:25:45	0.625	66.6	9.2
44	2010/07/21 00:25:48	0.625	61.6	9.9
45	2010/07/21 00:25:50	1.000	63.6	9.4
46	2010/07/21 00:26:13	0.750	62.1	8.1
47	2010/07/21 00:26:17	1.000	61.9	7.7
48	2010/07/21 00:26:22	0.625	63.8	9.5
49	2010/07/21 00:26:30	1.000	64.4	9.9
50	2010/07/21 00:26:38	0.625	61.9	10.1
51	2010/07/21 00:26:39	0.625	63.1	9.0
52	2010/07/21 00:26:43	1.000	60.6	8.3
53	2010/07/21 00:26:48	0.625	57.8	8.0
54	2010/07/21 00:26:50	0.875	62.9	8.6
55	2010/07/21 00:26:51	0.625	60.8	8.5
56	2010/07/21 00:26:54	0.625	60.1	7.0
57	2010/07/21 00:26:59	1.000	66.9	9.5
58	2010/07/21 00:27:05	1.000	63.4	7.7
59	2010/07/21 00:27:09	0.625	61.7	10.1
60	2010/07/21 00:27:10	0.625	62.0	10.5
61	2010/07/21 00:27:13	1.000	74.7	9.9
62	2010/07/21 00:27:18	0.625	65.2	9.5
63	2010/07/21 00:27:19	0.500	65.5	9.1
64	2010/07/21 00:27:20	0.625	63.6	8.9
65	2010/07/21 00:27:21	0.625	63.2	9.6
66	2010/07/21 00:27:23	0.625	62.6	9.3
67	2010/07/21 00:27:24	1.000	72.0	9.2
68	2010/07/21 00:27:26	0.625	63.7	9.7
69	2010/07/21 00:27:27	0.625	61.9	9.4
70	2010/07/21 00:27:28	0.625	60.3	8.2
71	2010/07/21 00:27:30	1.000	62.9	7.4
72	2010/07/21 00:27:32	0.875	62.1	9.0
73	2010/07/21 00:27:33	0.500	65.2	10.4
74	2010/07/21 00:27:33	0.750	60.2	9.9

75	2010/07/21 00:27:35	0.625	61.4	9.1
76	2010/07/21 00:27:36	0.625	68.7	11.3
77	2010/07/21 00:27:41	0.625	65.0	9.7
78	2010/07/21 00:27:45	0.625	62.4	11.0
79	2010/07/21 00:27:46	0.625	64.4	10.3
80	2010/07/21 00:27:51	0.625	64.6	11.7
81	2010/07/21 00:27:53	0.625	62.3	10.7
82	2010/07/21 00:27:54	0.625	69.0	12.0
83	2010/07/21 00:27:58	0.500	66.2	9.6
84	2010/07/21 00:27:59	0.500	70.1	11.5
85	2010/07/21 00:28:01	0.500	68.4	11.4
86	2010/07/21 00:28:02	0.500	67.9	11.1
87	2010/07/21 00:28:09	0.750	62.4	10.3
88	2010/07/21 00:30:56	1.000	63.9	9.6
89	2010/07/21 00:31:00	0.625	62.4	9.1
90	2010/07/21 00:31:02	0.750	60.8	8.1
91	2010/07/21 00:31:04	1.000	62.7	8.2
92	2010/07/21 00:31:07	0.750	62.1	9.8
93	2010/07/21 00:31:30	0.750	60.6	10.3
94	2010/07/21 00:31:35	0.625	65.8	12.6
95	2010/07/21 00:31:50	0.500	62.7	9.6
96	2010/07/21 00:31:51	0.625	62.9	9.6
97	2010/07/21 00:32:00	0.750	56.2	9.3
98	2010/07/21 00:32:08	0.625	63.3	8.4
99	2010/07/21 00:32:10	1.000	64.3	8.5
100	2010/07/21 00:32:16	1.000	64.5	9.5
101	2010/07/21 00:32:23	0.875	66.0	9.4
102	2010/07/21 00:32:26	0.625	64.3	10.4
103	2010/07/21 00:32:31	1.000	68.0	9.9
104	2010/07/21 00:32:37	1.000	65.8	9.7
105	2010/07/21 00:32:41	0.625	64.7	10.9
106	2010/07/21 00:32:50	0.625	62.0	10.6
107	2010/07/21 00:32:59	1.000	66.1	9.0
108	2010/07/21 00:33:23	1.000	66.8	10.9

109	2010/07/21 00:33:27	0.625	68.5	11.5
110	2010/07/21 00:33:28	0.625	63.7	11.3
111	2010/07/21 00:33:31	0.625	68.5	10.5
112	2010/07/21 00:33:33	0.625	65.9	10.3
113	2010/07/21 00:33:36	0.625	65.1	8.2
114	2010/07/21 00:33:39	1.000	64.6	8.7
115	2010/07/21 00:34:51	0.625	64.7	9.2
116	2010/07/21 00:34:54	0.625	61.6	10.6
117	2010/07/21 00:35:04	0.625	61.9	11.2
118	2010/07/21 00:35:05	0.750	63.5	10.1
119	2010/07/21 00:35:13	0.625	66.6	12.0
120	2010/07/21 00:35:18	0.625	63.9	11.3
121	2010/07/21 00:35:19	0.625	65.3	9.5
122	2010/07/21 00:35:23	0.625	66.8	10.5
123	2010/07/21 00:35:31	1.000	66.5	9.0
124	2010/07/21 00:36:24	1.000	65.5	9.2
125	2010/07/21 00:36:27	1.000	67.8	8.5
126	2010/07/21 00:36:31	0.625	62.8	10.0
127	2010/07/21 00:36:46	0.875	66.4	10.1
128	2010/07/21 00:36:57	1.000	66.1	7.5
129	2010/07/21 00:37:07	0.625	65.6	10.9
130	2010/07/21 00:37:11	1.000	66.6	9.3
131	2010/07/21 00:37:38	0.625	68.7	11.6
132	2010/07/21 00:37:50	0.625	68.1	10.3
133	2010/07/21 00:37:53	1.000	65.8	8.4
134	2010/07/21 00:38:17	0.625	68.0	9.4
135	2010/07/21 00:38:19	1.000	66.7	10.3
136	2010/07/21 00:38:31	0.625	66.1	10.7
137	2010/07/21 00:38:34	0.625	65.2	10.3
138	2010/07/21 00:38:42	1.000	59.6	11.0
139	2010/07/21 00:38:44	0.750	59.0	9.6
140	2010/07/21 00:39:04	0.625	62.0	10.9
141	2010/07/21 00:40:24	0.875	67.3	9.2
142	2010/07/21 00:40:32	1.000	67.7	9.1

143	2010/07/21 00:40:35	0.750	66.7	9.7
144	2010/07/21 00:40:53	1.000	66.2	9.9
145	2010/07/21 00:41:06	1.000	66.5	9.7
146	2010/07/21 00:41:14	1.000	66.5	8.6
147	2010/07/21 00:41:18	0.875	67.2	10.0
148	2010/07/21 00:41:40	1.000	67.8	9.3
149	2010/07/21 00:41:52	0.875	65.9	7.5
150	2010/07/21 00:41:54	1.000	66.3	7.7
151	2010/07/21 00:41:59	1.000	65.7	7.0
152	2010/07/21 00:42:10	0.625	66.8	9.5
153	2010/07/21 00:42:12	1.000	67.3	7.6
154	2010/07/21 00:42:23	0.625	64.5	9.3
155	2010/07/21 00:42:28	1.000	67.8	8.5
156	2010/07/21 00:42:32	0.625	64.2	10.9
157	2010/07/21 00:42:39	0.875	67.8	8.8
158	2010/07/21 00:42:49	0.875	65.2	7.8
159	2010/07/21 00:42:56	0.875	67.4	8.3
160	2010/07/21 00:43:00	0.875	67.4	9.3
161	2010/07/21 00:43:06	1.000	68.4	8.6
162	2010/07/21 00:43:11	1.000	67.7	8.8
163	2010/07/21 00:43:15	0.625	68.2	9.5
164	2010/07/21 00:43:17	0.625	67.0	9.7
165	2010/07/21 00:43:21	1.000	68.1	8.8
166	2010/07/21 00:43:23	1.000	68.6	7.8
167	2010/07/21 00:43:25	0.750	69.1	8.4
168	2010/07/21 00:43:26	0.875	68.1	8.9
169	2010/07/21 00:43:35	0.625	66.8	8.9
170	2010/07/21 00:43:36	0.875	68.0	10.0
171	2010/07/21 00:43:38	0.625	66.5	8.6
172	2010/07/21 00:43:40	0.625	67.4	10.4
173	2010/07/21 00:43:46	0.625	62.6	8.9
174	2010/07/21 00:43:49	1.000	66.2	8.7
175	2010/07/21 00:43:55	0.875	67.8	8.0
176	2010/07/21 00:44:02	0.625	64.2	10.9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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177	2010/07/21 00:44:02	0.875	66.6	8.0
178	2010/07/21 00:44:05	1.000	67.2	8.5
179	2010/07/21 00:44:28	0.625	68.0	9.1
180	2010/07/21 00:44:29	0.625	67.3	8.7
181	2010/07/21 00:44:35	0.625	66.5	10.8
182	2010/07/21 00:44:38	0.500	65.2	10.9
183	2010/07/21 00:44:45	0.875	67.7	9.9
184	2010/07/21 00:44:47	1.000	68.9	8.7
185	2010/07/21 00:44:58	0.625	65.0	10.9
186	2010/07/21 00:45:02	0.875	68.3	11.0
187	2010/07/21 00:45:04	0.500	69.0	10.5
188	2010/07/21 00:45:06	1.000	69.0	9.4
189	2010/07/21 00:45:09	1.000	67.2	9.7
190	2010/07/21 00:45:18	1.000	67.9	9.7
191	2010/07/21 00:46:13	0.750	64.7	8.6
192	2010/07/21 00:46:32	1.000	66.0	9.0
193	2010/07/21 00:48:34	0.875	66.9	7.5
194	2010/07/21 00:48:44	1.000	68.6	9.8
195	2010/07/21 00:48:51	0.875	66.6	10.2
196	2010/07/21 00:48:54	0.625	66.9	11.5
197	2010/07/21 00:48:57	1.000	65.9	9.7
198	2010/07/21 00:49:19	0.875	66.0	9.4
199	2010/07/21 00:49:22	0.875	67.9	10.8
200	2010/07/21 00:50:14	0.500	63.6	11.0
201	2010/07/21 00:50:15	0.625	65.0	9.5
202	2010/07/21 00:50:17	0.750	66.6	10.1
203	2010/07/21 00:51:13	0.625	63.8	9.5
204	2010/07/21 00:51:16	0.625	65.2	11.1
205	2010/07/21 00:51:27	1.000	66.0	11.3
206	2010/07/21 00:51:31	0.625	62.4	10.4
207	2010/07/21 00:51:32	0.625	63.6	10.4
208	2010/07/21 00:54:44	0.625	61.9	10.6
209	2010/07/21 00:54:47	0.625	62.2	10.2
210	2010/07/21 00:54:50	0.750	62.2	9.6

211	2010/07/21 00:55:03	0.875	61.0	8.1
212	2010/07/21 00:55:04	0.625	64.1	10.7
213	2010/07/21 00:55:06	0.625	65.4	9.9
214	2010/07/21 00:55:08	0.625	65.1	10.6
215	2010/07/21 00:55:25	0.625	66.7	11.6
216	2010/07/21 00:55:28	0.875	67.7	9.1
217	2010/07/21 00:55:43	0.625	58.4	9.3
218	2010/07/21 00:55:43	0.750	58.3	7.4
219	2010/07/21 00:55:49	0.625	55.3	9.0
220	2010/07/21 00:56:05	0.750	52.4	11.2
221	2010/07/21 00:56:15	0.625	52.8	11.0
222	2010/07/21 00:56:17	1.000	65.5	8.4
223	2010/07/21 00:56:19	0.875	65.0	8.7
224	2010/07/21 00:56:22	0.875	65.6	8.6
225	2010/07/21 00:56:25	0.500	65.3	10.4
226	2010/07/21 00:56:29	1.000	65.5	8.5
227	2010/07/21 00:56:32	0.750	61.8	9.3
228	2010/07/21 00:56:49	0.875	61.4	8.7
229	2010/07/21 00:56:50	0.750	59.3	7.1
230	2010/07/21 00:57:23	0.625	69.1	10.4
231	2010/07/21 00:57:24	0.625	68.1	9.6
232	2010/07/21 00:57:26	0.625	65.5	9.4
233	2010/07/21 00:57:29	1.000	64.5	9.2
234	2010/07/21 00:57:57	0.625	68.0	10.7
235	2010/07/21 01:03:08	1.000	65.9	9.4
236	2010/07/21 01:03:09	0.750	65.6	8.5
237	2010/07/21 01:03:12	1.000	66.7	8.6
238	2010/07/21 01:03:29	0.625	62.0	10.5
239	2010/07/21 01:04:26	0.625	57.5	10.8
240	2010/07/21 01:05:15	1.000	63.7	10.5
241	2010/07/21 01:05:27	0.500	66.8	11.8
242	2010/07/21 01:05:56	0.750	62.6	11.7
243	2010/07/21 01:05:59	0.625	63.5	12.0
244	2010/07/21 01:06:04	0.500	67.2	12.6

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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245	2010/07/21 01:06:11	0.500	64.2	12.9
246	2010/07/21 01:07:32	0.875	67.8	8.0
247	2010/07/21 01:07:35	0.625	65.0	9.2
248	2010/07/21 01:07:54	0.875	63.5	8.3
249	2010/07/21 03:23:43	0.875	54.3	9.5
250	2010/07/21 04:11:45	0.750	52.7	10.1
251	2010/07/21 04:11:53	0.625	60.8	10.4
252	2010/07/21 04:12:00	1.000	65.2	9.9
253	2010/07/21 04:12:02	0.750	51.4	10.8
254	2010/07/21 04:12:15	0.750	49.1	9.8
255	2010/07/21 04:13:19	0.750	52.4	9.1
256	2010/07/21 04:13:23	0.625	55.4	10.3
257	2010/07/21 04:13:26	0.625	58.8	10.6
258	2010/07/21 04:13:33	1.000	58.4	10.6
259	2010/07/21 04:18:22	0.625	64.9	11.4
260	2010/07/21 04:18:32	0.750	65.4	11.2
261	2010/07/21 04:18:37	0.625	68.0	11.4
262	2010/07/21 04:18:58	0.625	73.8	9.1
263	2010/07/21 04:28:02	0.625	65.0	10.7
264	2010/07/21 04:33:20	1.000	55.9	7.7
265	2010/07/21 04:52:56	0.750	61.1	9.8
266	2010/07/21 04:52:58	0.625	54.5	9.3
267	2010/07/21 04:53:01	0.625	58.3	10.5
268	2010/07/21 04:53:02	0.750	60.0	10.0
269	2010/07/21 04:53:03	0.625	59.0	8.9
270	2010/07/21 04:53:11	0.625	58.4	10.9
271	2010/07/21 04:53:12	0.625	61.9	10.4
272	2010/07/21 04:53:19	0.500	58.6	11.0
273	2010/07/21 04:53:28	0.875	52.2	8.4
274	2010/07/21 05:02:07	0.625	56.6	10.8
275	2010/07/21 05:04:27	0.625	61.3	11.0
276	2010/07/21 05:04:29	0.500	64.9	11.1
277	2010/07/21 05:04:32	0.625	64.3	11.1
278	2010/07/21 05:04:34	0.500	68.0	10.7

279	2010/07/21 05:04:38	0.750	53.2	12.8
280	2010/07/21 05:04:42	0.750	59.2	10.2
281	2010/07/21 05:04:45	0.625	67.2	11.5
282	2010/07/21 05:04:48	0.625	63.7	11.6
283	2010/07/21 05:06:48	0.875	60.8	10.0
284	2010/07/21 05:21:55	0.625	62.0	10.1
285	2010/07/21 05:25:44	0.625	59.4	10.5
286	2010/07/21 05:25:47	0.750	61.8	10.1
287	2010/07/21 05:25:52	0.625	67.9	10.8
288	2010/07/21 05:26:18	0.875	59.0	8.1
289	2010/07/21 05:30:26	0.625	68.0	9.6
290	2010/07/21 05:30:27	0.625	70.8	9.9
291	2010/07/21 05:30:28	0.625	68.3	9.4
292	2010/07/21 05:30:28	0.625	70.0	8.8
293	2010/07/21 05:30:29	0.500	72.1	9.3
294	2010/07/21 05:30:31	0.625	70.9	9.1
295	2010/07/21 05:30:32	0.625	70.2	8.4
296	2010/07/21 05:30:33	0.625	70.9	9.0
297	2010/07/21 05:30:34	0.750	63.4	9.8
298	2010/07/21 05:30:35	0.625	67.4	9.1
299	2010/07/21 05:30:44	0.750	64.2	8.9
300	2010/07/21 05:42:38	0.625	62.9	11.2
301	2010/07/21 05:42:41	0.625	69.8	10.7
302	2010/07/21 05:42:42	0.625	73.9	9.4
303	2010/07/21 05:42:43	1.000	74.8	9.5
304	2010/07/21 05:42:44	0.625	72.9	8.2
305	2010/07/21 05:42:45	0.625	71.3	7.5
306	2010/07/21 05:42:46	0.625	72.6	9.0
307	2010/07/21 05:42:48	0.500	73.6	9.4
308	2010/07/21 05:42:49	0.625	75.4	9.8
309	2010/07/21 05:42:50	0.625	76.3	9.9
310	2010/07/21 05:43:06	1.000	72.9	9.1
311	2010/07/21 05:43:10	0.625	69.1	8.1
312	2010/07/21 05:43:42	0.500	73.7	10.1

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

313	2010/07/21 05:43:49	0.625	62.5	10.8
314	2010/07/21 05:44:18	0.625	68.9	10.7
315	2010/07/21 05:44:18	0.625	72.8	10.0
316	2010/07/21 05:44:19	0.625	74.0	9.8
317	2010/07/21 05:44:20	0.625	72.9	8.3
318	2010/07/21 05:44:32	0.625	70.4	8.2
319	2010/07/21 05:44:32	0.625	70.7	8.8
320	2010/07/21 05:44:33	0.625	73.1	8.7
321	2010/07/21 05:44:34	0.625	70.8	8.2
322	2010/07/21 05:44:35	0.625	72.8	9.2
323	2010/07/21 05:53:31	0.750	80.5	9.8
324	2010/07/21 06:11:32	0.750	57.0	9.9
325	2010/07/21 06:11:38	0.625	60.0	10.9
326	2010/07/21 06:11:44	0.875	62.3	9.5
327	2010/07/21 06:19:28	0.625	61.8	8.7
328	2010/07/21 06:19:35	0.625	68.7	10.6
329	2010/07/21 06:46:51	1.000	60.8	9.9
330	2010/07/21 06:47:23	0.750	64.3	7.9
331	2010/07/21 06:47:27	0.500	70.5	9.0
332	2010/07/21 06:47:30	1.000	70.2	8.6
333	2010/07/21 06:47:31	0.625	69.4	8.2
334	2010/07/21 06:47:32	0.625	68.9	8.5
335	2010/07/21 06:47:43	0.750	61.3	9.7
336	2010/07/21 06:47:44	0.875	74.3	9.3
337	2010/07/21 06:47:46	0.625	73.0	9.1
338	2010/07/21 06:47:46	0.625	68.8	8.4
339	2010/07/21 06:47:48	0.625	68.8	8.6
340	2010/07/21 06:47:49	0.625	73.8	10.2
341	2010/07/21 06:48:16	1.000	72.3	9.1
342	2010/07/21 06:48:19	0.625	71.7	9.2
343	2010/07/21 06:48:26	0.625	73.9	8.9
344	2010/07/21 06:48:27	0.750	62.7	10.0
345	2010/07/21 06:48:28	0.625	70.7	9.0
346	2010/07/21 06:48:30	0.750	69.7	9.8

347	2010/07/21 06:48:31	0.625	72.5	9.6
348	2010/07/21 06:55:17	0.875	84.4	10.0
349	2010/07/21 07:04:36	0.875	69.9	7.4
350	2010/07/21 07:29:17	0.625	62.5	9.5
351	2010/07/21 07:42:34	0.875	70.8	8.9
352	2010/07/21 07:42:37	0.625	63.5	8.2
353	2010/07/21 07:42:40	0.625	64.7	10.3
354	2010/07/21 07:42:43	0.750	57.5	8.8
355	2010/07/21 07:42:44	0.625	62.6	10.1
356	2010/07/21 07:43:23	0.750	75.5	8.3
357	2010/07/21 07:43:24	0.875	70.6	7.2
358	2010/07/21 07:44:03	0.625	64.7	7.2
359	2010/07/21 07:44:05	0.750	66.7	8.8
360	2010/07/21 07:44:37	0.750	73.7	9.4
361	2010/07/21 07:59:54	0.625	65.3	8.2
362	2010/07/21 08:02:53	0.750	75.0	9.4
363	2010/07/21 08:03:01	0.875	73.8	8.0
364	2010/07/21 08:03:48	0.875	66.8	9.9
365	2010/07/21 08:03:49	0.625	66.2	9.5
366	2010/07/21 08:03:51	0.625	67.9	9.9
367	2010/07/21 08:03:52	0.625	72.0	10.9
368	2010/07/21 08:07:29	0.750	65.3	9.4
369	2010/07/21 08:26:17	1.000	61.5	7.0
370	2010/07/21 08:26:22	0.625	62.1	8.9
371	2010/07/21 08:26:23	0.625	62.8	8.6
372	2010/07/21 08:26:24	0.625	61.2	8.3
373	2010/07/21 08:26:25	0.875	62.6	10.0
374	2010/07/21 08:45:20	0.500	70.5	11.3
375	2010/07/21 08:45:21	0.875	73.4	9.2
376	2010/07/21 08:45:25	0.625	68.6	7.5
377	2010/07/21 08:45:26	0.625	71.5	9.7
378	2010/07/21 08:45:52	0.875	74.9	8.9
379	2010/07/21 08:45:53	1.000	72.6	8.3
380	2010/07/21 08:47:12	0.875	66.8	8.6

381	2010/07/21 08:47:16	0.875	62.0	8.6
382	2010/07/21 08:47:28	0.625	77.0	7.7
383	2010/07/21 08:48:21	0.750	71.7	7.1
384	2010/07/21 08:48:25	1.000	66.5	7.0
385	2010/07/21 08:48:33	0.875	74.7	9.0
386	2010/07/21 08:48:40	1.000	73.3	8.4
387	2010/07/21 08:48:45	0.625	73.4	9.9
388	2010/07/21 08:48:48	0.625	65.7	9.7
389	2010/07/21 08:48:49	0.875	70.5	9.0
390	2010/07/21 08:48:51	1.000	64.1	8.7
391	2010/07/21 08:48:56	1.000	70.5	10.9
392	2010/07/21 08:48:59	0.625	64.0	8.8
393	2010/07/21 08:49:03	0.625	64.2	7.5
394	2010/07/21 08:58:02	0.750	61.5	6.5
395	2010/07/21 08:58:03	1.000	64.3	8.5
396	2010/07/21 08:58:05	0.750	60.7	6.6
397	2010/07/21 08:58:09	0.625	61.3	9.7
398	2010/07/21 08:58:10	0.625	63.4	9.1
399	2010/07/21 09:02:29	0.875	60.2	7.4
400	2010/07/21 09:03:14	0.875	57.6	9.0
401	2010/07/21 09:17:58	0.625	69.9	8.0
402	2010/07/21 09:22:41	0.875	64.1	7.8
403	2010/07/21 09:22:45	0.625	69.5	7.9
404	2010/07/21 09:22:46	0.625	67.4	7.1
405	2010/07/21 09:22:48	0.625	69.0	9.9
406	2010/07/21 09:23:25	0.625	74.4	9.8
407	2010/07/21 09:31:12	0.750	64.5	8.1
408	2010/07/21 09:32:24	1.000	68.8	10.2
409	2010/07/21 09:35:08	0.750	69.9	6.8
410	2010/07/21 09:36:18	0.875	65.9	8.9
411	2010/07/21 09:36:20	0.625	70.6	8.9
412	2010/07/21 09:42:50	1.000	70.6	8.6
413	2010/07/21 09:46:05	0.875	70.2	8.5
414	2010/07/21 09:46:27	0.875	70.4	8.2

415	2010/07/21 09:48:08	1.000	68.6	10.0
416	2010/07/21 09:59:48	0.875	64.5	7.2
417	2010/07/21 10:07:35	0.875	67.3	7.0
418	2010/07/21 10:07:40	0.750	72.6	8.6
419	2010/07/21 10:07:43	0.625	69.0	7.5
420	2010/07/21 10:08:09	0.875	72.8	7.4
421	2010/07/21 10:10:08	1.000	57.2	7.9
422	2010/07/21 10:12:11	0.750	66.6	11.0
423	2010/07/21 10:17:25	0.875	68.6	9.1
424	2010/07/21 10:17:36	0.875	75.8	8.6
425	2010/07/21 10:17:40	1.000	72.6	9.9
426	2010/07/21 10:22:14	1.000	71.7	7.5
427	2010/07/21 10:22:28	0.625	75.5	8.4
428	2010/07/21 10:31:01	1.000	67.8	10.3
429	2010/07/21 10:31:03	0.875	71.1	9.3
430	2010/07/21 10:33:15	1.000	74.2	8.1
431	2010/07/21 10:33:25	0.625	75.5	10.4
432	2010/07/21 10:34:13	0.875	63.7	9.3
433	2010/07/21 10:35:49	0.750	74.0	10.6
434	2010/07/21 10:41:47	0.625	75.4	10.3
435	2010/07/21 10:42:08	0.875	62.1	9.5
436	2010/07/21 10:42:30	1.000	66.8	8.8
437	2010/07/21 10:45:08	0.750	66.9	8.0
438	2010/07/21 10:47:14	0.750	73.9	9.9
439	2010/07/21 10:47:15	1.000	79.6	9.6
440	2010/07/21 10:47:18	0.750	77.3	10.4
441	2010/07/21 10:47:30	1.000	75.4	8.4
442	2010/07/21 10:48:23	0.875	63.9	8.7
443	2010/07/21 10:49:06	1.000	69.3	7.4
444	2010/07/21 10:49:40	0.625	69.8	9.0
445	2010/07/21 10:50:03	0.750	81.8	11.0
446	2010/07/21 10:50:33	0.625	68.9	7.1
447	2010/07/21 10:51:36	0.625	74.1	8.3
448	2010/07/21 10:51:39	0.625	72.2	10.1

449	2010/07/21 10:59:50	0.750	76.3	8.6
450	2010/07/21 11:09:45	0.625	63.1	10.4
451	2010/07/21 11:09:45	1.000	65.8	9.5
452	2010/07/21 11:09:47	0.875	65.4	8.5
453	2010/07/21 11:09:53	0.625	62.1	8.5
454	2010/07/21 11:09:54	0.875	62.9	8.4
455	2010/07/21 11:09:56	0.625	61.7	7.8
456	2010/07/21 11:13:28	0.875	69.0	9.0
457	2010/07/21 11:13:32	0.750	74.2	8.9
458	2010/07/21 11:13:41	1.000	81.8	7.4
459	2010/07/21 11:13:44	1.000	91.5	8.4
460	2010/07/21 11:17:00	0.750	71.9	8.2
461	2010/07/21 11:17:04	0.625	74.5	9.8
462	2010/07/21 11:24:17	0.875	58.3	8.9
463	2010/07/21 11:47:06	0.750	79.5	7.6
464	2010/07/21 11:47:18	0.750	64.1	8.2
465	2010/07/21 11:47:19	0.750	66.2	8.9
466	2010/07/21 11:48:47	0.750	66.2	9.4
467	2010/07/21 11:52:38	0.750	70.7	7.2
468	2010/07/21 11:52:40	0.750	71.9	9.0
469	2010/07/21 11:52:49	1.000	60.5	7.7
470	2010/07/21 11:53:59	0.875	80.9	6.1
471	2010/07/21 12:29:53	0.750	68.2	8.0
472	2010/07/21 12:41:03	0.500	83.1	13.2
473	2010/07/21 13:14:16	0.500	100.1	13.5
474	2010/07/21 13:14:21	0.625	77.1	17.7
475	2010/07/21 13:14:22	0.750	77.8	15.9
476	2010/07/21 13:55:27	0.625	83.9	9.2
477	2010/07/21 14:18:52	0.625	62.8	9.3
478	2010/07/21 14:18:54	0.625	63.5	9.8
479	2010/07/21 14:54:40	0.750	73.7	8.6
480	2010/07/21 15:05:34	0.625	67.8	7.1
481	2010/07/21 15:05:37	0.750	68.4	9.9
482	2010/07/21 15:44:19	0.750	80.6	10.2

483	2010/07/21 15:58:06	0.625	80.2	10.5
484	2010/07/21 15:59:54	0.625	64.1	11.6
485	2010/07/21 16:39:09	0.625	70.5	12.3
486	2010/07/21 16:50:25	0.500	92.0	11.3
487	2010/07/21 16:54:41	1.000	81.6	7.1
488	2010/07/21 17:25:58	0.875	75.1	7.5
489	2010/07/21 17:27:25	0.750	78.3	9.6
490	2010/07/21 17:27:46	0.625	65.9	10.3
491	2010/07/21 17:28:49	1.000	83.3	6.1
492	2010/07/21 17:38:17	0.875	77.7	7.4
493	2010/07/21 17:39:35	0.625	66.6	6.4
494	2010/07/21 17:39:40	0.750	64.9	7.1
495	2010/07/21 17:39:41	0.750	67.4	8.8
496	2010/07/21 17:39:43	0.625	67.9	9.6
497	2010/07/21 17:40:02	0.625	70.5	7.5
498	2010/07/21 17:40:43	0.625	67.5	7.3
499	2010/07/21 17:40:57	1.000	72.9	9.1
500	2010/07/21 17:41:03	0.875	68.2	9.7
501	2010/07/21 17:41:04	0.625	71.8	10.1
502	2010/07/21 17:41:05	0.750	71.7	9.0
503	2010/07/21 17:41:08	0.625	70.1	7.5
504	2010/07/21 17:41:23	0.625	74.0	8.1
505	2010/07/21 17:41:25	1.000	75.5	7.9
506	2010/07/21 17:41:27	1.000	67.1	8.7
507	2010/07/21 17:41:30	0.875	66.0	7.3
508	2010/07/21 17:41:41	1.000	74.3	7.9
509	2010/07/21 17:41:57	0.875	69.0	6.2
510	2010/07/21 17:43:10	0.625	73.9	8.0
511	2010/07/21 17:43:11	0.750	70.6	7.2
512	2010/07/21 17:43:22	0.750	64.0	8.1
513	2010/07/21 17:43:36	0.875	68.6	6.5
514	2010/07/21 17:43:38	0.625	70.0	8.2
515	2010/07/21 17:43:42	0.875	64.1	9.1
516	2010/07/21 17:44:04	0.750	73.2	7.7

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

517	2010/07/21 17:44:07	1.000	74.2	9.5
518	2010/07/21 17:44:09	0.625	68.6	6.7
519	2010/07/21 17:44:35	1.000	70.0	8.1
520	2010/07/21 17:44:45	0.625	71.6	8.1
521	2010/07/21 17:44:47	1.000	72.0	9.7
522	2010/07/21 17:44:59	0.625	73.7	10.1
523	2010/07/21 17:45:00	0.750	69.8	8.9
524	2010/07/21 17:45:01	0.750	73.8	9.8
525	2010/07/21 17:45:12	0.625	70.2	10.4
526	2010/07/21 17:45:40	1.000	73.0	10.6
527	2010/07/21 17:45:50	0.625	68.7	10.7
528	2010/07/21 17:45:51	0.625	73.1	10.4
529	2010/07/21 17:45:52	0.625	66.9	9.5
530	2010/07/21 17:49:56	0.625	71.0	9.9
531	2010/07/21 17:52:13	0.625	71.9	8.3
532	2010/07/21 17:52:20	0.625	64.4	10.4
533	2010/07/21 17:52:26	0.625	68.8	11.8
534	2010/07/21 17:55:48	0.625	87.4	11.3
535	2010/07/21 17:56:28	0.875	79.5	7.9
536	2010/07/21 17:56:33	0.875	81.8	7.6
537	2010/07/21 17:56:35	1.000	77.3	6.5
538	2010/07/21 17:56:41	1.000	83.5	7.9
539	2010/07/21 17:56:50	0.750	71.1	8.7
540	2010/07/21 17:57:53	0.750	67.5	8.5
541	2010/07/21 17:57:55	0.750	66.3	7.4
542	2010/07/21 17:58:46	0.875	74.1	8.3
543	2010/07/21 17:58:55	0.750	72.1	9.6
544	2010/07/21 17:59:45	1.000	71.3	7.9
545	2010/07/21 18:00:54	0.625	68.3	6.8
546	2010/07/21 18:01:04	0.750	67.4	8.5
547	2010/07/21 18:01:07	0.875	64.0	7.9
548	2010/07/21 18:01:32	0.750	71.4	8.8
549	2010/07/21 18:02:08	0.750	68.4	10.2
550	2010/07/21 18:03:10	0.750	60.2	8.5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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551	2010/07/21 18:08:55	0.625	79.2	9.9
552	2010/07/21 18:09:30	0.750	63.3	9.0
553	2010/07/21 18:09:31	0.625	66.8	9.9
554	2010/07/21 18:09:36	0.625	70.5	8.7
555	2010/07/21 18:09:59	0.625	65.2	10.2
556	2010/07/21 18:10:07	0.750	66.5	9.6
557	2010/07/21 18:10:34	1.000	67.5	8.0
558	2010/07/21 18:10:36	0.625	67.3	9.0
559	2010/07/21 18:10:38	0.875	64.0	7.6
560	2010/07/21 18:10:41	0.625	66.8	9.3
561	2010/07/21 18:10:48	0.625	64.4	8.4
562	2010/07/21 18:12:22	0.875	63.7	8.5
563	2010/07/21 18:13:15	0.750	67.1	7.0
564	2010/07/21 18:16:01	0.625	73.2	10.5
565	2010/07/21 18:16:04	0.625	71.9	10.2
566	2010/07/21 18:16:06	0.625	74.0	10.7
567	2010/07/21 18:17:01	0.625	72.1	10.2
568	2010/07/21 18:17:07	0.875	77.0	7.2
569	2010/07/21 18:17:31	0.750	69.0	9.1
570	2010/07/21 18:19:30	0.750	73.0	8.7
571	2010/07/21 18:19:38	1.000	68.8	9.4
572	2010/07/21 18:23:16	1.000	68.4	8.6
573	2010/07/21 18:23:34	0.875	67.5	6.7
574	2010/07/21 18:23:38	0.875	69.1	7.8
575	2010/07/21 18:26:04	0.875	82.1	7.2
576	2010/07/21 18:39:49	0.750	64.5	10.2
577	2010/07/21 18:49:06	0.750	75.1	8.3
578	2010/07/21 19:24:44	0.875	86.4	7.2
579	2010/07/21 19:25:14	0.750	83.6	8.9
580	2010/07/21 19:32:09	0.625	70.3	9.8
581	2010/07/21 19:47:55	0.750	70.1	9.5
582	2010/07/21 19:51:17	0.625	79.9	9.4
583	2010/07/21 20:03:16	0.750	82.8	8.9
584	2010/07/21 20:04:24	0.875	74.2	10.4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

585	2010/07/21 20:07:40	0.500	76.5	11.8
586	2010/07/21 20:09:43	0.750	73.3	6.6
587	2010/07/21 20:14:13	0.875	68.2	6.2
588	2010/07/21 20:29:06	0.625	78.1	10.7
589	2010/07/21 20:50:05	0.875	75.3	6.9
590	2010/07/21 22:38:45	1.000	66.6	9.6
591	2010/07/21 22:41:29	0.625	77.1	8.9
592	2010/07/21 23:23:59	1.000	57.3	8.5
593	2010/07/21 23:24:01	0.625	57.0	9.0
594	2010/07/21 23:24:03	0.875	58.8	9.7
595	2010/07/21 23:30:02	0.875	58.0	8.1
596	2010/07/21 23:54:04	0.625	65.8	9.3
597	2010/07/21 23:55:45	0.625	70.9	9.6
598	2010/07/21 23:55:47	0.625	67.0	8.6
599	2010/07/21 23:55:48	0.625	66.5	8.0
600	2010/07/21 23:55:49	0.625	71.6	10.7
601	2010/07/21 23:56:30	0.750	68.5	10.2
602	2010/07/21 23:56:32	0.625	73.5	11.3
603	2010/07/21 23:56:38	0.750	70.3	7.1
604	2010/07/21 23:56:39	0.625	72.5	9.2
605	2010/07/21 23:56:42	0.625	69.3	10.5
606	2010/07/21 23:56:45	0.625	72.8	11.2
607	2010/07/21 23:56:47	0.625	70.3	8.0
608	2010/07/21 23:56:47	0.750	70.9	7.1

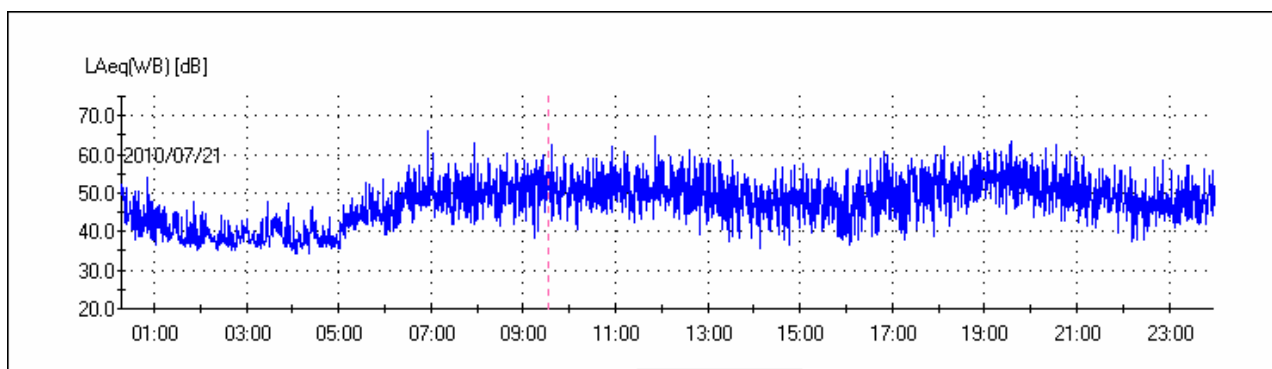
RICONOSCIMENTO COMPONENTI TONALI

Al fine di individuare la presenza di Componenti Tonalì (CT) nel rumore, si effettua un'analisi

spettrale per bande normalizzate di 1/3 di ottava. Si considerano esclusivamente le CT aventi carattere stazionario nel tempo ed in frequenza.

L'analisi è stata svolta nell'intervallo di frequenza compreso tra 20 Hz e 20 KHz.

Si è in presenza di una CT se il livello minimo di una banda supera i livelli minimi delle bande adiacenti per almeno 5 dB.



SOGLIE PENALIZZAZIONE	
Persistenza BF	5%
Persistenza AF	5%
TONALI [Hz]	PERSIST [%]
Freq: 100	0.0
Freq: 125	0.1
Freq: 160	0.0
Freq: 200	0.1
Freq: 250	0.2
Freq: 315	0.1
Freq: 400	0.1
Freq: 500	0.4
Freq: 630	0.2
Freq: 800	0.1
Freq: 1 k	0.1
Freq: 1.25 k	0.0
Freq: 1.6 k	0.0
Freq: 2.5 k	0.2
Freq: 3.15 k	0.4

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Freq: 4 k	0.5
Freq: 5 k	0.4
PENALIZZAZIONI	
Penalizzazione BF: No	
Penalizzazione AF: No	

TIME ISTORY COMPONENTI TONALI

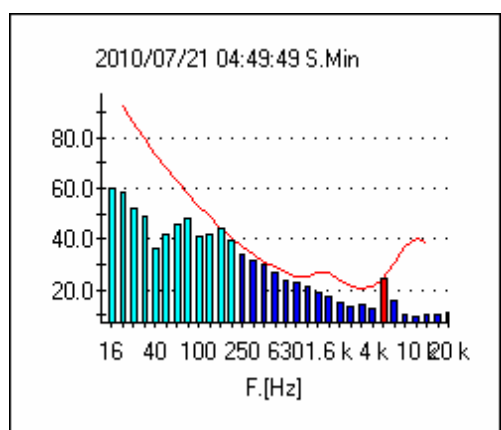
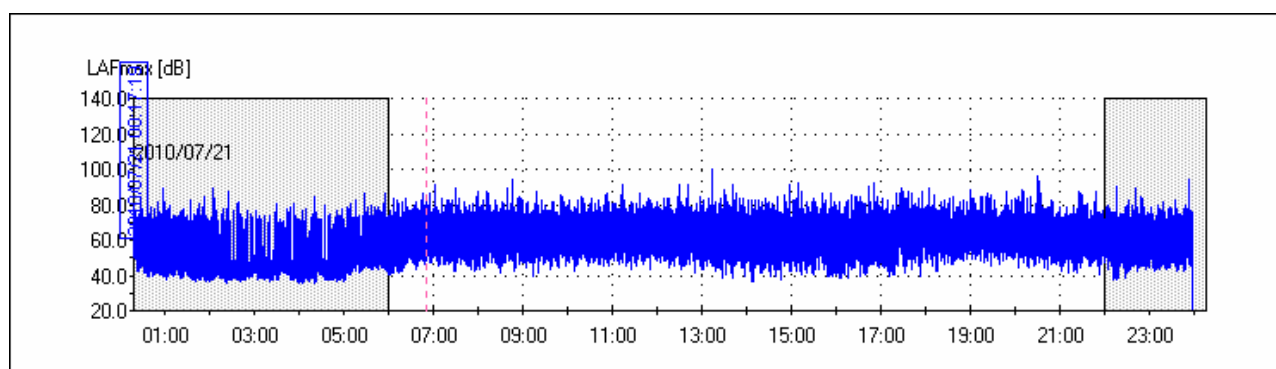
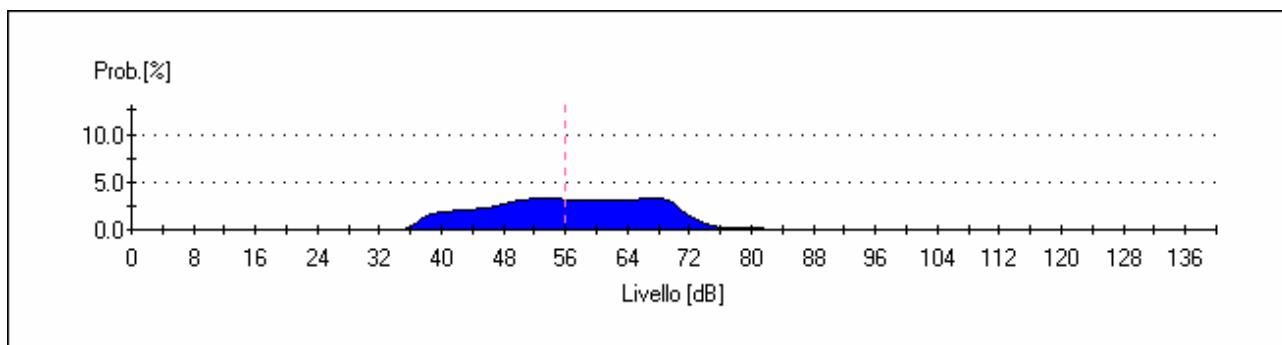


GRAFICO DEL CLIMA ACUSTICO GIORNALIERO



DISTRIBUTIVA



CUMULATIVA

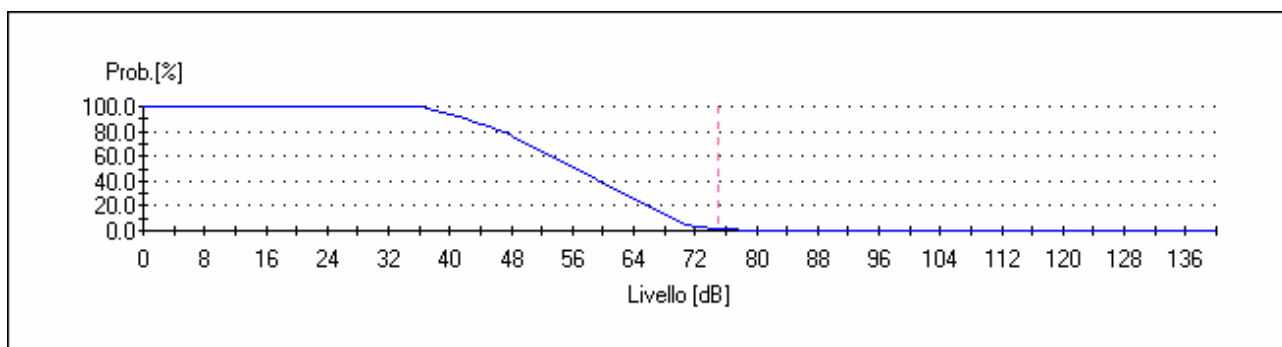
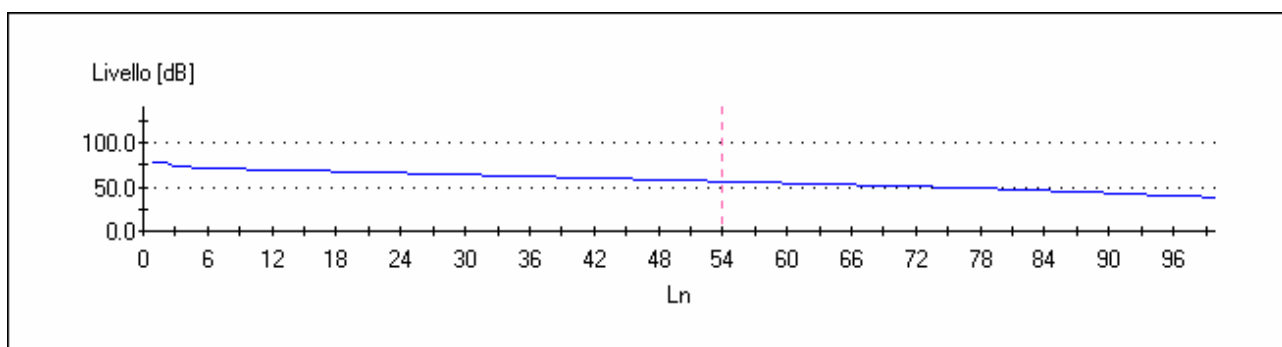


GRAFICO PERCENTILI



Livelli statistici L1, L5, L10, L50, L90, L95, L99; nelle 24 ore

Percentile	Leq.[dB]

0	77.0
1	77.0
2	74.0
3	73.0
4	72.0
5	71.7
6	71.3
7	71.0
8	70.5
9	70.0
10	69.7
11	69.3
12	69.0
13	68.8
14	68.5
15	68.3
16	68.0
17	67.7
18	67.3
19	67.0
20	66.7
21	66.3
22	66.0
23	65.7
24	65.3
25	65.0
26	64.7
27	64.3
28	64.0
29	63.8
30	63.5
31	63.3
32	63.0
33	62.7

34	62.3
35	62.0
36	61.7
37	61.3
38	61.0
39	60.7
40	60.3
41	60.0
42	59.7
43	59.3
44	59.0
45	58.7
46	58.3
47	58.0
48	57.7
49	57.3
50	57.0
51	56.8
52	56.5
53	56.3
54	56.0
55	55.7
56	55.3
57	55.0
58	54.7
59	54.3
60	54.0
61	53.7
62	53.3
63	53.0
64	52.7
65	52.3
66	52.0
67	51.8

68	51.5
69	51.3
70	51.0
71	50.7
72	50.3
73	50.0
74	49.5
75	49.0
76	48.7
77	48.3
78	48.0
79	47.7
80	47.3
81	47.0
82	46.5
83	46.0
84	45.5
85	45.0
86	44.5
87	44.0
88	43.5
89	43.0
90	42.5
91	42.0
92	41.5
93	41.0
94	40.5
95	40.0
96	39.5
97	39.0
98	38.0
99	37.0

LIVELLI PERCENTILI DIURNI

Percentile	Leq.[dB]
0	78.0
1	78.0
2	75.0
3	74.0
4	73.0
5	72.5
6	72.0
7	71.7
8	71.3
9	71.0
10	70.7
11	70.3
12	70.0
13	69.8
14	69.5
15	69.3
16	69.0
17	68.8
18	68.6
19	68.4
20	68.2
21	68.0
22	67.8
23	67.5
24	67.3
25	67.0
26	66.8
27	66.5
28	66.3
29	66.0
30	65.8
31	65.5

32	65.3
33	65.0
34	64.8
35	64.5
36	64.3
37	64.0
38	63.8
39	63.5
40	63.3
41	63.0
42	62.8
43	62.5
44	62.3
45	62.0
46	61.7
47	61.3
48	61.0
49	60.8
50	60.5
51	60.3
52	60.0
53	59.8
54	59.5
55	59.3
56	59.0
57	58.8
58	58.5
59	58.3
60	58.0
61	57.8
62	57.5
63	57.3
64	57.0
65	56.7

66	56.3
67	56.0
68	55.8
69	55.5
70	55.3
71	55.0
72	54.8
73	54.5
74	54.3
75	54.0
76	53.7
77	53.3
78	53.0
79	52.8
80	52.5
81	52.3
82	52.0
83	51.7
84	51.3
85	51.0
86	50.7
87	50.3
88	50.0
89	49.7
90	49.3
91	49.0
92	48.5
93	48.0
94	47.0
95	46.5
96	46.0
97	45.0
98	43.0
99	42.0

LIVELLI PERCENTILI NOTTURNI

Percentile	Leq.[dB]
0	73.0
1	73.0
2	71.0
3	70.0
4	69.0
5	68.0
6	67.0
7	66.5
8	66.0
9	65.0
10	64.5
11	64.0
12	63.5
13	63.0
14	62.0
15	61.5
16	61.0
17	60.0
18	59.5
19	59.0
20	58.5
21	58.0
22	57.5
23	57.0
24	56.5
25	56.0
26	55.5
27	55.0
28	54.5
29	54.0

30	53.7
31	53.3
32	53.0
33	52.7
34	52.3
35	52.0
36	51.5
37	51.0
38	50.8
39	50.5
40	50.3
41	50.0
42	49.7
43	49.3
44	49.0
45	48.8
46	48.5
47	48.3
48	48.0
49	47.8
50	47.5
51	47.3
52	47.0
53	46.8
54	46.5
55	46.3
56	46.0
57	45.8
58	45.6
59	45.4
60	45.2
61	45.0
62	44.8
63	44.6

64	44.4
65	44.2
66	44.0
67	43.8
68	43.6
69	43.4
70	43.2
71	43.0
72	42.8
73	42.6
74	42.4
75	42.2
76	42.0
77	41.8
78	41.7
79	41.5
80	41.3
81	41.2
82	41.0
83	40.8
84	40.6
85	40.4
86	40.2
87	40.0
88	39.8
89	39.6
90	39.4
91	39.2
92	39.0
93	38.8
94	38.5
95	38.3
96	38.0
97	37.7

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

98	37.3
99	37.0

LIVELLI DI IMPULS- FAST E SLOW MAX NELLE 24 ORE		
LAlp [dB]	LA Sp [dB]	LAFp [dB]
90.7	86.4	89.5
91.6	88.9	91.4
95.3	91.5	94.6
104.8	91.3	100.1
97	91	95.8
97.5	88.1	94.4
104.8	91.5	100.1

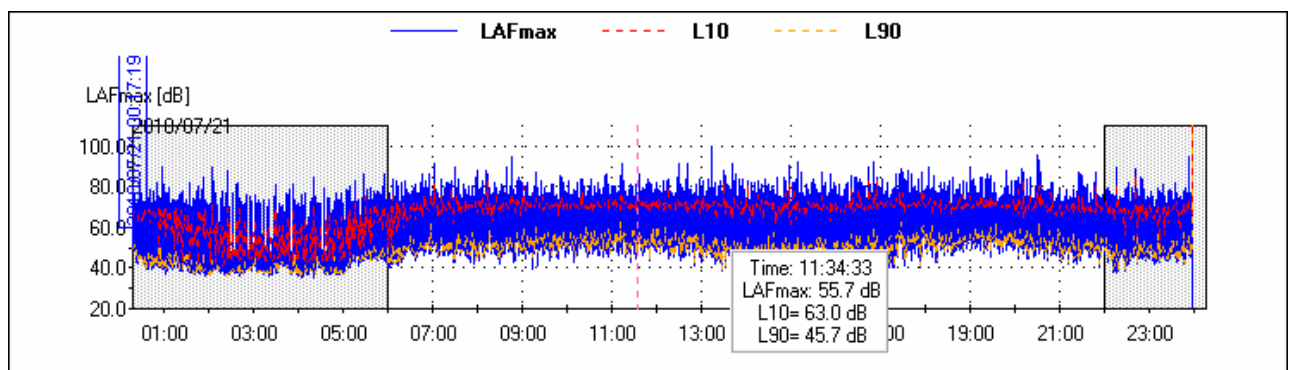
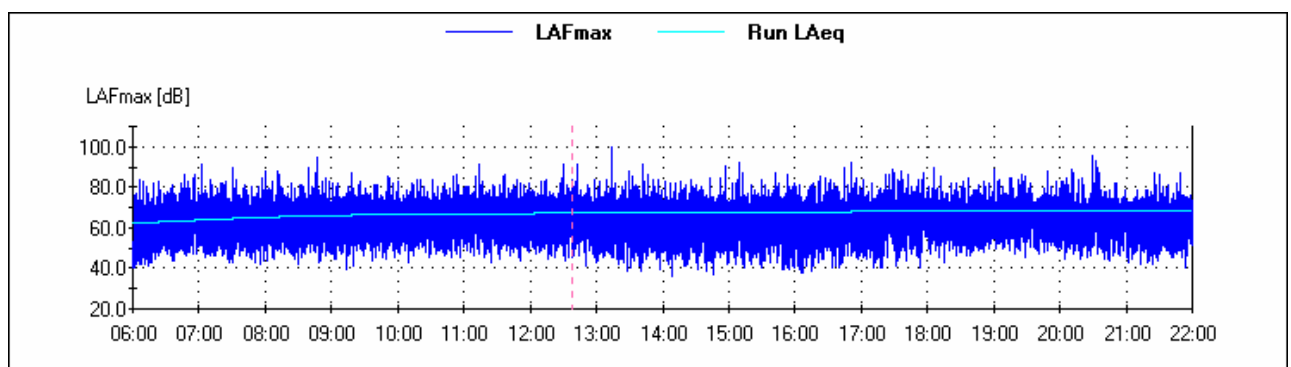
LIVELLI di Impuls – fast – slow massimi nelle 16 ore diurne

LIVELLI DI IMPULS- FAST E SLOW MAX DIURNI		
LAlp [dB]	LA Sp [dB]	LAFp [dB]
91.6	88.9	91.4
95.3	91.5	94.6
104.8	91.3	100.1
97	91	95.8
87.7	85.4	87.1
104.8	91.5	100.1

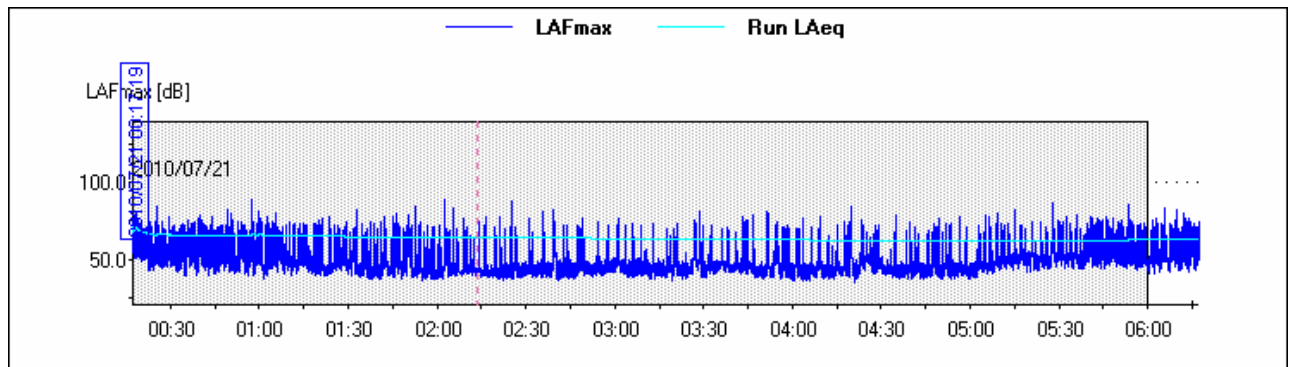
LIVELLI di Impuls – fast – slow massimi nelle 8 ore notturni

**LIVELLI DI IMPULS- FAST E SLOW
MAX NOTTURNI**

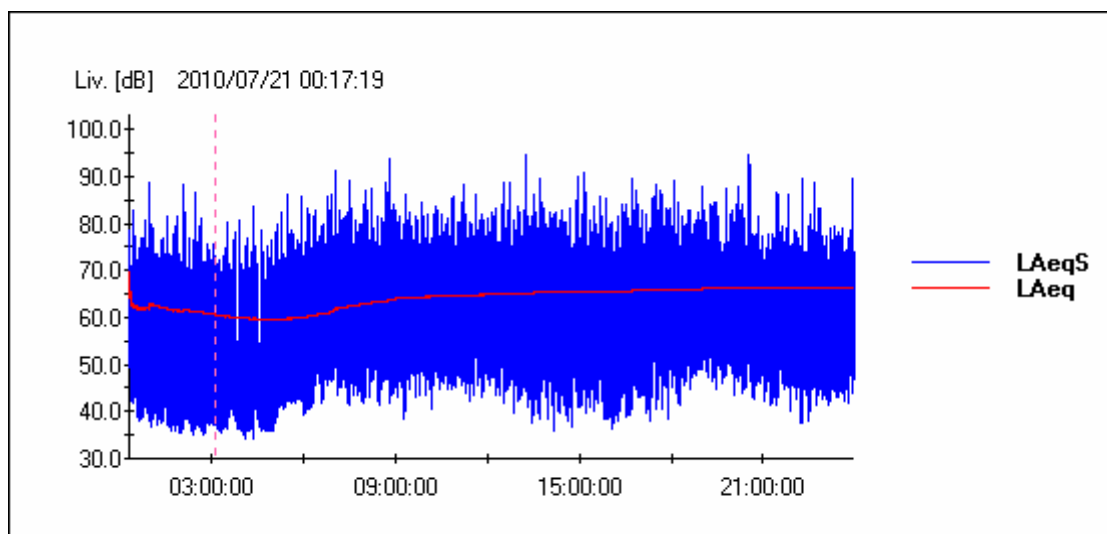
LAIp [dB]	LASp [dB]	LAFp [dB]
90.7	86.4	89.5
87	85.1	86.5
97.5	88.1	94.4
97.5	88.1	94.4

TIME HISTORY L10 – L90

RUNNING Leq DIURNO


RUNNING Leq NOTTURNO

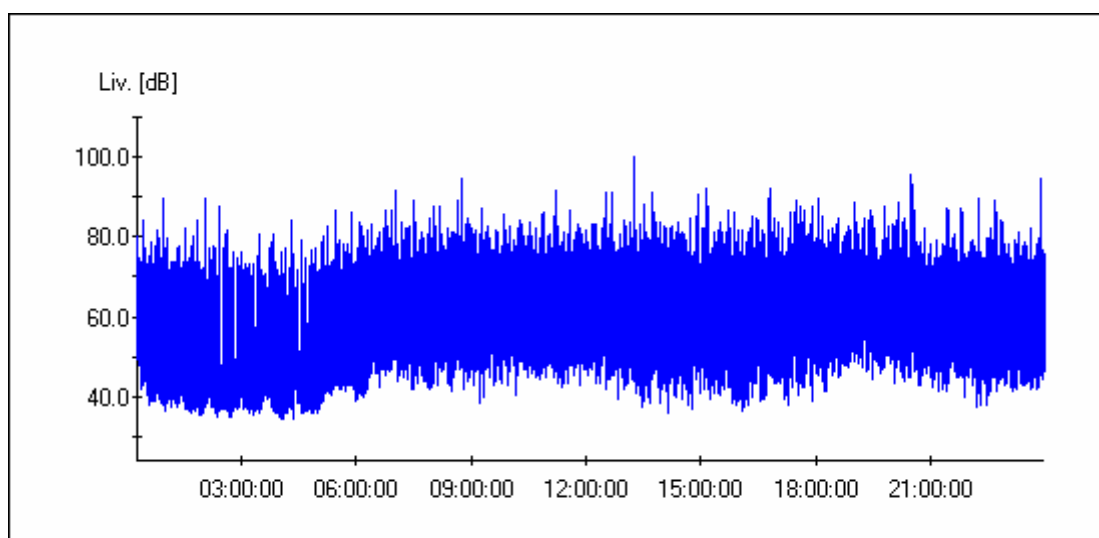


LA TIME HISTORY LIVELLO EQUIVALENTE PONDERATO "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

LA TIME HISTORY LIVELLO PRESSIONE SONORA PONDERATA "A"



		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

R5 – MISURE DI 24 ORE CON POSTAZIONI SEMI-FISSE PER IL RUMORE FERROVIARIO	
Punto R_17_C	Ricettore / Indirizzo Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)
Descrizione del ricettore Postazione microfonica posizionata a circa 1,5 m di altezza dal piano del ferro e a una distanza di circa 15 m dal binario più vicino.	
Caratterizzazione del ricettore - Zonizzazione acustica e limiti di immissione diurni / notturni	
☐ ex L.447/95 e DPCM 14/11/97 ☒ ex art. 2 DPCM 01/03/91 ☐ ipotizzata / non deliberata ☒ Tutto il territorio nazionale ... 70 / 60 dB(A) ☐ ex DPR 142/04 : Tipo di strada.....Cb ☐ Ricettore sensibile 50 / 40 dB(A) ☐ Fascia A 70 / 60 dB(A) ☐ Fascia B 65 / 55 dB(A)	☒ ex art. 4 DPR 459/98 ☐ Ricettore sensibile .. 50 / 40 dB(A) ☒ Ricettore non sensibile..70 / 60 dB(A) ☐ ex art. 6 DPCM 01/03/91 ☐ Classe A 65 / 55 dB(A) ☐ Classe B 60 / 50 dB(A) ☐ Esclus. industriale .. 70 / 70 dB(A) ☐ Territorio nazionale . 70 / 60 dB(A)

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Caratterizzazione delle sorgenti di rumore					
Descrizione: La sorgente di rumore dominante è la linea F.S					
Strumentazione adottata					
Catena di misura in Classe I costituita da: Fonometro integratore Larson-Davis 831, Preamplificatore Larson-Davis PRM831, Microfono Larson-Davis 377B02 Calibratore Larson-Davis CAL200, Software di analisi: NWWin ver. 2.3					
Sintesi Transiti					
Periodo	TR	Data	L_{Aeq} [dBA]		L_{lim} [dBA]
Giorno	6÷22	25/10/10	63.7		70
Notte	22÷6	25/10/10	59.6		60
Sintesi misure globali					
Periodo	TR	Data	L_{Aeq} [dBA]		L_{lim} [dBA]
Giorno	6÷22	25/10/10	66.6		70
Notte	22÷6	25/10/10	60.7		60

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Punto R_17_C		Ricettore / Indirizzo Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)				
RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	L _{eq} (-10dB) [dB]	SEL (-10 dB) [dB]	L _{max} [dB]
1	12.00.51.900	passeggeri	RC	81	87,6	84,5
2	12.06.13.600	passeggeri	GT	78,9	87,1	82,1
3	12.18.36.000	passeggeri	GT	82,7	90,5	85,7
4	12.25.10.500	passeggeri	RC	76,9	86,5	79,7
5	12.32.02.300	passeggeri	RC	83,9	88,6	87,3
5_bis	12.42.46.000	passeggeri	GT	79,1	84,4	82
6	13.00.28.800	passeggeri	RC	83	87,7	86,3
7	13.13.52.600	etr450	RC	84,1	93,9	86,4
8	13.19.28.000	passeggeri	GT	82,5	87,2	86,4
8_bis	13.49.18.000	passeggeri	GT	72,4	79,5	75,2
9	13.57.26.100	passeggeri	RC	89,1	92,7	92,5
9_bis	14.02.23.000	passeggeri	GT	80,7	85,7	84,7
10	14.04.38.500	etr480	GT	75,5	87,5	80,2
11	14.12.28.500	passeggeri	RC	81,7	88,2	85,1
12	14.19.04.101	passeggeri	GT	88	95,2	92,6
13	14.35.42.000	passeggeri	RC	80,3	87,8	82,7
14	14.56.11.900	passeggeri	GT	77,9	86,0	80,8
16	15.12.41.601	passeggeri	RC	85,8	89,5	89,0
17	15.18.38.200	passeggeri	GT	83,5	88,6	86,1
18	15.38.19.400	passeggeri	GT	80,6	87,7	83,7
19	15.40.22.900	passeggeri	RC	86,4	92,9	89
20	15.44.21.000	passeggeri	GT	83,5	89,3	86,0
21	15.57.27.300	passeggeri	RC	84,6	88,6	87,8
22	16.20.22.500	passeggeri	GT	80,8	89,3	83,7
23	16.29.11.700	passeggeri	RC	76,3	84,7	79,5
24	16.35.12.701	passeggeri	RC	79	85,1	82,4
25	16.50.04.000	passeggeri	RC	87,7	97,0	92,2

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Punto R_17_C		Ricettore / Indirizzo Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)				
RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	L _{eq} (-10dB) [dB]	SEL (-10 dB) [dB]	L _{max} [dB]
26	16.56.19.801	etr 480	RC	85,9	95,3	88,1
27	16.57.04.301	etr 450	GT	82,4	92,2	84,3
28	17.08.23.500	passeggeri	GT	82,1	88,3	85,3
29	17.15.40.801	passeggeri	RC	81,9	89,8	85
30	17.18.31.801	passeggeri	GT	83,9	90,6	86,7
31	17.33.01.000	passeggeri	RC	88,7	95,3	91,7
32	17.43.43.701	passeggeri	RC	84,3	88,7	87,5
33	18.01.07.400	passeggeri	GT	75,2	83,3	78,1
34	18.04.30.900	passeggeri	GT	77,9	86,0	81,6
35	18.14.47.500	passeggeri	GT	82,9	88,4	86,7
35_bis	18.20.35.000	passeggeri	GT	77,4	83,4	80,3
36	18.24.43.801	passeggeri	RC	83,7	89,6	86,9
37	18.35.10.900	passeggeri	RC	83,4	87,8	87
38	18.54.08.000	passeggeri	RC	89,6	93,0	92,4
39	19.07.23.301	passeggeri	GT	88,1	94,2	90,5
40	19.12.21.000	passeggeri	RC	87,1	91,0	90,5
41	19.24.22.000	passeggeri	GT	81,4	90,6	85,1
42	19.25.09.400	passeggeri	RC	83,2	90,7	85,7
43	19.34.56.600	passeggeri	RC	86,4	91,6	89,2
44	19.36.02.000	passeggeri	GT	81,9	87,9	84,8
45	19.40.18.000	passeggeri	GT	79,8	87,2	83
46	19.55.13.100	etr480	RC	86,2	95,6	88
47	20.01.22.100	passeggeri	GT	78,2	86,4	81
48	20.05.29.701	passeggeri	RC	80,3	87,2	83,3
49	20.17.28.500	passeggeri	RC	87,8	91,4	90,8
50	20.33.18.301	passeggeri	GT	85,8	93,0	88,9
51	20.35.07.600	passeggeri	RC	90,4	98,0	93,4
52	20.37.24.600	passeggeri	GT	76,6	85,4	80,5

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		<i>Codice documento</i> AC0053_F0.docx_F0	<i>Rev</i> F0	<i>Data</i> 20/06/2011

Punto R_17_C		Ricettore / Indirizzo Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)				
RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	$L_{eq}(-10dB)$ [dB]	SEL (-10 dB) [dB]	L_{max} [dB]
53	20.54.45.100	passeggeri	RC	82,1	93,2	88,4
53_bis	20.54.53.000	passeggeri	GT	77,1	88,1	81,1
54	21.40.10.902	passeggeri	RC	93,2	99,5	96,4
55	21.53.05.500	passeggeri	RC	92,6	98,0	95,6
56	21.59.57.699	passeggeri	RC	85,9	93,9	90,5
57	22.27.35.699	passeggeri	RC	85,4	89,2	88,7
58	22.46.18.699	passeggeri	GT	83,7	89,6	87,1
59	23.24.26.801	passeggeri	GT	89,1	95,0	92,5
60	23.51.59.699	passeggeri	GT	72,5	83,8	77,8
61	1.04.14.102	passeggeri	RC	88,6	97,7	93,6
61_bis	1.12.54.000	passeggeri	GT	72,1	79,6	75,3
62	1.54.33.102	passeggeri	RC	85,8	97,0	94,8
64	2.24.56.199	passeggeri	RC	87,7	91,1	92
64_bis	3.44.23.000	passeggeri	RC	79,2	84,0	83
65	4.09.56.602	etr480	RC	85,9	95,5	87,9
66	4.14.34.602	passeggeri	RC	75,6	84,0	79,1
67	5.19.26.801	passeggeri	GT	81,8	87,6	84,4
68	5.25.46.902	passeggeri	GT	90,6	95,5	93,7
69	5.52.04.000	passeggeri	GT	82,9	88,2	85,6
70	6.07.47.199	passeggeri	GT	83,4	87,5	86,4
71	6.12.09.402	passeggeri	GT	81,1	87,1	84,2
72	6.18.52.305	passeggeri	GT	87,5	94,5	91,3
73	6.26.24.602	passeggeri	RC	84,1	90,3	87,8
75	6.54.41.398	passeggeri	GT	86,3	91,8	89,4
76	7.01.45.602	passeggeri	RC	83,4	90,6	85,9
77	7.03.27.500	passeggeri	GT	84,1	93,9	88,8
77_bis	7.17.56.000	passeggeri	GT	79,2	84,6	82,5
78	7.25.38.500	passeggeri	RC	87,2	93,4	89,6

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto R_17_C		Ricettore / Indirizzo Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)				
RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	L _{eq} (-10dB) [dB]	SEL (-10 dB) [dB]	L _{max} [dB]
79	7.29.28.500	etr 480	GT	83,4	93,1	85,8
80	7.35.28.703	passeggeri	RC	87,7	94,6	91,9
81	7.41.00.602	passeggeri	GT	83,5	89,3	86,3
82	7.45.16.805	passeggeri	RC	83,1	88,2	86,2
83	7.47.31.500	passeggeri	GT	78,8	84,4	84,7
84	7.57.08.703	passeggeri	GT	79,0	85,0	83,2
85	7.59.10.305	passeggeri	RC	79,6	86,8	83,3
86	8.13.22.203	passeggeri	GT	84,2	91,0	86,8
87	8.14.42.602	passeggeri	RC	88,0	96,0	91,4
88	8.24.57.500	passeggeri	RC	78,0	86,4	80,8
89	8.34.43.000	passeggeri	RC	82,5	91,8	89,2
89_bis	8.34.49.000	passeggeri	GT	78,1	84,9	81,4
90	8.56.34.602	passeggeri	GT	83,4	88,5	86,9
91	9.00.56.102	passeggeri	RC	87,8	93,4	90,5
92	9.04.52.898	passeggeri	GT	79,4	90,1	81,6
93	9.11.50.898	passeggeri	RC	81,6	89,6	85,1
94	9.16.49.398	passeggeri	RC	84,1	91,2	86,5
95	9.22.22.898	passeggeri	GT	75,6	83,0	79,3
96	9.26.23.898	passeggeri	RC	78,1	86,1	81,8
97	9.34.53.305	passeggeri	RC	82,5	87,4	85,6
98	9.40.57.305	passeggeri	GT	80,8	90,1	86,6
99	9.41.57.805	passeggeri	RC	84,5	89,5	87,6
100	9.55.48.898	passeggeri	GT	78,8	85,5	82
101**	10.15.00.898			75,7	86,1	79,7
102	10.22.42.805	passeggeri	GT	75,2	82,7	78,7
103	10.24.23.898	passeggeri	RC	79,4	86,4	82,4
104	10.46.43.102	passeggeri	RC	80,2	85,5	83,8
104_bis*	10.54.55.000	passeggeri	GT	82,9	89,4 (*)	85,9

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto R_17_C		Ricettore / Indirizzo Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)				
RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	L _{eq} (-10dB) [dB]	SEL (-10 dB) [dB]	L _{max} [dB]
105*	10.55.01.500	passeggeri	RC	85,4	89,4 (*)	92,5
106	11.33.34.102	passeggeri	GT	82,4	88,5	85,4
107	11.35.49.805	passeggeri	RC	85,3	89,6	88,4
108	11.43.52.398	passeggeri	GT	89,1	92,3	93,7
108_bis	11.44.12.000	passeggeri	RC	80,8	85,2	84
109	11.56.13.305	passeggeri	GT	79,5	87,1	82,6
110	11.59.30.602	passeggeri	RC	81,2	87,7	84,8
Sintesi dei transiti						
Livello di immissione diurno del traffico ferroviario L _{Aeq} [6÷22]					63.7	
Livello di immissione notturno del traffico ferroviario L _{Aeq} [22÷6]					59.6	
Note:						

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto R_17_C	Ricettore / Indirizzo Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)					
RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	L _{eq} (-10dB) [dB]	SEL (-10 dB) [dB]	L _{max} [dB]
* Le celle 104_bis e 105 risultano non valide perché corrispondono a transiti ferroviari che si sovrappongono tra loro. I valori del SEL corrispondenti sono stati ottenuti dalla media dei SEL dei transiti validi e considerati nel conteggio della sintesi dei transiti. ** La cella 101 risulta non valida perché non corrisponde a un transito ferroviario. Il valore del SEL corrispondente non è stato considerato nel conteggio della sintesi dei transiti. (*) Valore ottenuto dalla media dei SEL dei transiti considerati validi.						

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
MONITORAGGIO EMISSIONI DI RUMORE PER LA MAPPATURA DI CLIMA ACUSTICO		Codice documento AC0053_F0.docx_F0	Rev F0	Data 20/06/2011

Punto R_17_C	Ricettore / Indirizzo Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)		
RISULTATI MISURE AMBIENTALI			
Parametri	24 ore	Giorno (TR = 6÷22h)	Notte (TR = 22÷6h)
Codice misura	R_17_C	R_17_C / D	R_17_C / N
Data inizio	25/10/10	25/10/10	25/10/10
Ora inizio	12.00	12.00	12.00
Note			
LAeq [dBA]	65.3	66.6	60.7
L1 [dBA]	72.7	76.4	62.2
L5 [dBA]	60.3	61.7	54.6
L10 [dBA]	57.1	58.4	52.2
L50 [dBA]	50.9	52.5	47.3
L90 [dBA]	46.5	48.3	45.9
L95 [dBA]	46.1	47.5	45.7
L99 [dBA]	45.5	46.4	45.3
Lmax [dBA]	-	-	-
Lfmax [dBA]	-	-	-
Lsmax [dBA]	-	-	-
KI [dBA]	0	0	0
KT [dBA]	0	0	0
KB [dBA]	0	0	0
LAeq [dBA]	65.3	66.6	60.7

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto R_17_C	Ricettore / Indirizzo Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)
Note: Il periodo di osservazione è stato caratterizzato da condizioni meteorologiche conformi ai registri di validità delle misure di rumore.	
Punto R_17_C	Ricettore / Indirizzo Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)
Foto 1	



Foto 2

MONITORAGGIO EMISSIONI DI RUMORE PER LA
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Ricettore / Indirizzo

Strada Statale 18 Tirrena Inferiore, 10 – Reggio Calabria (RC)

Foto 3



Localizzazione planimetrica

MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO*Codice documento*

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		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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R5 – MISURE DI 24 ORE CON POSTAZIONI SEMI-FISSE PER IL RUMORE FERROVIARIO	
Punto R_13_C	Ricettore / Indirizzo Albergo Boccaccio 2 – Via Marina – Cannitello – Villa S.G. (RC)
Descrizione del ricettore Postazione microfonica posizionata sul terrazzo dell'albergo, in affaccio diretto sulla linea ferroviaria. Microfono su cavalletto a 1,5 m di altezza sul pavimento. Il microfono è stato posizionato ad un'altezza di circa 8 m dal piano del ferro e a una distanza di circa 17 m dal	
Caratterizzazione del ricettore - Zonizzazione acustica e limiti di immissione diurni / notturni	
☒ ex L.447/95 e DPCM 14/11/97 ☐ ex art. 2 DPCM 01/03/91 ☐ ipotizzata / non deliberata ☒ Aree di intensa attività umana 65 / 55 dB(A)	☒ ex art. 4 DPR 459/98 ☐ Ricettore sensibile .. 50 / 40 dB(A) ☒ Ricettore non sensibile..70 / 60 dB(A)
☐ ex DPR 142/04 : Tipo di strada.....Cb ☐ Ricettore sensibile 50 / 40 dB(A) ☐ Fascia A 70 / 60 dB(A) ☐ Fascia B 65 / 55 dB(A)	☐ ex art. 6 DPCM 01/03/91 ☐ Classe A 65 / 55 dB(A) ☐ Classe B 60 / 50 dB(A) ☐ Esclus. industriale .. 70 / 70 dB(A) ☐ Territorio nazionale . 70 / 60 dB(A)
Caratterizzazione delle sorgenti di rumore	

Descrizione: Transiti ferroviari sulla linea FS. Lavori in corso in prossimità della linea ferroviaria costituiscono rumore di fondo nel periodo diurno.

Strumentazione adottata

Catena di misura in Classe I costituita da:

Fonometro integratore Larson-Davis 831, Preamplificatore Larson-Davis PRM831, Microfono Larson-Davis 377B02

Calibratore Larson-Davis CAL200, Software di analisi: NWWin ver. 2.3

Sintesi Transiti

Periodo	TR	Data	L_{Aeq} [dBA]		L_{lim} [dBA]
Giorno	6÷22	25/10/10	62.0		65
Notte	22÷6	25/10/10	59.2		55

Sintesi misure globali

Periodo	TR	Data	L_{Aeq} [dBA]		L_{lim} [dBA]
Giorno	6÷22	25/10/10	63.4		65
Notte	22÷6	25/10/10	60.9		55

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto R_13_C		Ricettore / Indirizzo Albergo Boccaccio 2 – Via Marina – Cannitello – Villa S.G. (RC)				
RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	L _{eq} (-10dB) [dB]	SEL (-10 dB) [dB]	L _{max} [dB]
1	12.04.02.700	passeggeri	GT	95,1	94,6	97,1
2	12.24.35.900	passeggeri	RC	71,3	79,0	74,4
3	12.29.17.800	passeggeri	GT	80,4	89,1	84,3
4	12.37.48.400	passeggeri	GT	81,4	92,1	86,4
5	12.51.17.800	passeggeri	GT	77,3	82,6	82,8
6	12.52.53.600	passeggeri	RC	72,7	81,1	76,1
7	13.05.36.300	etr450	RC	76	86,6	80,5
8	13.25.05.000	passeggeri	GT	84,7	89,7	89
9	13.48.36.400	passeggeri	RC	77,5	85,5	80,8
10	14.00.14.400	passeggeri	RC	76,9	88,5	80,3
11	14.07.46.600	passeggeri	GT	80,8	85,9	86
12	14.15.06.300	etr480	GT	84,5	94,2	87,6
13	14.24.30.601	passeggeri	GT	84,4	93,5	87,8
14	14.27.47.200	passeggeri	RC	75,5	83,4	79,5
15***	15.05.04.500	passeggeri	GT	82	88,7 (*)	85,9
15_bis***		passeggeri	RC	82	88.7 (*)	85.9
16	15.08.23.000	passeggeri	GT	78,8	86,2	84,0
17	15.16.07.900	passeggeri	GT	82,1	92,9	86,3
18	15.25.07.700	passeggeri	GT	85,3	91,0	89
19	15.32.57.000	passeggeri	RC	77	86,3	80
20	15.47.29.601	passeggeri	RC	74,8	83,5	78,2
21	15.56.15.900	passeggeri	GT	81,9	87,4	85,9
22	16.25.55.300	passeggeri	GT	85,5	92,1	88,6
23	16.28.26.700	passeggeri	RC	72	78,7	75,9
24	16.42.53.301	passeggeri	RC	81,2	91,9	84
25	16.48.29.201	etr480	RC	73,6	85,1	79,8
26	17.03.32.201	etr450	GT	80,8	91,5	84,8

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto R_13_C		Ricettore / Indirizzo Albergo Boccaccio 2 – Via Marina – Cannitello – Villa S.G. (RC)				
RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	L _{eq} (-10dB) [dB]	SEL (-10 dB) [dB]	L _{max} [dB]
27	17.06.02.500	passeggeri	RC	75,8	84,6	79,6
28	17.14.35.400	passeggeri	GT	81,1	88,0	85
29	17.24.10.400	passeggeri	RC	77,8	87,8	84,2
30	17.24.17.201	passeggeri	GT	85,6	92,1	89,6
31	17.32.51.701	passeggeri	RC	74,4	82,6	78,3
32	18.19.42.500	passeggeri	GT	81,3	87,2	85,9
33	18.24.45.701	passeggeri	RC	76	81,8	80,5
34	18.26.37.000	passeggeri	GT	82,8	87,6	87,1
35	18.45.10.201	passeggeri	RC	81	88,7	84,6
36	18.50.14.400	passeggeri	GT	78,5	91,5	83,2
37	19.00.54.801	passeggeri	RC	81,5	92,6	86,4
38	19.26.20.701	passeggeri	RC	74,5	83,1	79,3
39	19.30.03.600	passeggeri	GT	85,9	94,0	89,1
40	19.47.46.000	etr480	RC	76	87,2	80,3
41	20.05.47.400	passeggeri	RC	80,2	87,1	83,7
42	20.09.24.600	passeggeri	GT	81,3	88,7	85,4
43	20.10.14.701	passeggeri	RC	74,8	82,9	78,1
44	20.26.22.600	passeggeri	RC	79,5	90,5	82,5
45	20.32.29.000	passeggeri	RC	80,8	93,6	84,1
46	20.41.15.201	passeggeri	RC	70,7	79,6	74,5
47	21.10.18.801	passeggeri	GT	85,4	98,0	91,6
48	21.26.59.199	passeggeri	GT	84,4	93,7	88,5
49	21.33.41.902	passeggeri	RC	84,7	93,2	89,1
50	21.46.27.500	passeggeri	RC	83,4	91,5	87
51	21.53.04.902	passeggeri	RC	80,1	89,7	84,5
52	22.13.24.301	passeggeri	GT	85,6	97,5	91,2
53	22.21.40.902	passeggeri	RC	78,5	85,6	82,3
54	23.20.12.699	passeggeri	GT	85,2	95,5	90,1

Punto R_13_C		Ricettore / Indirizzo Albergo Boccaccio 2 – Via Marina – Cannitello – Villa S.G. (RC)				
RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	L _{eq} (-10dB) [dB]	SEL (-10 dB) [dB]	L _{max} [dB]
55	0.02.33.199	passengeri	GT	84,4	93,7	90,1
56	0.09.21.402	passengeri	GT	78,7	88,0	82,8
57	0.53.43.602	passengeri	RC	79	90,3	84,2
58	1.49.40.301	passengeri	RC	78,7	91,7	86,3
59	1.54.39.699	passengeri	GT	84	92,9	87,9
60	2.13.17.301	passengeri	RC	73,9	87,0	78,2
61	3.31.09.699	passengeri	RC	74,6	86,3	77,9
62	3.58.34.902	passengeri	RC	74,8	86,4	81,4
63	4.05.47.000	etr480	RC	75,5	87,2	81,7
63_bis	4.06.06.000	merci	GT	86,5	99,5	89,9
64	5.25.32.500	passengeri	GT	85,0	90,7	88,5
65	5.34.46.801	passengeri	GT	88,4	95,0	92,2
66	5.59.21.500	passengeri	GT	82,2	87,7	87
67	6.15.25.203	passengeri	GT	77,9	84,4	82,3
68	6.24.56.805			86,2	95,2	90,1
69	6.45.03.102			78,6	87,3	83,4
70	6.55.06.898			75,4	84,3	79,4
71	6.59.11.500			84,5	91,3	88,1
72	7.11.33.602			85,6	95,9	90,1
73	7.19.17.898			80,3	89,0	84,8
74	7.24.39.703			84,2	88,9	88,1
75	7.28.23.398			77,9	87,6	81,9
76	7.36.33.898			75,6	82,9	79,5
77	7.38.27.102			74,5	86,9	79,8
77_bis	7.40.42.000			83,2	97,7	87
78	7.52.23.398			76,7	87,9	80,3
79	7.54.52.000			80,5	86,6	86,2
80	8.25.14.500			79,1	85,2	82,6

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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Punto R_13_C		Ricettore / Indirizzo Albergo Boccaccio 2 – Via Marina – Cannitello – Villa S.G. (RC)				
RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	L _{eq} (-10dB) [dB]	SEL (-10 dB) [dB]	L _{max} [dB]
84	8.54.17.203			79,8	88,4	83,2
86	9.01.49.000			83,6	89,3	88,5
87**	9.04.21.602			70,9	83,5	75,4
88	9.11.41.805			82,3	92,8	86,9
91	9.25.37.703			73,2	84,5	77,8
94_bis	9.29.56.000			83,2	89,3	87,6
96	9.33.53.898			77,1	86,0	80,7
99*	9.47.26.102			70,3	88,6 (*)	74,9
100	9.50.16.305			81,9	91,2	87
101*	9.59.59.203			71,1	88,6 (*)	76,5
102*	10.00.26.305			71,8	88,6 (*)	76,6
103*	10.00.56.203			73,1	88,6 (*)	77,7
104	10.01.10.805			72,5	83,2	76,8
105	10.03.06.000			72,0	83,8	76,5
107**	10.26.09.500			70,2	80,9	74,6
108	10.28.33.203			83,9	89,1	88,1
109	10.33.44.305			78,7	92,0	85,3
110*	10.35.30.703			76,4	88,6 (*)	80,3
111*	10.36.35.203			76,2	88,6 (*)	80,2
112	10.37.47.203			75,4	84,4	79
115	11.03.25.703			86,3	92,9	90,4
118	11.28.39.203			75,2	83,1	78,3
Sintesi dei transiti						
Livello di immissione diurno del traffico ferroviario L _{Aeq} [6÷22]					62.0	
Livello di immissione notturno del traffico ferroviario L _{Aeq} [22÷6]					59.2	
Note:						

		Ponte sullo Stretto di Messina PROGETTO DEFINITIVO		
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RISULTATI IMMISSIONI DEL TRAFFICO FERROVIARIO						
Transito	Ora	Tipo Convoglio	Direzione	$L_{eq}(-10dB)$ [dB]	SEL (-10 dB) [dB]	L_{max} [dB]
** Le celle 87 e 107 risultano non valide perché non corrispondono a transiti ferroviari. I valori dei SEL corrispondenti non sono stati considerati nel conteggio della sintesi dei transiti.						
* Le celle 99, 101, 102, 103, 110 e 111 risultano non valide perché, pur essendo transiti ferroviari, sono sovrapposti ad eventi anomali. I valori del SEL corrispondenti sono stati ottenuti dalla media dei SEL dei transiti validi e considerati nel conteggio della sintesi dei transiti.						
*** Le celle 15 e 15_bis risultano non valide perché corrispondono a transiti ferroviari che si sovrappongono tra loro. I valori del SEL corrispondenti sono stati ottenuti dalla media dei SEL dei transiti validi e considerati nel conteggio della sintesi dei transiti.						
(*) Valore ottenuto dalla media dei SEL dei transiti considerati validi.						

Punto	Ricettore / Indirizzo		
R_13_C	Albergo Boccaccio 2 – Via Marina – Cannitello – Villa S.G. (RC)		
RISULTATI MISURE AMBIENTALI			
Parametri	24 ore	Giorno (TR = 6÷22h)	Notte (TR = 22÷6h)
Codice misura	R_13_C	R_13_C / D	R_13_C / N
Data inizio	25/10/10	25/10/10	25/10/10
Ora inizio	12.00	12.00	12.00
Note			
LAeq [dBA]	62.7	63.4	60.9
L1 [dBA]	74.3	75.7	63.9
L5 [dBA]	62.7	65.8	51.1
L10 [dBA]	55.6	58.0	49.6
L50 [dBA]	48.9	49.8	47.1
L90 [dBA]	46.5	47.8	46.0
L95 [dBA]	46.2	47.4	45.9
L99 [dBA]	45.8	46.8	45.7
Lmax [dBA]	-	-	-
Lfmax [dBA]	-	-	-
Lsmax [dBA]	-	-	-
KI [dBA]	0	0	0
KT [dBA]	0	0	0
KB [dBA]	0	0	0
LAeq [dBA]	62.7	63.4	60.9

Punto	Ricettore / Indirizzo
R_13_C	Albergo Boccaccio 2 – Via Marina – Cannitello – Villa S.G. (RC)
Note: Il periodo di osservazione è stato caratterizzato da condizioni meteorologiche conformi ai registri di validità delle misure di rumore.	

Punto	Ricettore / Indirizzo
R_13_C	Albergo Boccaccio 2 – Via Marina – Cannitello – Villa S.G. (RC)
Foto 1	
	

Foto 2



MONITORAGGIO EMISSIONI DI RUMORE PER LA
MAPPATURA DI CLIMA ACUSTICO*Codice documento*

AC0053_F0.docx_F0

Rev

F0

Data

20/06/2011

Punto

R_13_C

Ricettore / Indirizzo

Albergo Boccaccio 2 – Via Marina – Cannitello – Villa S.G. (RC)

Foto 3



Localizzazione planimetrica

