

Monitoraggio Acustico - Scheda di rilevazione settimanale

AUTORITA' PORTUALE DI MARINA DI CARRARA

Adeguamento Tecnico Funzionale del Molo di Levante

Strumentazione impiegata: Larson Davis 824 - Matricola 1533 - Classe 1

Fenomeno acustico osservato: Rumorosità infrastruttura stradale

Tipologia di rumore rilevato: Traffico veicolare

Condizioni meteo: Cielo sereno ed assenza di vento

Coordinate Gauss Boaga: 44°02'09.70" N 10°02'45.11" E

Comune: Carrara (MS)

RILIEVO PLANIMETRICO



AMBIENTE ESTERNO

Misura N°	S2	Data fine misura	11/04/2007 (7 gg)
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CLASSIFICAZIONE ACUSTICA

	Limite diurno Leq dB(A)	Limite notturno Leq dB(A)	Media livelli misurati dB(A)	
			Liv. Diurno	Liv. Notturno
Classe IV (DPCM 14/11/97)	65	55	58,3	53,0

I rilievi fonometrici e le elaborazioni numeriche sono state eseguite dai Tecnici Competenti in Acustica Ambientale:

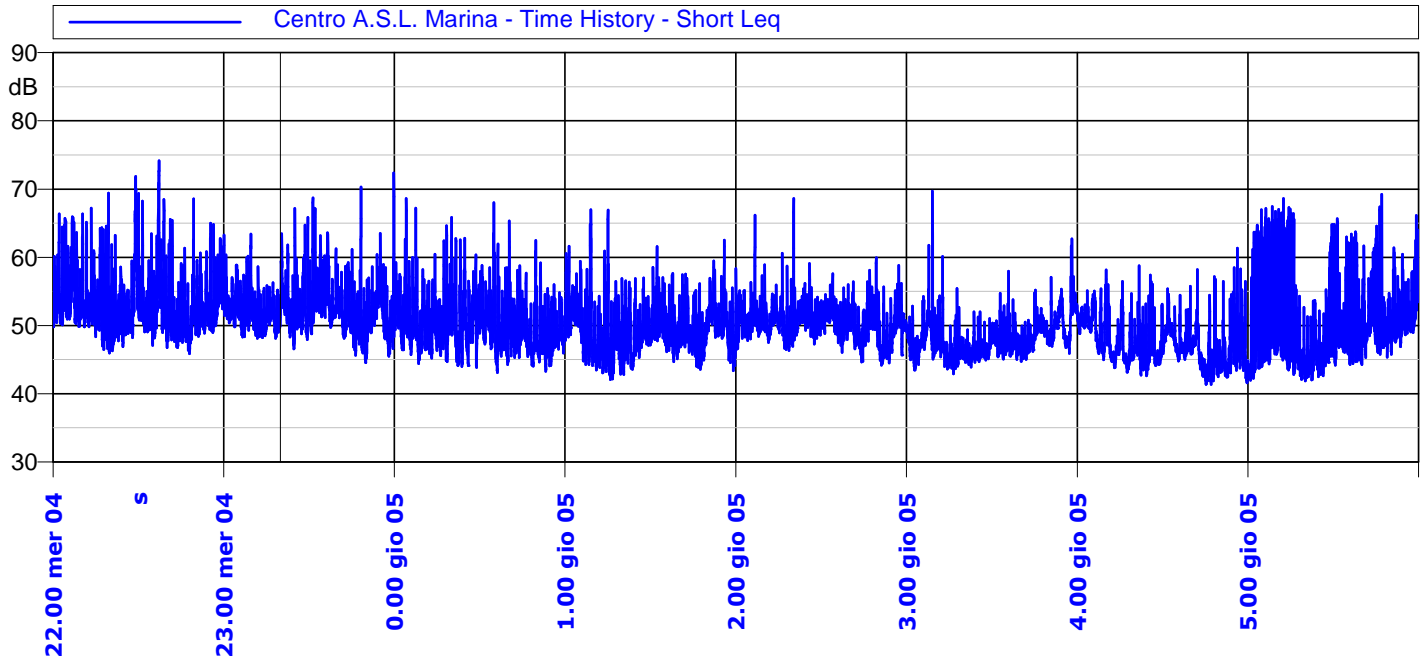
Ing. Marco Angeloni (Prov. Massa Carrara - Decreto del Dirigente n° 8647 del 3/5/06)

Ing. Matteo Bertoneri (Reg. Liguria - Decreto del Dirigente n° 1827 del 20/06/06)

Coadiuvati dal:

Dott. Francesco Grassi

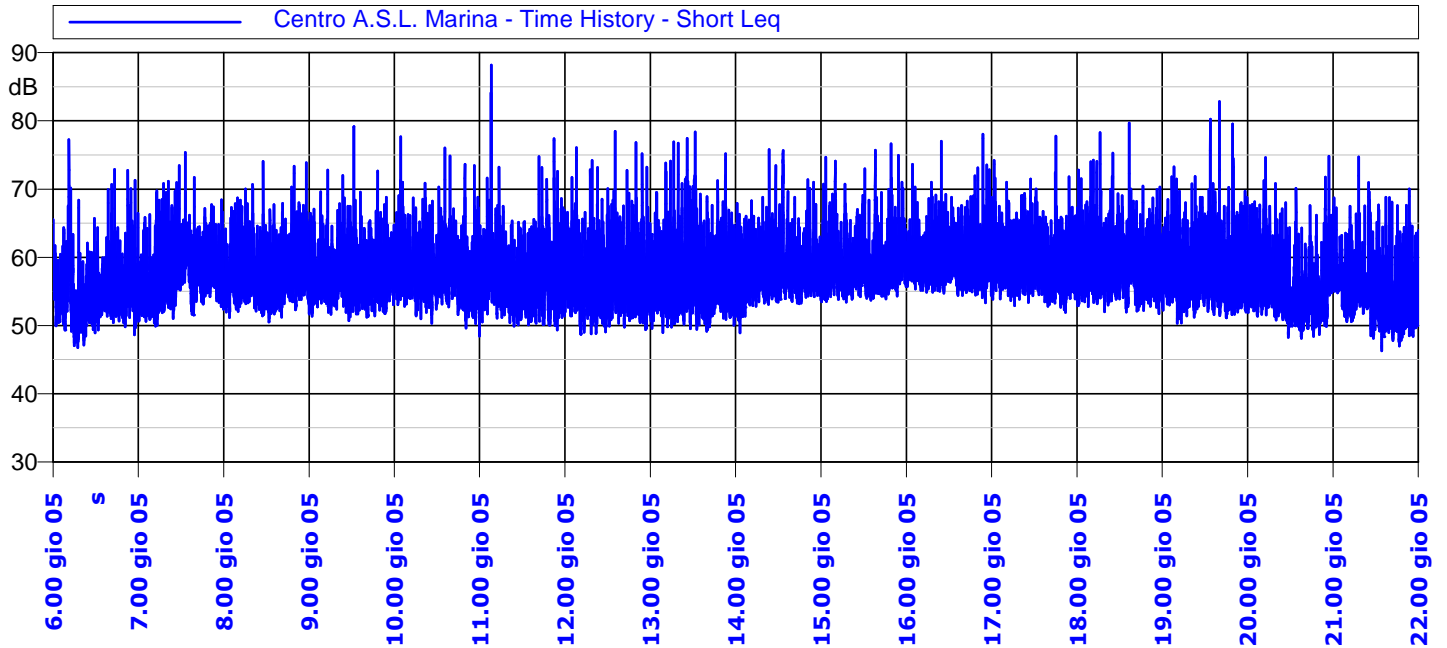
TIME HISTORY - Periodo Notturno (I Giorno)



INDICI STATISTICI - Periodo Notturno (I Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
22.00	62.6	59.1	53.6	51.9	48.7	47.9	45.9	74.2	56.8
23.00	58.5	56.7	53.3	52.1	48.9	48.1	44.5	72.3	54.4
0.00	56.2	54.2	50.8	49.3	46.2	45.3	43.1	68.6	52.0
1.00	54.2	52.8	50.0	48.7	45.0	44.3	42.1	67.0	50.6
2.00	53.6	52.9	51.2	50.4	47.6	46.7	44.2	68.6	51.2
3.00	52.8	51.3	48.6	47.6	45.4	44.9	42.9	69.7	49.2
4.00	52.2	51.2	48.3	46.8	43.9	43.2	41.3	61.3	48.3
5.00	62.5	59.8	51.1	49.1	44.2	43.4	41.9	69.2	55.1

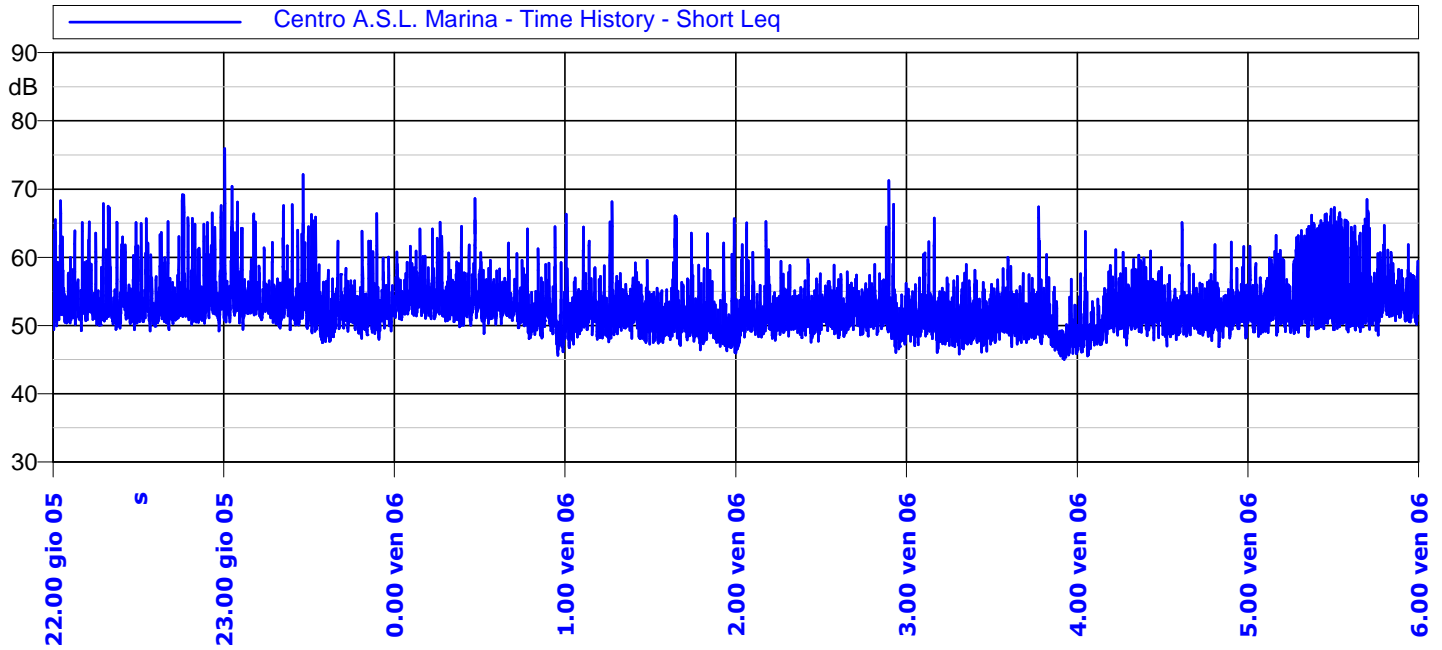
TIME HISTORY - Periodo Diurno (I Giorno)



INDICI STATISTICI - Periodo Diurno (I Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
6.00	61.4	58.8	55.2	54.0	50.5	49.6	46.7	77.3	57.0
7.00	63.4	61.7	58.1	56.8	53.3	52.4	49.9	75.4	58.9
8.00	63.4	61.6	58.1	56.6	53.7	53.1	50.5	74.0	58.8
9.00	62.6	61.1	58.0	56.7	53.5	52.8	50.7	79.2	58.9
10.00	63.7	61.8	58.7	57.3	53.9	52.9	48.4	77.7	59.6
11.00	63.0	61.3	57.7	56.2	52.5	51.7	49.0	88.2	60.1
12.00	64.1	62.0	57.9	55.9	52.0	51.3	48.7	78.5	59.4
13.00	65.1	62.9	58.1	56.2	52.2	51.5	48.9	78.4	60.1
14.00	63.6	61.6	58.3	57.1	54.4	53.7	48.9	75.8	59.6
15.00	65.0	62.7	59.2	57.8	55.4	54.8	53.4	76.6	60.6
16.00	64.5	63.1	60.1	58.9	56.6	56.0	53.3	78.1	60.8
17.00	64.3	62.9	59.8	58.4	55.4	54.7	51.9	77.8	60.1
18.00	64.7	63.2	59.7	58.1	54.9	54.2	51.7	79.7	60.7
19.00	65.1	63.2	59.4	57.6	53.7	52.9	50.3	82.8	60.8
20.00	62.7	60.7	56.3	54.7	50.9	50.3	48.1	74.8	57.6
21.00	62.1	59.6	55.4	53.8	50.1	49.4	46.3	74.7	56.9

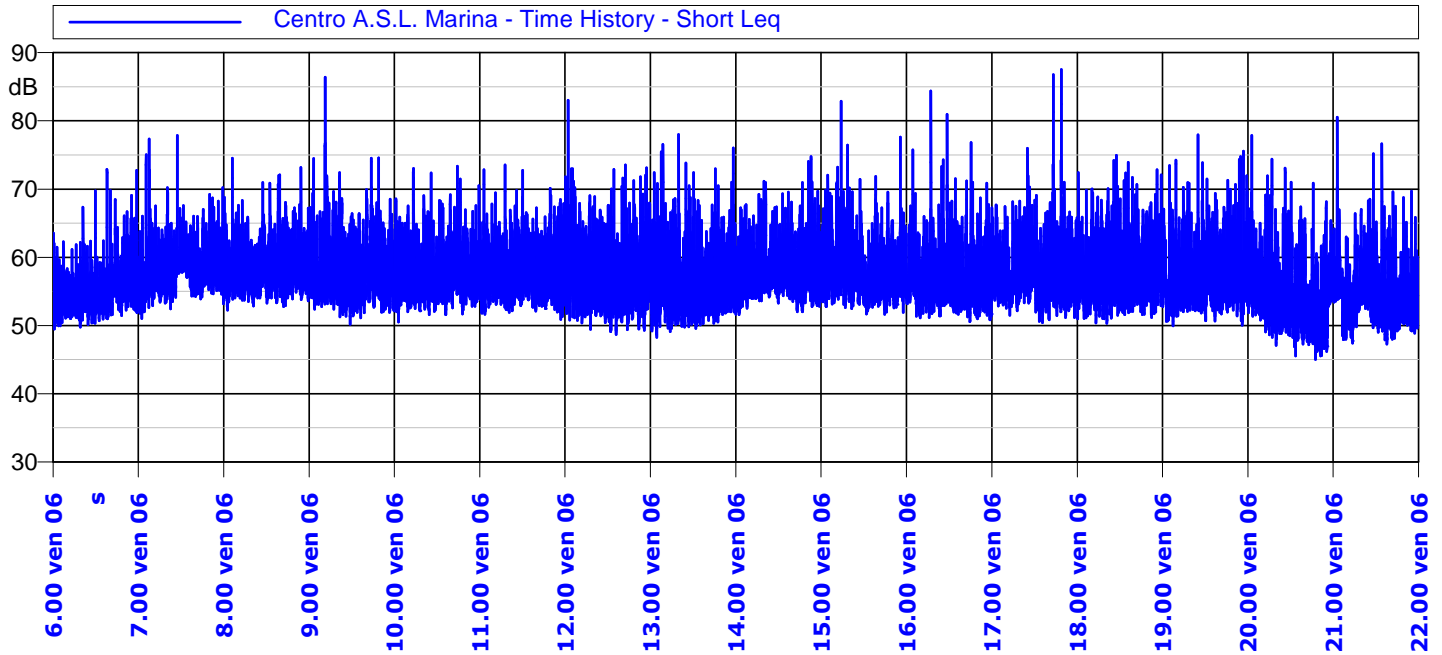
TIME HISTORY - Periodo Notturmo (II Giorno)



INDICI STATISTICI - Periodo Notturmo (II Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
22.00	60.4	58.0	53.9	52.8	50.9	50.6	49.2	69.2	55.4
23.00	59.1	56.4	53.5	52.5	49.9	49.2	47.5	75.9	55.0
0.00	57.6	56.0	53.6	52.7	50.3	49.0	45.6	68.6	54.0
1.00	55.8	54.2	51.8	50.8	48.5	48.0	46.1	68.2	52.6
2.00	55.2	54.3	52.3	51.4	49.3	48.7	46.0	71.2	52.6
3.00	54.7	53.6	51.3	50.3	47.7	47.1	45.0	67.4	51.6
4.00	55.9	54.6	52.4	51.4	48.7	48.0	45.6	65.1	52.4
5.00	62.2	59.7	54.6	53.2	50.7	50.2	48.3	68.5	56.2

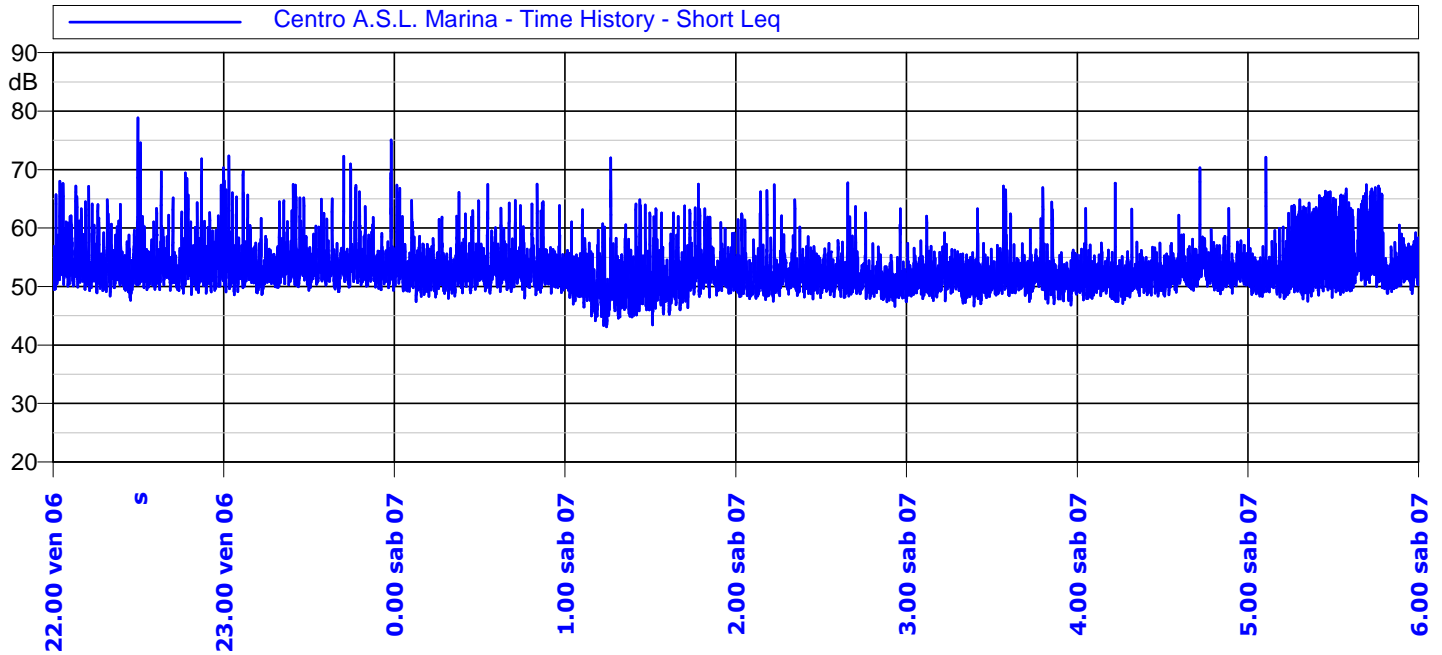
TIME HISTORY - Periodo Diurno (Il Giorno)



INDICI STATISTICI - Periodo Diurno (Il Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
6.00	60.2	58.2	55.6	54.5	52.1	51.5	49.4	72.9	56.5
7.00	63.3	61.8	59.1	58.1	55.0	54.2	51.0	77.9	59.6
8.00	63.4	61.7	58.6	57.4	54.9	54.4	52.2	74.5	59.3
9.00	64.6	62.1	57.9	56.4	53.7	53.1	50.2	86.4	60.0
10.00	63.5	61.7	58.1	56.7	53.9	53.3	50.5	73.4	59.1
11.00	63.4	61.8	58.2	56.9	53.9	53.2	50.9	73.5	58.9
12.00	64.5	62.5	58.4	56.5	52.3	51.6	48.7	83.0	59.7
13.00	64.0	61.6	56.8	55.1	51.7	51.0	48.2	78.0	58.9
14.00	63.5	61.6	58.2	57.0	54.5	53.9	51.6	74.8	59.1
15.00	63.6	61.7	58.1	56.8	54.1	53.6	51.6	82.9	59.7
16.00	62.9	60.9	57.2	55.8	53.1	52.4	50.6	84.4	59.5
17.00	64.2	62.0	58.0	56.7	53.7	53.1	50.4	87.5	61.3
18.00	64.1	62.2	58.1	56.5	53.3	52.5	50.3	75.0	59.3
19.00	64.3	62.2	58.4	56.7	53.2	52.3	49.9	77.9	59.6
20.00	62.9	59.8	54.9	53.3	48.9	47.9	45.0	77.9	57.2
21.00	61.2	58.5	54.6	53.4	49.9	49.2	47.3	80.5	56.7

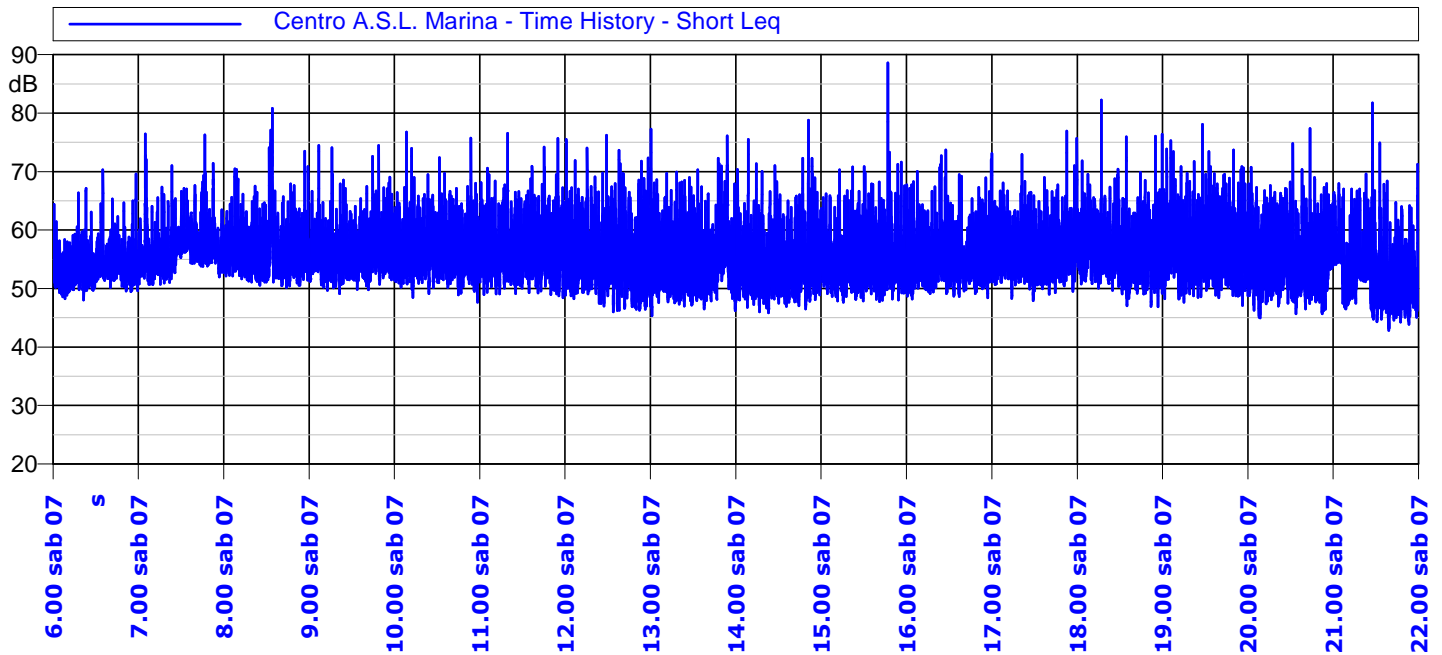
TIME HISTORY - Periodo Notturmo (III Giorno)



INDICI STATISTICI - Periodo Notturmo (III Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
22.00	60.9	58.4	54.3	53.0	50.5	50.1	47.7	78.8	56.5
23.00	59.5	57.1	54.3	53.3	50.9	50.4	48.6	75.0	55.8
0.00	58.6	56.5	53.6	52.6	50.2	49.7	47.4	67.5	54.5
1.00	58.1	55.4	51.9	50.6	46.9	46.0	43.1	72.0	53.1
2.00	55.7	54.2	52.0	51.2	49.2	48.7	46.6	67.7	52.7
3.00	55.1	53.9	52.1	51.3	49.3	48.7	46.7	67.2	52.5
4.00	55.5	54.5	52.6	51.8	49.7	49.3	47.1	70.3	52.8
5.00	62.7	60.2	54.0	52.8	50.2	49.6	47.5	72.1	56.2

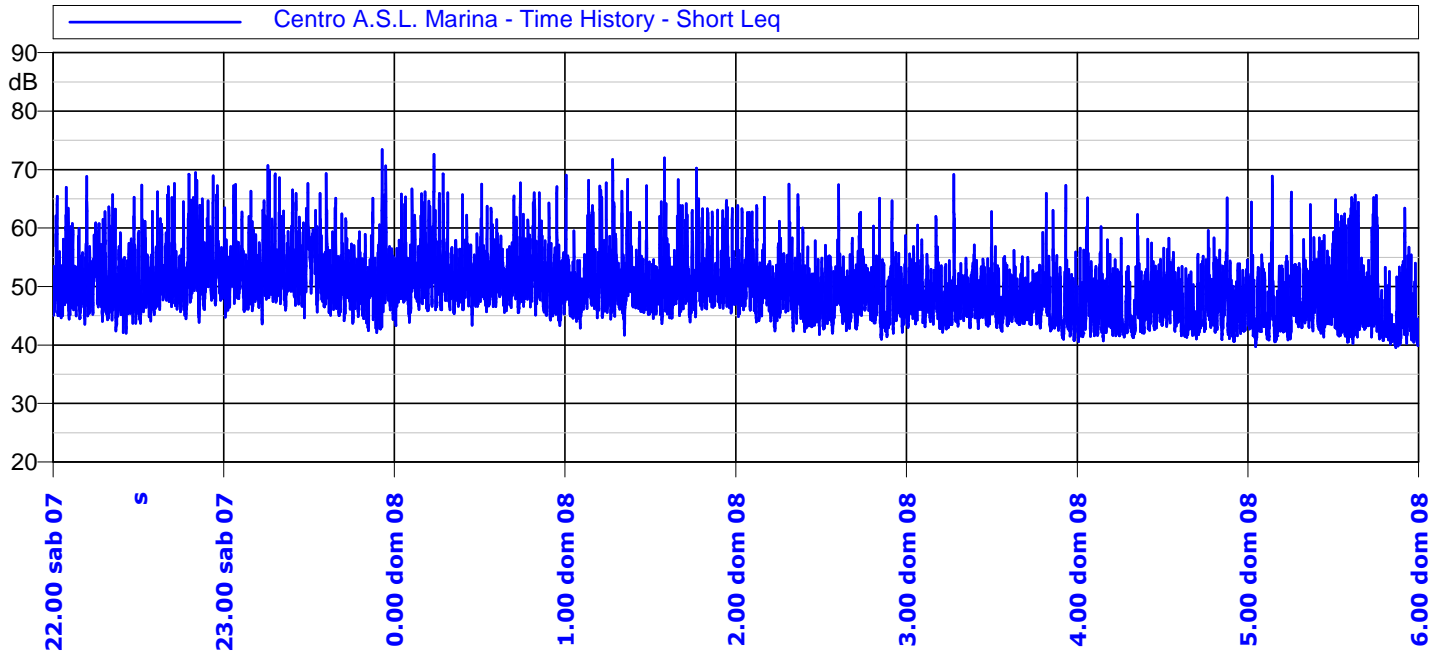
TIME HISTORY - Periodo Diurno (III Giorno)



INDICI STATISTICI - Periodo Diurno (III Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
6.00	57.2	56.1	54.1	53.3	51.0	50.4	48.0	70.3	54.5
7.00	61.9	60.0	57.0	56.1	53.1	52.4	50.7	76.4	58.0
8.00	62.6	60.6	56.4	55.2	52.6	52.1	50.2	80.8	59.3
9.00	61.7	60.0	56.5	55.1	52.2	51.6	49.1	74.5	57.6
10.00	62.4	60.5	56.5	55.2	52.2	51.6	47.7	76.8	57.7
11.00	63.1	61.4	57.3	55.6	52.0	51.3	48.4	76.5	58.3
12.00	63.5	61.2	56.6	54.6	50.0	48.8	46.0	76.2	58.3
13.00	63.3	60.5	55.4	53.6	49.5	48.8	45.4	77.3	57.7
14.00	61.5	59.2	54.7	53.1	49.4	48.6	45.8	78.8	56.9
15.00	61.8	59.6	55.1	53.7	50.3	49.7	47.6	88.6	58.4
16.00	61.6	59.7	55.9	54.4	51.3	50.5	48.2	73.7	57.1
17.00	62.5	60.7	57.2	55.4	52.0	51.3	47.9	76.9	58.0
18.00	63.1	61.3	57.6	55.9	52.1	51.1	46.9	82.2	59.0
19.00	64.5	62.8	58.6	56.6	51.8	50.8	47.1	78.1	59.6
20.00	62.8	60.6	55.9	54.0	49.4	48.4	45.0	77.4	57.3
21.00	61.9	58.7	53.7	51.7	47.2	46.3	42.8	81.8	56.8

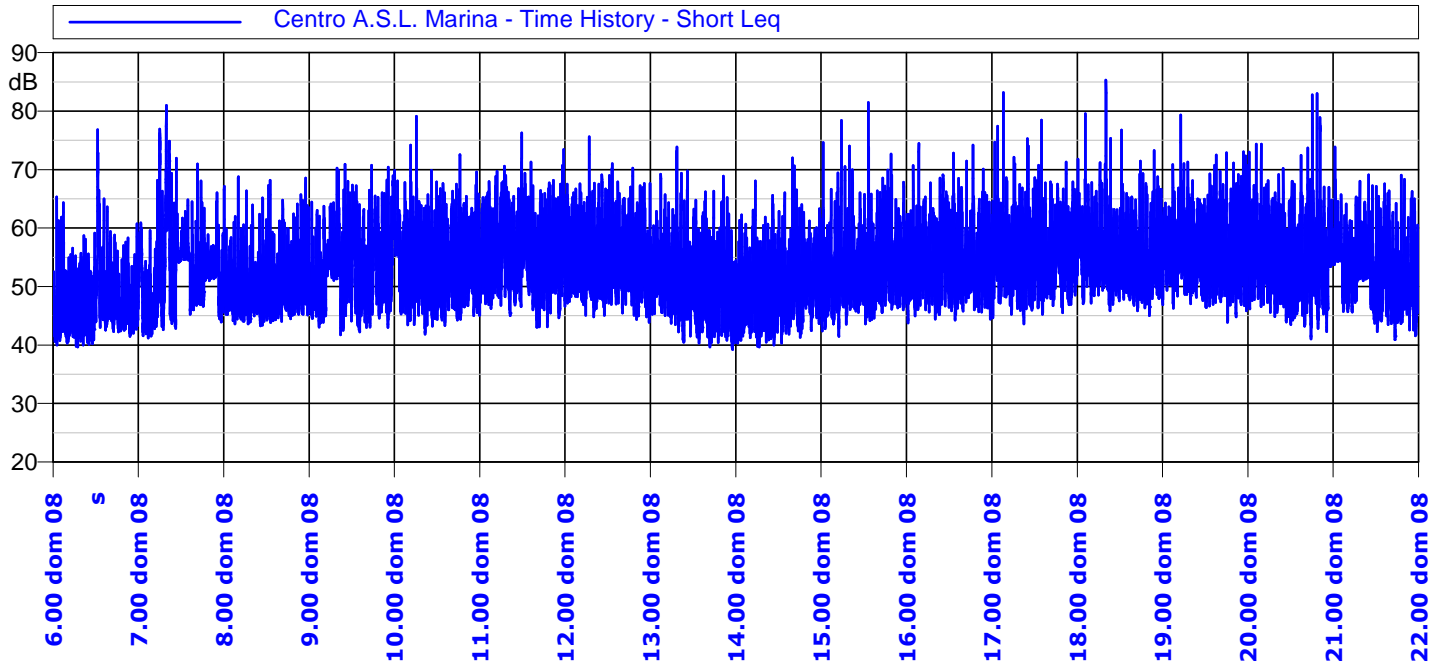
TIME HISTORY - Periodo Notturmo (IV Giorno)



INDICI STATISTICI - Periodo Notturmo (IV Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
22.00	60.7	57.9	52.7	50.6	46.2	45.4	42.0	69.4	54.7
23.00	60.8	58.2	53.3	51.3	46.8	45.6	42.1	73.4	55.2
0.00	60.0	57.2	52.5	50.7	46.9	46.2	43.3	72.6	54.5
1.00	61.0	57.4	51.4	49.8	46.3	45.6	41.7	72.0	54.7
2.00	56.5	53.8	50.0	48.2	44.0	43.3	41.0	67.5	51.5
3.00	53.0	51.2	48.0	46.4	43.6	43.1	40.7	69.2	49.3
4.00	52.6	51.1	47.1	45.4	42.3	41.9	40.6	65.2	48.1
5.00	56.6	52.8	47.2	45.0	41.7	41.2	39.6	68.9	50.7

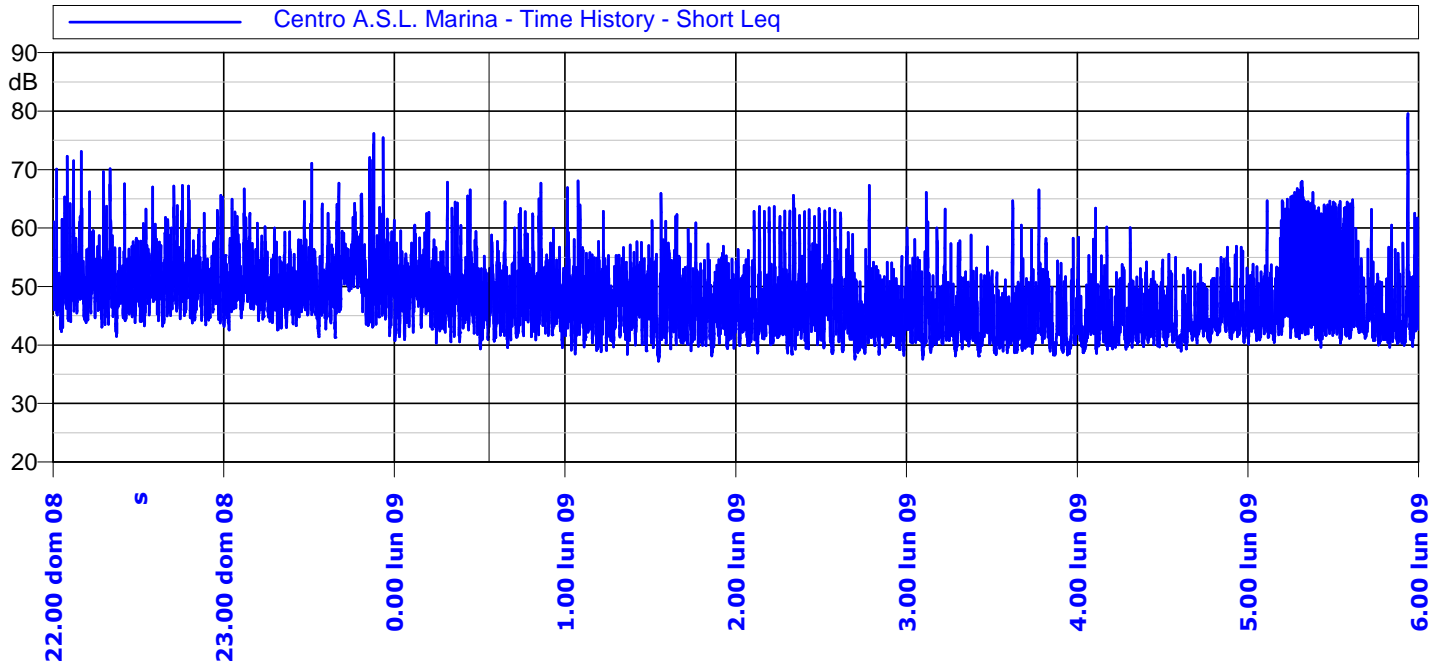
TIME HISTORY - Periodo Diurno (IV Giorno)



INDICI STATISTICI - Periodo Diurno (IV Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
6.00	55.8	52.5	48.0	46.2	42.6	41.9	39.7	76.8	52.4
7.00	64.3	59.4	54.4	51.8	44.8	43.7	41.2	81.0	60.4
8.00	57.9	54.8	50.4	48.8	45.5	45.0	43.3	68.8	52.7
9.00	63.1	60.2	54.6	52.3	46.0	45.0	41.7	70.9	56.9
10.00	62.4	60.2	55.2	52.8	46.9	45.8	41.8	79.1	57.2
11.00	63.5	61.5	56.9	54.7	48.8	47.4	43.0	76.3	58.4
12.00	63.4	61.2	56.1	53.8	48.9	47.8	43.9	75.6	57.5
13.00	59.1	56.4	51.6	49.3	43.5	42.3	39.2	73.9	54.0
14.00	58.4	55.9	50.9	48.8	43.3	42.2	39.7	72.0	52.8
15.00	62.0	59.1	53.6	51.9	47.1	45.9	41.4	81.4	57.2
16.00	62.7	60.1	54.8	52.7	48.1	47.2	43.8	74.5	57.0
17.00	63.2	61.2	56.3	54.1	49.1	48.0	43.6	83.2	58.8
18.00	63.2	61.2	56.5	54.5	49.6	48.5	45.0	85.3	59.7
19.00	63.7	61.4	57.0	55.1	49.7	48.7	43.9	79.3	58.5
20.00	63.7	61.3	55.4	53.4	47.7	46.2	41.0	83.0	60.6
21.00	60.2	57.9	53.7	51.8	46.3	44.9	40.9	73.9	55.0

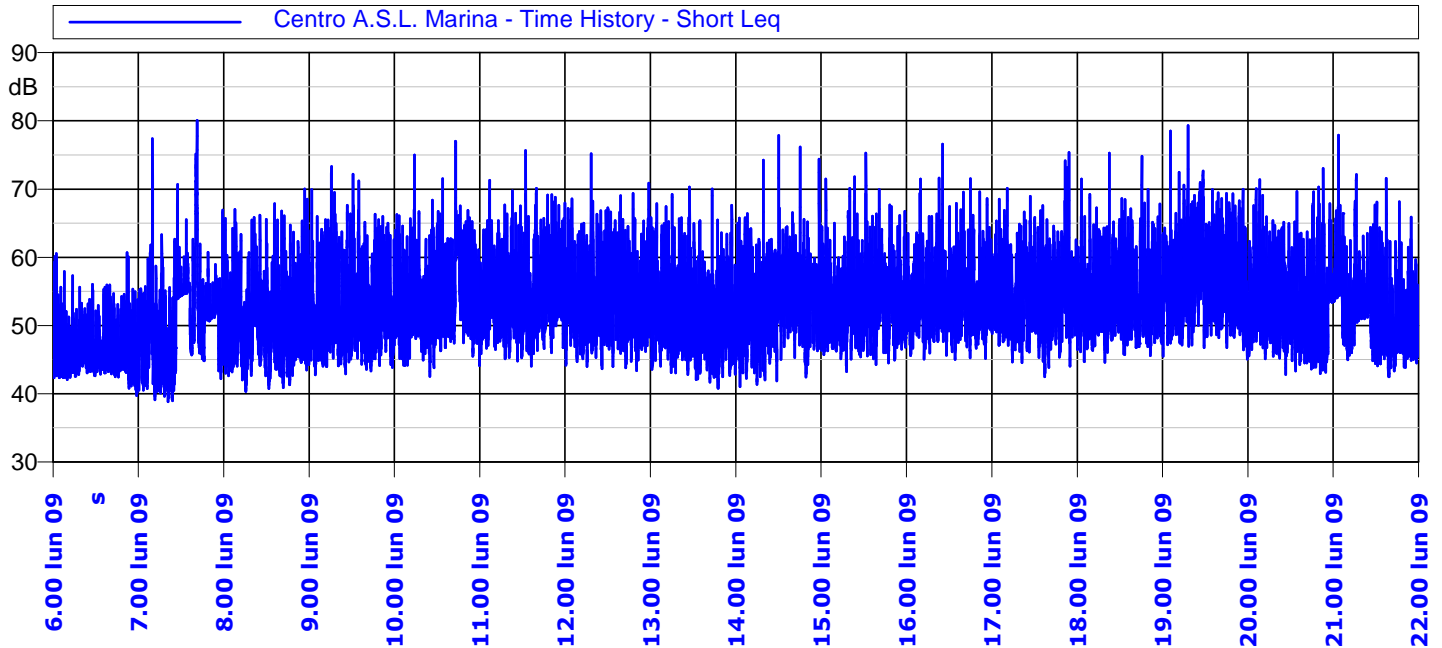
TIME HISTORY - Periodo Notturno (V Giorno)



INDICI STATISTICI - Periodo Notturno (V Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
22.00	59.5	56.9	52.2	50.1	45.4	44.6	41.5	73.1	54.4
23.00	59.1	56.6	52.2	50.1	45.4	44.2	41.3	76.2	54.7
0.00	56.5	54.0	49.9	47.9	42.6	41.8	39.3	67.8	51.5
1.00	53.7	52.0	48.2	45.7	40.8	39.9	37.2	68.1	49.4
2.00	57.0	52.4	46.6	44.5	40.2	39.5	37.6	67.3	50.4
3.00	51.9	49.6	44.6	42.6	39.7	39.1	37.6	66.5	47.4
4.00	50.6	48.7	44.7	43.2	40.5	40.1	38.6	63.4	45.9
5.00	61.9	58.7	47.6	45.1	41.7	41.2	39.6	79.6	55.4

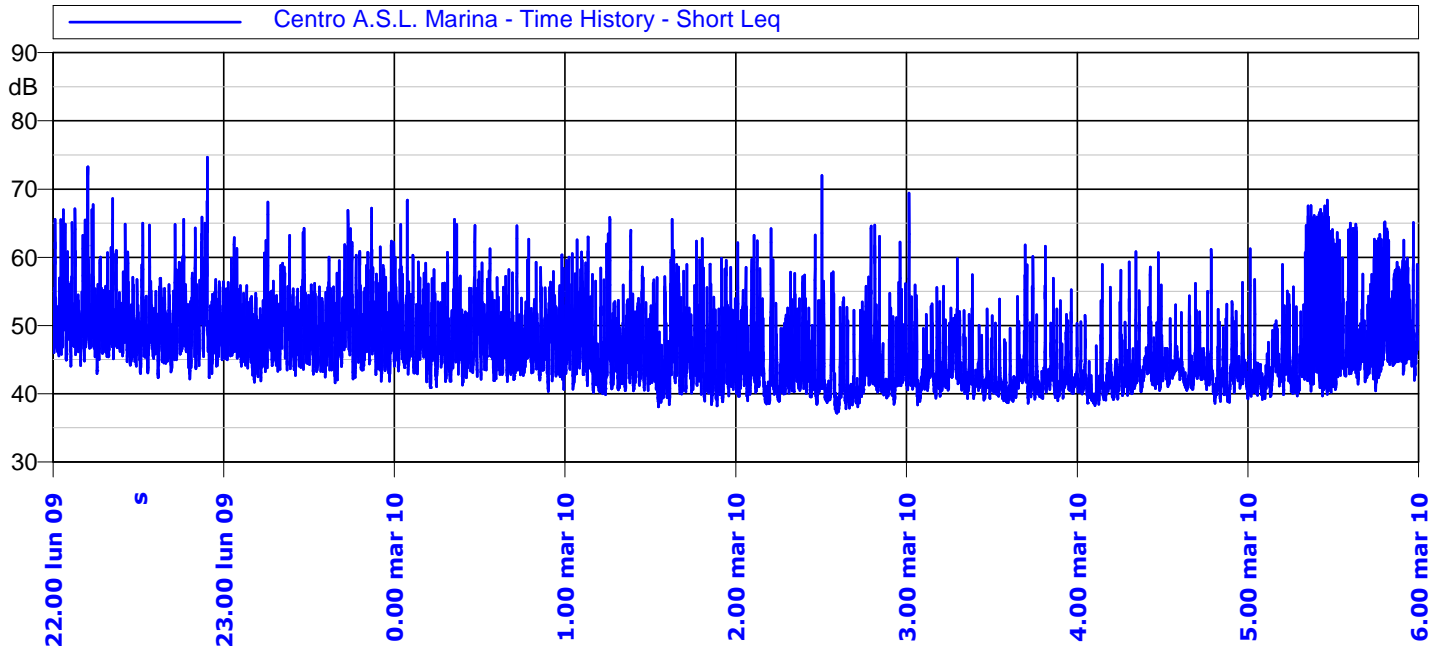
TIME HISTORY - Periodo Notturno (I Giorno)



INDICI STATISTICI - Periodo Diurno (V Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
6.00	52.1	50.1	46.4	45.2	43.2	42.8	39.7	60.7	47.3
7.00	58.8	55.8	52.8	50.8	42.9	41.6	38.8	80.0	57.6
8.00	59.1	56.2	51.4	49.5	44.4	43.3	40.3	70.0	53.4
9.00	61.6	59.2	53.5	51.4	46.5	45.4	42.7	73.3	55.6
10.00	62.2	60.8	54.9	52.8	48.5	47.4	42.5	77.0	57.3
11.00	62.4	60.5	55.8	53.6	48.8	47.7	44.0	75.6	57.0
12.00	62.0	59.7	54.9	52.9	48.2	47.0	43.4	75.2	56.3
13.00	60.4	57.8	52.9	50.7	45.7	44.6	40.8	70.3	54.7
14.00	60.4	58.6	54.9	52.9	47.4	45.9	41.0	77.8	56.1
15.00	60.2	58.1	54.0	52.3	48.0	47.0	43.2	75.3	55.5
16.00	60.6	58.6	54.6	53.2	49.2	48.4	45.0	76.6	56.1
17.00	61.7	59.6	55.1	53.1	48.8	47.6	42.5	75.4	56.6
18.00	61.9	59.8	55.3	53.4	49.2	48.2	44.6	75.3	56.8
19.00	64.7	62.7	58.3	56.2	50.9	49.7	45.1	79.3	59.6
20.00	61.7	59.3	54.4	51.9	47.0	45.9	42.8	73.0	56.0
21.00	59.9	57.4	53.4	51.6	46.3	45.5	42.5	77.9	55.0

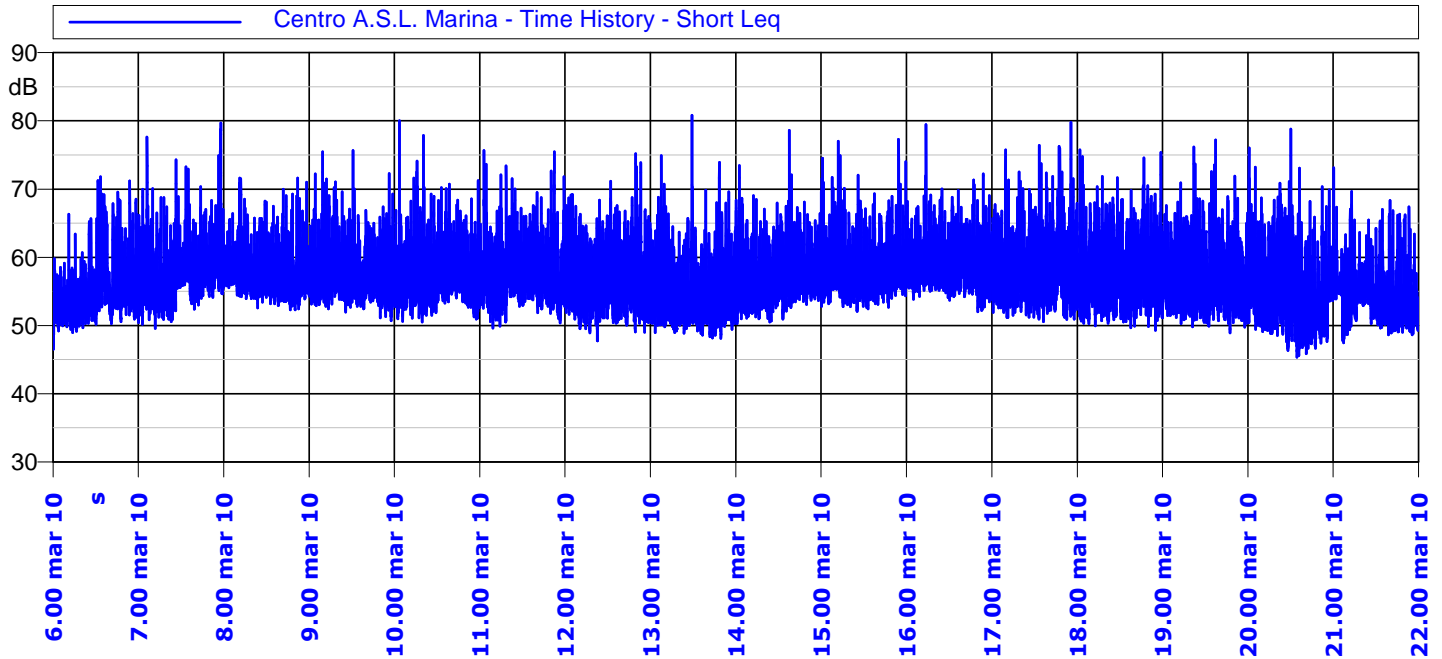
TIME HISTORY - Periodo Notturmo (VI Giorno)



INDICI STATISTICI - Periodo Notturmo (VI Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
22.00	59.2	56.1	51.1	49.2	45.5	44.7	42.2	74.7	54.3
23.00	56.6	54.2	50.3	48.5	44.3	43.7	41.6	68.1	51.6
0.00	55.1	52.8	48.9	47.1	43.3	42.6	40.3	68.4	50.3
1.00	55.1	52.4	47.1	44.8	40.8	40.2	38.1	65.8	49.6
2.00	52.4	49.6	43.9	42.1	39.4	38.9	37.2	72.0	48.0
3.00	49.7	47.0	42.8	41.9	40.2	39.7	38.4	69.4	45.6
4.00	48.5	46.1	43.6	42.6	40.2	39.6	38.3	61.1	44.6
5.00	61.9	58.6	48.2	45.4	41.4	40.7	39.2	68.4	54.1

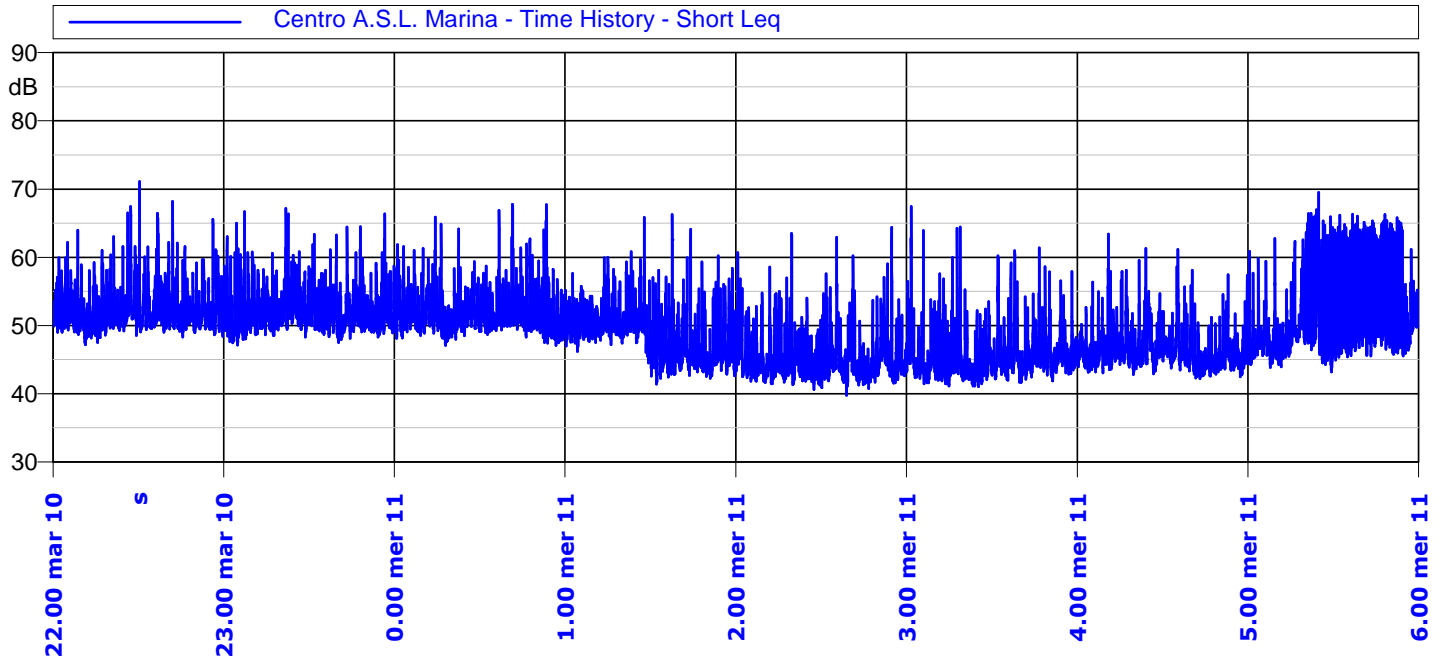
TIME HISTORY - Periodo Diurno (VI Giorno)



INDICI STATISTICI - Periodo Diurno (VI Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
6.00	63.1	59.7	55.1	53.9	51.5	50.9	46.5	71.8	57.1
7.00	64.3	62.1	58.1	56.8	53.3	52.6	49.6	79.7	61.0
8.00	63.1	61.2	58.1	57.1	54.6	54.0	52.3	71.6	58.8
9.00	63.3	61.1	57.5	56.2	53.9	53.4	50.7	75.7	58.8
10.00	63.2	61.7	58.2	56.8	53.5	52.9	50.5	80.0	59.3
11.00	63.6	61.6	58.0	56.7	53.5	52.7	49.6	75.6	59.2
12.00	62.8	61.2	57.2	55.4	52.1	51.2	47.7	75.2	58.2
13.00	62.1	59.9	55.3	53.6	50.7	50.1	48.1	80.8	57.2
14.00	62.7	61.0	57.6	56.3	53.1	52.5	50.2	78.6	58.3
15.00	64.0	61.9	58.6	57.3	54.7	54.1	52.1	77.3	59.8
16.00	63.7	62.2	59.2	58.0	55.6	55.1	52.0	79.4	59.7
17.00	65.1	62.7	58.6	56.9	53.4	52.8	50.6	79.8	60.1
18.00	64.5	62.8	58.4	56.4	52.3	51.6	49.3	75.8	59.5
19.00	63.6	61.6	57.3	55.7	52.2	51.7	48.9	77.2	58.6
20.00	63.1	60.4	54.8	53.0	48.9	48.1	45.3	78.8	57.6
21.00	60.3	57.7	54.6	53.3	50.4	49.8	47.4	73.1	55.5

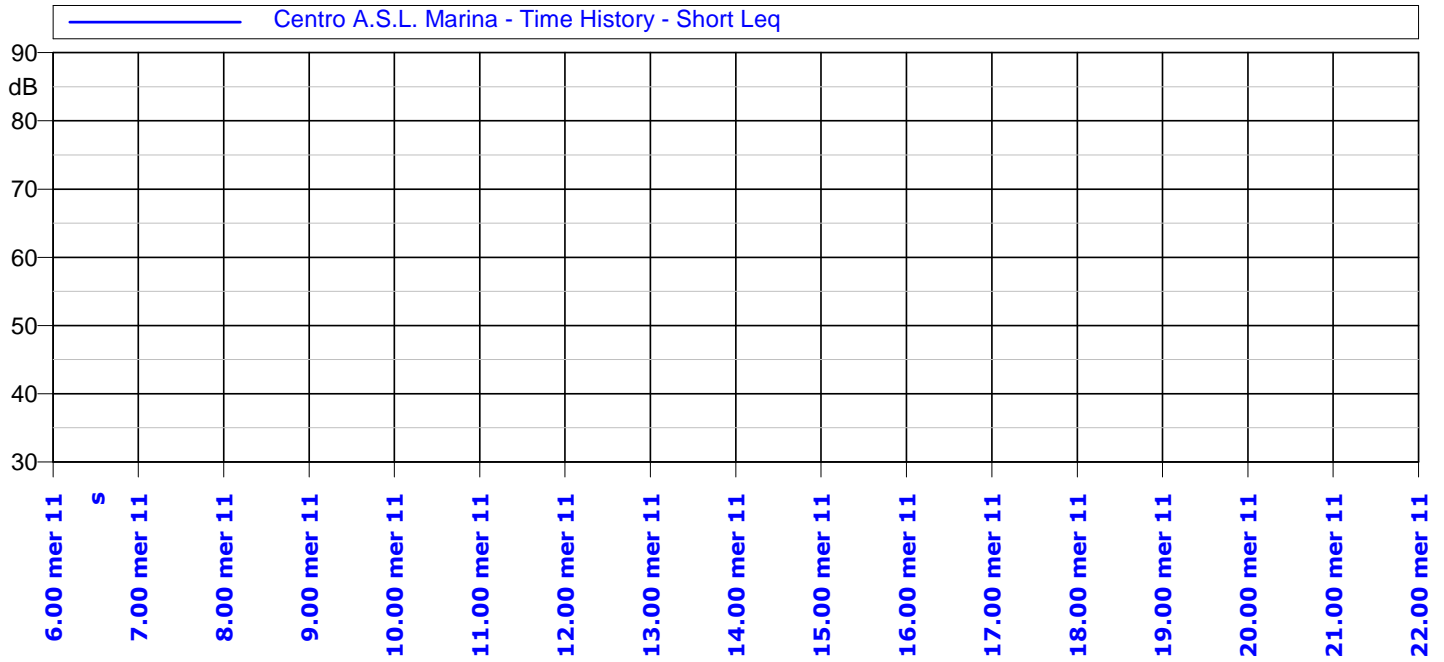
TIME HISTORY - Periodo Notturmo (VII Giorno)



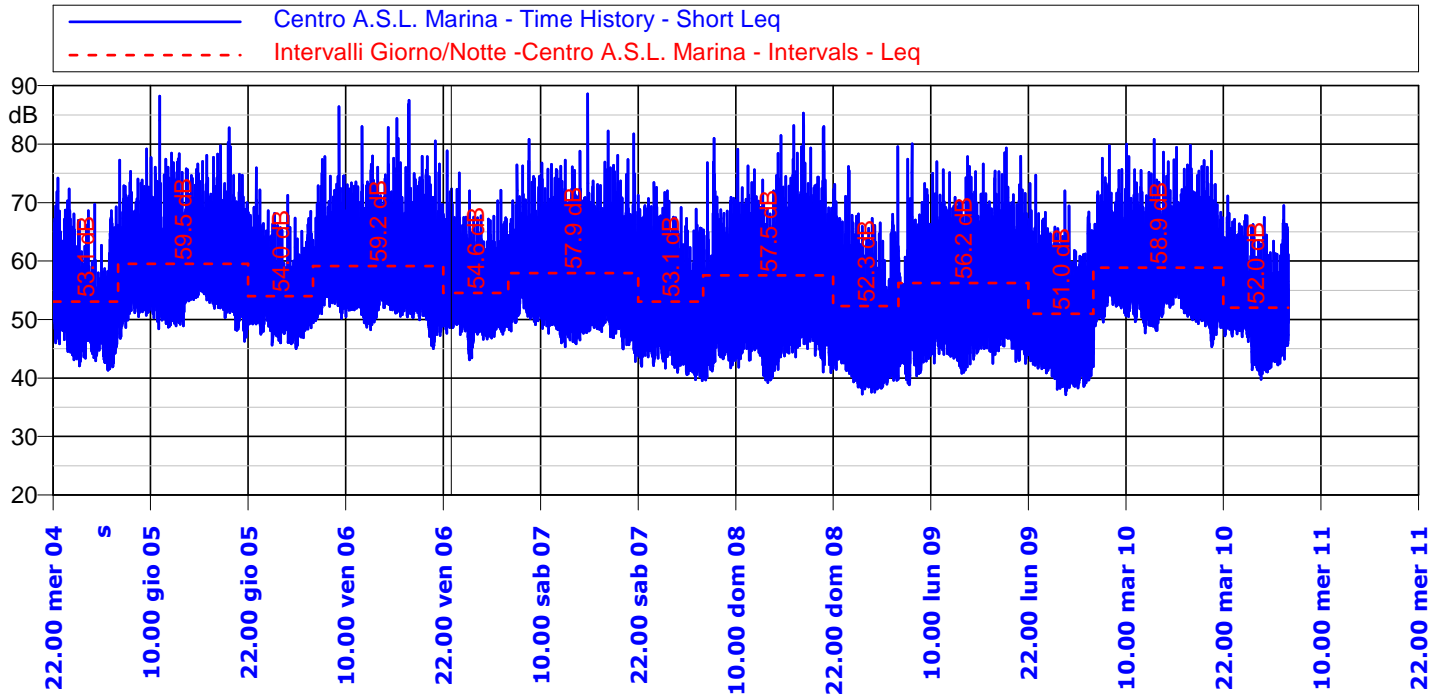
INDICI STATISTICI - Periodo Notturmo (VII Giorno)

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
22.00	57.6	55.6	52.4	51.5	49.6	49.2	47.2	71.1	53.5
23.00	57.3	55.5	52.3	51.3	49.4	49.0	47.2	67.1	53.2
0.00	56.8	55.1	52.1	51.1	49.3	48.8	47.1	67.8	53.1
1.00	53.8	52.4	50.2	49.0	44.1	43.5	41.4	66.3	50.3
2.00	50.5	48.5	45.3	44.3	42.4	42.0	39.8	64.4	46.8
3.00	51.2	48.5	45.7	44.7	42.8	42.4	41.0	67.4	47.4
4.00	51.3	49.4	46.7	45.9	44.0	43.6	42.2	63.4	47.4
5.00	63.0	60.9	51.9	49.3	46.2	45.6	43.2	69.5	55.7

TIME HISTORY - Periodo Diurno (VII Giorno)



INDICI STATISTICI - Periodo Diurno (VII Giorno)



INDICI STATISTICI - Periodo notturno

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
22.00 - 6.00	58.2	55.9	53.0	51.9	49.1	48.3	45.0	75.9	54.0
22.00 - 6.00	58.9	56.3	53.2	52.1	49.5	48.7	43.1	78.8	54.6
22.00 - 6.00	58.6	55.6	50.7	48.6	43.6	42.7	39.6	73.4	53.1
22.00 - 6.00	57.4	54.4	48.8	46.2	41.1	40.2	37.2	79.6	52.3
22.00 - 6.00	56.2	53.0	47.6	45.2	40.7	40.0	37.2	74.7	51.0
22.00 - 6.00	56.8	54.2	50.8	49.2	43.7	43.0	39.8	71.1	52.0

INDICI STATISTICI - Periodo diurno

	L5	L10	L33	L50	L90	L95	Lmin	Lmax	Leq
6.00 - 22.00	63.9	62.0	58.4	56.9	52.6	51.5	46.3	88.2	59.5
6.00 - 22.00	63.5	61.5	57.7	56.3	52.6	51.5	45.0	87.5	59.2
6.00 - 22.00	62.5	60.5	56.3	54.7	50.7	49.5	42.8	88.6	57.9
6.00 - 22.00	62.4	59.9	54.5	52.1	45.8	44.4	39.2	85.3	57.5
6.00 - 22.00	61.5	59.1	54.3	52.1	46.1	44.5	38.8	80.0	56.2
6.00 - 22.00	63.4	61.4	57.6	56.1	52.0	51.0	45.3	80.8	58.9