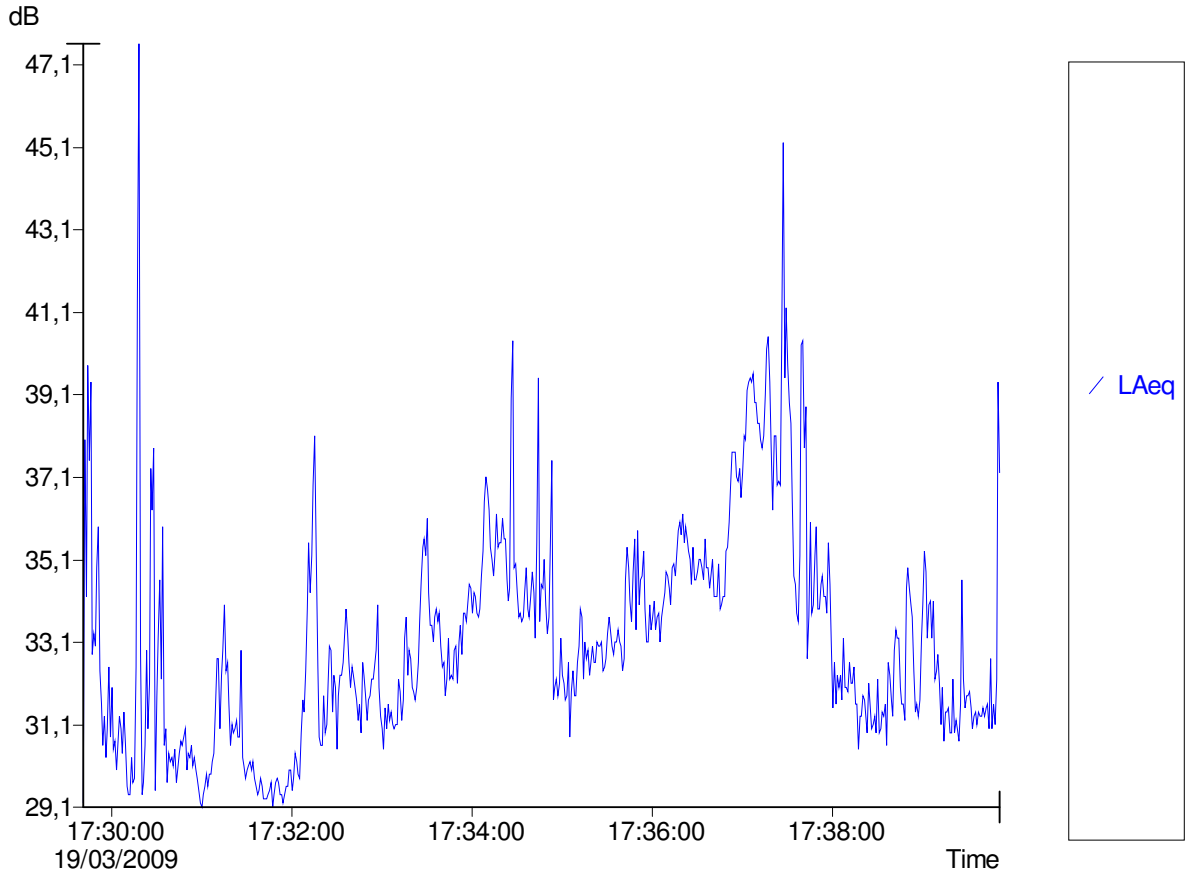


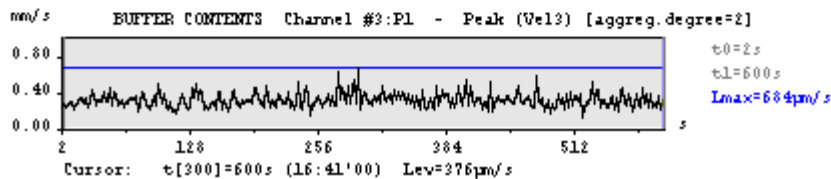
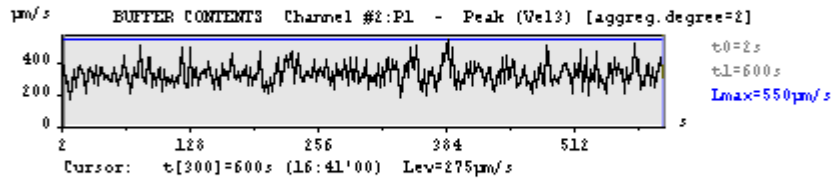
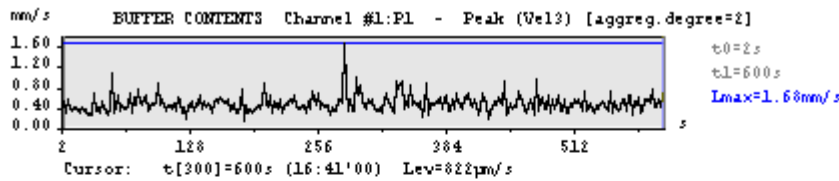
ANEXOS

I - HISTOGRAMAS DOS NÍVEIS DE PRESSÃO SONORA E VIBRAÇÃO

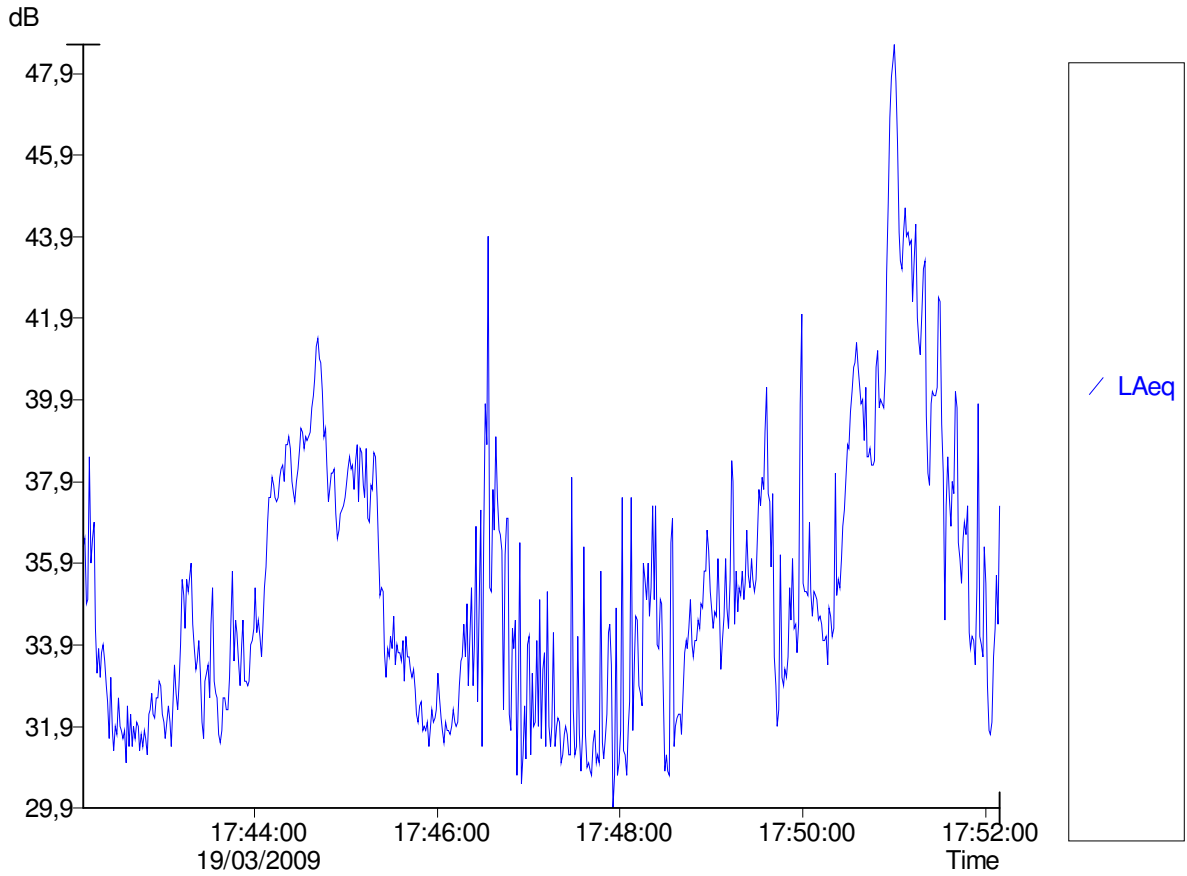
Ponto 03 A



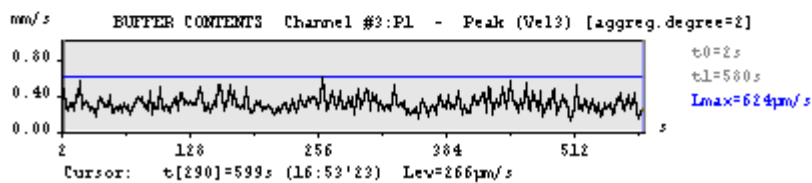
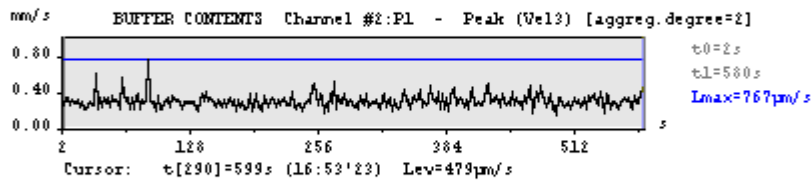
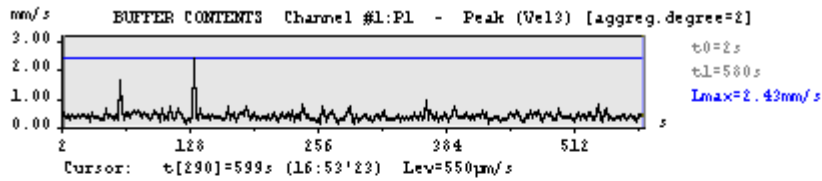
Y:\CRJ00007.DTA
Overall profile duration = 00:10:11 (611 samples)



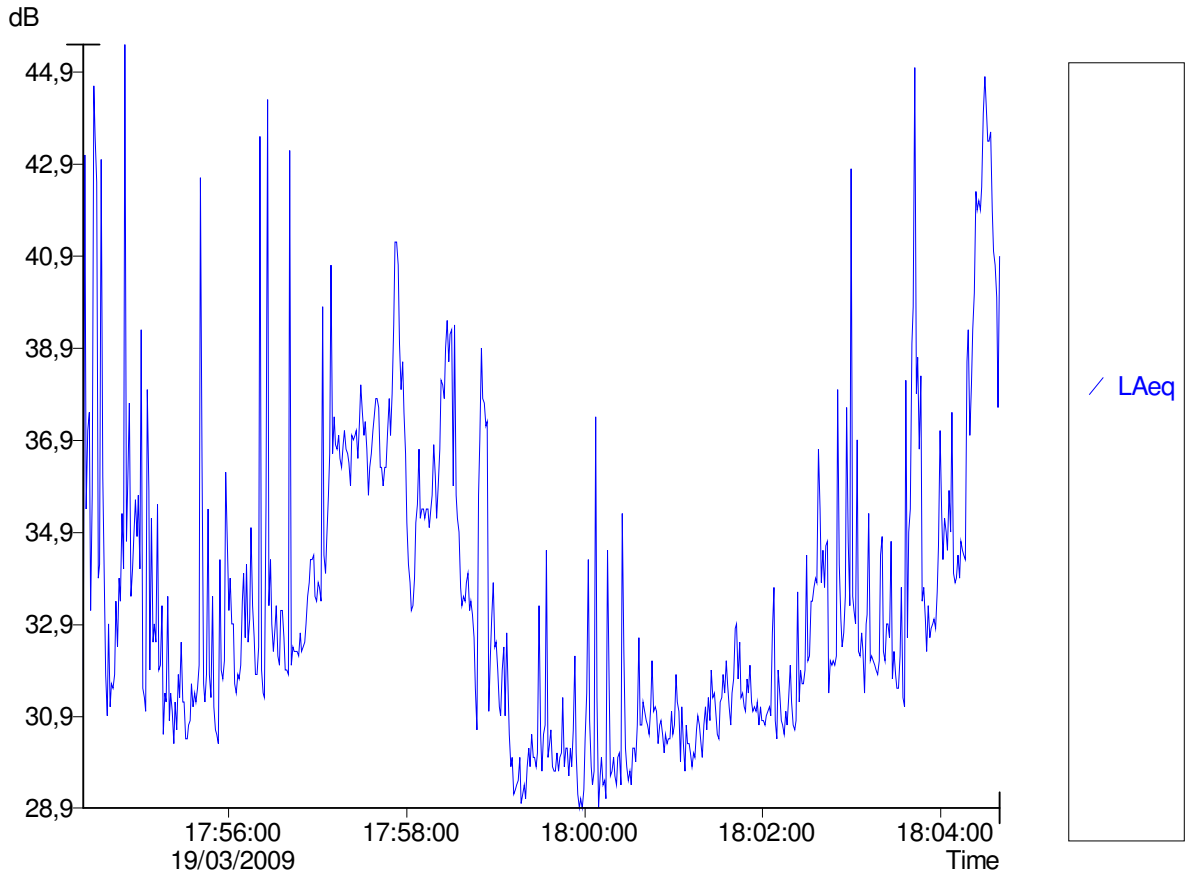
Ponto 03 B



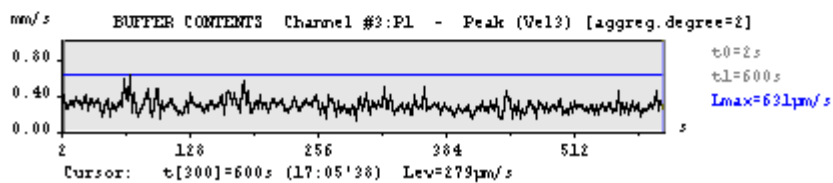
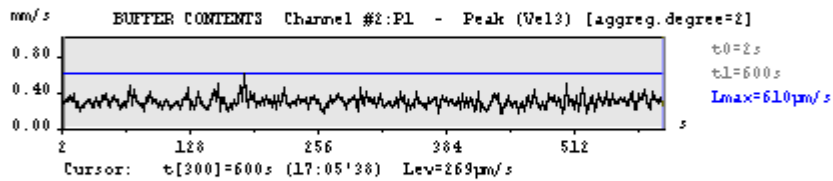
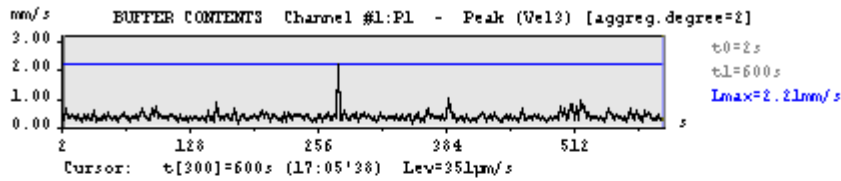
Y:\CRJ00008.DTA
Overall profile duration = 00:10:03 (603 samples)



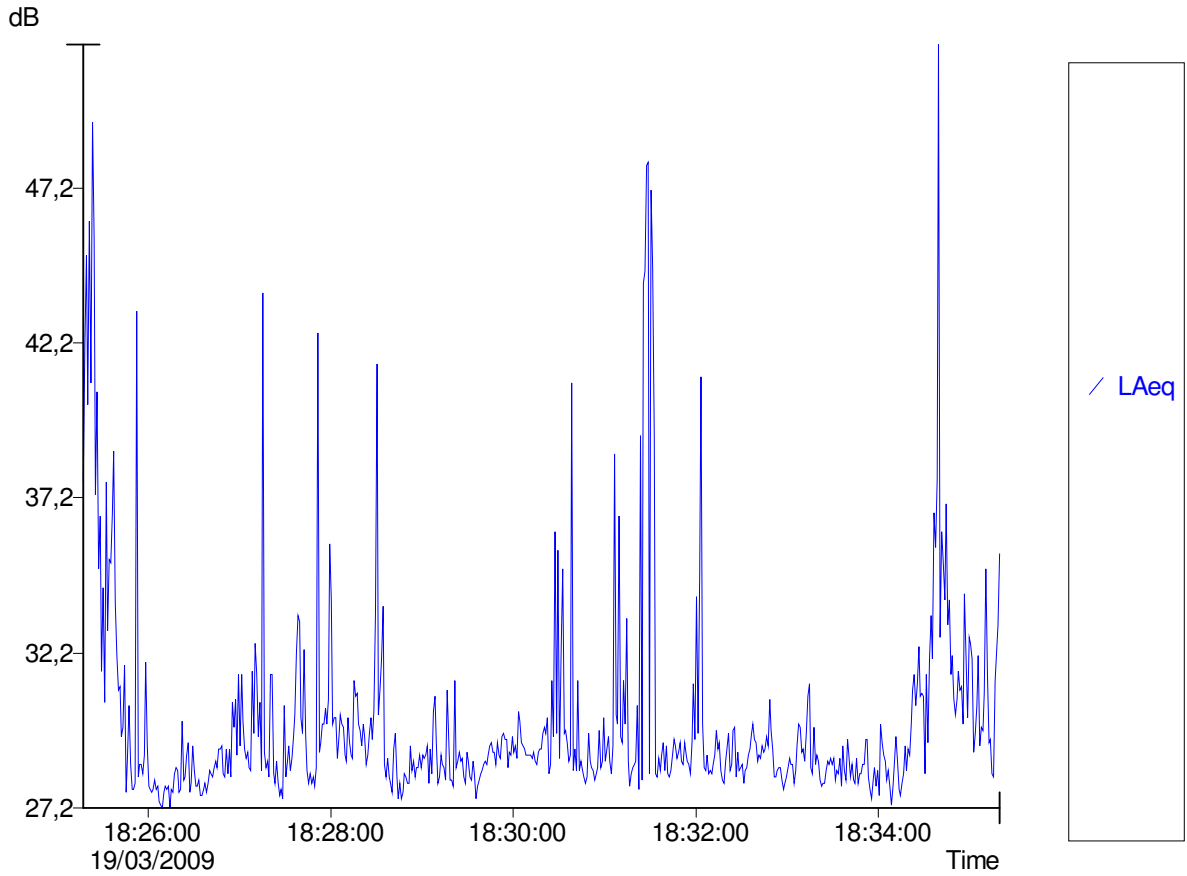
Ponto 03 C



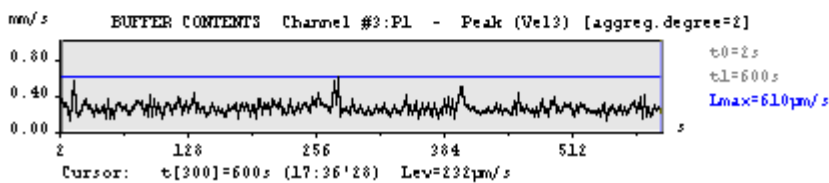
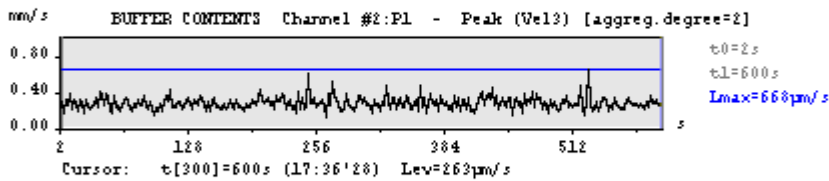
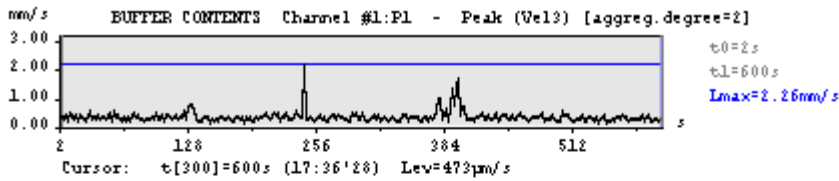
Y:\CRJ00009.DTA
Overall profile duration = 00:10:18 (618 samples)



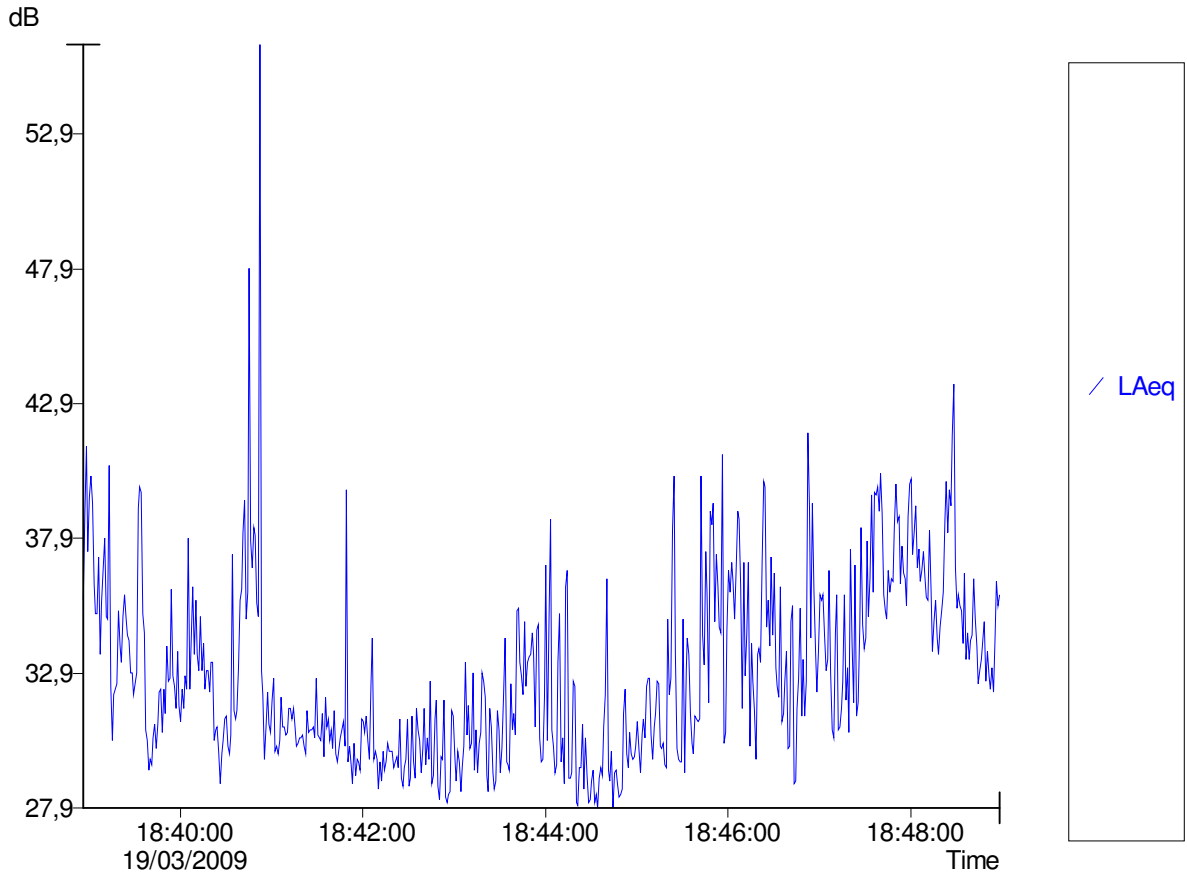
Ponto 04 A



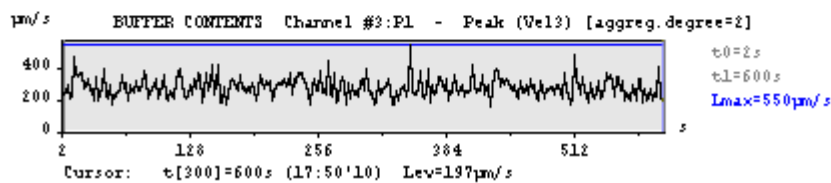
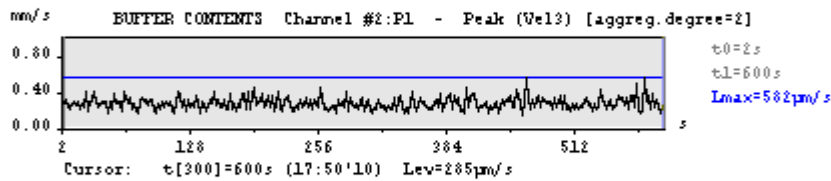
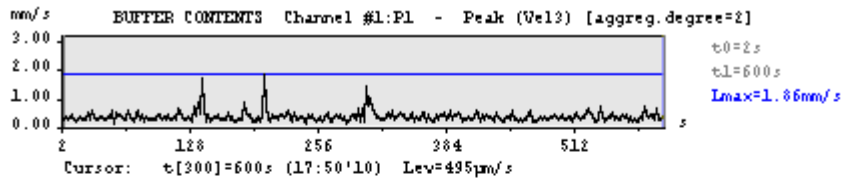
Y:\CRJ00010.DTA
Overall profile duration = 00:10:03 (603 samples)



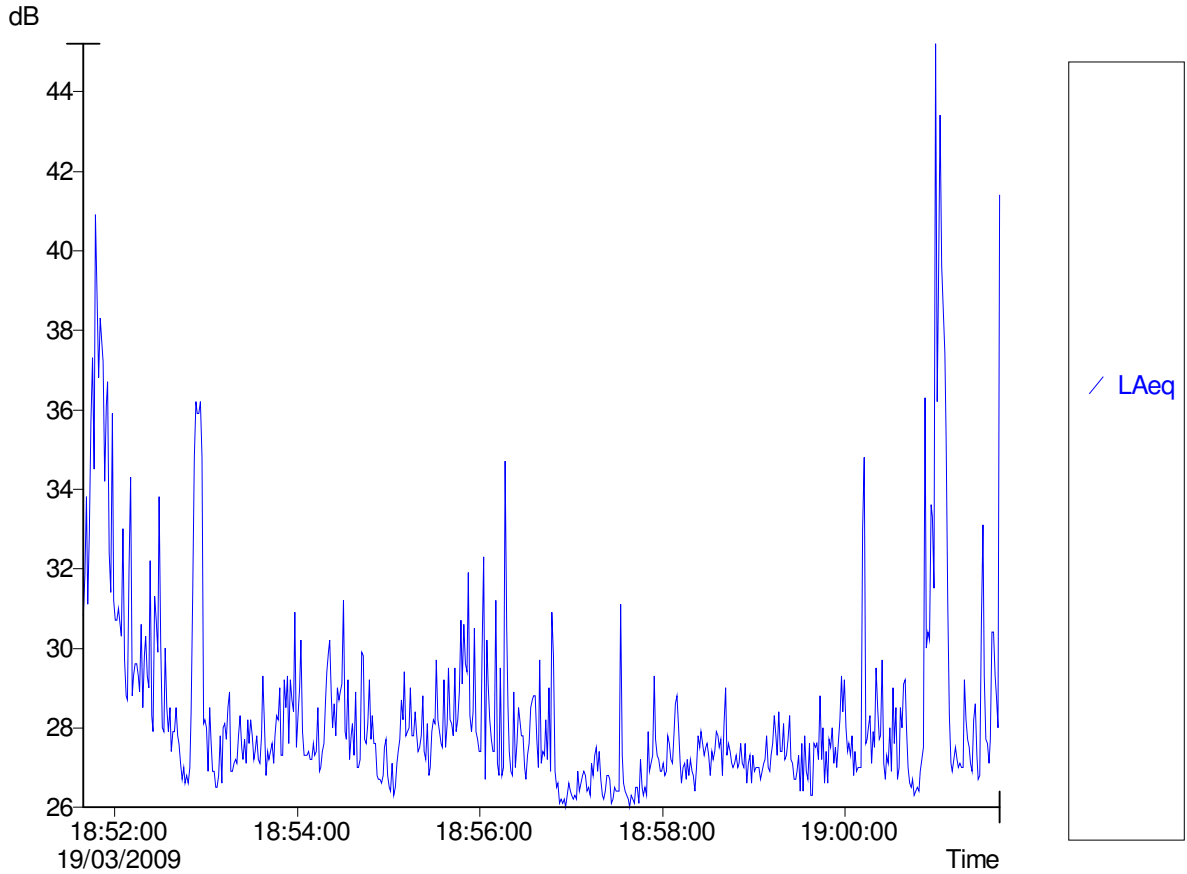
Ponto 04 B



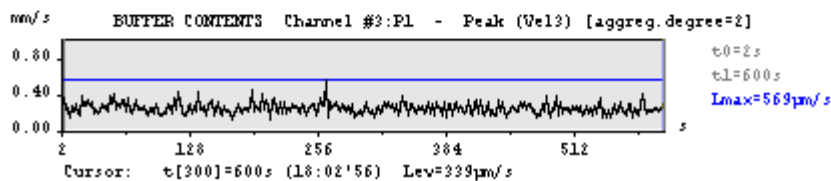
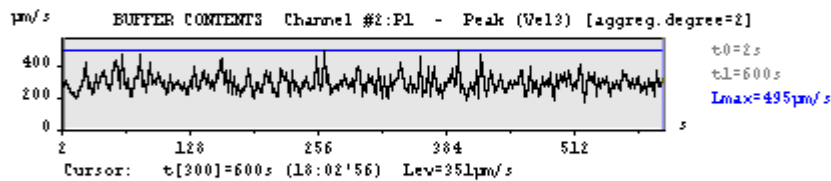
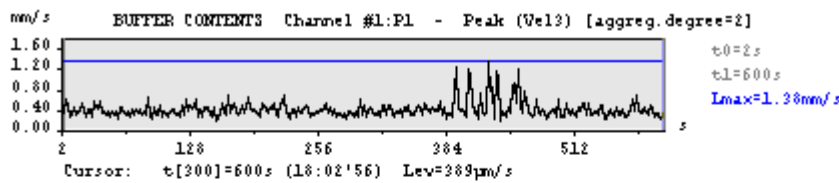
Y:\CRJ00011.DTA
Overall profile duration = 00:10:03 (603 samples)



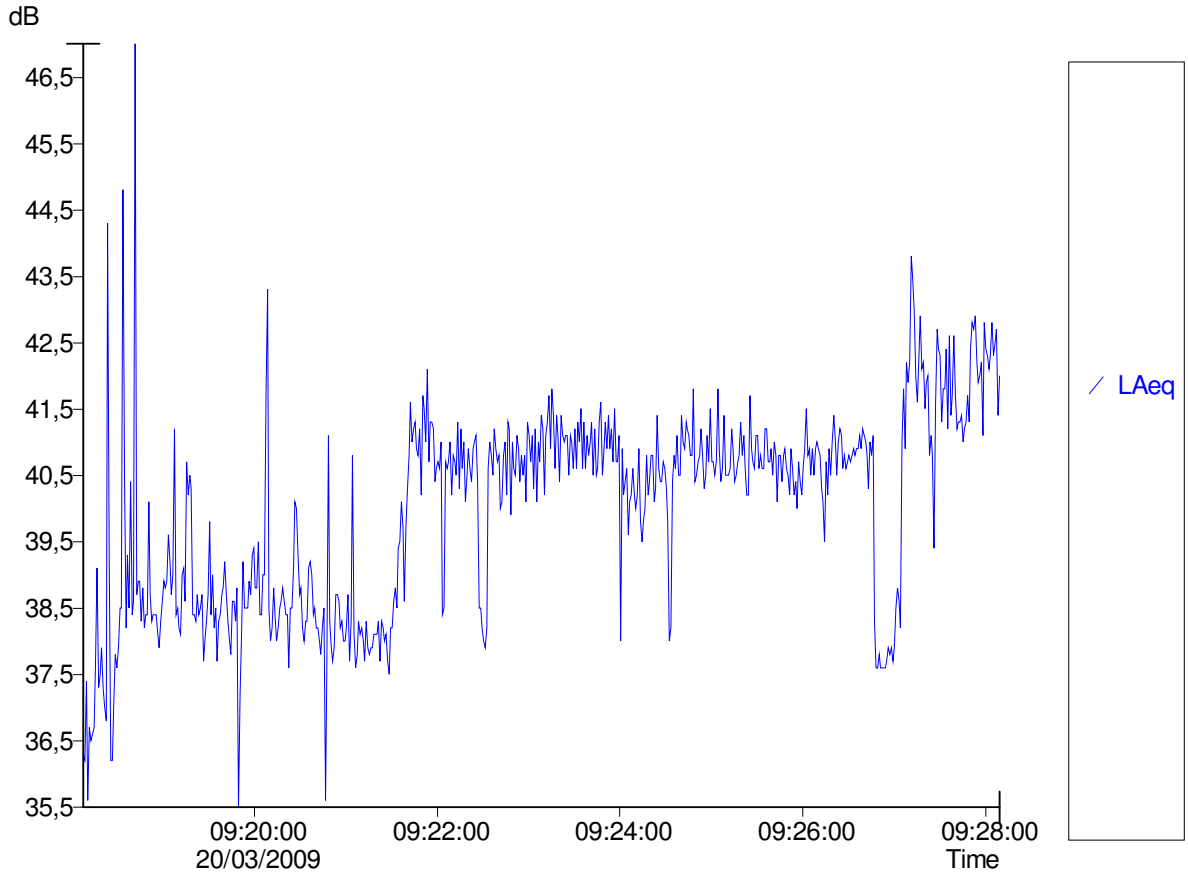
Ponto 04 C



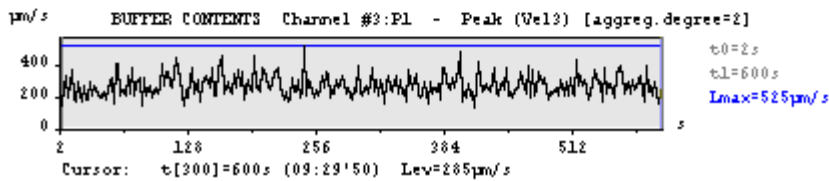
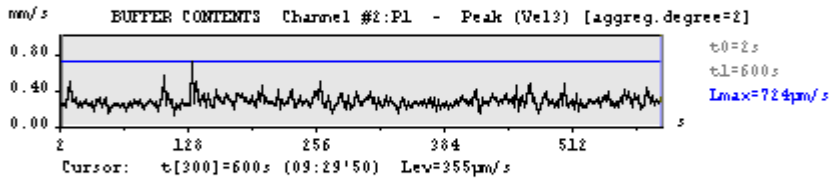
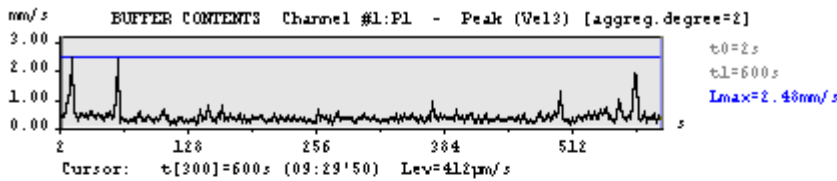
Y:\CRJ00012.DTA
 Overall profile duration = 00:10:03 (603 samples)



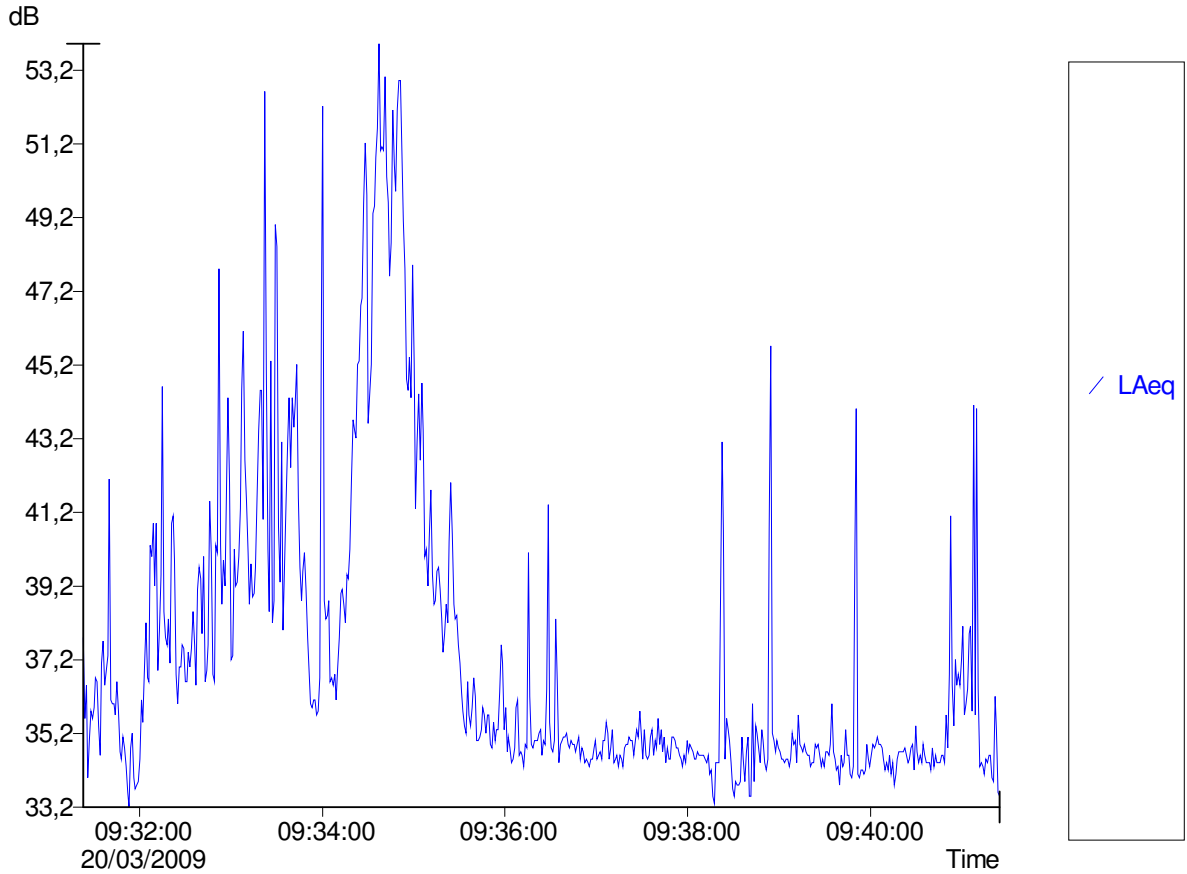
Ponto 05 A



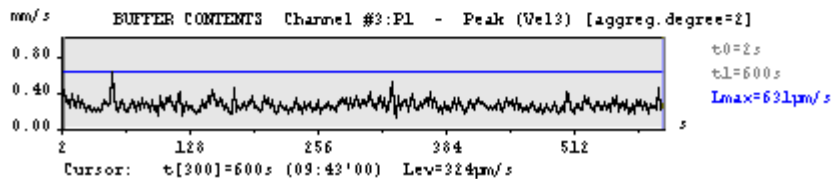
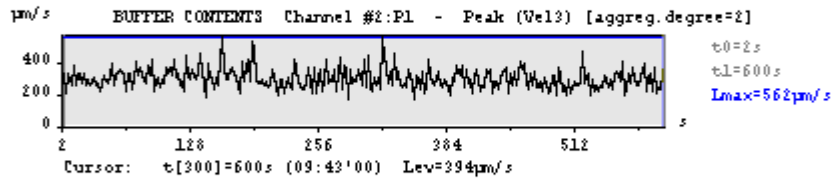
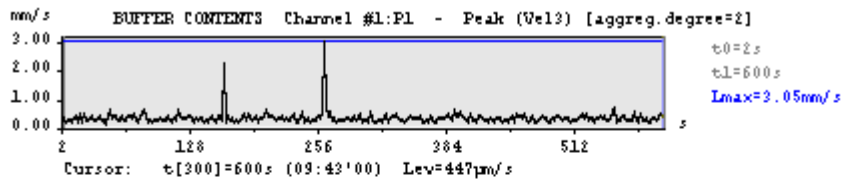
Y:\CRJ00019.DTA
 Overall profile duration = 00:10:03 (603 samples)



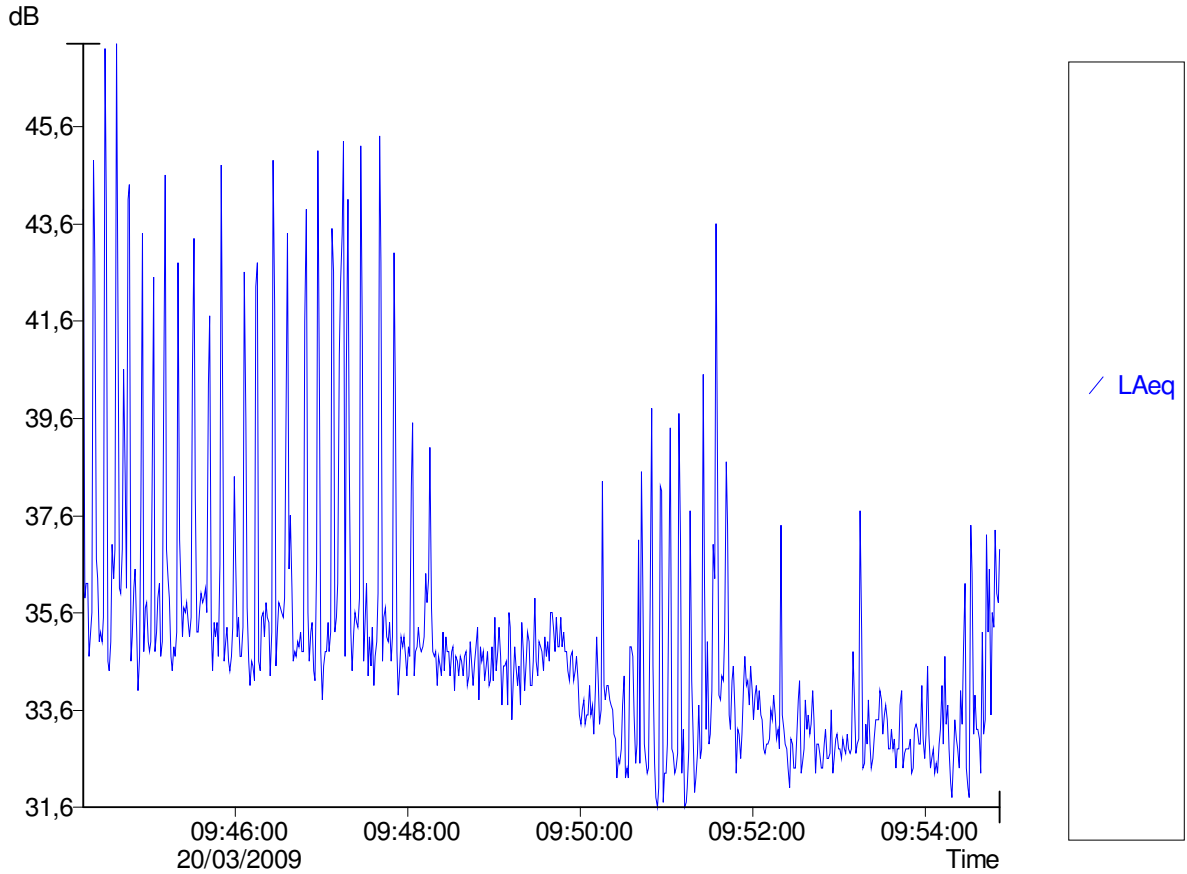
Ponto 05 B



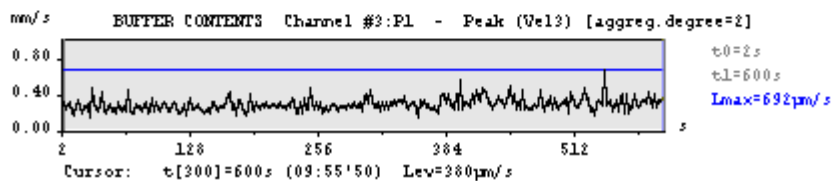
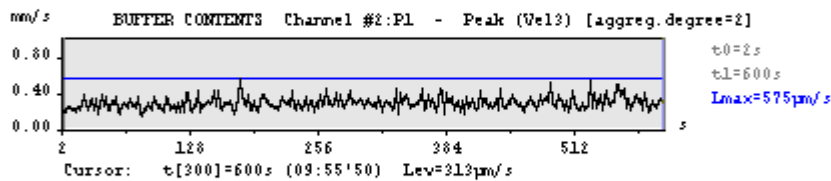
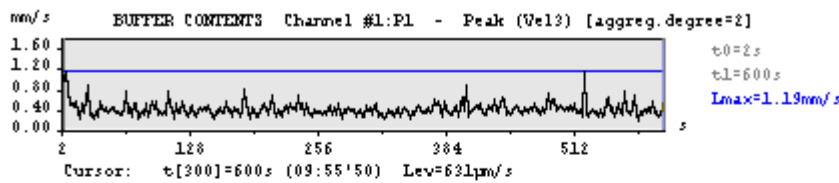
Y:\CRJ00020.DTA
Overall profile duration = 00:10:02 (602 samples)



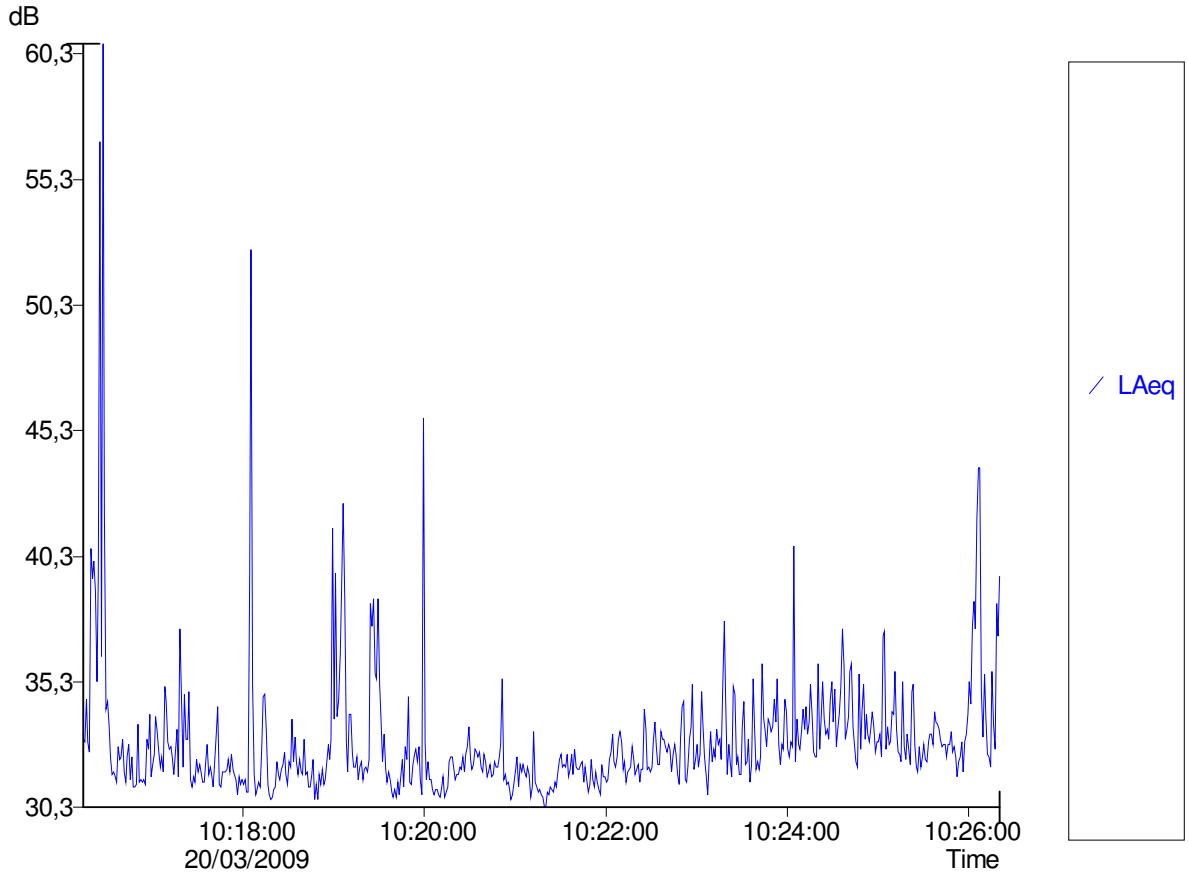
Ponto 05 C



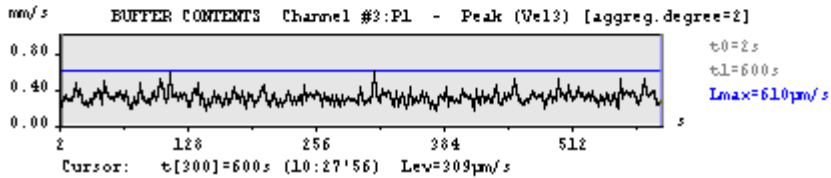
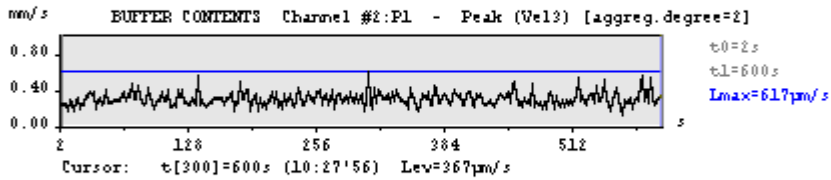
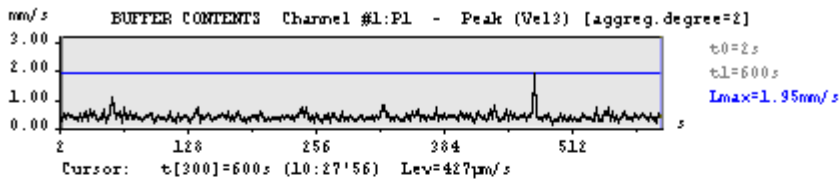
Y:\CRJ00021.DTA
 Overall profile duration = 00:10:38 (638 samples)



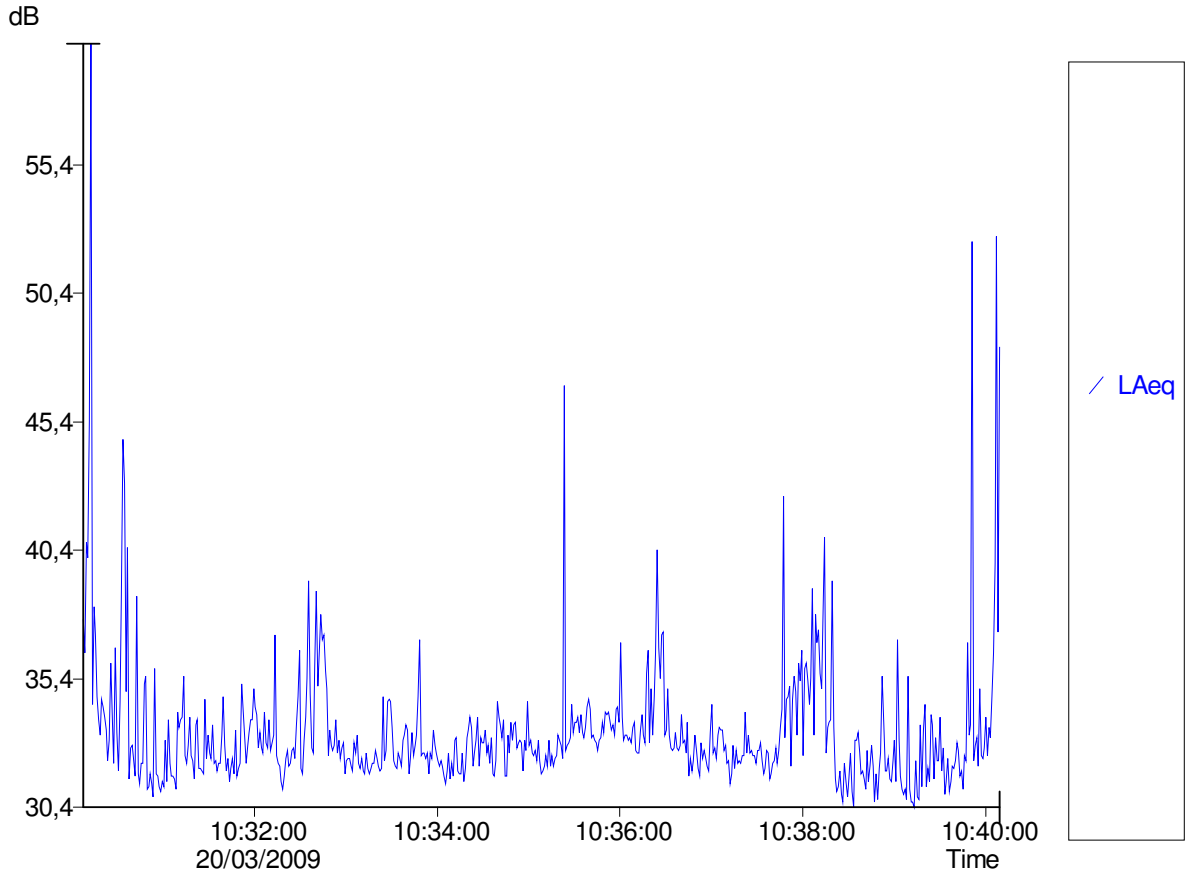
Ponto 06 A



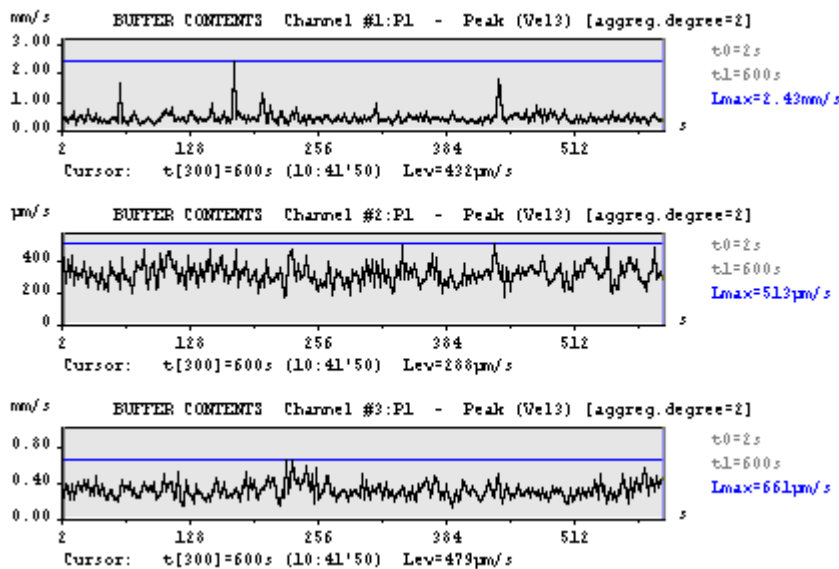
Y:\CRJ00022.DTA
 Overall profile duration = 00:10:07 (607 samples)



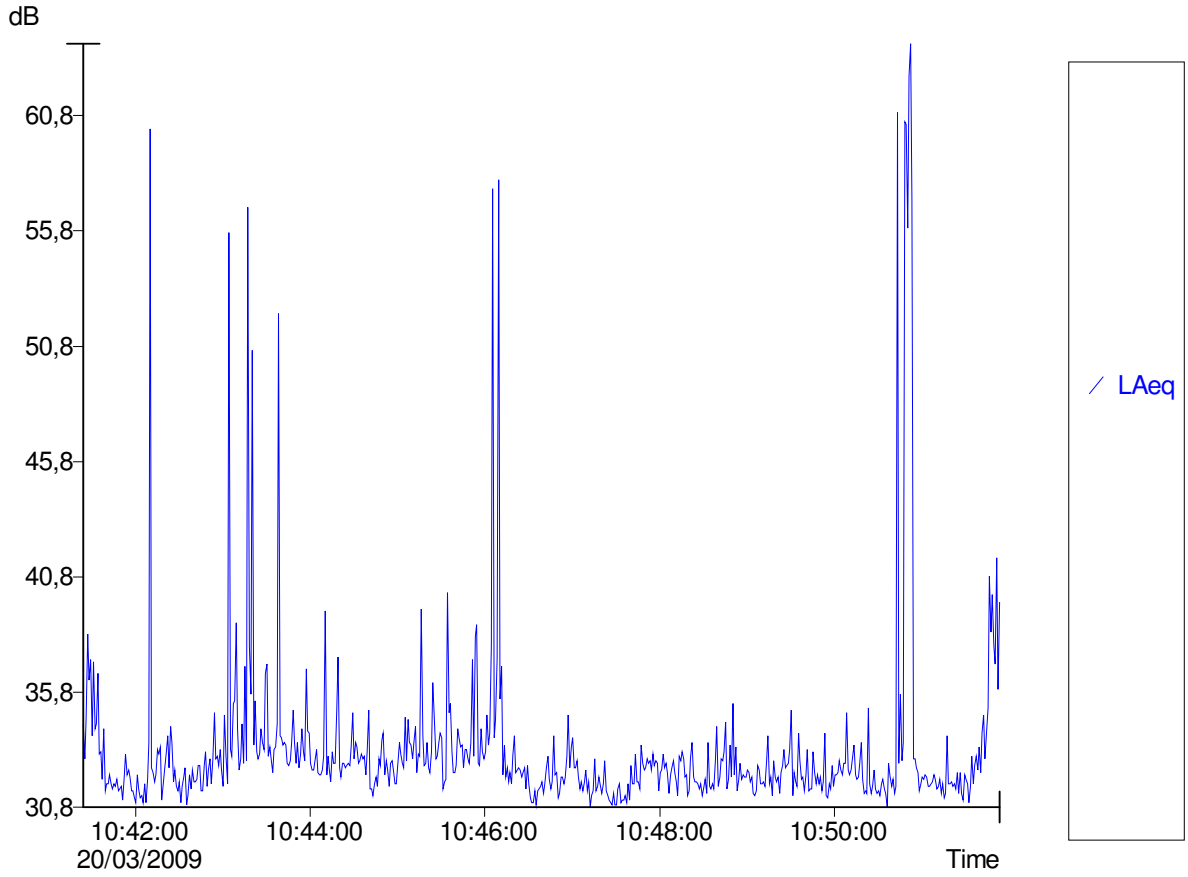
Ponto 06 B



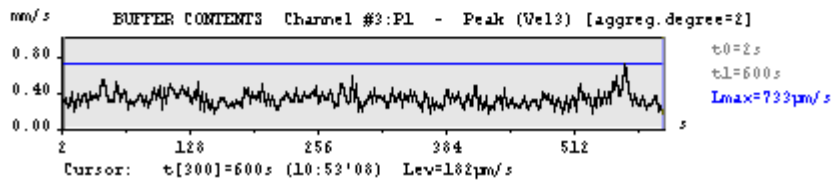
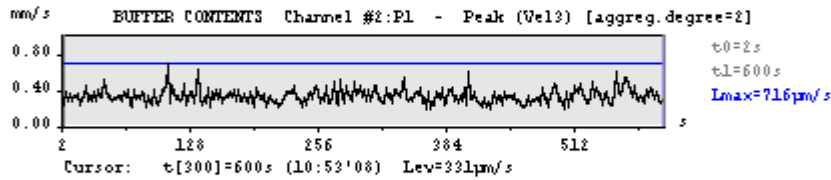
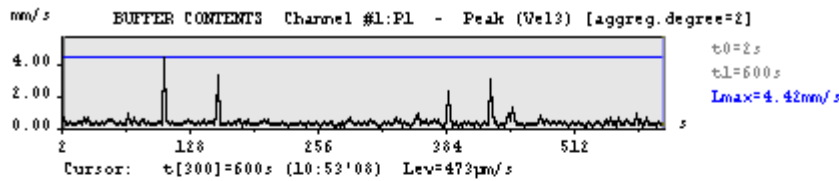
Y:\CRJ00023.DTA
 Overall profile duration = 00:10:03 (603 samples)



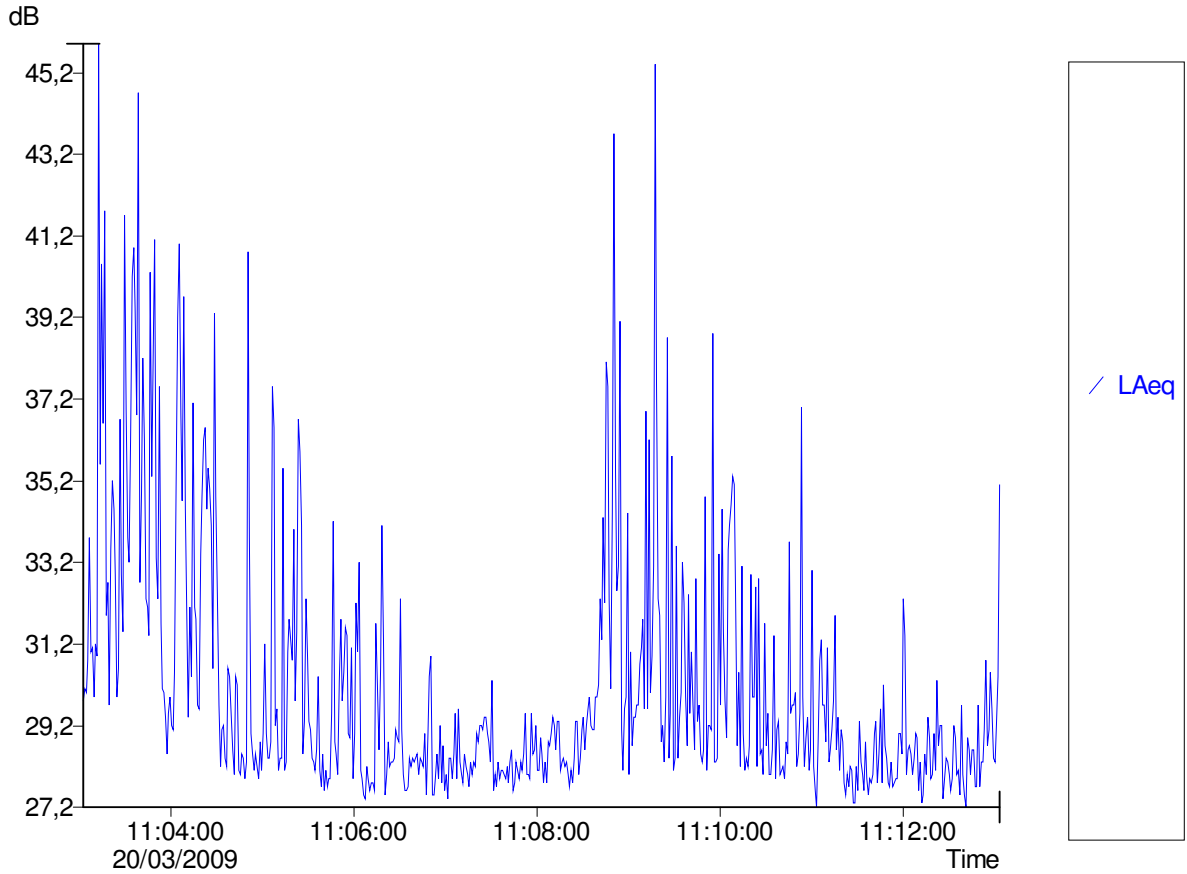
Ponto 06 C



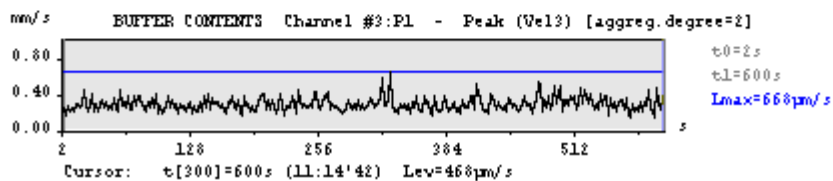
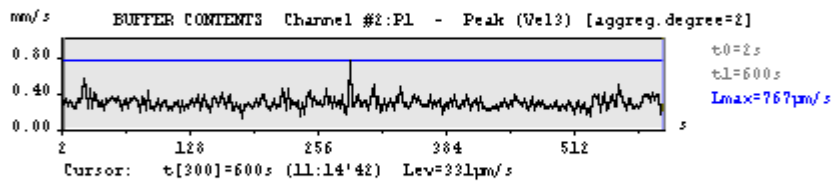
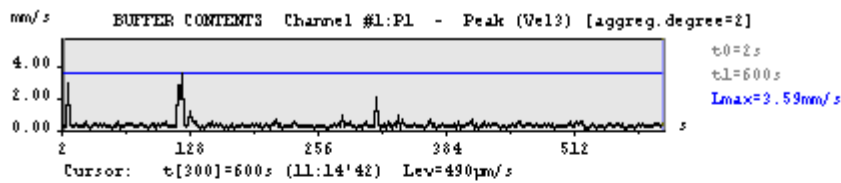
Y:\CRJ00024.DTA
 Overall profile duration = 00:10:30 (630 samples)



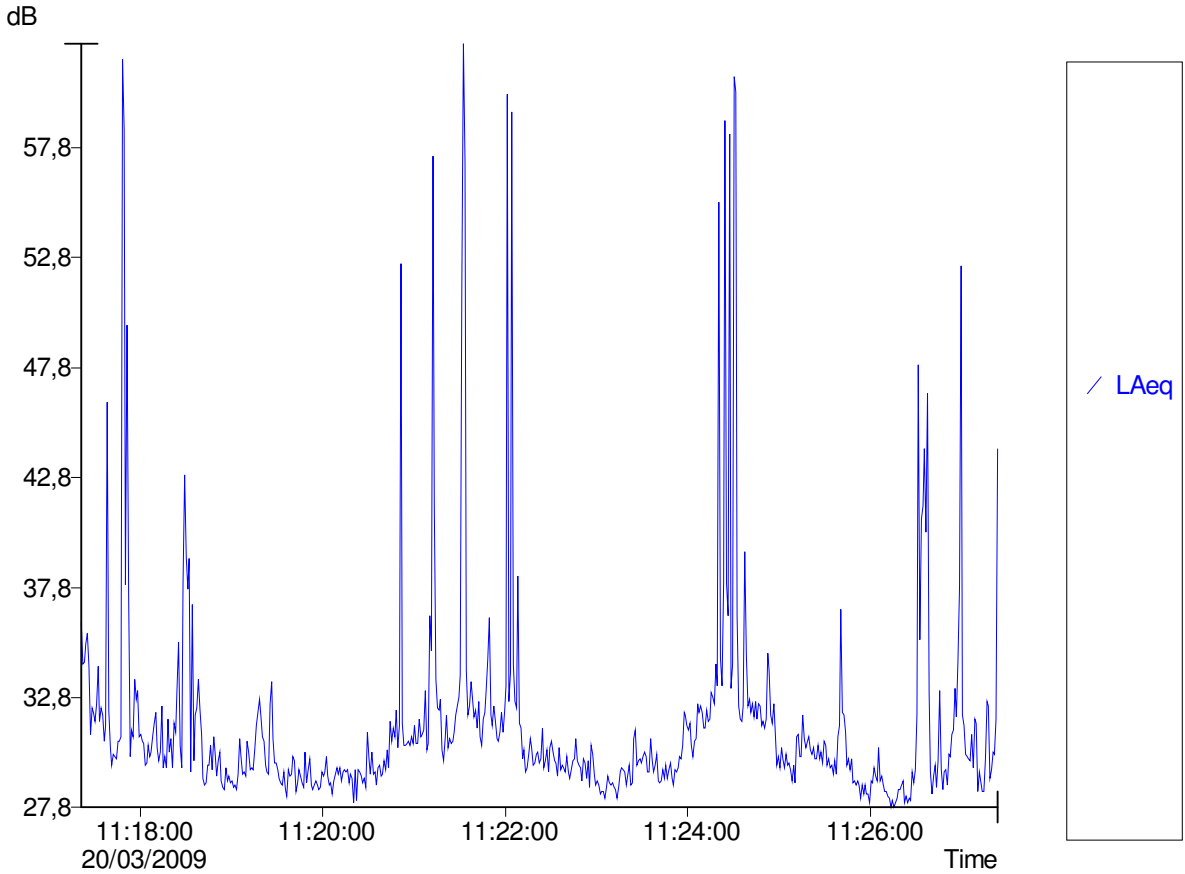
Ponto 07 A



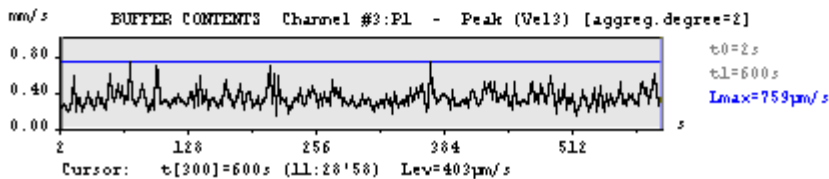
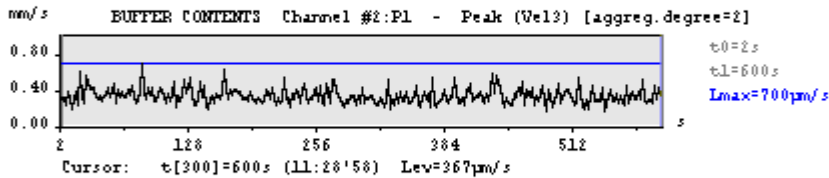
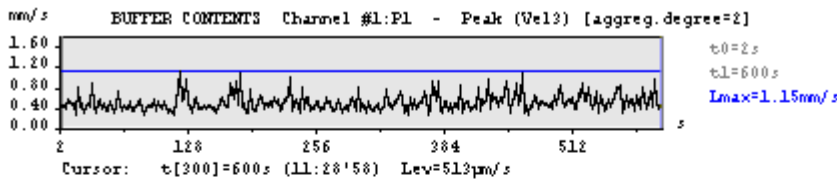
Y:\CRJ00025.DTA
Overall profile duration = 00:10:02 (602 samples)



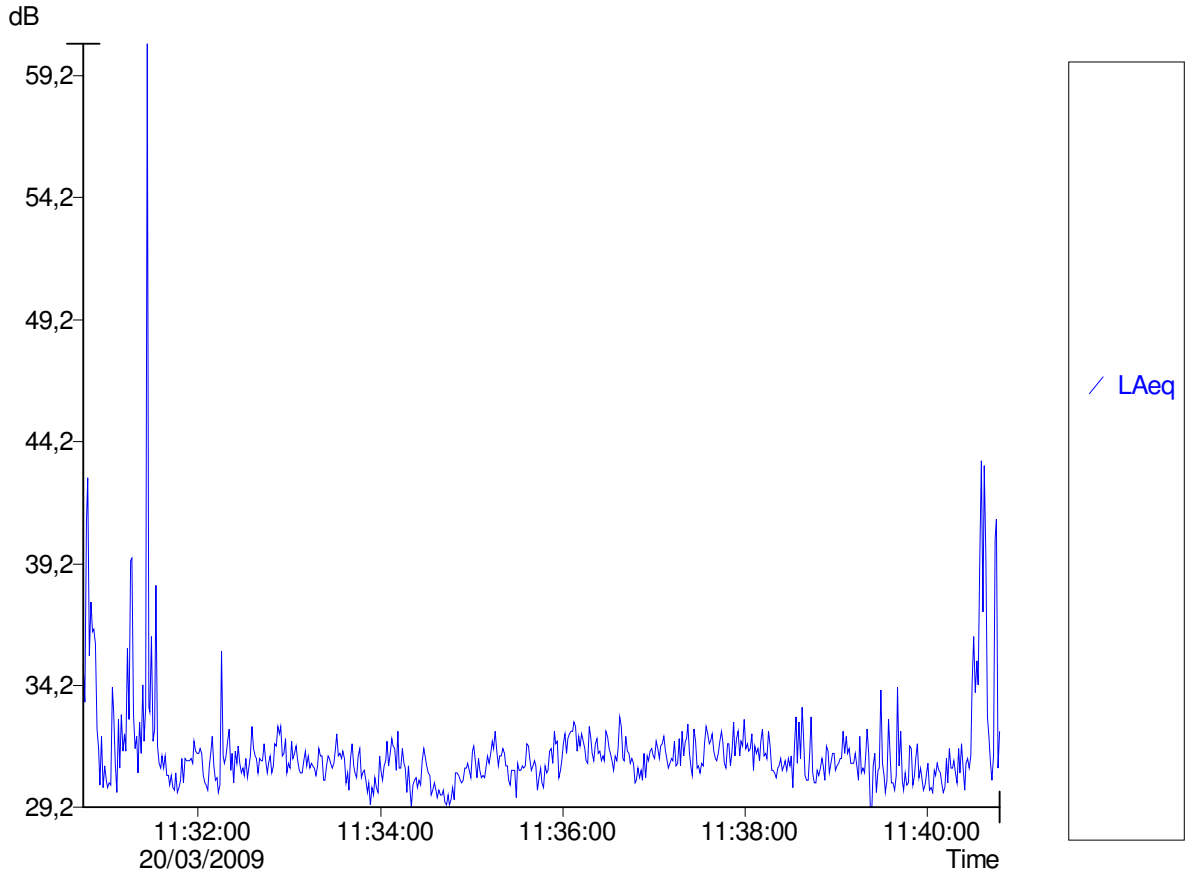
Ponto 07 B



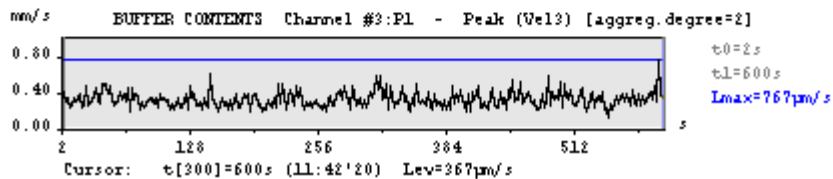
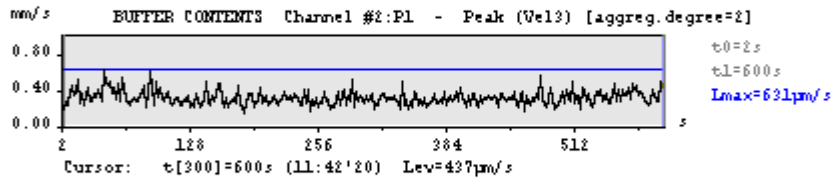
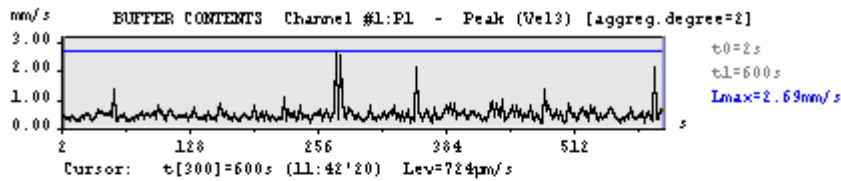
Y:\CRJ00026.DTA
 Overall profile duration = 00:10:03 (603 samples)



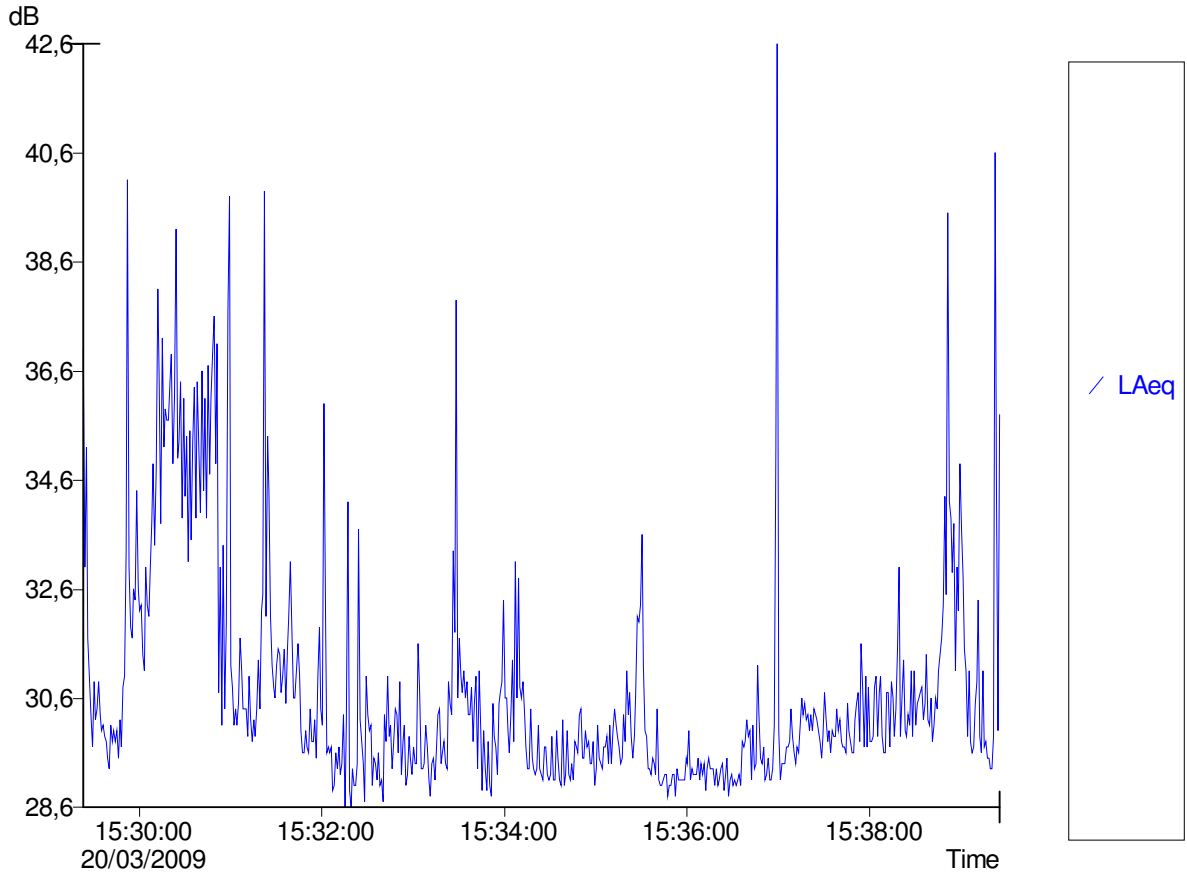
Ponto 07 C



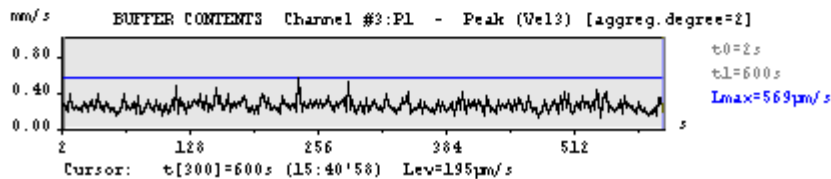
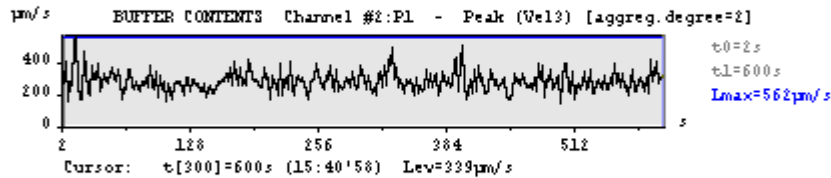
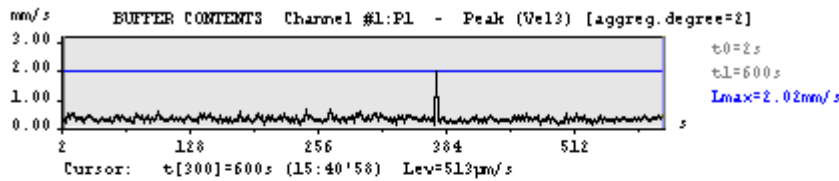
Y:\CRJ00027.DTA
Overall profile duration = 00:10:04 (604 samples)



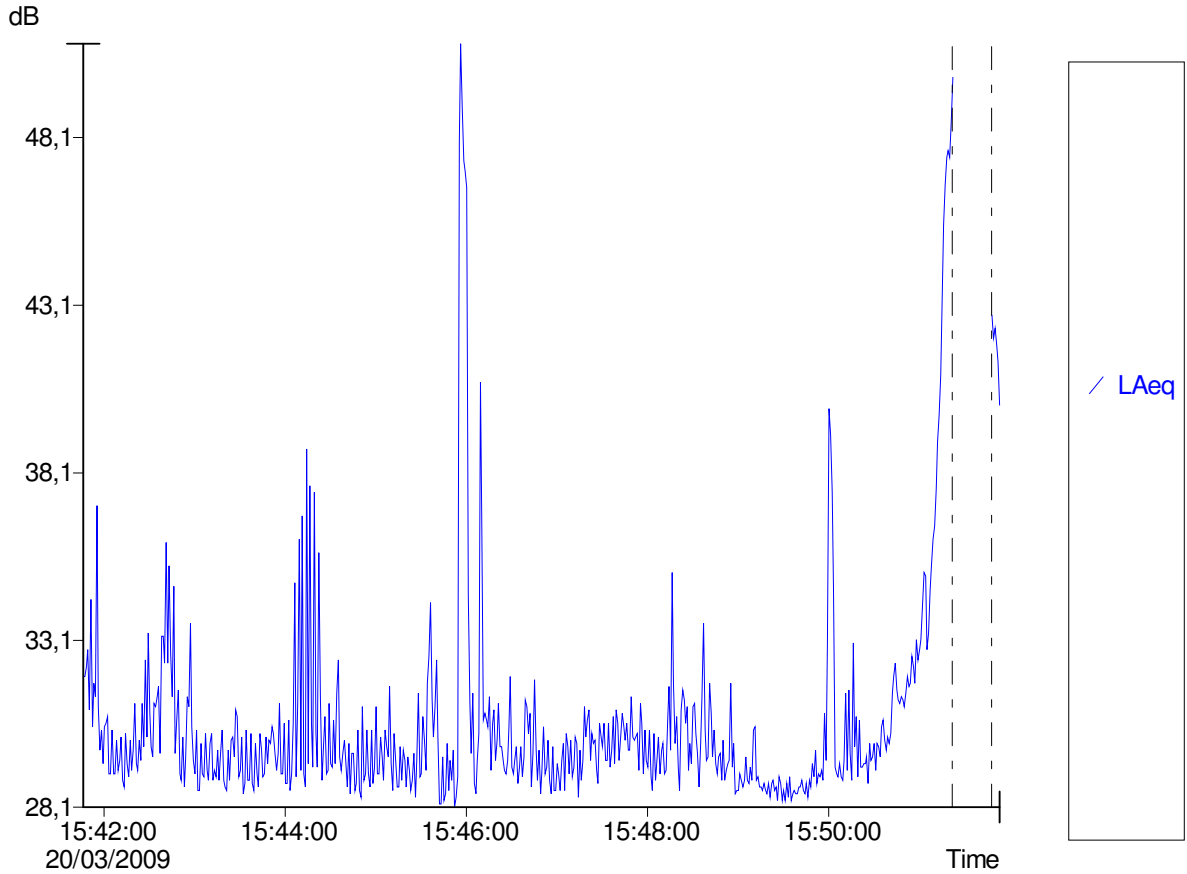
Ponto 09 A



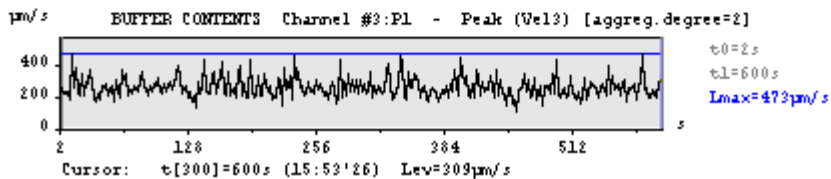
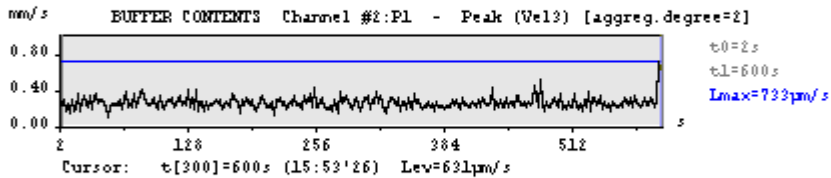
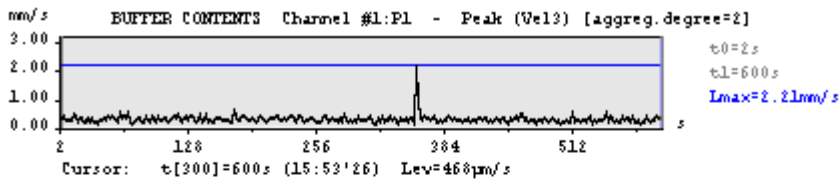
Y:\CRJ00031.DTA
 Overall profile duration = 00:10:03 (603 samples)



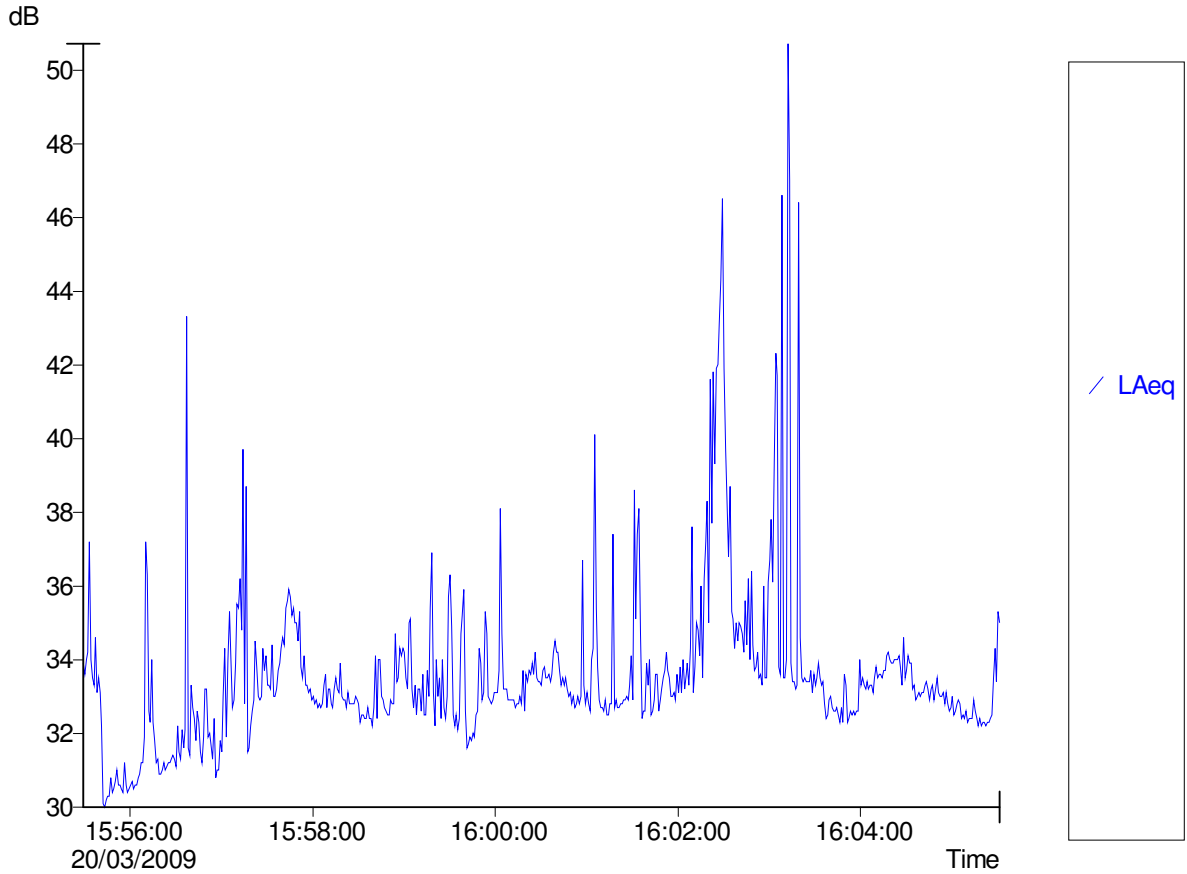
Ponto 09 B



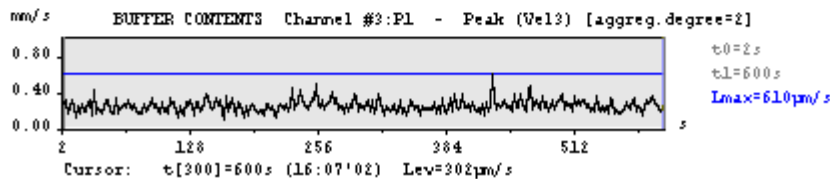
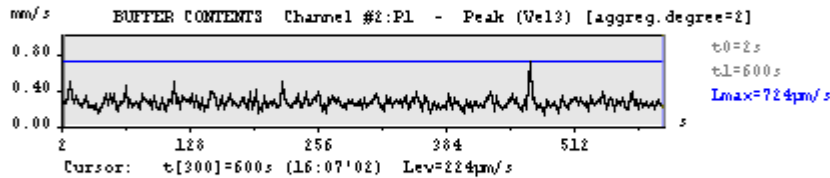
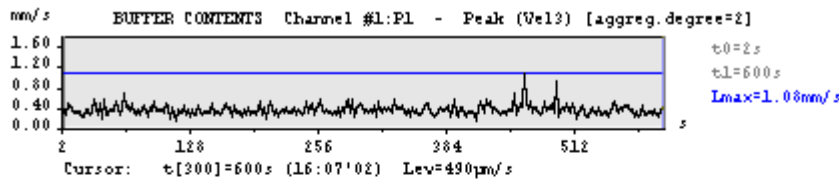
Y:\CRJ00032.DTA
 Overall profile duration = 00:10:08 (608 samples)



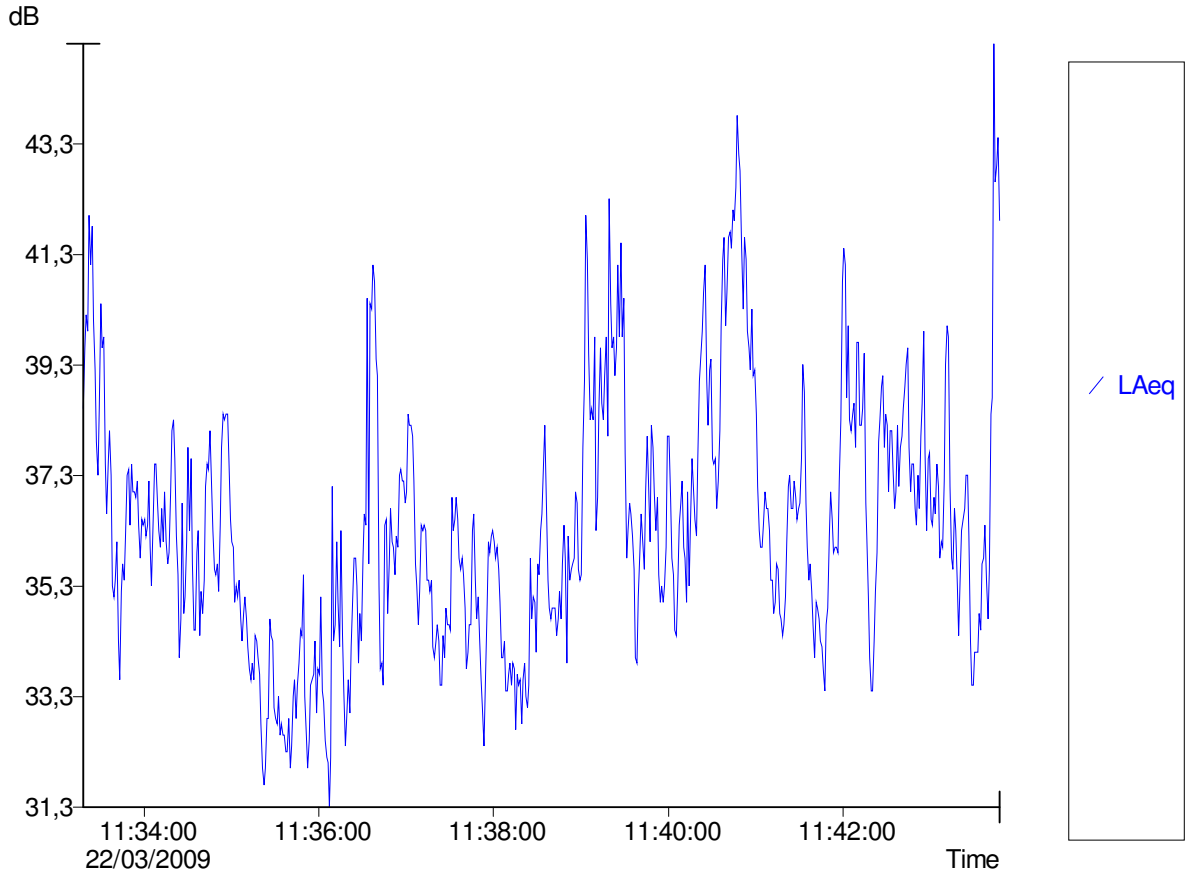
Ponto 09 C



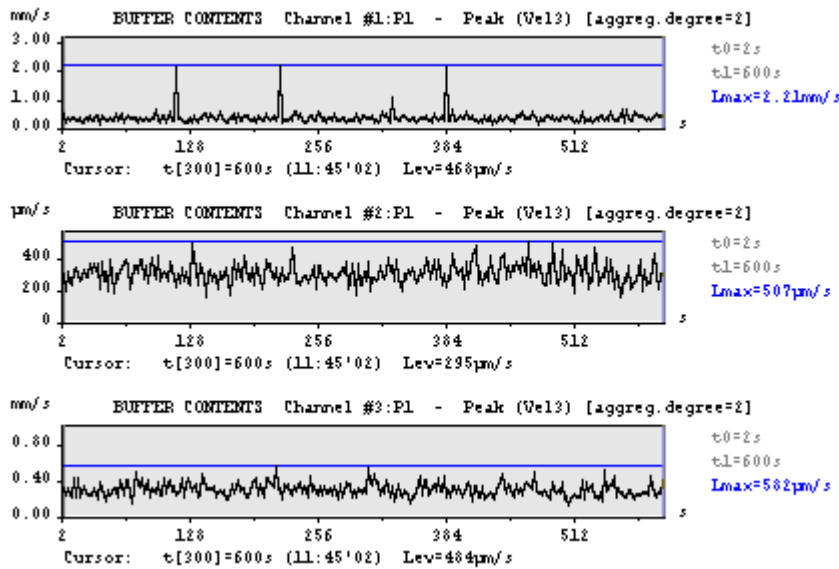
Y:\CRJ00033.DTA
 Overall profile duration = 00:10:03 (603 samples)



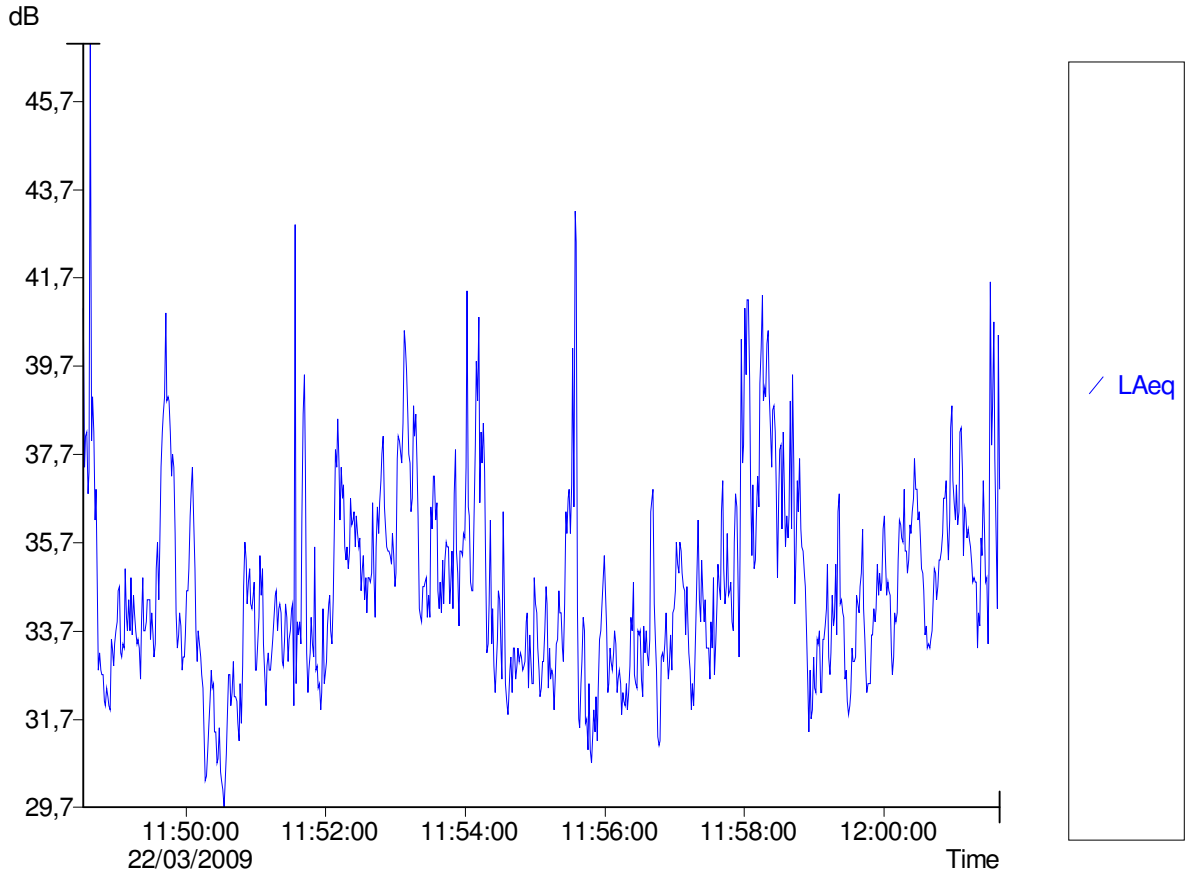
Ponto 10 A



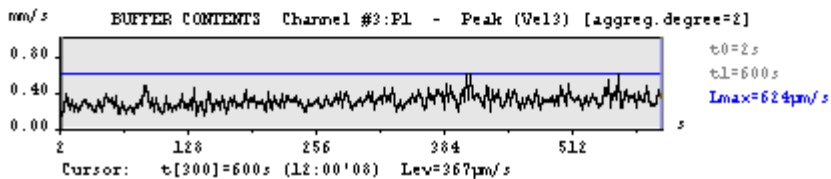
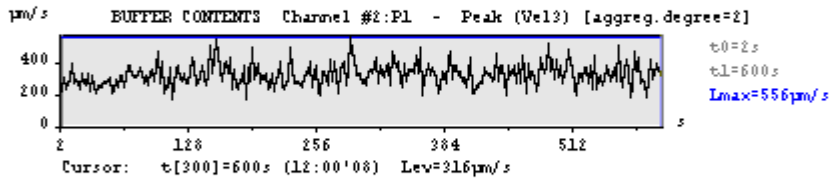
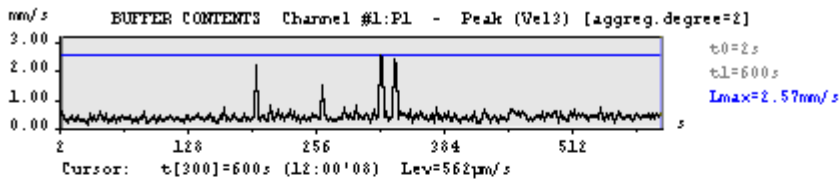
Y:\CRJ00064.DTA
Overall profile duration = 00:10:30 (630 samples)



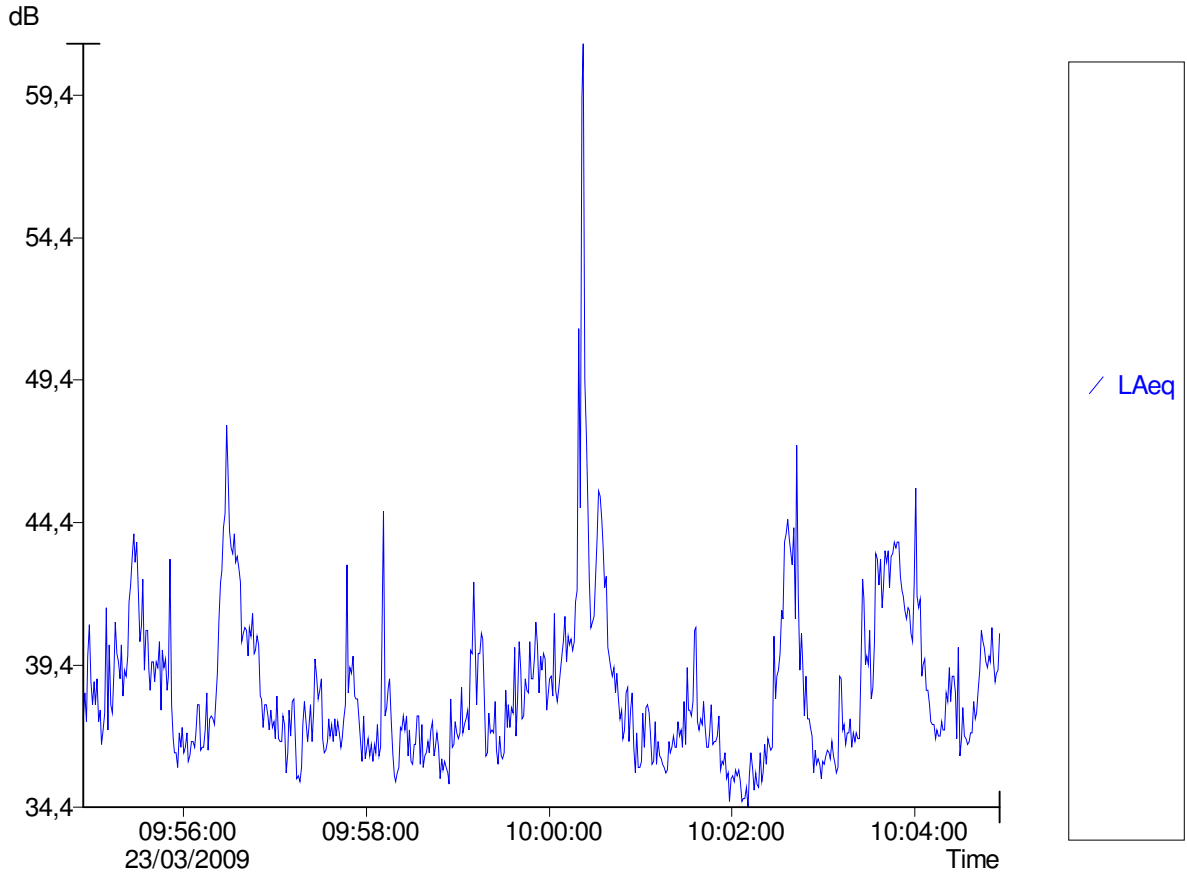
Ponto 10 B



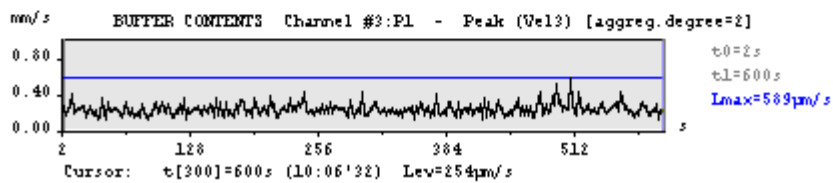
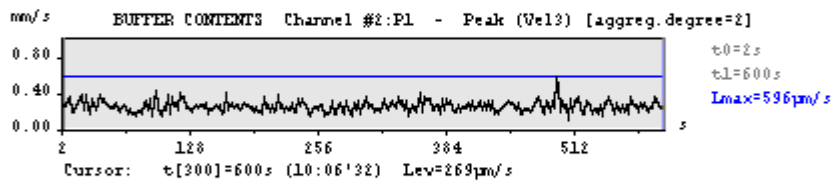
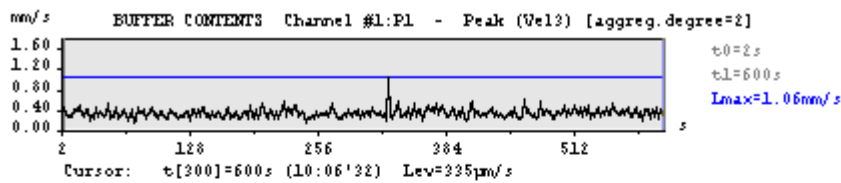
Y:\CRJ00065.DTA
Overall profile duration = 00:13:09 (789 samples)



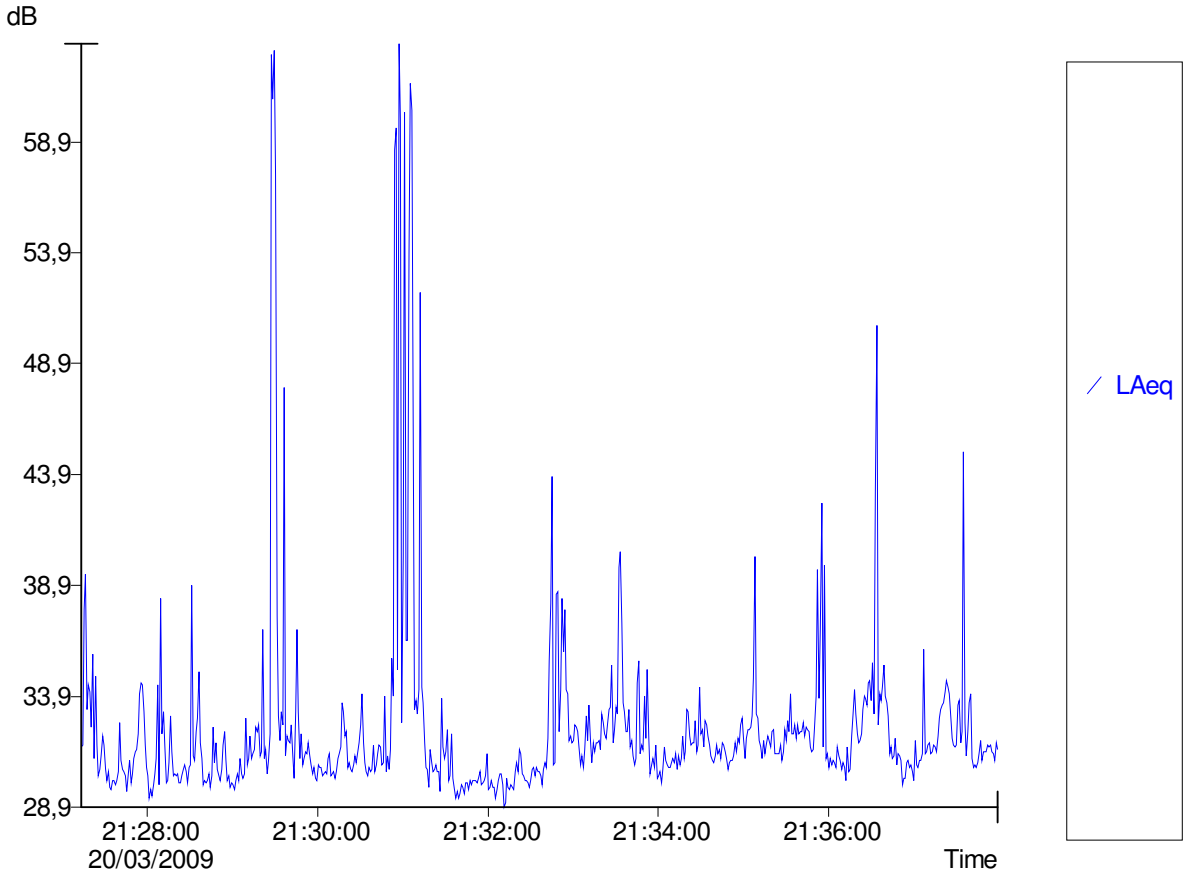
Ponto 18



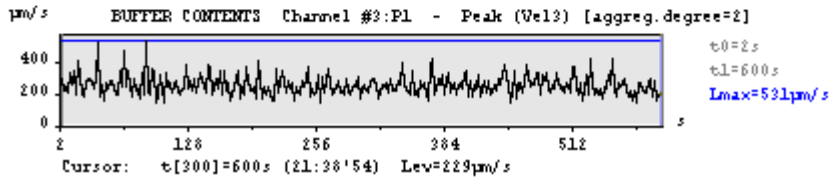
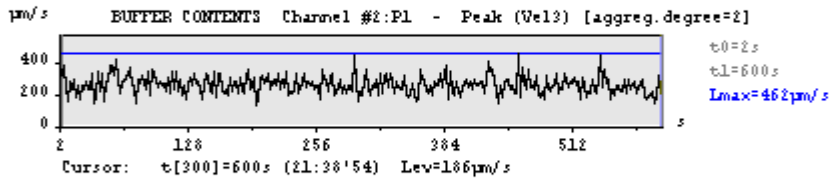
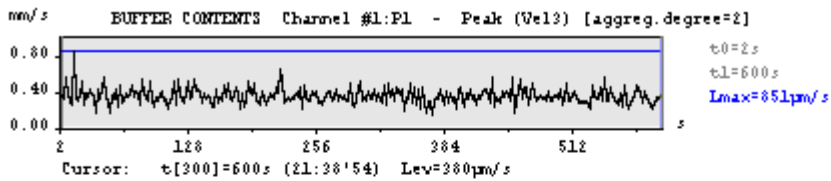
X:\CRJ00079.DTA
 Overall profile duration = 00:10:02 (602 samples)



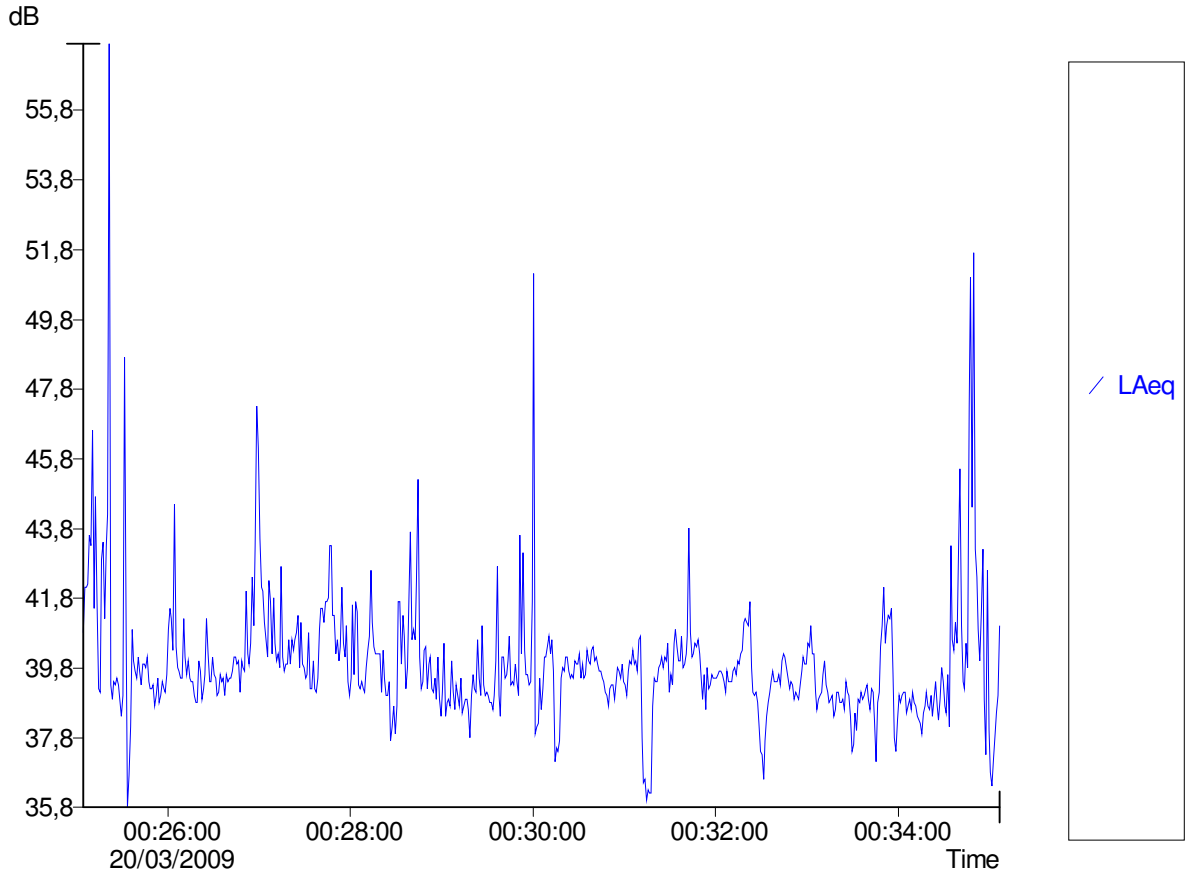
Ponto 03 A



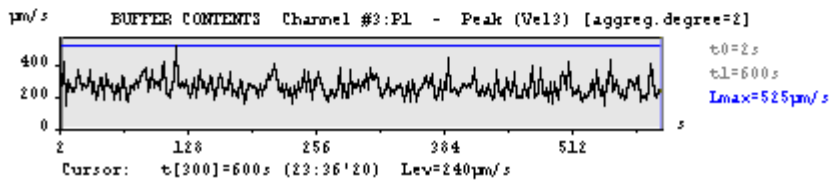
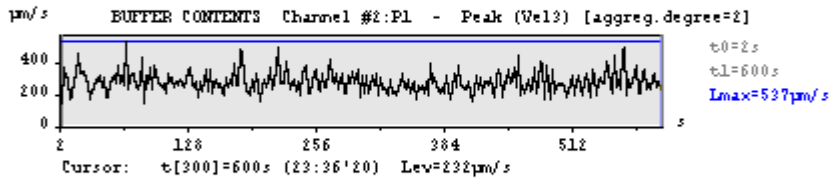
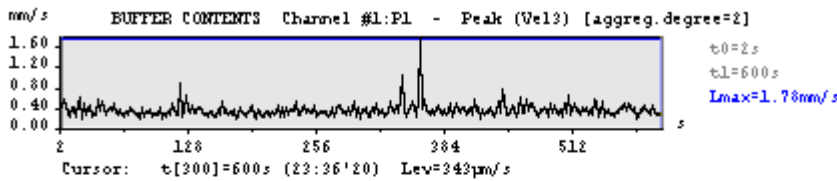
W:\CRJ00034.DTA
 Overall profile duration = 00:10:47 (647 samples)



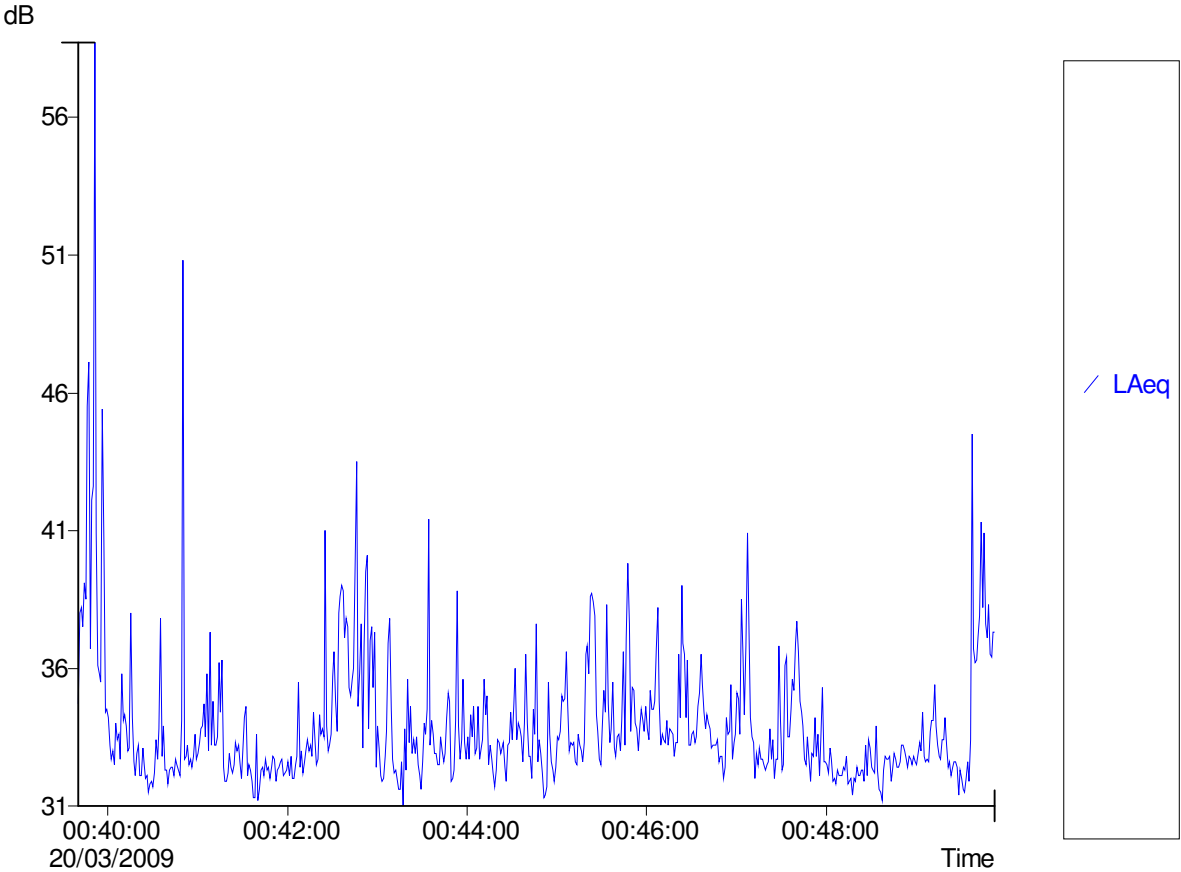
Ponto 04 A



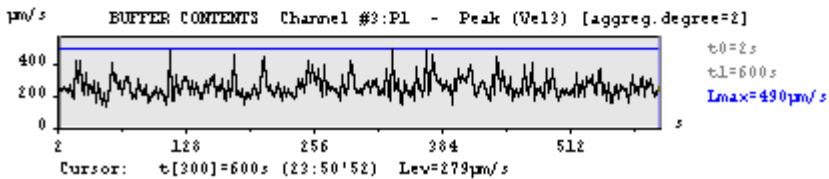
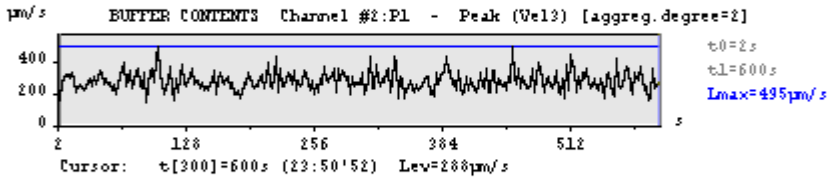
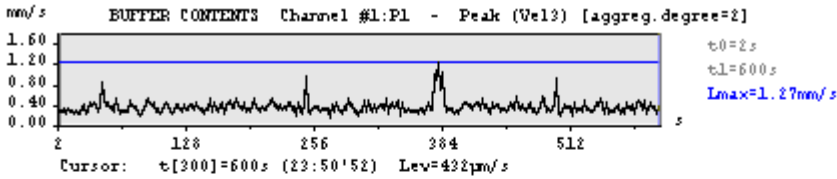
W:\CRJ00016.DTA
Overall profile duration = 00:10:03 (603 samples)



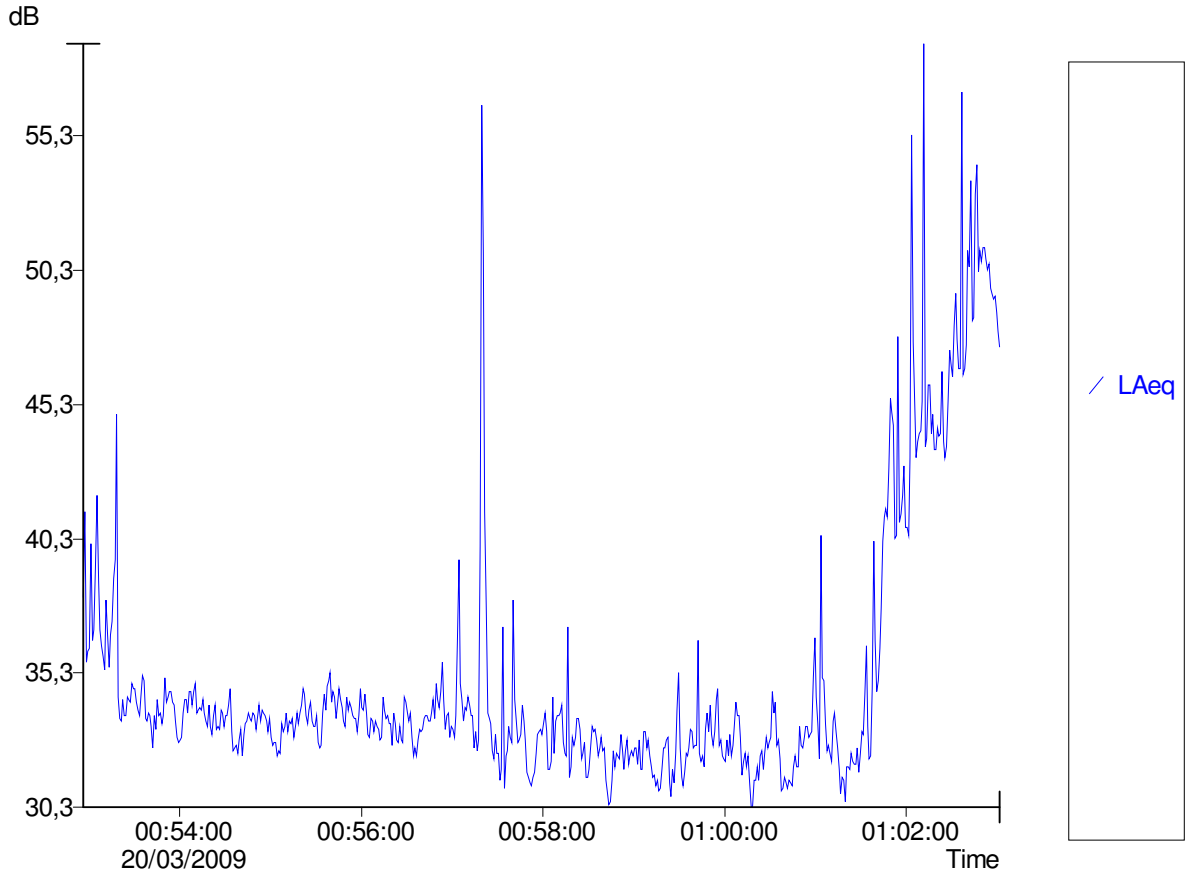
Ponto 04 B



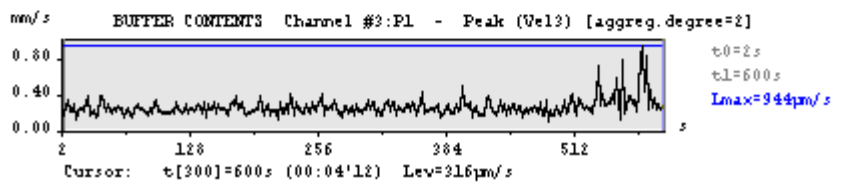
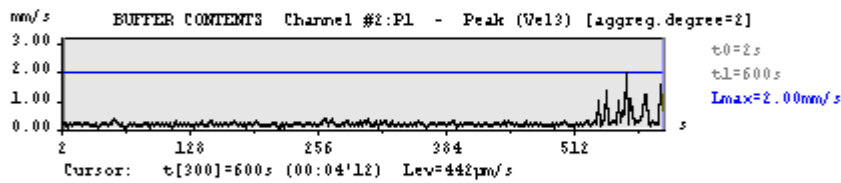
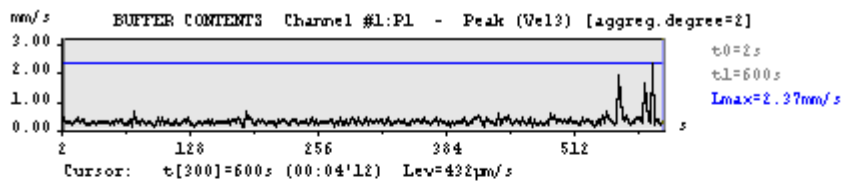
W:\CRJ00017.DTA
 Overall profile duration = 00:10:13 (613 samples)



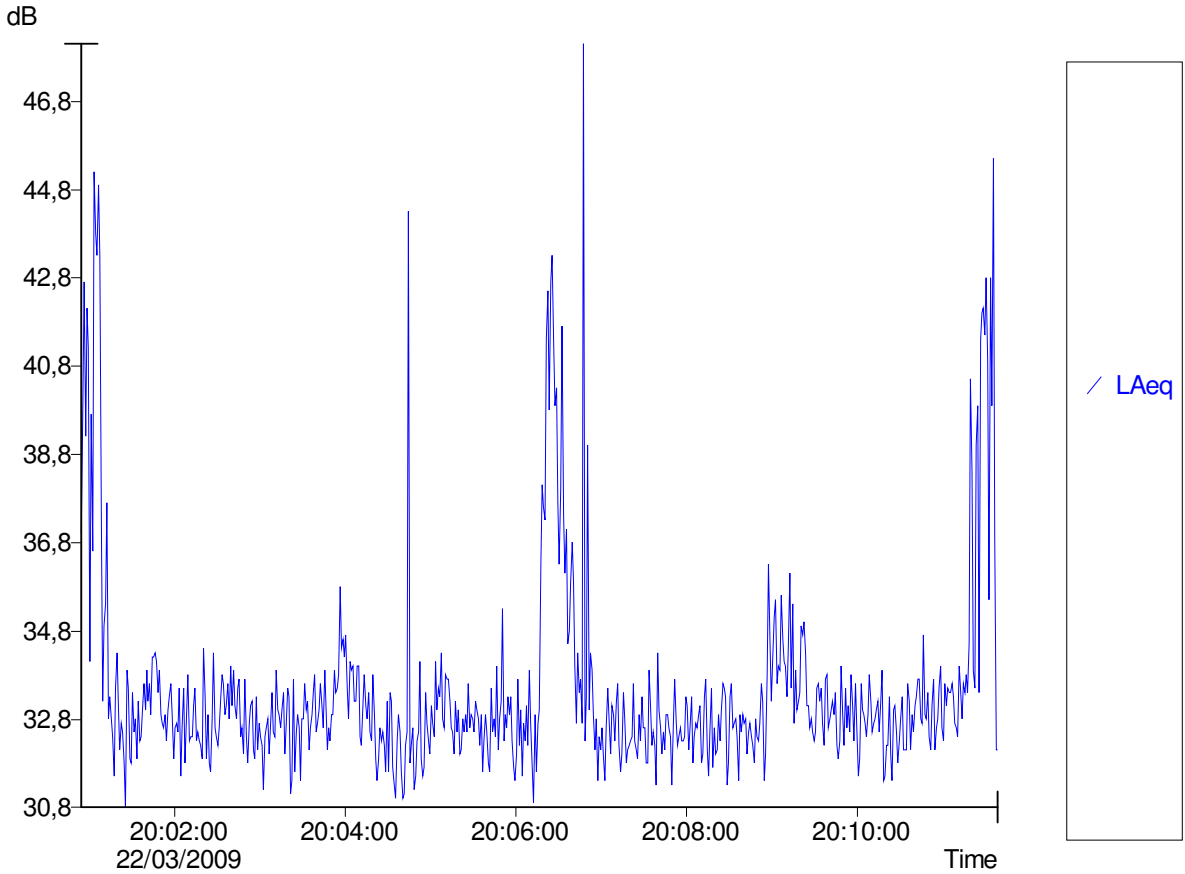
Ponto 04 C



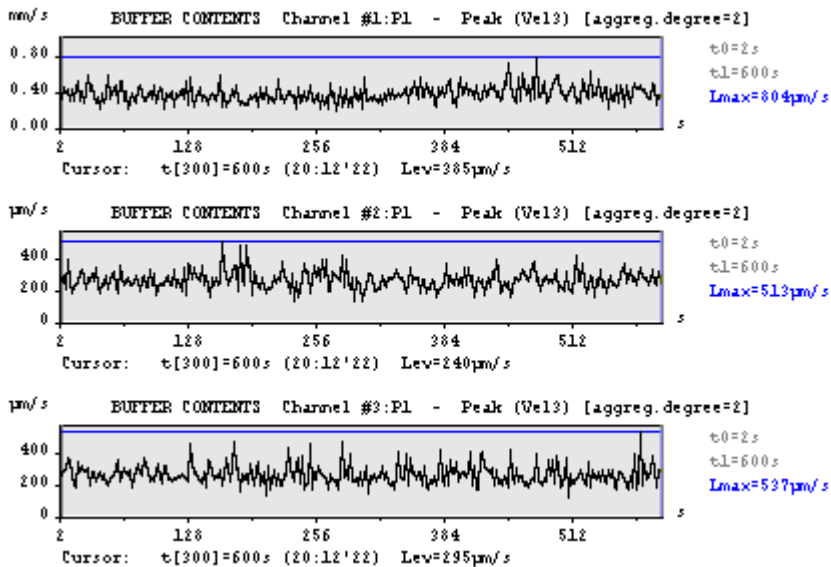
W:\CRJ00018.DTA
 Overall profile duration = 00:10:06 (606 samples)



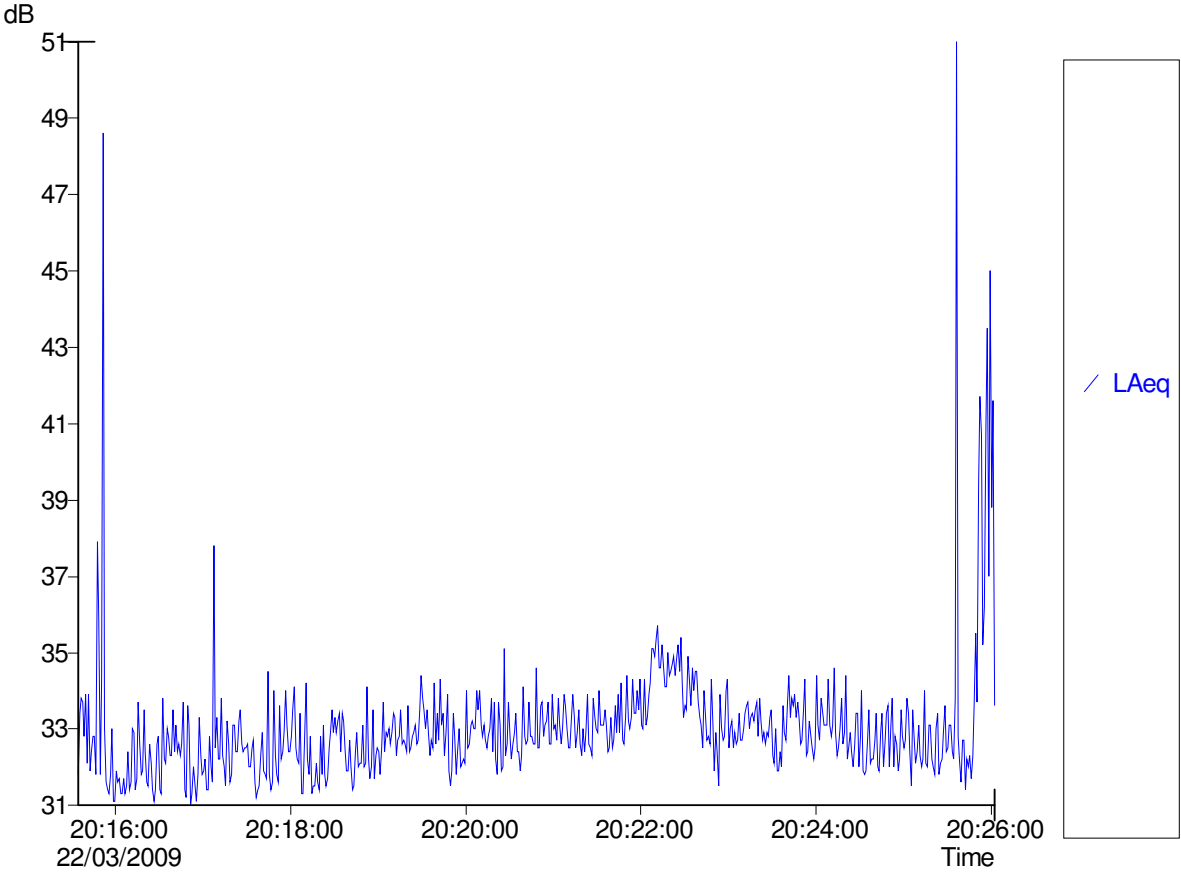
Ponto 05 A



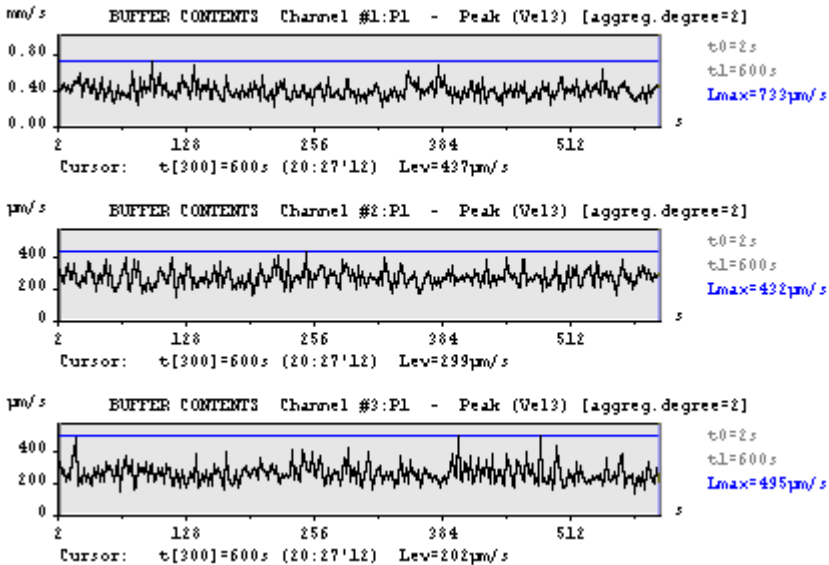
W:\CRJ00066.DTA
 Overall profile duration = 00:10:45 (645 samples)



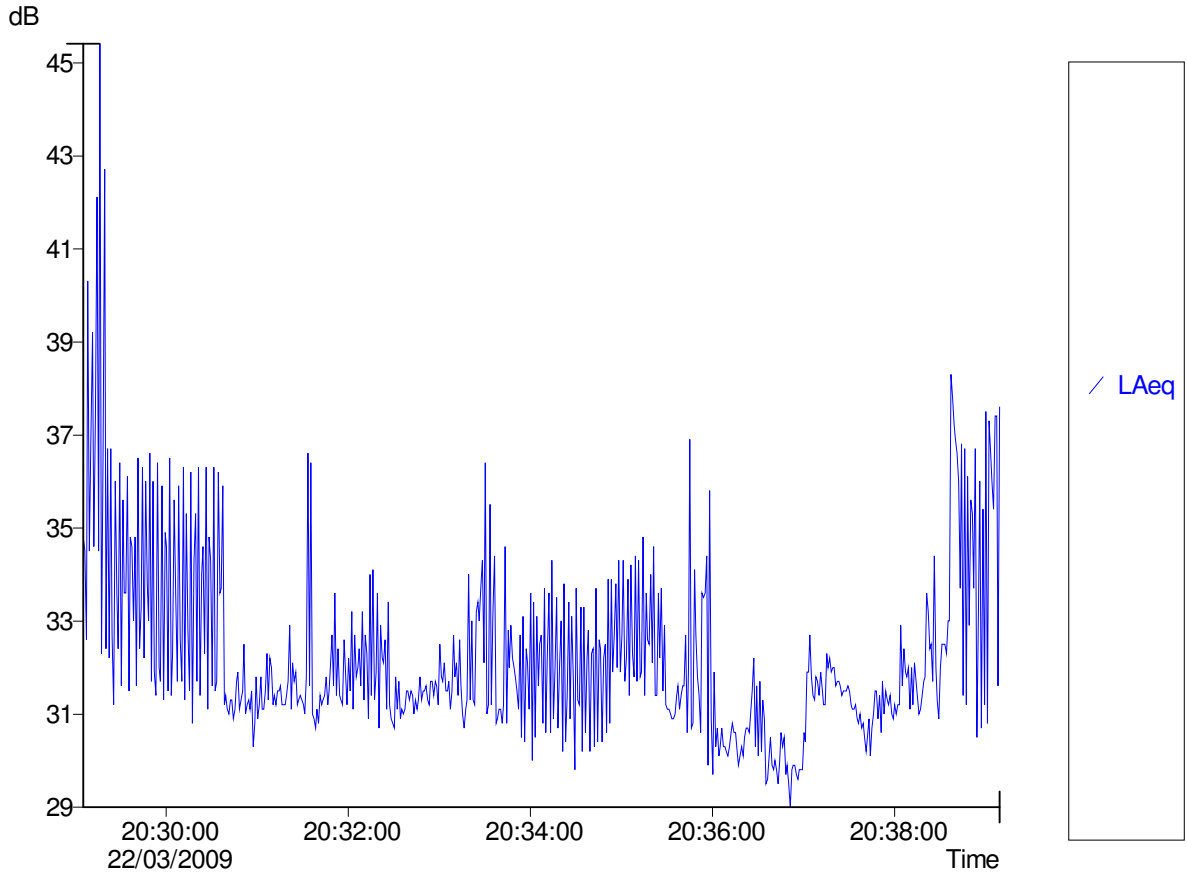
Ponto 05 B



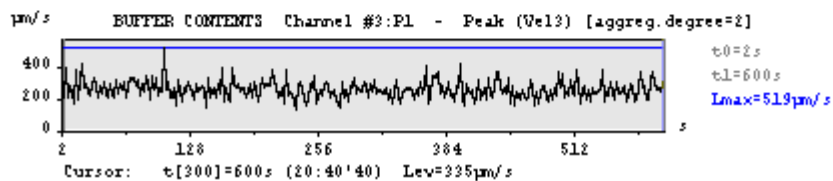
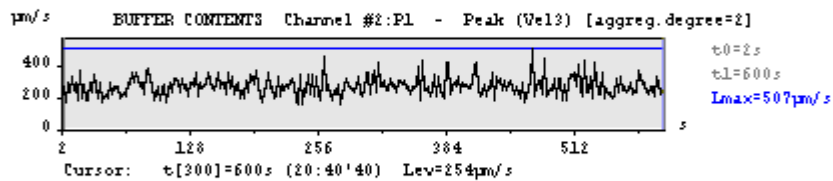
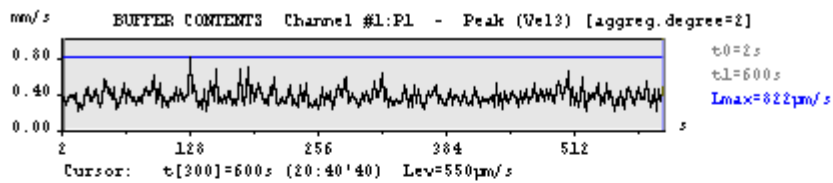
W:\CRJ00067.DTA
 Overall profile duration = 00:10:29 (629 samples)



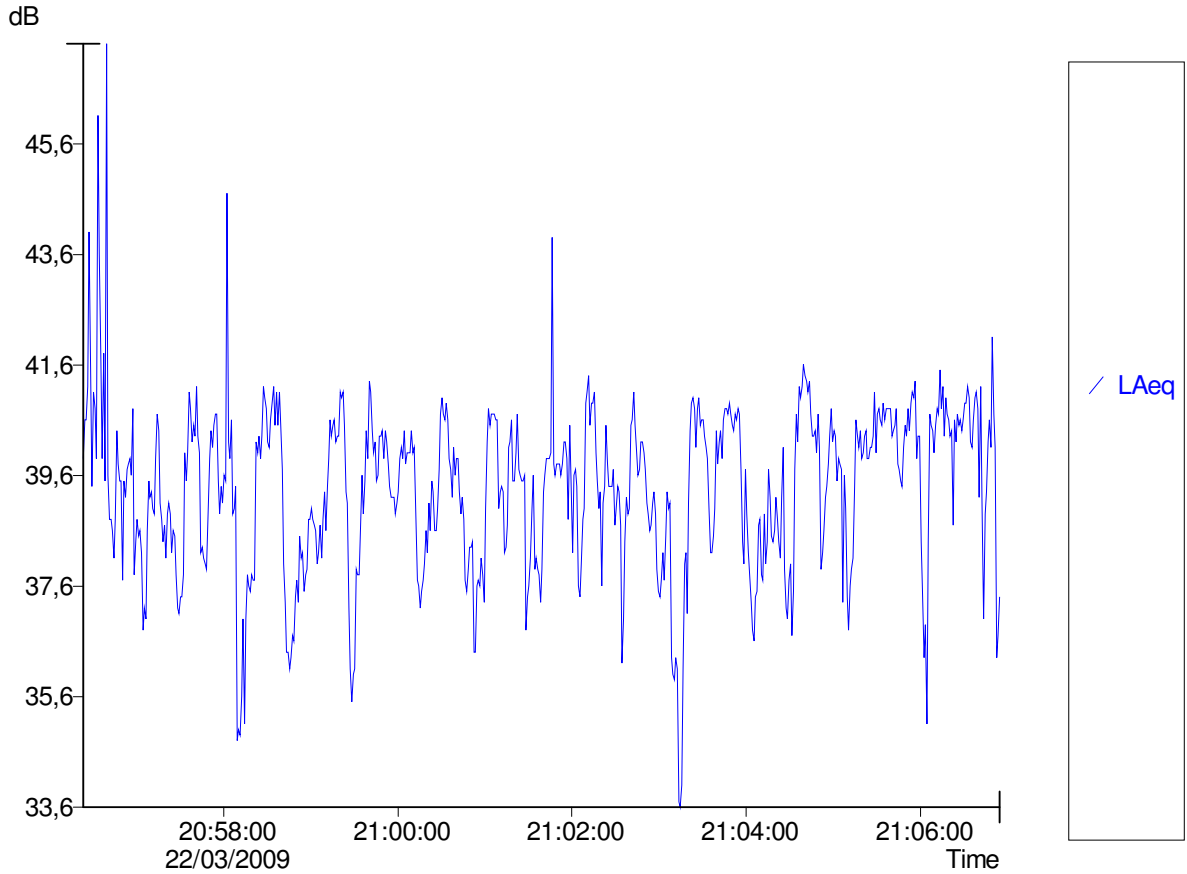
Ponto 05 C



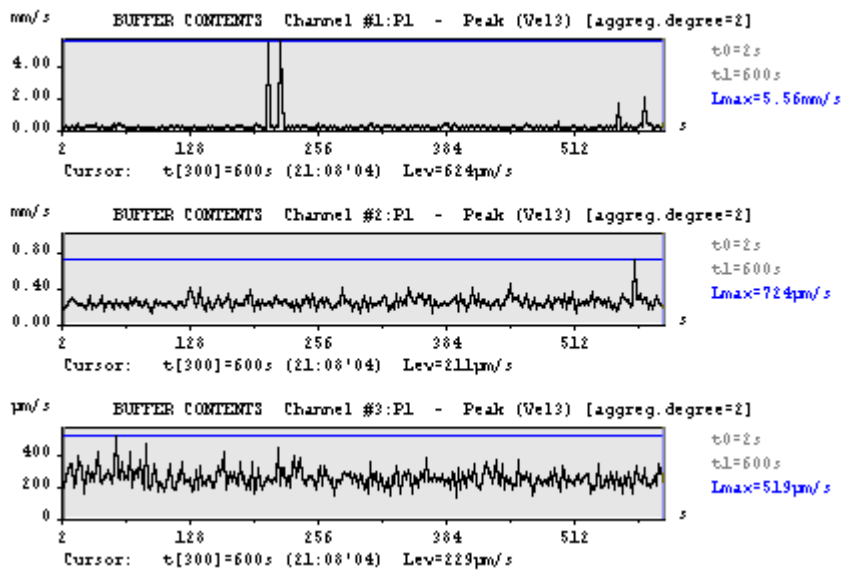
W:\CRJ00068.DTA
Overall profile duration = 00:10:05 (605 samples)



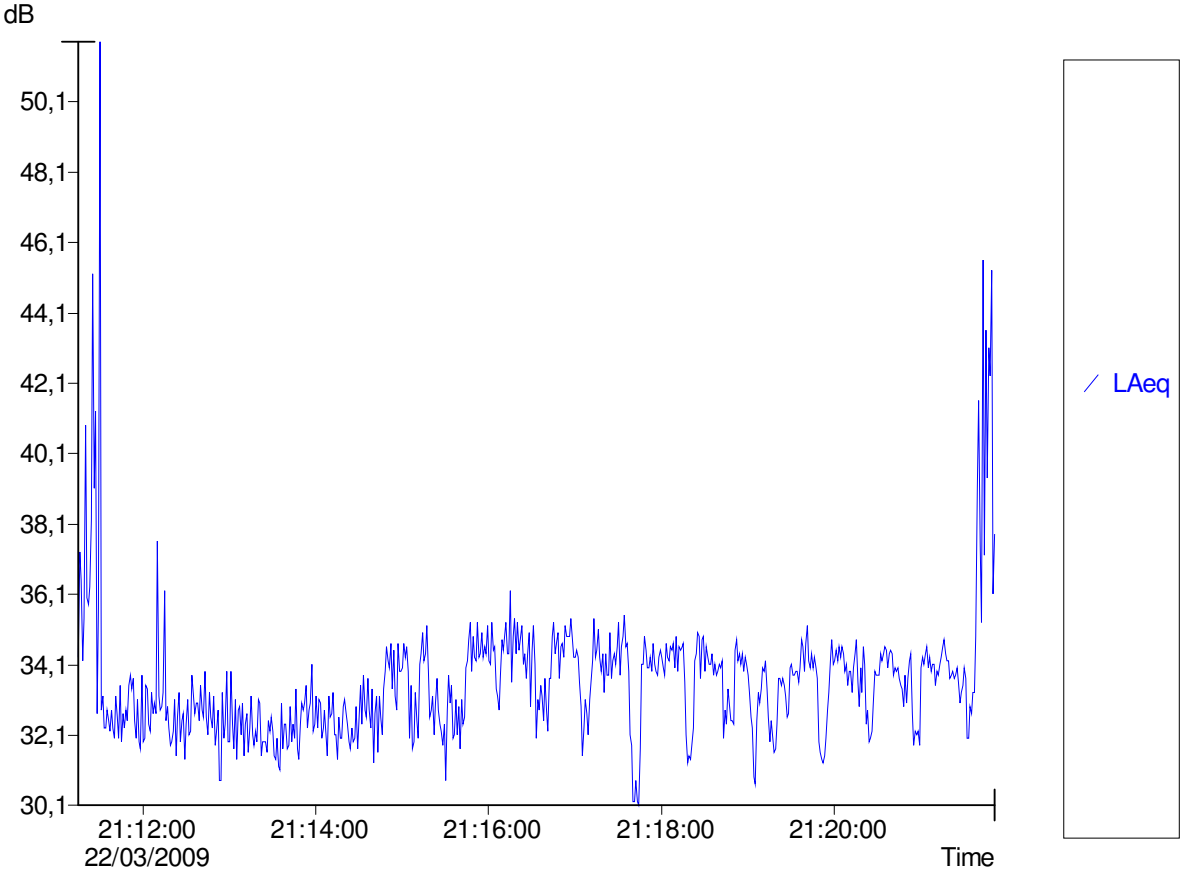
Ponto 06 A



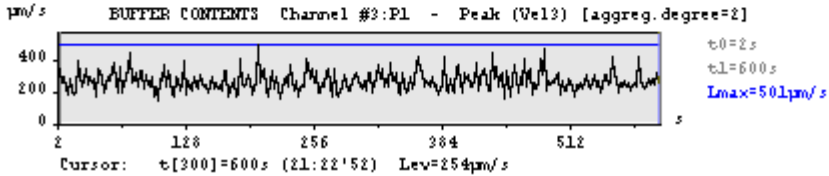
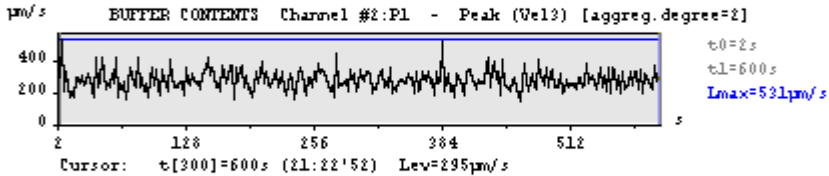
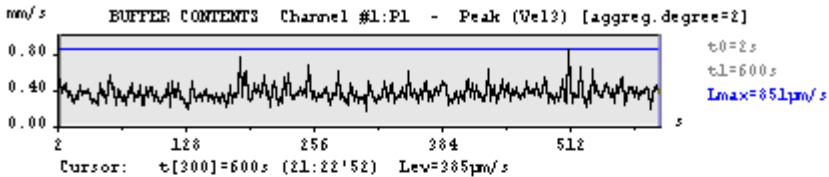
W:\CRJ00069.DTA
 Overall profile duration = 00:10:32 (632 samples)



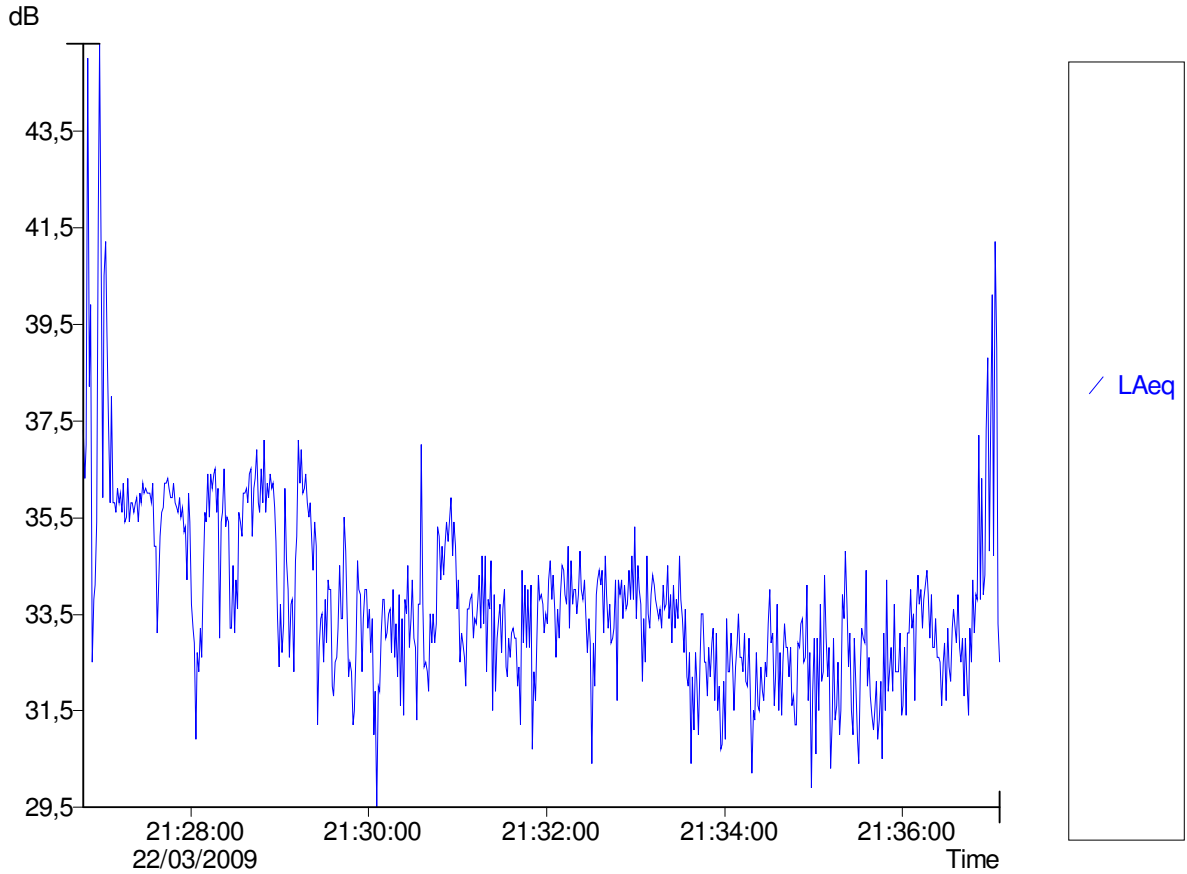
Ponto 06 B



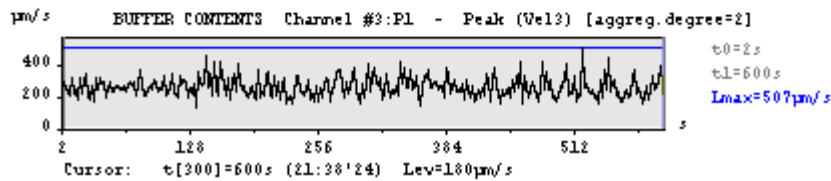
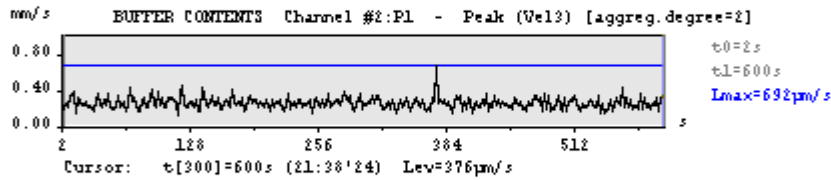
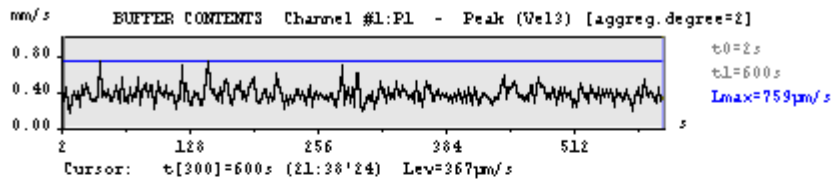
W:\CRJ00070.DTA
 Overall profile duration = 00:10:37 (637 samples)



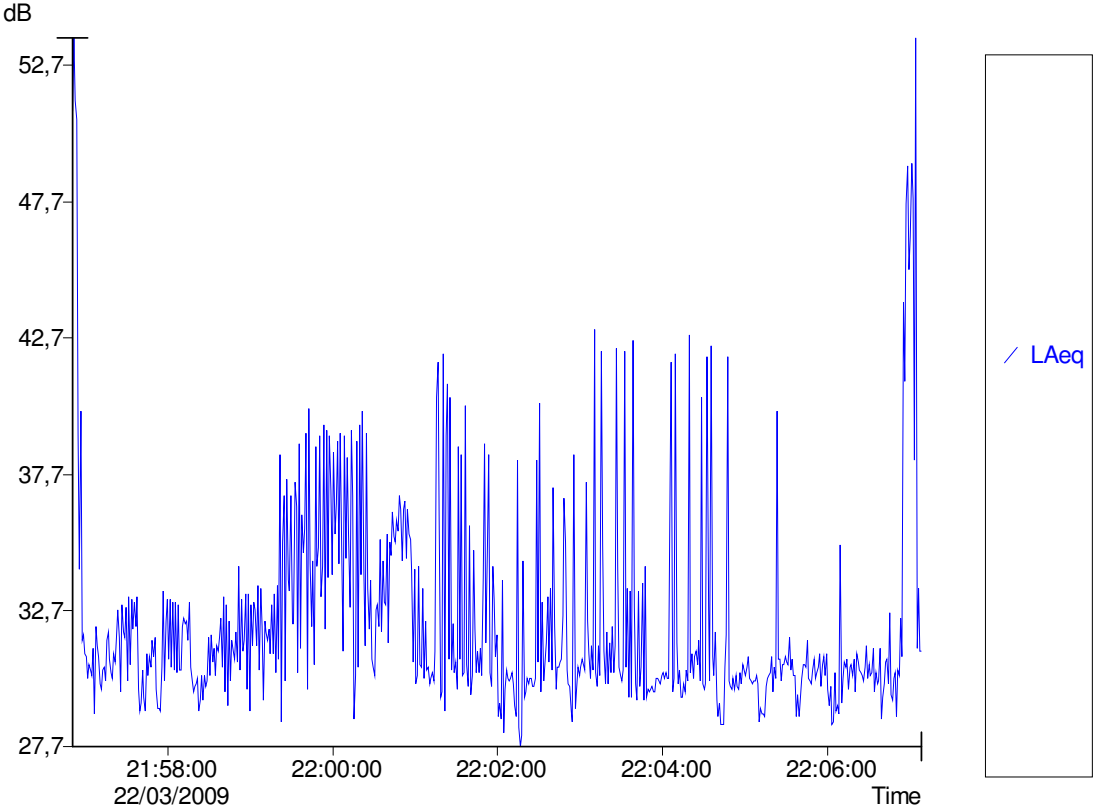
Ponto 06 C



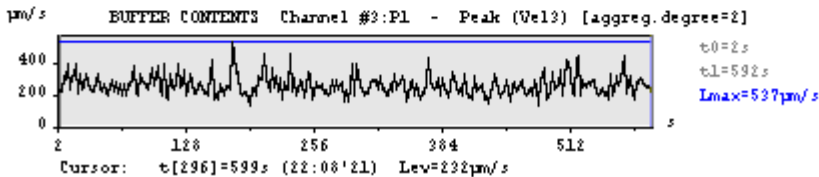
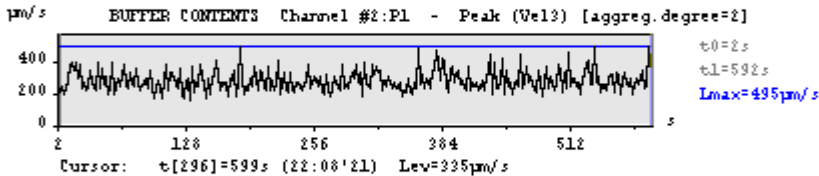
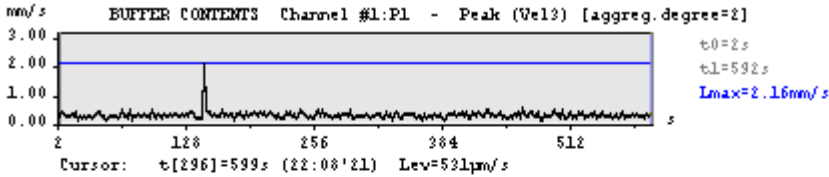
W:\CRJ00071.DTA
Overall profile duration = 00:10:19 (619 samples)



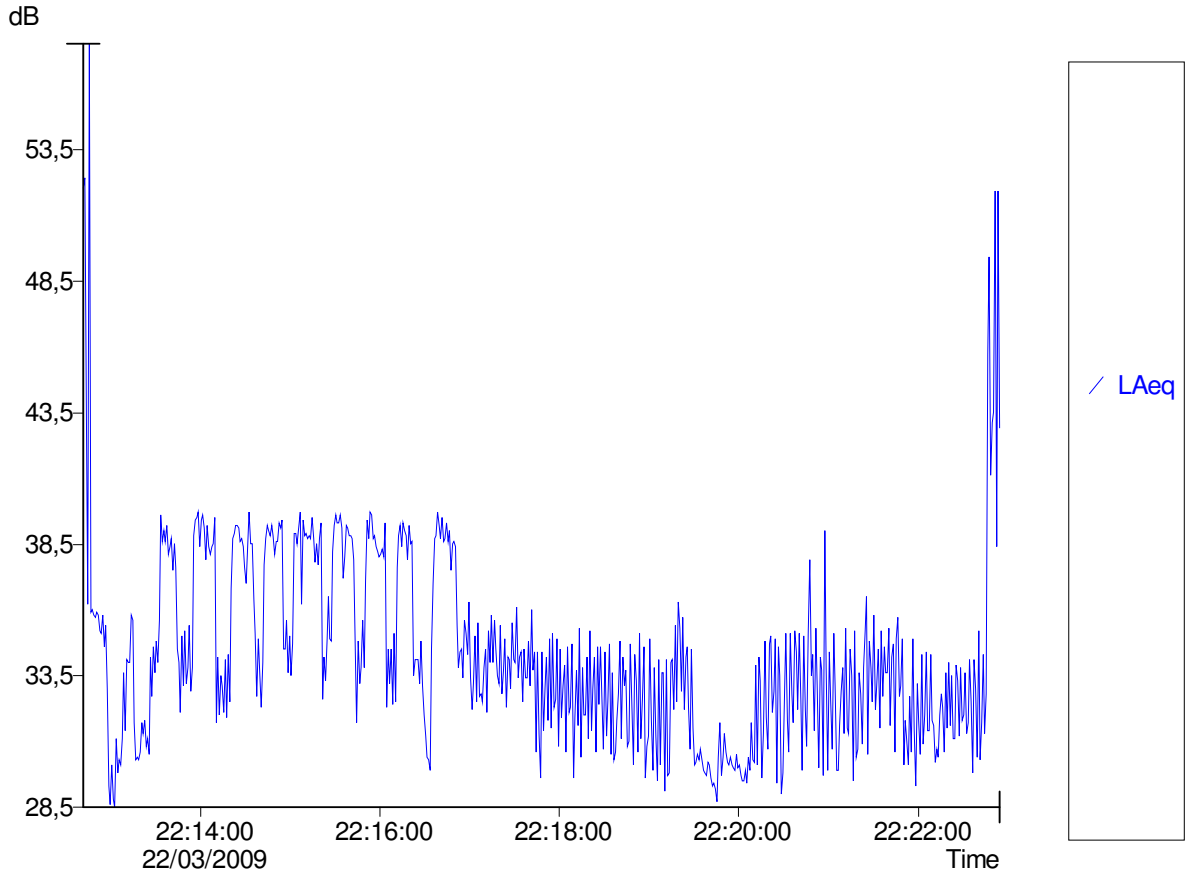
Ponto 07 A



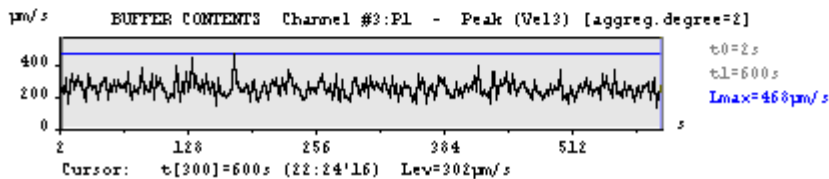
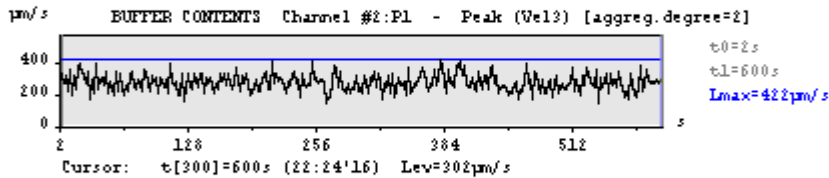
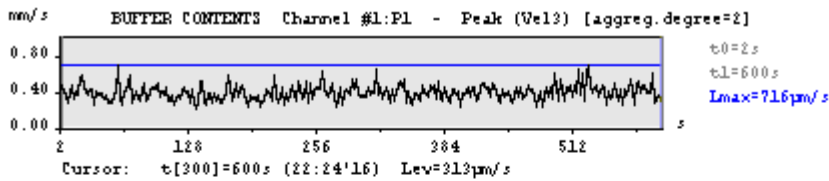
V:\CRJ00072.DTA
 Overall profile duration = 00:10:19 (619 samples)



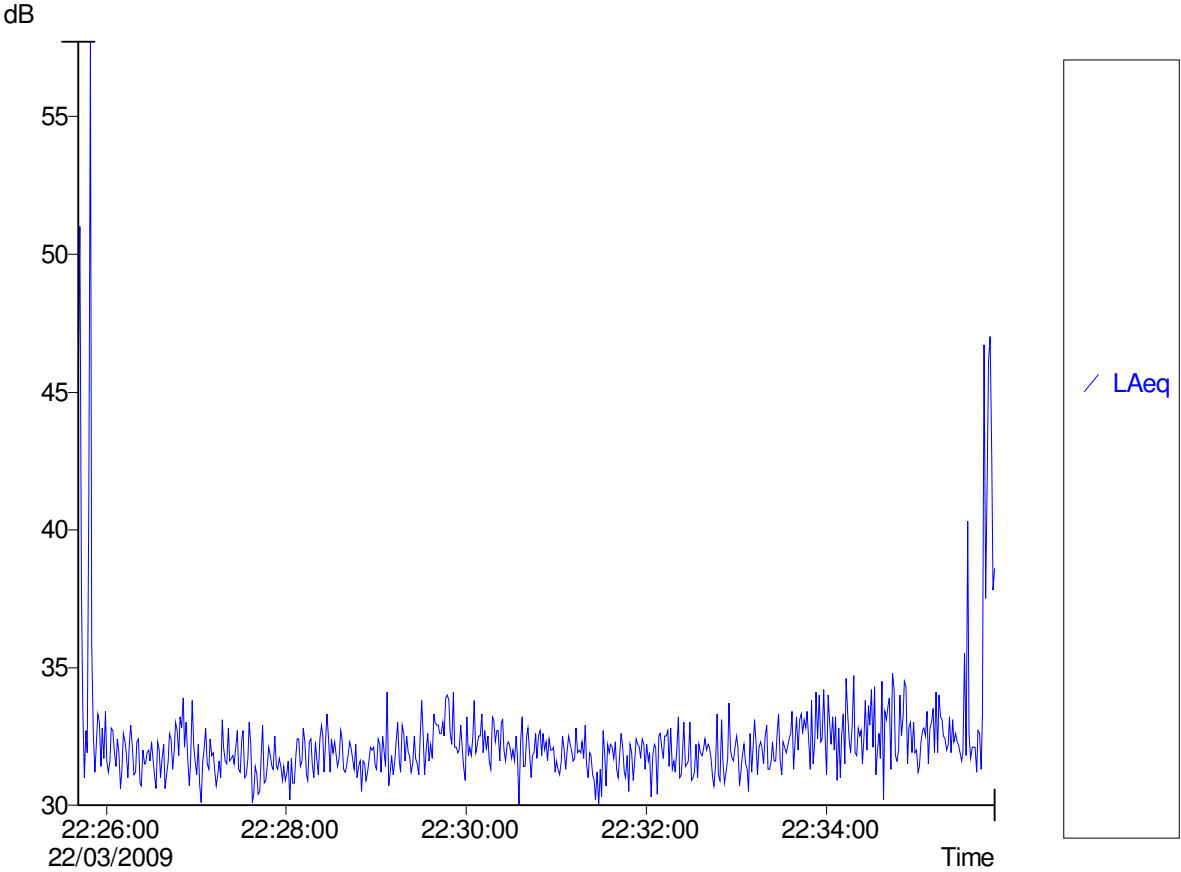
Ponto 07 B



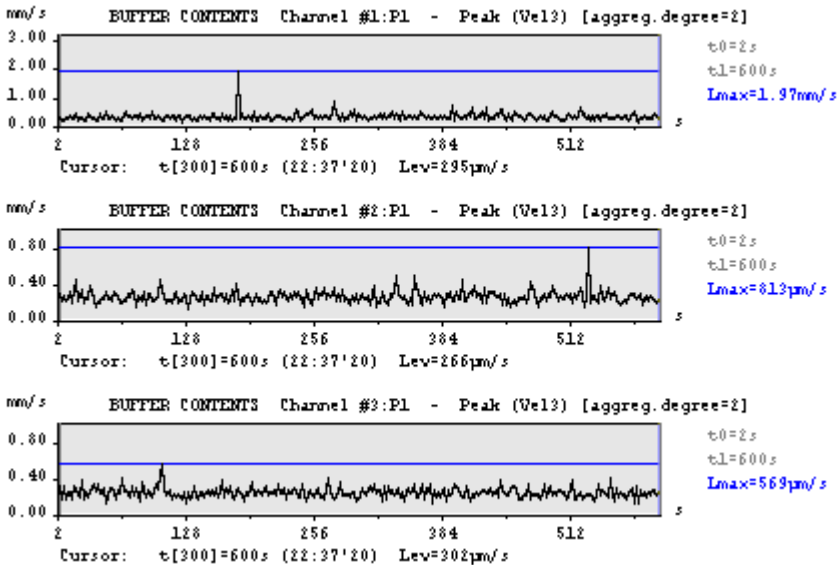
V:\CRJ00073.DTA
 Overall profile duration = 00:10:14 (614 samples)



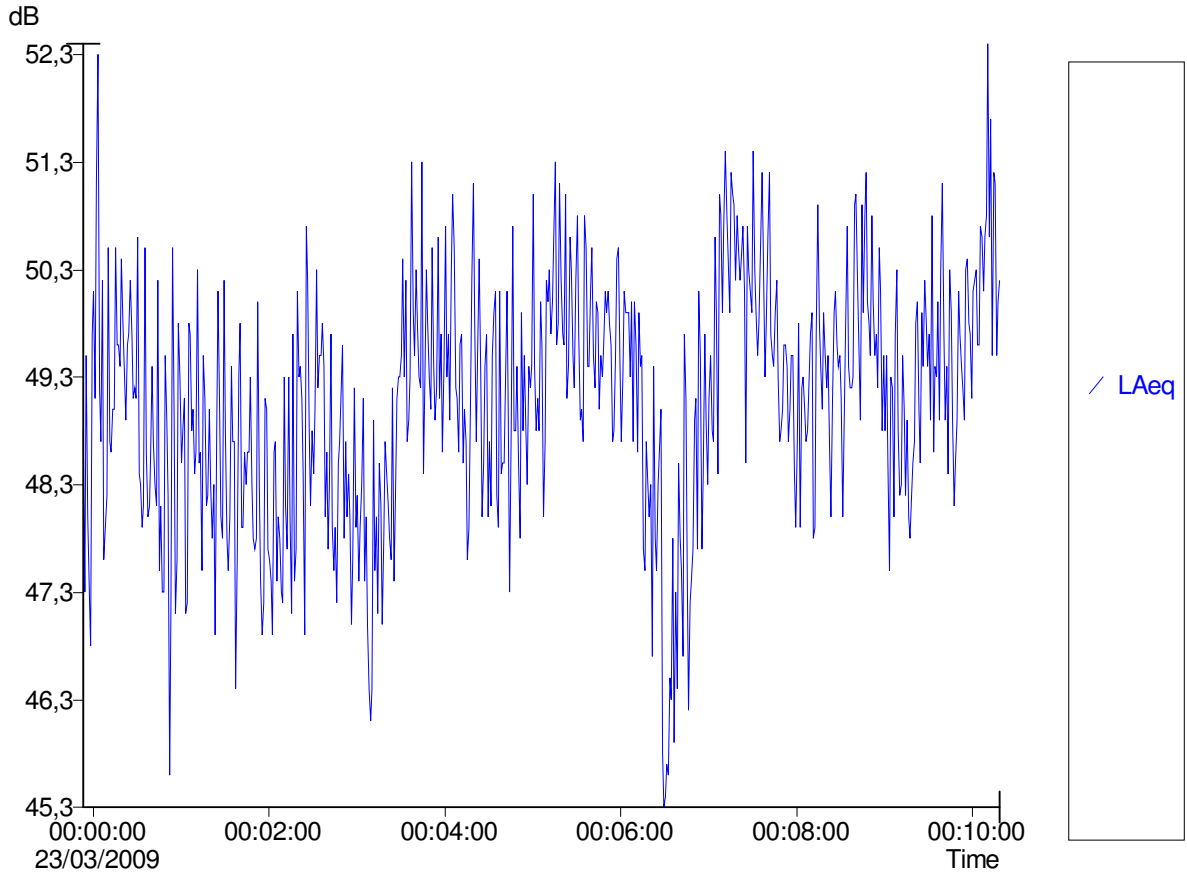
Ponto 07 C



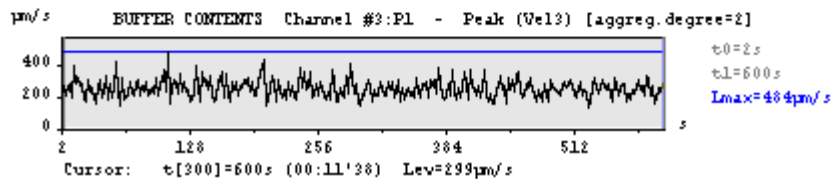
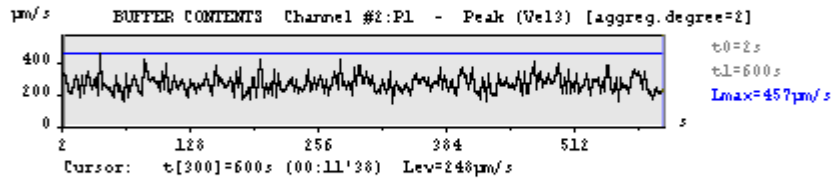
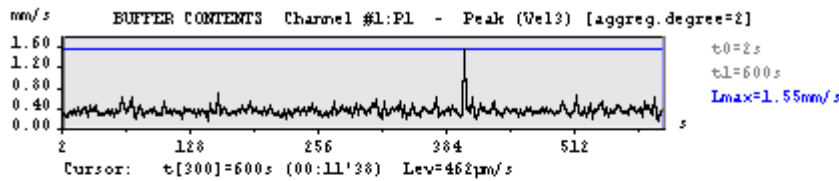
V:\CRJ00074.DTA
Overall profile duration = 00:10:12 (612 samples)



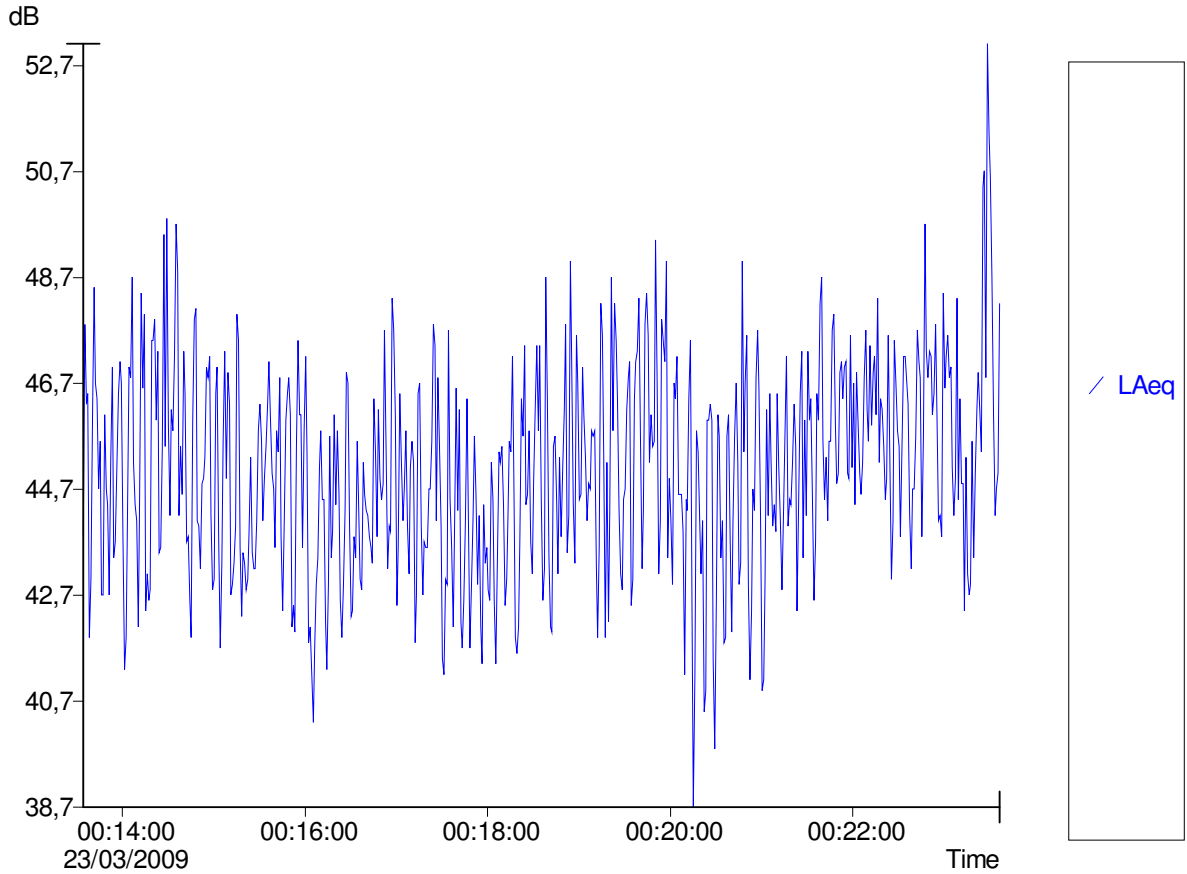
Ponto 09 A 2



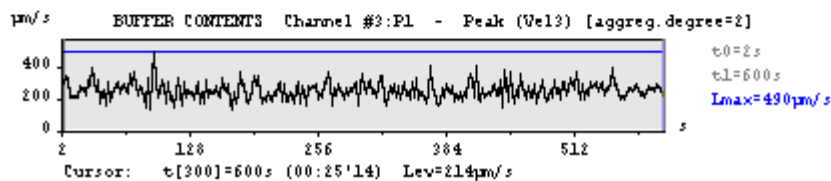
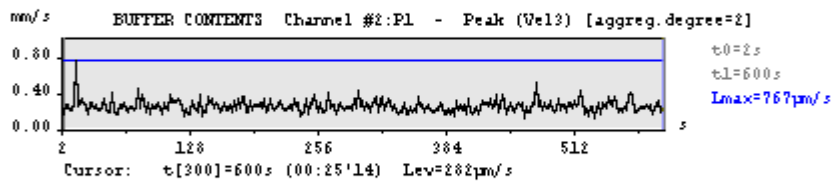
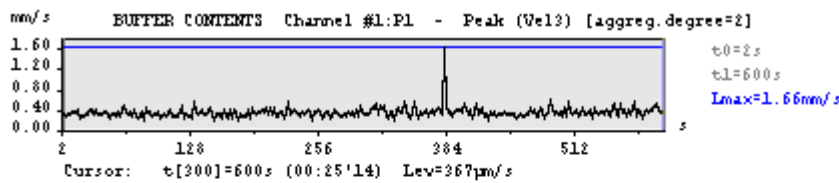
U:\CRJ00077.DTA
Overall profile duration = 00:10:26 (626 samples)



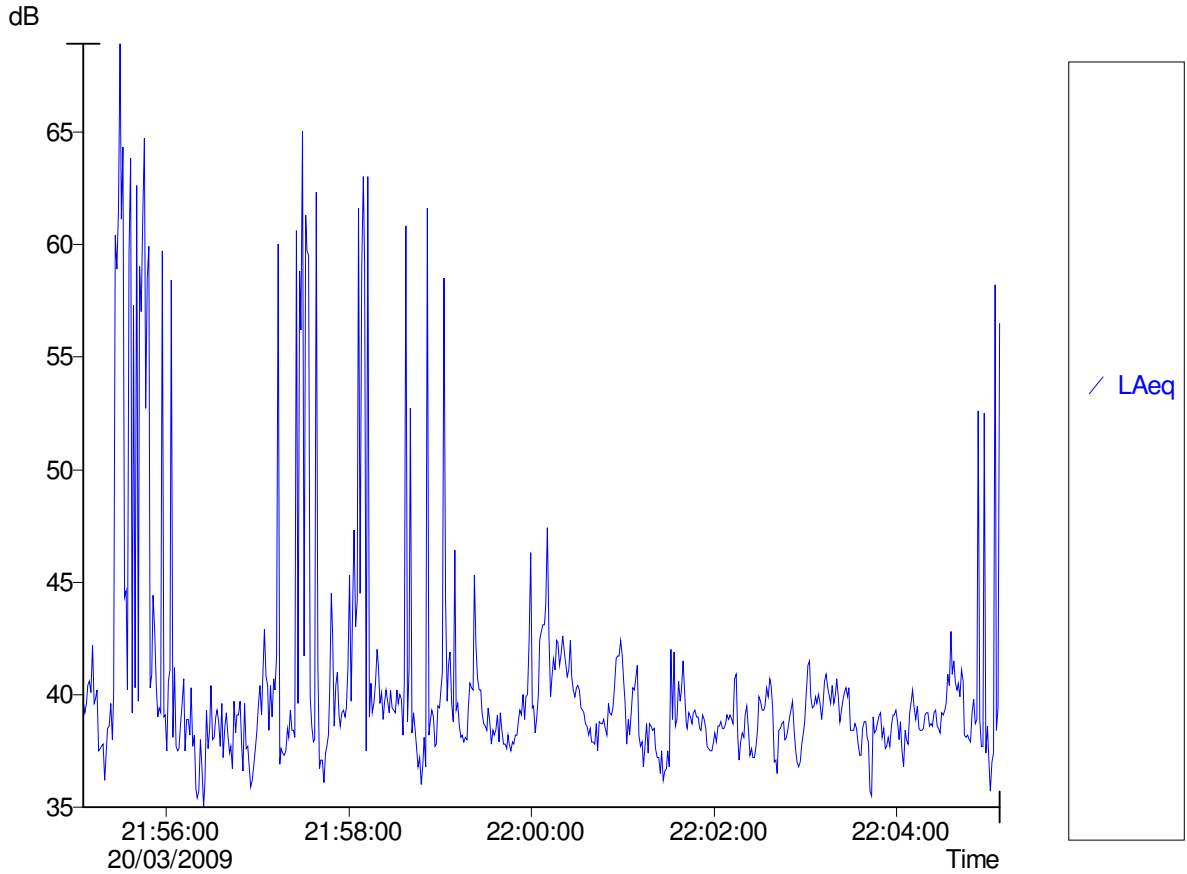
Ponto 09 B 2



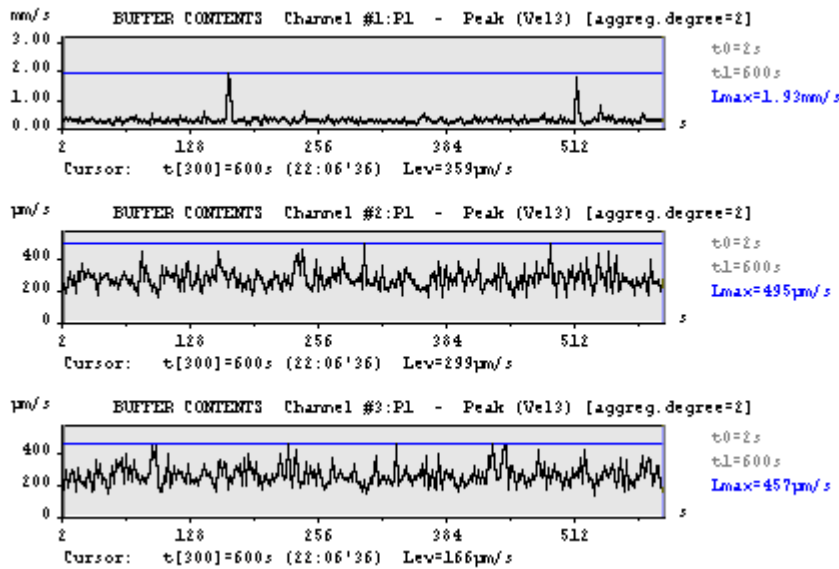
U:\CRJ00078.DTA
Overall profile duration = 00:10:03 (603 samples)



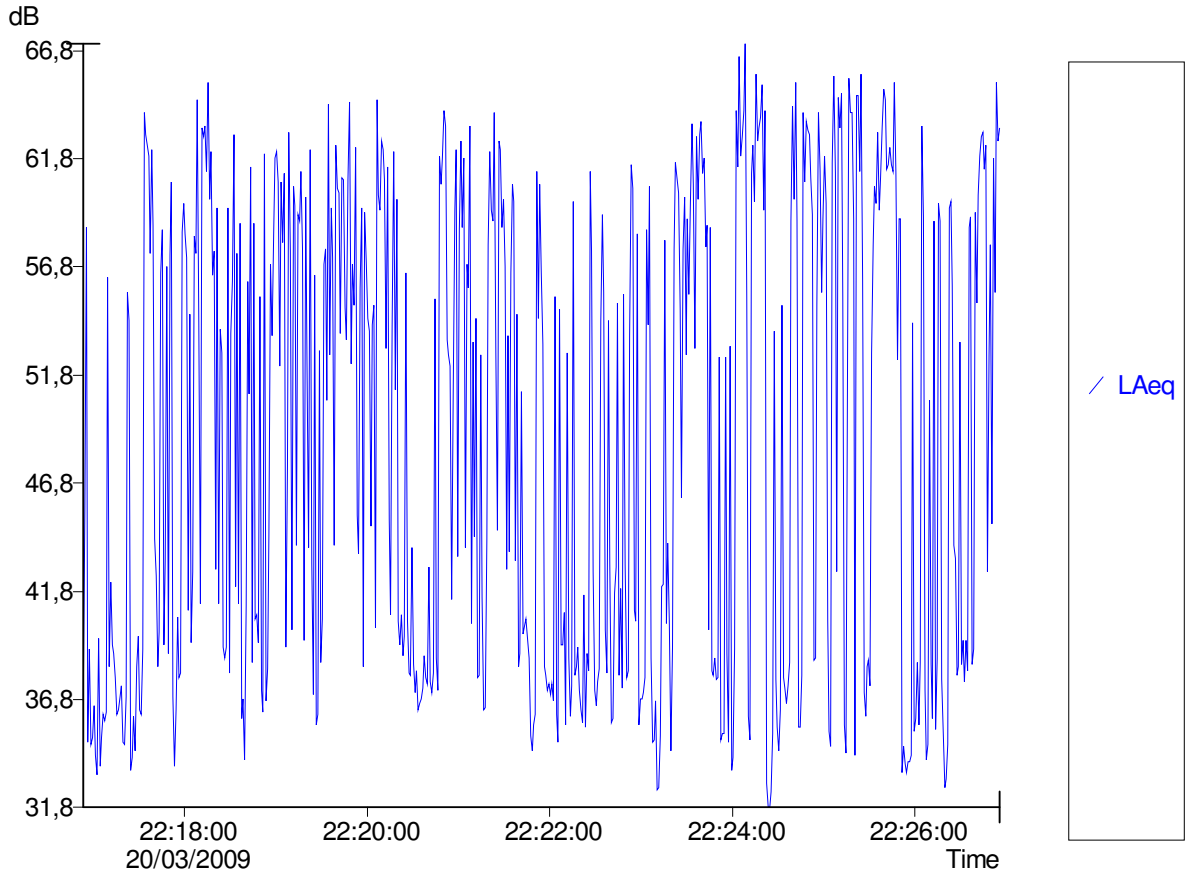
Ponto 10 A



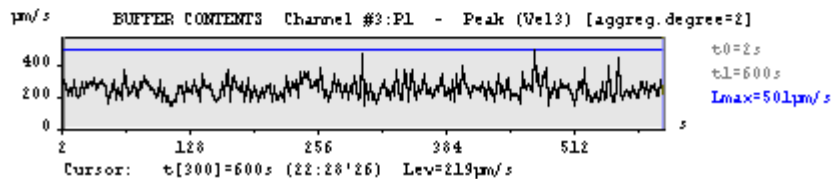
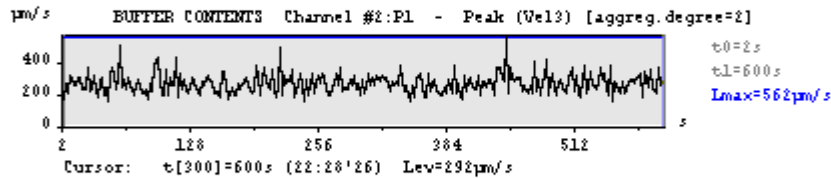
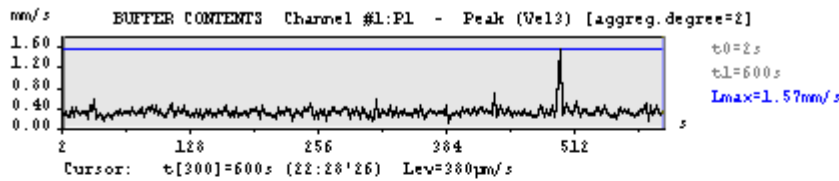
U:\CRJ\00035.DTA
Overall profile duration = 00:10:03 (603 samples)



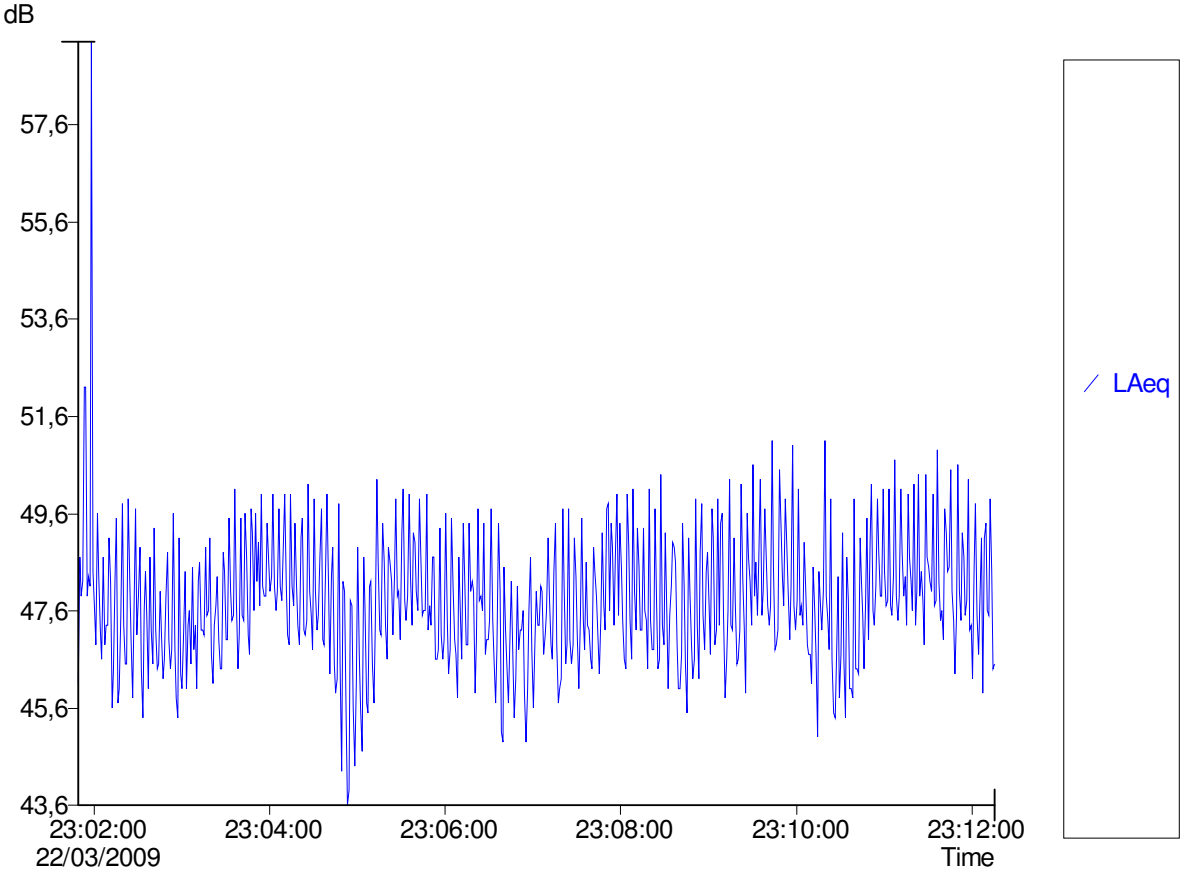
Ponto 10 B



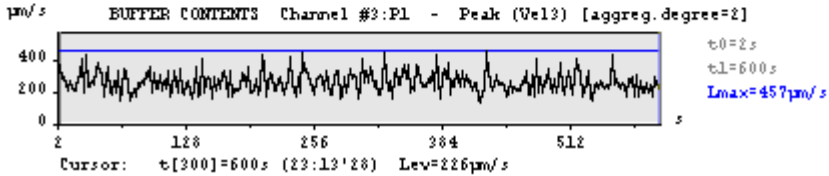
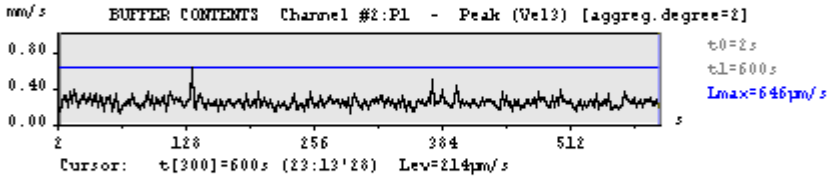
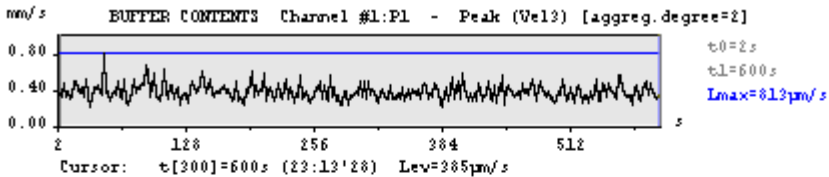
U:\CRJ00036.DTA
 Overall profile duration = 00:10:03 (603 samples)



Ponto 18



U:\CRJ00075.DTA
 Overall profile duration = 00:10:27 (627 samples)



II – CERTIFICADO DE CALIBRAÇÃO

**CALILAB - LABORATÓRIO DE ELETROACÚSTICA
RBC - REDE BRASILEIRA
DE CALIBRAÇÃO****CERTIFICADO DE CALIBRAÇÃO Nº: RBC2-6812-652****1- CLIENTE/ EQUIPAMENTO**Data da calibração: 26/08/08
Processo: 8564Nome: Segma Engenharia de Segurança do Trabalho e Meio Ambiente Ltda.
Endereço: Rua David Rabelo, 210 - Belo Horizonte - MG - Cep: 30820-260
Equipamento: Calibrador de Nível Sonoro
Fabricante: CEL Modelo: 282
Número de Série: 2/11718397 Classe: 2
Identificação: ---**2- PADRÕES E INSTRUMENTAÇÃO**

Descrição	Código	Certificado	Emitente	Validade
Pistonphone	P101	DIMCI 1061/2008	INMETRO	11/07/2009
Multímetro Digital	P105	RBC2-7/0050	RBC	10/04/2009
Microfone: 1/2 polegada	P114		Barômetro Digital	P106
Pré-amplificador	P162		Higrômetro	P107
Fonte de Microfone	P104		Termômetro	P108
Multímetro Digital	P105			

3- INFORMAÇÕES DA CALIBRAÇÃOProcedimento: IT-502: Método de calibração por comparação de acordo com IEC 60942:1988
Condições ambientais: Temperatura: 23,6 °C, Umidade Relativa: 52 %, Pressão Atmosférica: 93,1 kPa.
Observações gerais: 1- Os resultados apresentados referem-se à média dos valores encontrados.
2- A Incerteza Expandida de Medição relatada é declarada como a incerteza padrão de medição multiplicada pelo fator de abrangência k, para uma probabilidade de abrangência de aproximadamente 95%.
3- O presente certificado de calibração é válido apenas para o calibrador de nível sonoro acima descrito, não sendo extensivo a quaisquer outros, ainda que similares.
4- Este certificado de calibração somente pode ser reproduzido completo. Reproduções para fins de divulgação em material publicitário, bem como reproduções parciais, requerem autorização escrita do laboratório emitente. Nenhuma reprodução poderá ser usada de maneira enganosa.
5- O Calibrador de Nível Sonoro sob teste tem correções de fornecidas pelo fabricante [pressão, volume]. As correções foram consideradas de maneira a apresentar os resultados, preferencialmente nas condições de referência.

Cgcre/Inmetro is Signatory of the ILAC Mutual Recognition Arrangement. Cgcre/Inmetro is Signatory of a Bilateral Mutual Agreement with EA. Cgcre/Inmetro is signatory of the IAAC Mutual Recognition Arrangement.



Página: 1/2

Este certificado atende aos requisitos de acreditação pela Cgcre/Inmetro que avaliou a competência do laboratório e comprovou a sua rastreabilidade a padrões nacionais de medida (ou ao Sistema Internacional de Unidades - SI).

CERTIFICADO DE CALIBRAÇÃO N°: RBC2-6812-652**4- RESULTADOS E DECLARAÇÃO DAS INCERTEZAS**

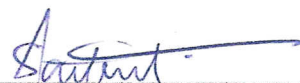
Valor Nominal	Valor Medido	Tolerância	Incerteza	Unidade
114	114,0	0,5	0,2	dB
1000 (114 dB)	1000,1	40,0	0,1	Hz

Ajustes ou reparos (não fazem parte do escopo de acreditação do laboratório):

Os resultados desta calibração foram obtidos após ajuste do Calibrador de Nível Sonoro. Os valores anteriores ao ajuste eram: [114,8] dB e [997,2] Hz, correspondentes aos valores nominais: [114] dB e [1000] Hz, respectivamente.

Opiniões e Interpretações (não fazem parte do escopo de acreditação do laboratório):

(campo vazio)



Reinaldo Martins
Signatário Autorizado

FACTORY CALIBRATION DATA OF THE SVAN 948 No. 9368

SOUND LEVEL METER

1. CALIBRATION (electrical)

LEVEL METER; Filter: LIN; Input signal =114.0dB, $f_{sin}=1\text{kHz}$

	Range 105dB		Range 130dB	
	Indication [dB]	Error [dB]	Indication [dB]	Error [dB]
Channel 1	113.98	-0.02	114.02	0.02
Channel 2	113.97	-0.03	114.02	0.02
Channel 3	113.98	-0.02	114.02	0.02
Channel 4	113.97	-0.03	114.02	0.02

2. CALIBRATION* (acoustical)

LEVEL METER; Range: 130 dB; Reference frequency: 1000Hz; Calibration factors: -0.4dB, -0.4dB, -0.4dB, -0.4dB

Filter	LIN		A		C	
	Indication [dB]	Error [dB]	Indication [dB]	Error [dB]	Indication [dB]	Error [dB]
Channel 1	113.9	0.1	113.9	0.1	113.9	0.1
Channel 2	113.9	0.1	113.9	0.1	113.9	0.1
Channel 3	113.9	0.1	113.9	0.1	113.9	0.1
Channel 4	113.9	0.1	113.9	0.1	113.9	0.1

Calibration measured with the microphone SVANTEK type SV22 No. 4010479.

3. LINEARITY TEST (electrical)

LEVEL METER; Range: 105 dB; Filter: A; $f_{sin}=1000\text{ Hz}$

	Input [dB]	24.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0	100.0	110.0	114.0
Channel 1	Error [dB]	-0.16	-0.07	-0.01	-0.02	-0.01	-0.01	0.00	0.00	0.00	0.01	0.00
Channel 2	Error [dB]	-0.11	-0.05	0.00	-0.01	0.00	0.00	0.01	0.00	0.01	0.02	0.01
Channel 3	Error [dB]	0.06	0.08	0.02	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.01	0.00
Channel 4	Error [dB]	0.06	0.08	0.02	-0.01	-0.01	-0.01	0.00	0.00	0.01	0.01	0.01

LEVEL METER; Range: 130 dB; Filter: A; $f_{sin}=1000\text{ Hz}$

	Input [dB]	45.0	50.0	60.0	70.0	80.0	90.0	100.0	110.0	120.0	130.0	135.0
Channel 1	Error [dB]	-0.08	-0.06	-0.02	-0.01	0.01	0.01	0.01	0.01	-0.01	0.01	0.00
Channel 2	Error [dB]	-0.05	-0.04	-0.02	-0.01	0.00	0.00	0.01	0.01	-0.01	0.01	0.00
Channel 3	Error [dB]	0.26	0.15	0.04	0.00	0.01	0.00	0.01	0.01	-0.01	0.00	0.00
Channel 4	Error [dB]	0.29	0.16	0.04	0.00	0.00	0.00	0.00	0.00	-0.02	0.00	0.00

1/3 OCTAVE (1kHz); Range: 130 dB; Filter: A; $f_{sin}=1000\text{ Hz}$

	Input [dB]	35.0	40.0	50.0	60.0	70.0	80.0	90.0	100.0	110.0	120.0	130.0	135.0
Channel 1	Error [dB]	0.20	-0.19	-0.08	-0.01	-0.01	0.01	0.00	0.01	0.01	-0.01	-0.00	-0.00
Channel 2	Error [dB]	0.23	-0.15	-0.05	-0.02	-0.01	0.01	0.00	0.01	0.01	-0.01	-0.00	-0.00
Channel 3	Error [dB]	0.62	0.21	0.15	0.04	0.01	0.01	0.01	0.01	0.01	-0.01	-0.00	-0.00
Channel 4	Error [dB]	0.59	0.24	0.13	0.04	0.00	0.00	0.00	0.01	0.01	-0.01	-0.00	-0.00

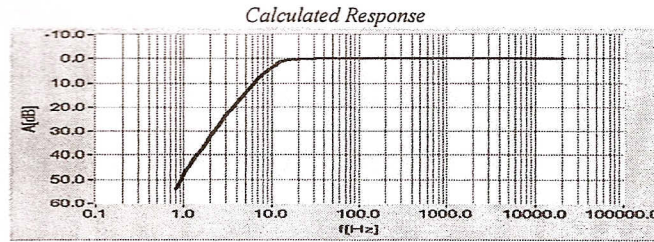
4. RMS DETECTOR ACCURACY*

LEVEL METER; Range: 130 dB; Input signal =120dB; RMS detector: Impulse

	Crest factor	≤3	≤5	≤10
Channel 1	Max Error [dB]	-0.2	-0.5	-1.4
Channel 2	Max Error [dB]	-0.2	-0.5	-1.4
Channel 3	Max Error [dB]	-0.2	-0.4	-1.4
Channel 4	Max Error [dB]	-0.3	-0.5	-1.4

5. FREQUENCY RESPONSE (electrical)

LEVEL METER; Filter: LIN; Range: 130 dB; Input signal =135 dB;



Measured Response (f-frequency, An-attenuation in channel n)

f [Hz]	A1[dB]	A2[dB]	A3[dB]	A4[dB]	f [Hz]	A1[dB]	A2[dB]	A3[dB]	A4[dB]
0.8	53.8	53.8	53.8	53.8	6.3	9.5	9.5	9.5	9.5
1	48.1	48.1	48.1	48.1	8	5.9	5.9	5.9	5.9
1.25	42.6	42.6	42.6	42.6	10	3.1	3.1	3.1	3.1
1.6	37.2	37.2	37.2	37.2	12.5	1.3	1.3	1.3	1.3
2	32.1	32.1	32.1	32.1	16	0.4	0.4	0.4	0.4
2.5	27.1	27.1	27.1	27.1	20	0.1	0.1	0.1	0.1
3.15	22.4	22.4	22.4	22.4	25	0.0	0.0	0.0	0.0
4	17.8	17.8	17.8	17.8	31.5	-0.1	-0.1	-0.1	-0.1
5	13.6	13.6	13.6	13.6	40	-0.1	-0.1	-0.1	-0.1

f [Hz]	A1[dB]	A2[dB]	A3[dB]	A4[dB]	f [Hz]	A1[dB]	A2[dB]	A3[dB]	A4[dB]	f [Hz]	A1[dB]	A2[dB]	A3[dB]	A4[dB]
50	-0.1	-0.1	-0.1	-0.1	400	0.0	0.0	0.0	0.0	3150	0.0	0.0	0.0	0.0
63	0.0	0.0	0.0	0.0	500	0.0	0.0	0.0	0.0	4000	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0	630	0.0	0.0	0.0	0.0	5000	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0	800	0.0	0.0	0.0	0.0	6300	0.0	0.0	0.0	0.0
125	0.0	0.0	0.0	0.0	1000	0.0	0.0	0.0	0.0	8000	0.0	0.0	0.0	0.0
160	0.0	0.0	0.0	0.0	1250	0.0	0.0	0.0	0.0	10000	0.0	0.0	0.0	0.0
200	0.0	0.0	0.0	0.0	1600	0.0	0.0	0.0	0.0	12500	0.0	0.0	0.0	0.0
250	0.0	0.0	0.0	0.0	2000	0.0	0.0	0.0	0.0	16000	0.0	0.0	0.0	0.0
315	0.0	0.0	0.0	0.0	2500	0.0	0.0	0.0	0.0	20000	0.0	0.0	0.0	0.0

All frequencies are nominal center values for the 1/3 octave bands

6. INTERNAL NOISE LEVEL* (electrical)

LEVEL METER; Range: 105 dB; Back-light – off

	Filter	LIN	A	C
Channel 1	Level [dB]	15.2	11.3	10.0
Channel 2	Level [dB]	14.7	11.1	10.0
Channel 3	Level [dB]	15.0	11.5	10.0
Channel 4	Level [dB]	15.3	11.3	10.0

* measured with preamplifier SVANTEK type SV12L No. 1992.

VIBRATION LEVEL METER

1. CALIBRATION (electrical)

LEVEL METER; Filter: HP10; Input signal =140.0dB (10.0 m/s²), f_{sin}=79,6Hz

	Range 145dB		Range 170dB	
	Indication [dB]	Error [dB]	Indication [dB]	Error [dB]
Channel 1	139.99	-0.01	140.03	0.03
Channel 2	139.98	-0.02	140.03	0.03
Channel 3	139.99	-0.01	140.03	0.03
Channel 4	139.98	-0.02	140.03	0.03

2. CALIBRATION (vibrational)

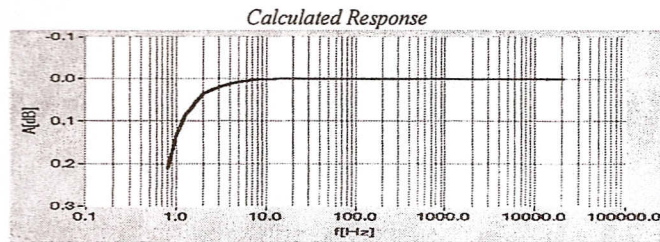
LEVEL METER; Range: 145dB; Input signal: 120dB; Calibration factors: -0.1dB, -0.1dB, -0.1dB, -0.1dB

Filter	HP1		HP10		Wd		Wm		Wh	
	Indication [dB]	Error [dB]	Indication [dB]	Error [dB]	Indication [dB]	Error [dB]	Indication [dB]	Error [dB]	Indication [dB]	Error [dB]
Channel 1	119.8	-0.2	119.8	-0.2	108.2	0.1	115.4	0.1	106.0	-0.1
Channel 2	119.9	-0.1	119.9	-0.1	108.2	0.1	115.4	0.1	106.0	-0.1
Channel 3	119.9	-0.1	119.9	-0.1	108.3	0.2	115.4	0.1	106.0	-0.1
Channel 4	119.9	-0.1	119.9	-0.1	108.2	0.1	115.4	0.1	106.0	-0.1

Calibration measured with the accelerometer DYTRAN type 3185D No. 2442.

3. FREQUENCY RESPONSE (electrical)

1/3 OCTAVE; Filter: HP; Range: 170 dB; input=175 dB;



Measured Response (f-frequency, An-attenuation in channel n)

f [Hz]	A1[dB]	A2[dB]	A3[dB]	A4[dB]	f [Hz]	A1[dB]	A2 [dB]	A3[dB]	A4[dB]
0.8	0.16	0.16	0.15	0.17	6.3	-0.02	-0.02	-0.02	-0.02
1	0.14	0.14	0.14	0.15	8	-0.01	-0.01	-0.01	0.00
1.25	0.10	0.10	0.10	0.10	10	0.00	0.00	0.00	0.00
1.6	0.06	0.06	0.06	0.06	12.5	-0.03	-0.03	-0.02	-0.02
2	0.03	0.03	0.03	0.04	16	0.00	0.00	0.00	0.00
2.5	0.01	0.01	0.01	0.02	20	0.01	0.01	0.01	0.01
3.15	0.02	0.02	0.02	0.02	25	0.02	0.02	0.02	0.02
4	0.01	0.02	0.02	0.02	31.5	0.02	0.02	0.02	0.02
5	0.00	0.01	0.01	0.01	40	-0.01	-0.01	0.00	0.00

f [Hz]	A1[dB]	A2[dB]	A3[dB]	A4[dB]	f [Hz]	A1[dB]	A2[dB]	A3[dB]	A4[dB]	f [Hz]	A1[dB]	A2[dB]	A3[dB]	A4[dB]
50	0.01	0.01	0.01	0.01	400	-0.01	-0.01	-0.01	0.00	3150	0.01	0.01	0.01	0.01
63	0.00	0.00	0.00	0.00	500	-0.01	-0.01	-0.01	0.00	4000	0.01	0.01	0.01	0.02
80	0.00	0.00	0.00	0.00	630	-0.01	-0.01	0.00	0.00	5000	0.01	0.02	0.01	0.02
100	0.00	0.00	0.00	0.00	800	-0.01	0.00	0.00	0.00	6300	0.03	0.03	0.02	0.03
125	-0.01	-0.01	0.00	0.00	1000	0.00	0.00	0.00	0.00	8000	0.04	0.04	0.03	0.04
160	-0.01	-0.01	-0.01	0.00	1250	0.00	0.00	0.00	0.00	10000	0.05	0.05	0.04	0.05
200	-0.01	-0.01	0.00	0.00	1600	0.00	0.00	0.00	0.00	12500	0.05	0.05	0.04	0.05
250	-0.01	-0.01	-0.01	0.00	2000	0.00	0.00	0.00	0.00	16000	0.03	0.03	0.02	0.03
315	-0.01	-0.01	-0.01	0.00	2500	0.00	0.00	0.00	0.01	20000	0.01	0.02	0.03	0.01

All frequencies are nominal center values for the 1/3 octave bands

4. INTERNAL NOISE LEVEL (electrical)

LEVEL METER func.; Range: 145 dB; Back-light – off

	Filter	HP1	HP10	Wd	Wm	Wh
Channel 1	Indication [dB]	55.4	51.7	46.9	40.4	38.0
Channel 2	Indication [dB]	55.6	52.2	47.0	40.6	38.0
Channel 3	Indication [dB]	55.7	52.2	46.6	40.5	38.1
Channel 4	Indication [dB]	55.8	52.7	46.5	40.0	38.5

ENVIRONMENTAL CONDITIONS

Temperature	Relative humidity	Ambient pressure
23 °C	39 %	995 hPa

TEST EQUIPMENT

Item	Manufacturer	Model	Serial no.	Description
1.	SVANTEK	SVAN 401	87	Signal generator
2.	SVANTEK	SVAN 912A	0	Sound & Vibration Analyser
3.	SOAR	3430	90CA1811	Digital voltmeter
4.	SVANTEK	SV30A	5369	Acoustic calibrator
5.	SVANTEK	ST02	-	Microphone equivalent electrical impedance (18pF)
6.	DYTRAN	3120A	1306	Reference accelerometer

CONFORMITY & TEST DECLARATION

1. Herewith Svantek company declares that this instrument has been calibrated and tested in compliance with the internal ISO9001 procedures and meets all specification given in the Manual(s) or respectively surpass them.
2. Traceability of the calibration is guaranteed by the above mentioned ISO9001 procedures.
3. The information appearing on this sheet has been compiled specifically for this instrument. This form is produced with advanced equipment & procedures which permit comprehensive quality assurance verification of all data supplied herein.
4. This calibration sheet shall not be reproduced except in full, without written permission of the SVANTEK Ltd.

Calibration specialist: Mariusz Mucha *M. Mucha*

Test date: 2006-05-30

III – ANOTAÇÃO DE RESPONSABILIDADE TÉCNICA (ART)

**CREA-MG**

CONSELHO REGIONAL DE ENGENHARIA ARQUITETURA E AGRONOMIA DE MINAS GERAIS
 Av. Álvares Cabral, 1600 - Fone 31 3299-8700 - Fax 31 3299-8720 - CEP 30170-001 - Belo Horizonte - Minas Gerais
 Ouvidoria: 0800 28 30 273 - Atendimento: 0800 031 2732

VIA 02
 ART Nº
 1-40474039

ANOTAÇÃO DE RESPONSABILIDADE TÉCNICA - ART MATRIZ OBRA / SERVIÇO

CONTRATADO

04 Nome do profissional responsável pela Obra ou Serviço RODRIGO KASBERGEN SILVA		05 Registro no CREA MG-80559/D	07 CPF 024.435.576-26
06 Título(s) do Profissional ENGENHEIRO MECANICO			08 Telefone (0031)3418-2026
09 Endereço Residencial do Profissional RUA MAURETTE JOSE DOS SANTOS, 000125 CASTELO, BELO HORIZONTE/MG			10 CEP 30840-590
11 Nome da Empresa Contratada SEGMA ENGENHARIA DE SEGURANCA DO TRABALHO E MEIO AMBIENTE			
12 Registro no CREA 022765	13 CNPJ 66.353.590/0001-44	14 Capital Social 21000	15 Telefone (0031)3416-6565
16 Endereço para Correspondência RUA DAVID RABELO, 000210 CASA - INCONFIDENCIA, BELO HORIZONTE/MG			17 CEP 30820-260

CONTRATANTE

18 Nome do Contratante AMPLIO TREINAMENTO E CONSULTORIA LTDA		19 CPF ou CNPJ 04.590.934/0001-81
20 Endereço para Correspondência RUA BUENOPOLIS, 45 SALA 301, SANTA TEREZA, BELO HORIZONTE/MG		21 CEP 31015-120

DADOS DA OBRA / SERVIÇO

22 Nome do Proprietário AMPLIO TREINAMENTO E CONSULTORIA S/C LTDA		23 CPF ou CNPJ 04.590.934/0001-81							
24 Endereço da Obra ou Serviço RUA BUENOPOLIS 45 SALA 301, SANTA TEREZA,									
25 Município BELO HORIZONTE/MG		26 CEP 31015-120							
28 Atividade Técnica									
01 Geral Tipo 34 30	02 Geral Tipo	03 Geral Tipo	04 Geral Tipo	05 Geral Tipo	06 Geral Tipo	07 Geral Tipo	08 Geral Tipo	09 Geral Tipo	10 Geral Tipo
30 Finalidade 34113	34 Ent. Classe 0140	35 Quantificação 0,00	36 Unidade	37 Valor da Obra/Serviço 34.108,80			38 Honorários 0,00	39 Tipo Contrato 7	

40 Descrição Complementar
CARACTERIZAÇÃO DE RUÍDO E VIBRAÇÃO NOS PROJETOS N4/N5 E LINHA DE TRANSMISSÃO

ASSINATURAS

41 Responsabilizamos-nos pela veracidade das informações prestadas

VINCULAÇÃO LEGAL

A ART é regida pela Lei 6496/77 e, na falta de outro documento, vale para todos os efeitos legais, como contrato entre as partes.

LEMBRETE - Concluída a obra ou serviço, há a necessidade de solicitar baixa da ART no CREA-MG. Cada ART baixada incorpora-se ao acervo técnico do profissional, do qual pode-se obter certidão mediante requerimento. O acervo técnico é documento de grande valia, principalmente como currículo, para participação de licitações e comprovações junto à previdência para efeito de aposentadoria.

LOCAL E DATA

PROFISSIONAL

CONTRATANTE

ESTA ART SÓ É VÁLIDA APÓS A COMPROVAÇÃO DO SEU PAGAMENTO.

42 Data de Pagamento	43 Valor da Taxa de ART 300,00	Esta ART foi verificada eletronicamente pelo CREA-MG em 07/04/2009. Documento válido após a comprovação do pagamento. É de responsabilidade do profissional o envio da via do CREA-MG para fins de registro no acervo técnico.
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AUTENTICAÇÃO MECÂNICA

VIA DA OBRA/SERVIÇO



Bradesco Net Empresa

**Comprovante de Pagament
Boleto de Cobranç**

Data: 07/04/200

Banco: **1 - BANCO DO BRASIL S.A.**
Boleto Nº: **00194.58652 90000.831405 47403.900211 1 00000000030000**
Data do Pagamento: **07/04/2009**
Data de Vencimento: **17/04/2009**
Revenecido Informado: **ART 1-40474039 AMPLO TREINAMENTO**
Debitado da: **Conta Corrente**

Valor do Pagamento: **300,00**

A cobrança acima foi paga através do(a) NetEmpresa, dentro das condições especificadas.
O lançamento consta no extrato do(a) cliente SEGMA ENGENHARIA DE SEGURANÇA DO TRABALH Agência 2828 - Conta 1654, da data de pagamento, sob o número de protocolo **0002946**.

Nº Controle: **846.164.847.079.321.575**

Banco Bradesco S.
<http://www.bradesco.com>

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IMPRIMIR

FECHAR