

Global View

version 4.7
 site NAU
 abbreviation Laboratory satellite systems
 country Kiev
 comment
 xsltemplate general
 reportname report
 date 15/10/2015

GNSS_Solution

quality

valid samples 0
total samples 0
PA samples 0

SBAS Messages

start: 06:55:41.129 25.09.2015 (week: 1863 sec: 456941.129)
end: 10:56:0.128998 25.09.2015 (week: 1863 sec: 471360.129)
duration: 04:00:19 ..

quality

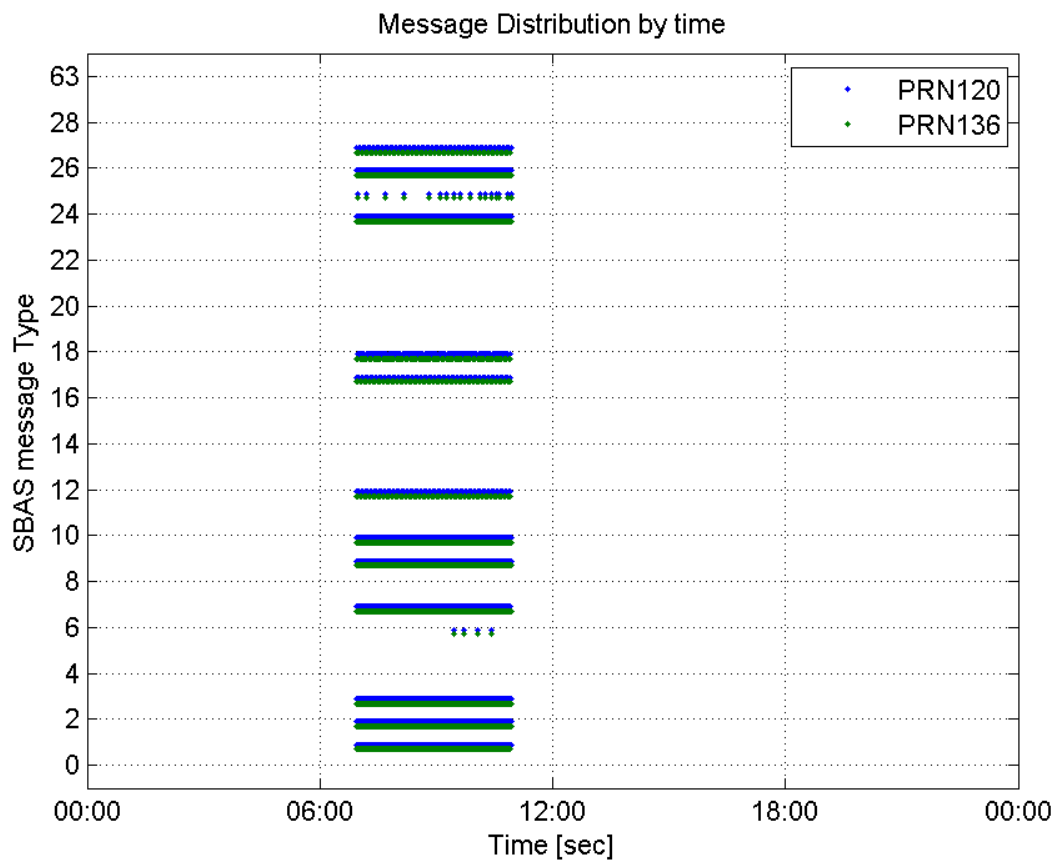
valid samples 28840
total samples 28840
number of SBAS PRNs 2

SBAS SIS Overview

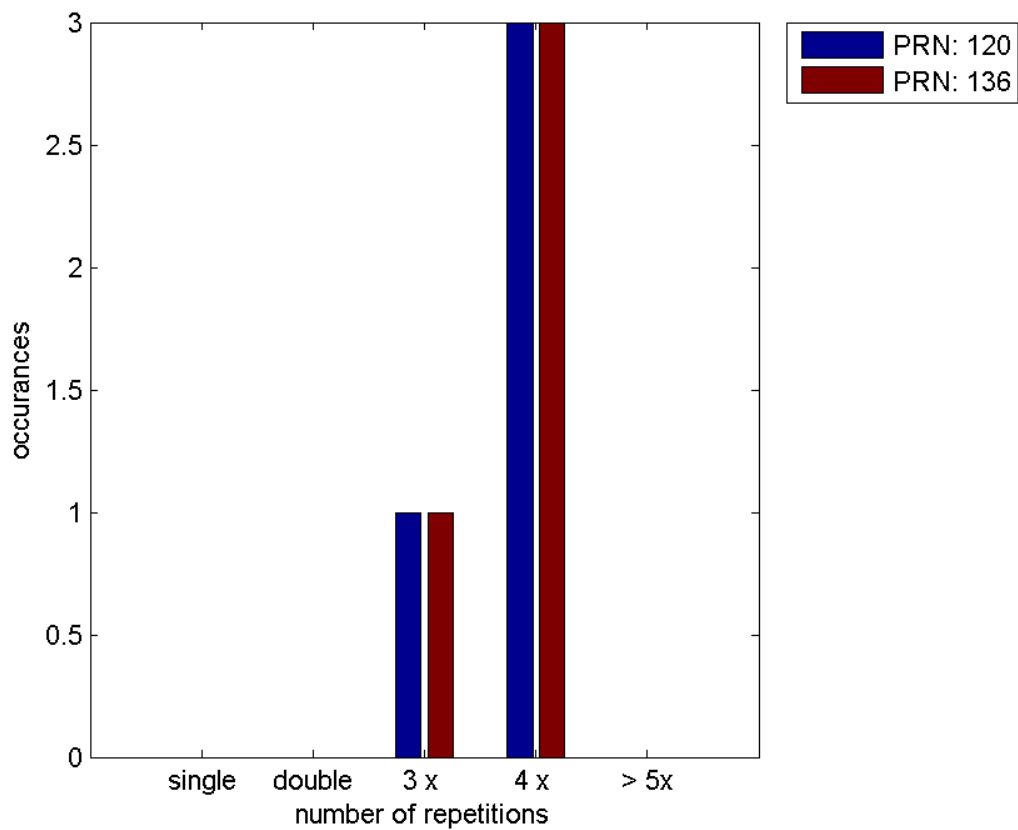
Message Type 6 repetitions :

	single	double	3 x	4 x	> 5x
PRN 120	0	0	1	3	0
PRN 136	0	0	1	3	0

Message Distribution by time:



Message Type 6 repetitions:



PRN 120

Broadcast SBAS Messages :

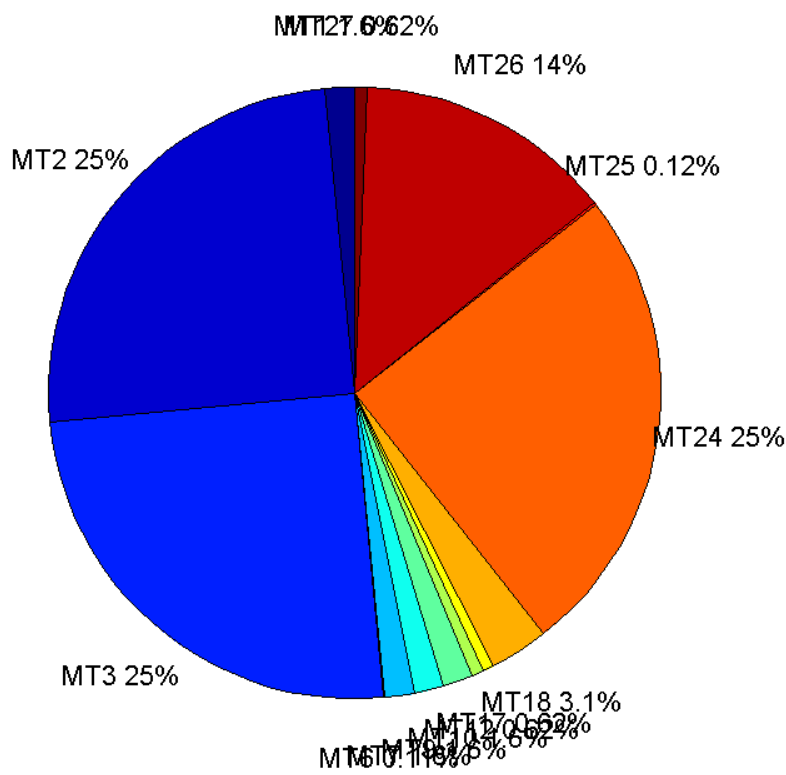
	number of messages	%
MT 0	0	0
MT 1	224	1.5534
MT 2	3600	24.9653
MT 3	3599	24.9584
MT 4	0	0
MT 5	0	0
MT 6	16	0.110957
MT 7	224	1.5534
MT 9	225	1.56033
MT 10	224	1.5534
MT 12	90	0.624133
MT 17	90	0.624133
MT 18	445	3.08599
MT 24	3599	24.9584
MT 25	17	0.117892
MT 26	1977	13.7101
MT 27	90	0.624133
MT 28	0	0
MT 62	0	0
MT 63	0	0
Total	14420	100

Update intervals :

	Minimum [s]	Maximum [s]	Mean value	Exceed Max update	Exceed NPA timeout	Exceed PA timeout
MT 0	--	--	--	--	--	--
MT 1	64	72	64.3408	0	0	0
MT 2	4	8	4.00611	4	0	0
MT 3	4	7	4.00639	4	0	0
MT 4	--	--	--	--	--	--
MT 5	--	--	--	--	--	--
MT 6	1	1324	233.4	3	3	3
MT 7	64	71	64.3587	0	0	0
MT 9	64	71	64.3571	0	0	0
MT 10	64	71	64.3767	0	0	0
MT 12	156	170	160.584	89	0	0
MT 17	156	170	160.584	0	0	0
MT 18	4	134	31.9189	0	0	0
MT 24	4	7	4.00639	0	0	0
MT						

25	212	2283	887.375	0	0	0
MT 26	4	32	7.28947	0	0	0
MT 27	156	174	160.674	0	0	0
MT 28	--	--	--	--	--	--
MT 62	--	--	--	--	--	--
MT 63	--	--	--	--	--	--

Message Distribution PRN 120:



SBAS SIS Analysis

PRN 136

Broadcast SBAS Messages :

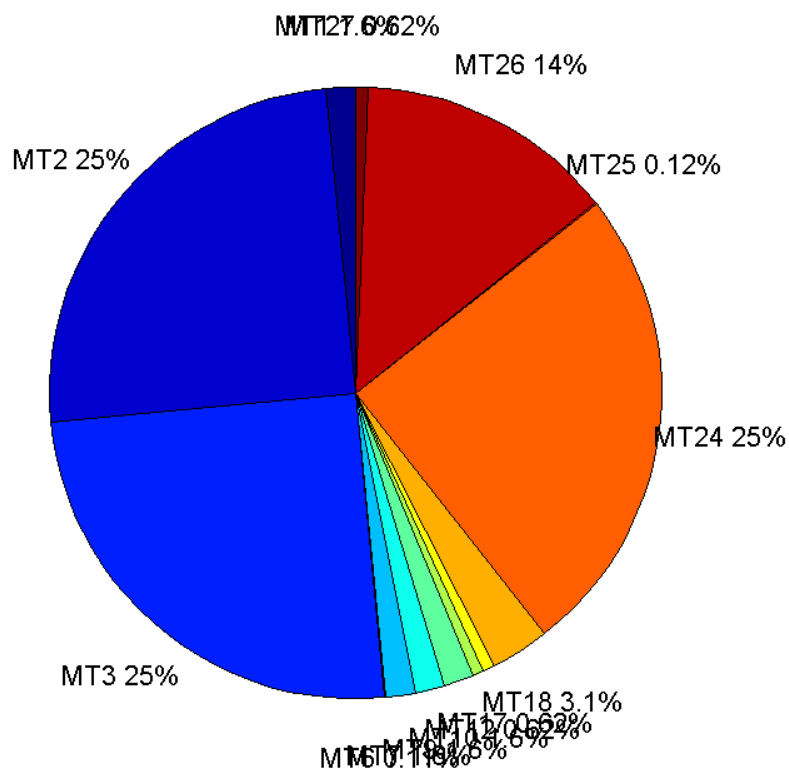
	number of messages	%
MT 0	0	0
MT 1	224	1.5534
MT 2	3599	24.9584
MT 3	3599	24.9584
MT 4	0	0
MT 5	0	0
MT 6	16	0.110957

MT 7	224	1.5534
MT 9	224	1.5534
MT 10	224	1.5534
MT 12	90	0.624133
MT 17	90	0.624133
MT 18	450	3.12067
MT 24	3600	24.9653
MT 25	17	0.117892
MT 26	1973	13.6824
MT 27	90	0.624133
MT 28	0	0
MT 62	0	0
MT 63	0	0
Total	14420	100

Update intervals :

	Minimum [s]	Maximum [s]	Mean value	Exceed Max update	Exceed NPA timeout	Exceed PA timeout
MT 0	--	--	--	--	--	--
MT 1	64	71	64.3587	0	0	0
MT 2	4	7	4.00639	4	0	0
MT 3	4	7	4.00639	4	0	0
MT 4	--	--	--	--	--	--
MT 5	--	--	--	--	--	--
MT 6	1	1324	233.4	3	3	3
MT 7	64	71	64.3767	0	0	0
MT 9	64	71	64.3767	0	0	0
MT 10	64	70	64.3587	0	0	0
MT 12	156	168	160.584	89	0	0
MT 17	156	170	160.629	0	0	0
MT 18	4	148	31.8753	0	0	0
MT 24	4	8	4.00611	0	0	0
MT 25	212	2283	887.375	0	0	0
MT 26	4	51	7.30629	0	0	0
MT 27	156	170	160.629	0	0	0
MT 28	--	--	--	--	--	--
MT 62	--	--	--	--	--	--
MT 63	--	--	--	--	--	--

Message Distribution PRN 136:



Parameters

System

Name	Section	Value
Name	System	Convertor
Version	System	4.3
Inputfile	System	D:/PegasusDat/Jobs/Egnos2015_09_25/01_User/01_User
Outputfile	System	D:/PegasusDat/Jobs/Egnos2015_09_25/02_Convertor/02_Convertor

Configuration

Name	Section	Value
Receiver	Configuration	Novatel OEM4
Leap_Seconds	Configuration	14
Correction_mode	Configuration	SBAS MODE 0
Dual_Frequency	Configuration	no

GBAS Messages

quality

valid samples 0
total samples 0

Position Domain

start: 06:55:42 25.09.2015 (week: 1863 sec: 456942)
end: 10:56:00 25.09.2015 (week: 1863 sec: 471360)
duration: 04:00:19 ..

quality

valid samples 14058
total samples 14419

Event tables

Position discontinuity events type no (0)
APV-I discontinuity events type no (0)
APV-35m discontinuity events type no (0)
LPV-200 discontinuity events type no (0)
CAT-I discontinuity events type nothing

extremes :

	Epoch	HPE	HPL	HPE/HPL	VPE	VPL	VPE/VPL
max normHor	458097	2.86408	10.324	0.277419	1.35692	13.5962	0.0998012
max normVer	469925	2.06205	9.8576	0.209184	3.01471	16.7772	0.179691
max HPE	468411	3.32786	22.9047	0.145292	0.654891	22.9198	0.0285732
max VPE	470717	1.69882	11.5707	0.146821	3.18585	19.2642	0.165376
min HPL	471111	2.09418	9.23273	0.226822	2.06745	17.8299	0.115954
min VPL	457729	2.69622	10.62	0.253881	1.44987	13.0334	0.111242

First Glance analysis

Duration 14419
Number of Samples 14419
Number of invalid sample 361
Number of no position solution samples 0
Number of missing sample 0
Logging Loss 0
Processing Loss 2.5036
Number of Misleading Information 0
Data gaps 0
Discontinuities 0

Number of Samples :

Valid	APV-1	LPV-200	CAT-1	APV-35m
14058	14058	14058	0	14058

Accuracy statistics :

	Valid	APV-1	LPV-200	CAT-1	APV-35m
HPE 95%	2.91654	2.91654	2.91654	NaN	2.91654
HPEscale 95%	NaN	9.46634	9.46634	NaN	9.46634
VPE 95%	2.43995	2.43995	2.43995	NaN	2.43995
VPEscale 95%	NaN	6.84316	4.79021	NaN	4.79021

Availability :

	Valid	APV-1	LPV-200	CAT-1	APV-35m
Signal in Space	1	1	1	0	1
measurements	0.974964	0.974964	0.974964	0	0.974964
Operational	0.974964	0.974964	0.974964	0	0.974964

Discontinuity events :

	Valid	APV-1	LPV-200	CAT-1	APV-35m
All	--	--	--	--	--
Long	--	--	--	--	--
Independent	--	--	--	--	--
P(disc.)	--	--	--	--	--
P(slide)	--	--	--	--	--

Integrity events :

	MI	HMI APV-1	HMI LPV-200	HMI CAT-1	HMI APV-35m
Total	0	0	0	0	0
Horizontal	0	0	0	0	0
Vertical	0	0	0	0	0

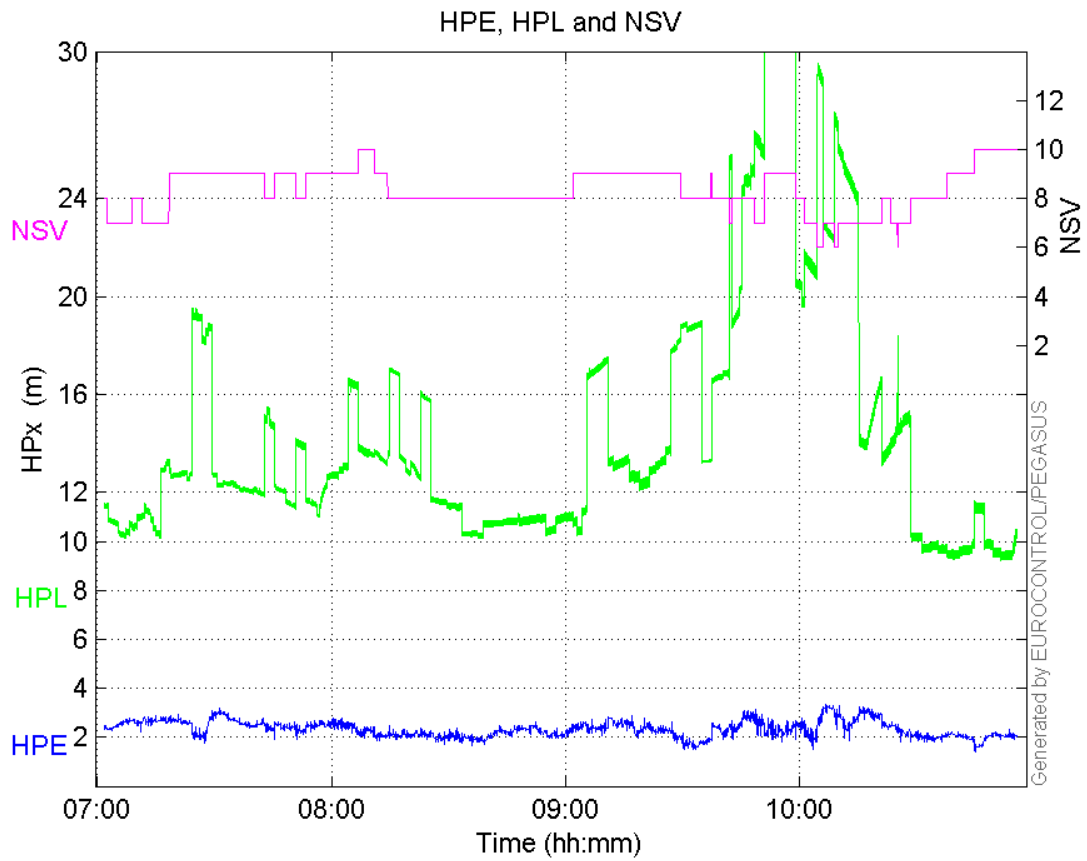
Performance Summary :

	Valid	APV-1	LPV-200	CAT-1	APV-35m
Samples	14058	14058	14058	0	14058
SIS Availability	1	1	1	0	1
Local Availability	0.974964	0.974964	0.974964	0	0.974964
Operational Availability	0.974964	0.974964	0.974964	0	0.974964
HPE 95%	2.91654	2.91654	2.91654	NaN	2.91654
HPEscale 95%	NaN	9.46634	9.46634	NaN	9.46634
VPE 95%	2.43995	2.43995	2.43995	NaN	2.43995
VPEscale 95%	NaN	6.84316	4.79021	NaN	4.79021
All Discontinuity Events	--	--	--	--	--
Long Discontinuity Events	--	--	--	--	--
Independent Discontinuity Events	--	--	--	--	--

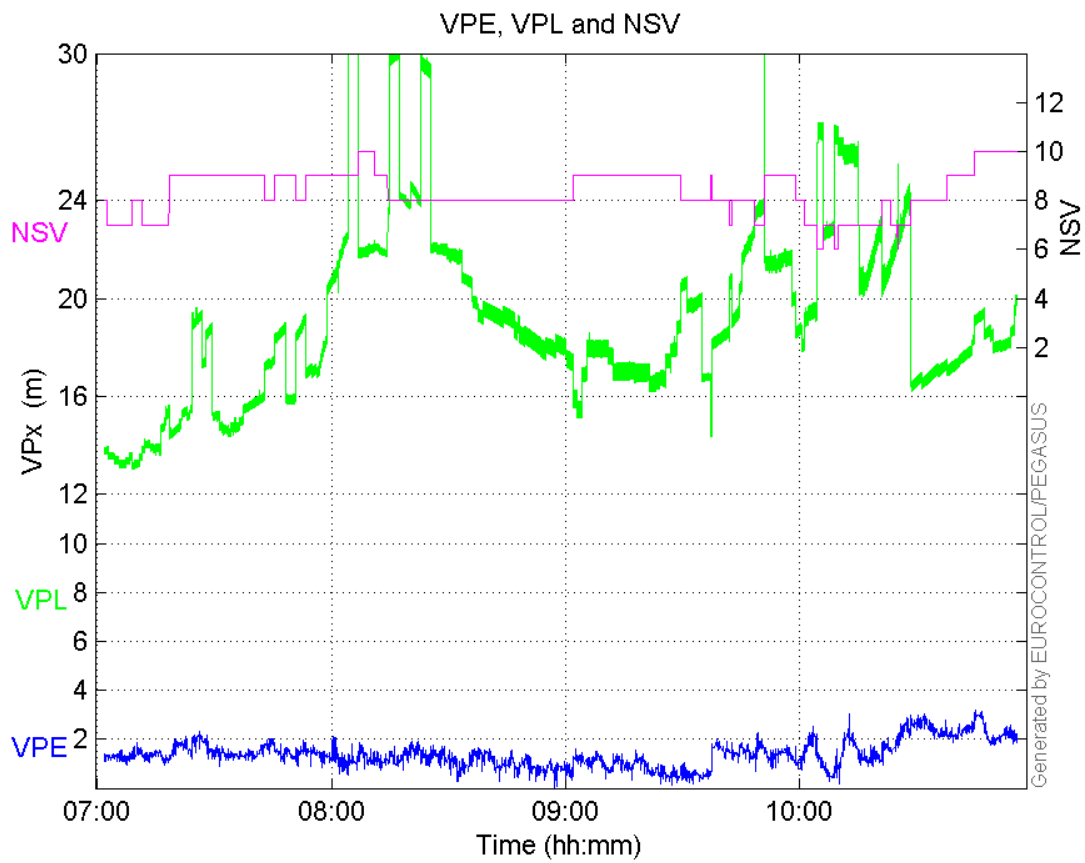
P(discontinuity)	--	--	--	--	--
P(sliding window)	--	--	--	--	--
All Integrity Events	0	0	0	0	0
Horizontal Integrity Events	0	0	0	0	0
Vertical Integrity Events	0	0	0	0	0

Time Series

HPE, HPL and NSV:

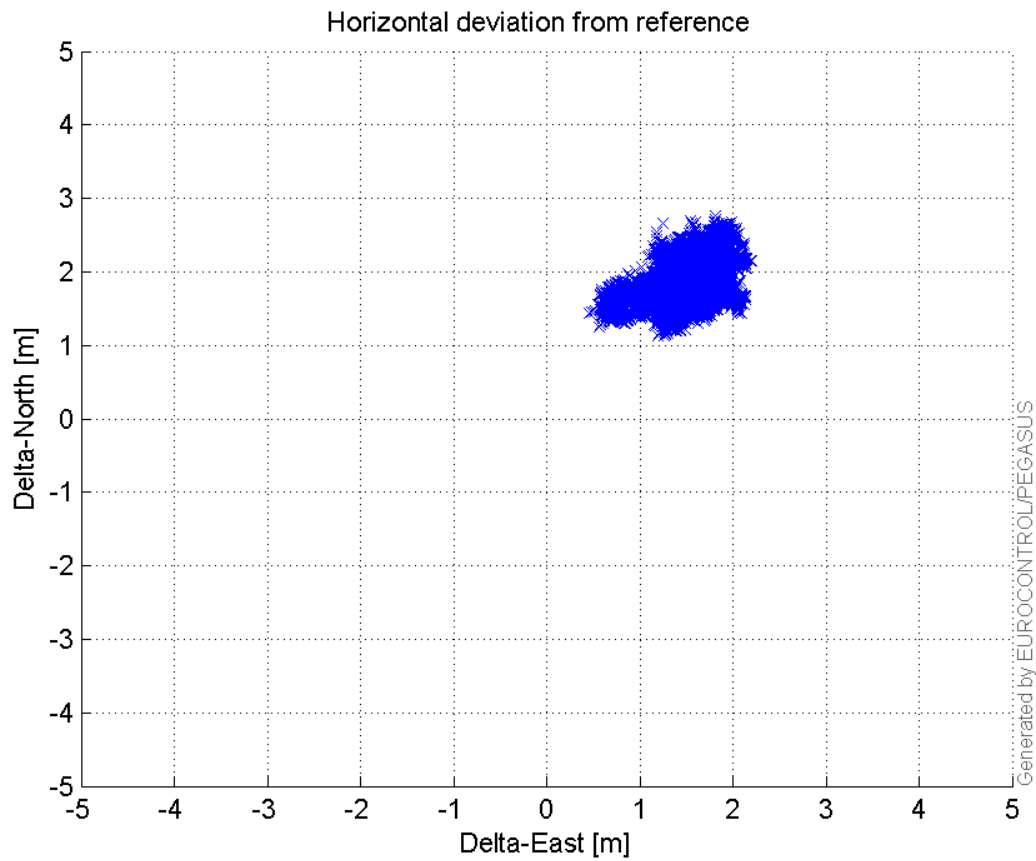


VPE, VPL and NSV:



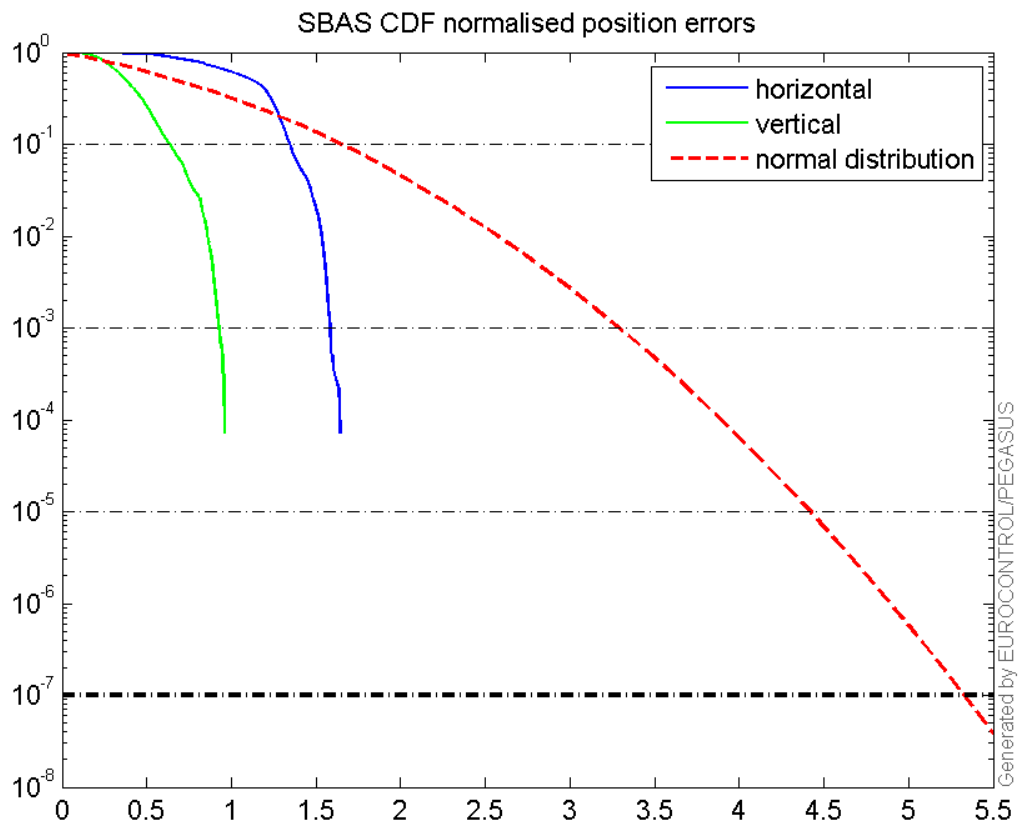
Horizontal deviation

Horizontal deviation from reference :



CDF position

SBAS CDF position domain:



Statistics

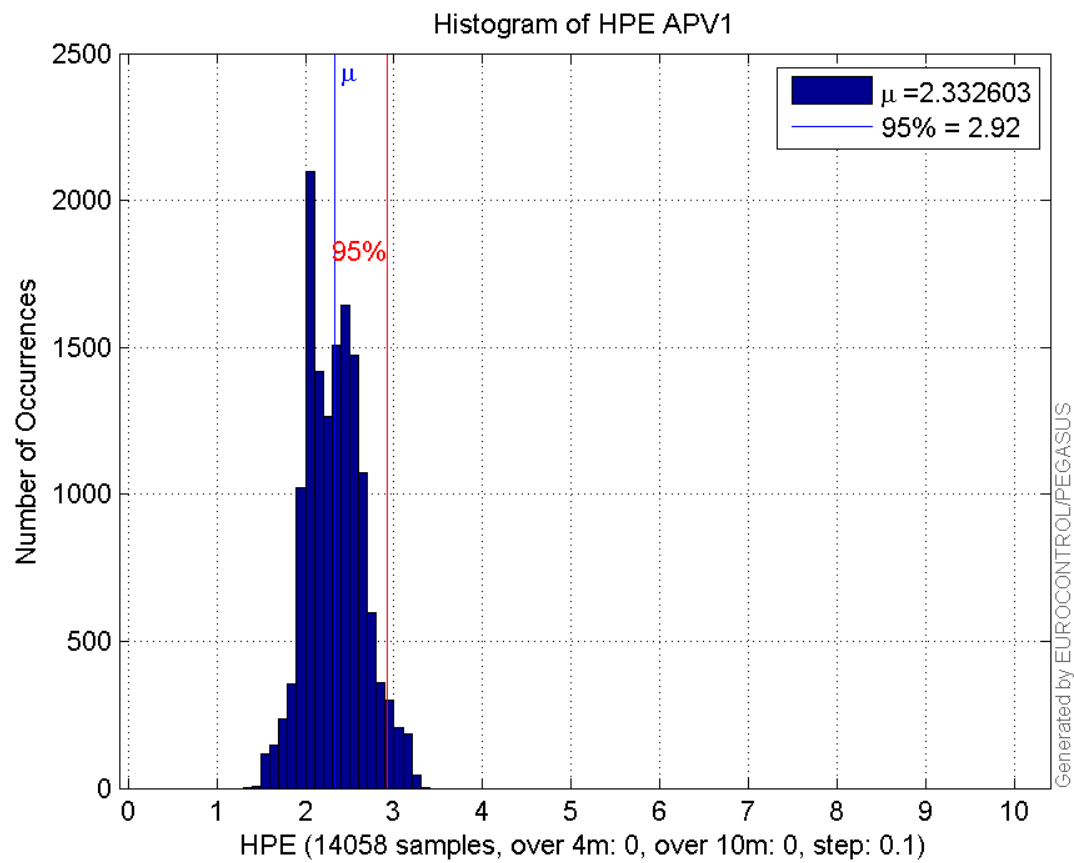
number	14058
sum	32791.73
sum2	77951.019
prctile95	2.91654
prctile99	3.155442
number	14058
sum	19505.02
sum2	31052.738
prctile95	2.4399508
prctile99	2.8520482
number	14058
sum	207289.32
sum2	3553420.1
prctile95	26.20988
prctile99	37.959676
number	14058
sum	269847.21
sum2	5364685.8
prctile95	26.26512
prctile99	30.825032
number	14058

sum 2448.6341
sum2 457.78059
prctile95 0.23665844
prctile99 0.25528802
number 14058
sum 1052.8625
sum2 93.344354
prctile95 0.13686319
prctile99 0.16113203
number 14058
sum 32791.73
sum2 77951.019
prctile95 2.91654
prctile99 3.155442
number 14058
sum 19505.02
sum2 31052.738
prctile95 2.4399508
prctile99 2.8520482
number 14058
sum 207289.32
sum2 3553420.1
prctile95 26.20988
prctile99 37.959676
number 14058
sum 269847.21
sum2 5364685.8
prctile95 26.26512
prctile99 30.825032
number 14058
sum 2448.6341
sum2 457.78059
prctile95 0.23665844
prctile99 0.25528802
number 14058
sum 1052.8625
sum2 93.344354
prctile95 0.13686319
prctile99 0.16113203

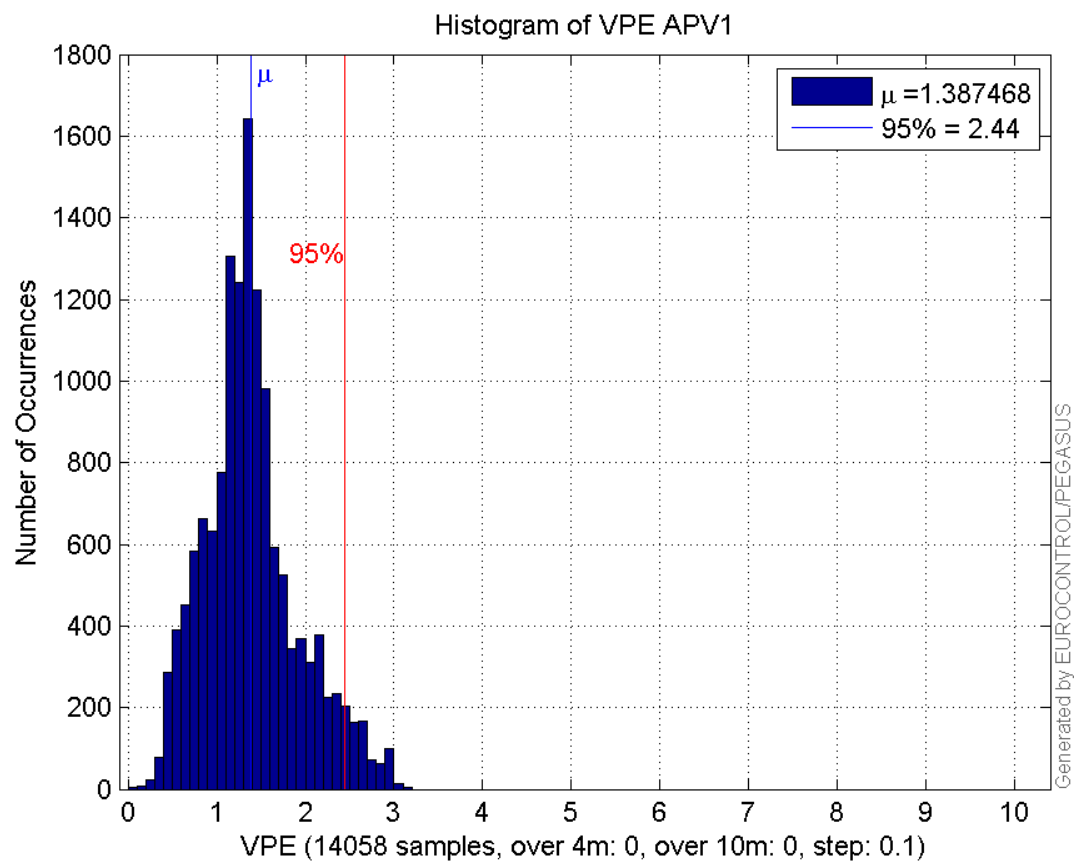
Error and XPL Statistics :

	Mean Value	Standard Deviation	50% Value	95% Value	99% Value	RMS Value
HPE	2.3326	0.322381	2.3252	2.91654	3.15544	2.35477
HPL	14.7453	5.94537	12.764	26.2099	37.9597	15.8987
VPE	1.38747	0.532781	1.33469	2.43995	2.85205	1.48624
VPL	19.1953	3.62673	18.5112	26.2651	30.825	19.5349

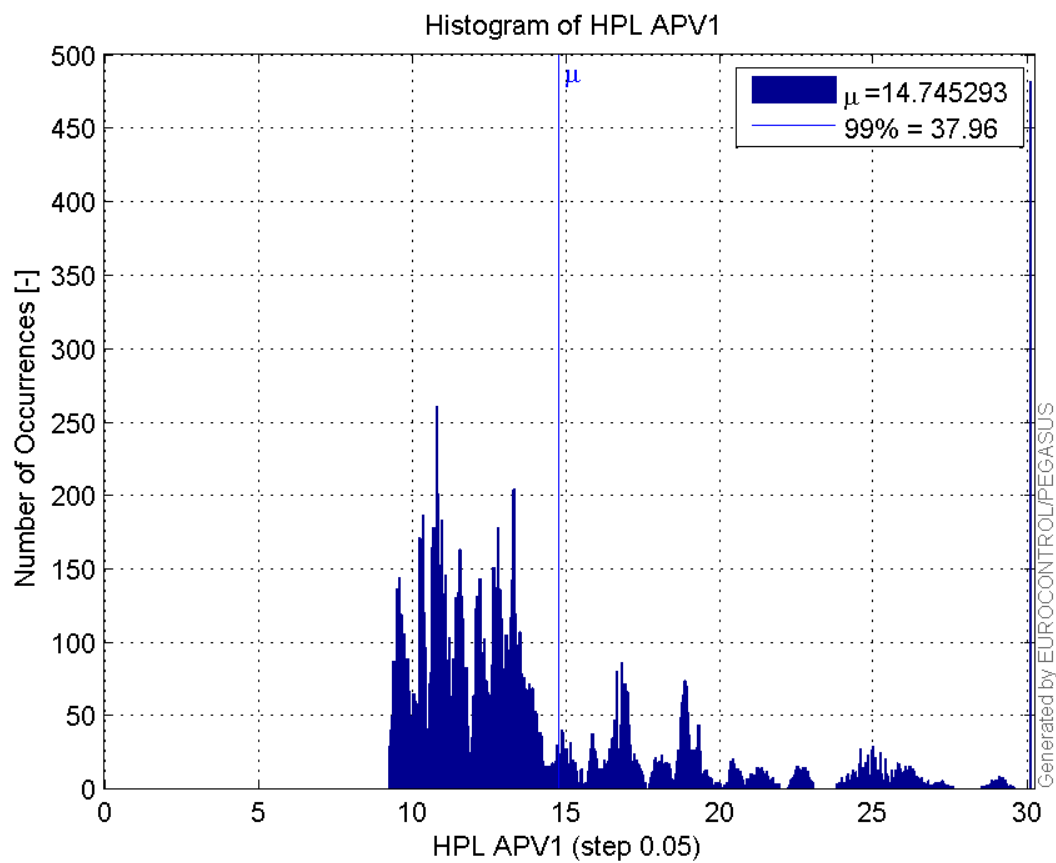
Histogram of HPE APV1:



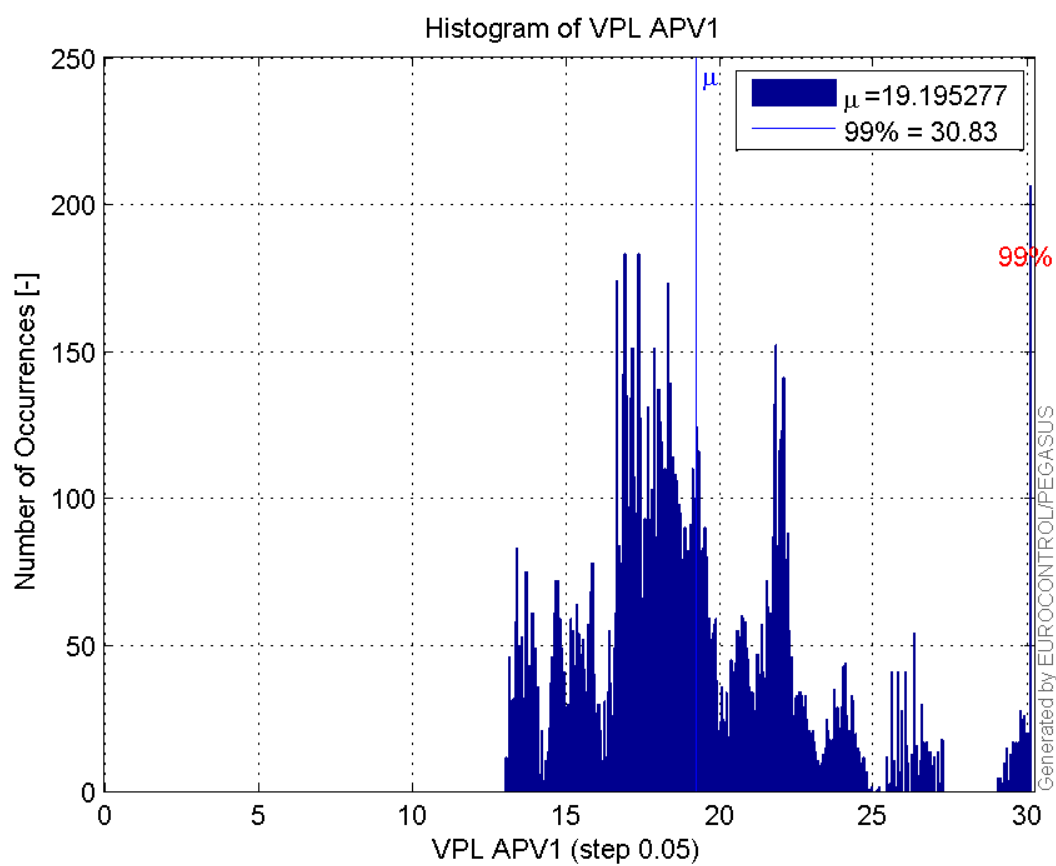
Histogram of VPE APV1:



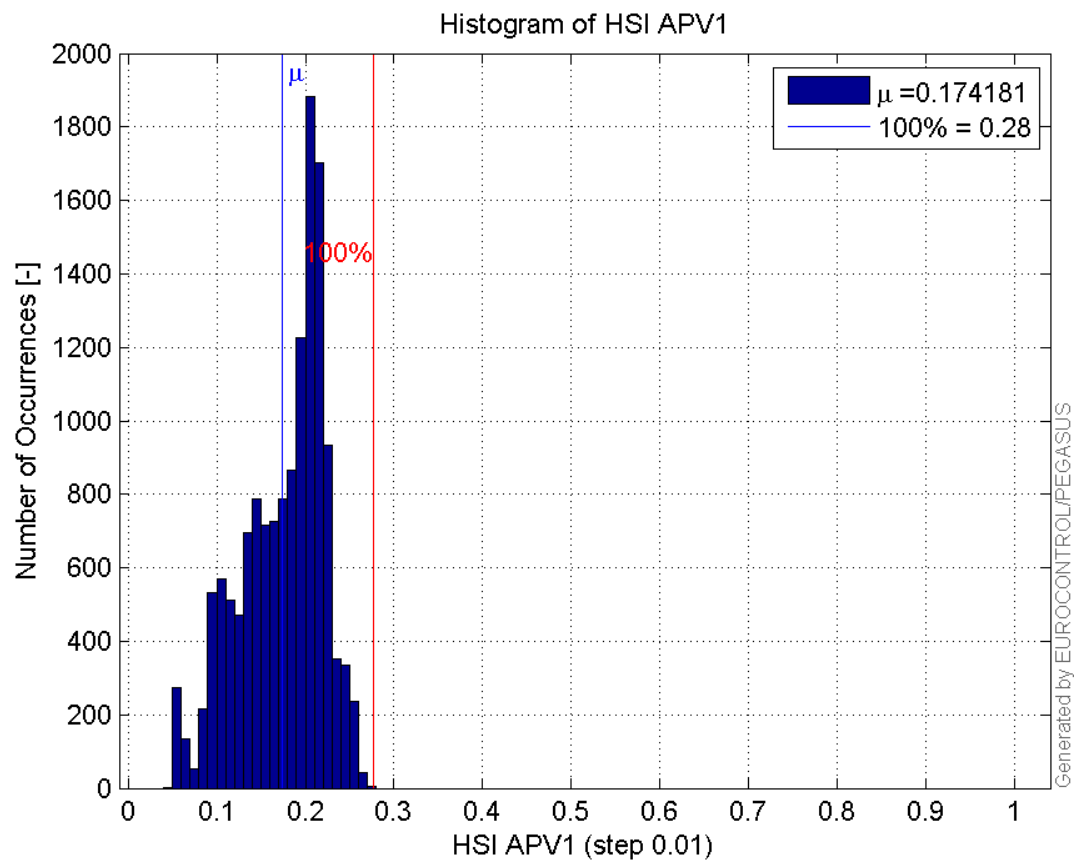
Histogram of HPL APV1:



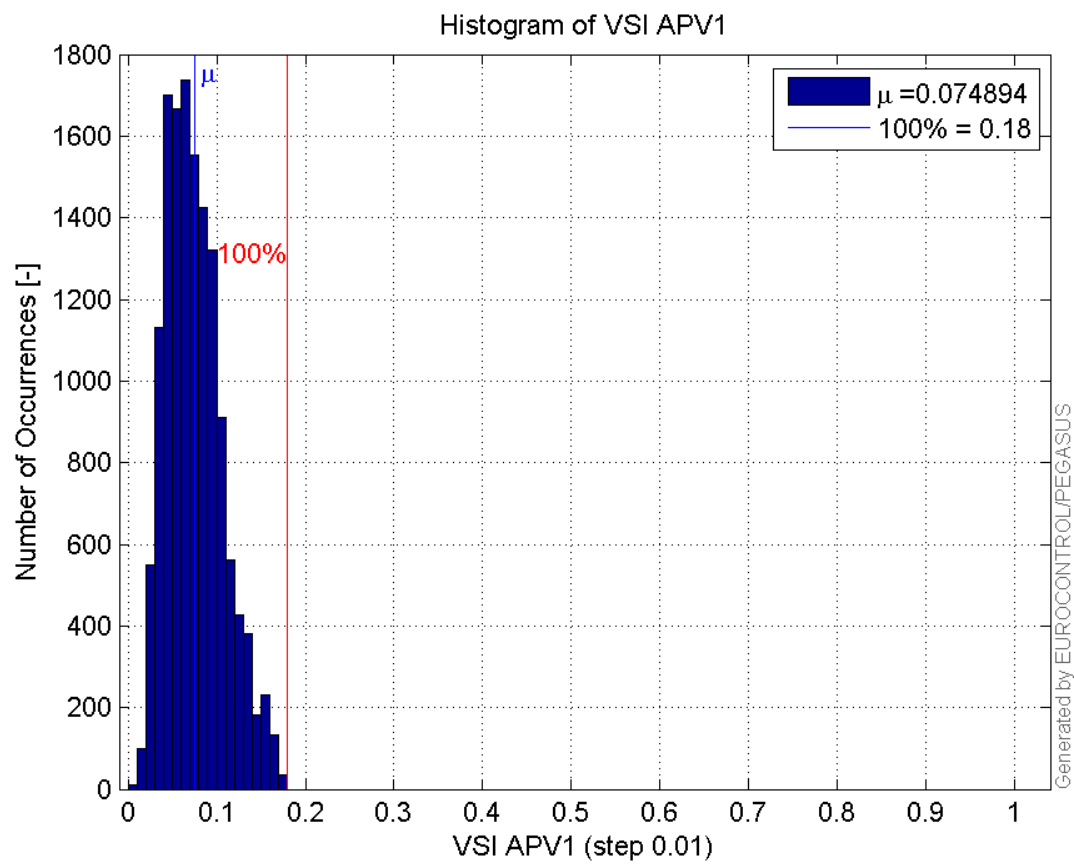
Histogram of VPL APV1:



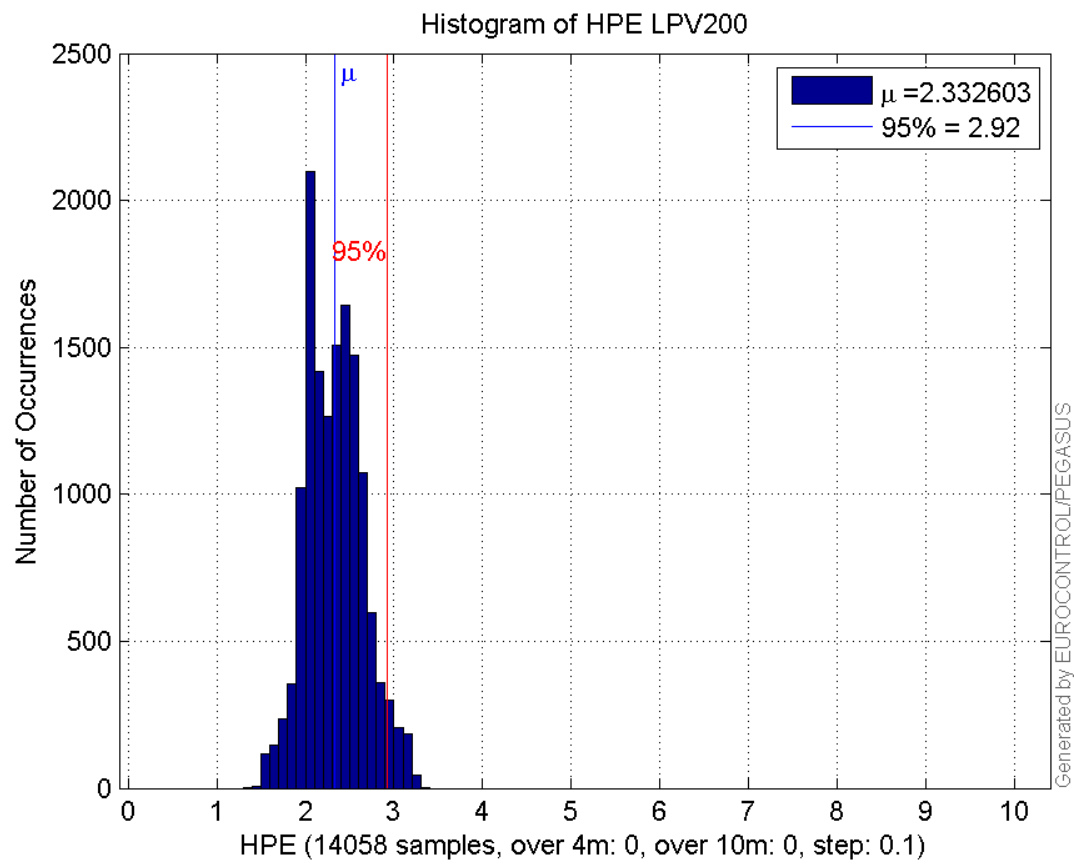
Histogram of HSI APV1:



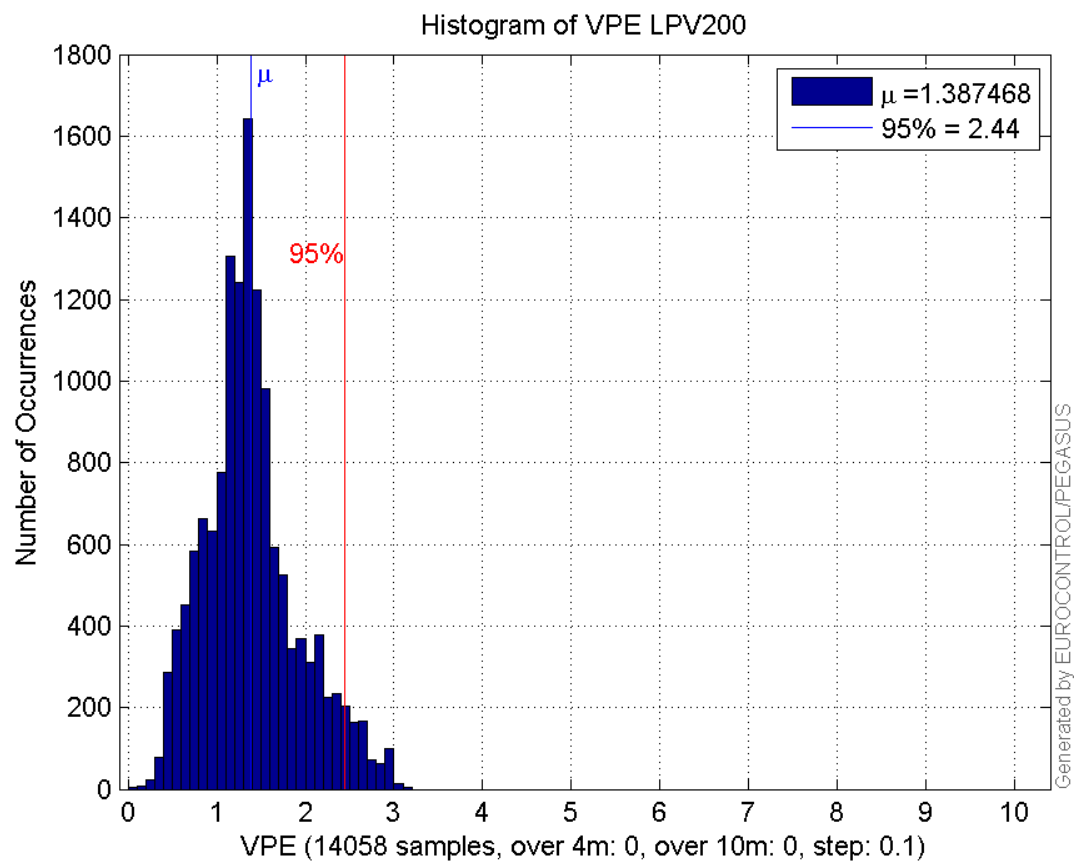
Histogram of VSI APV1:



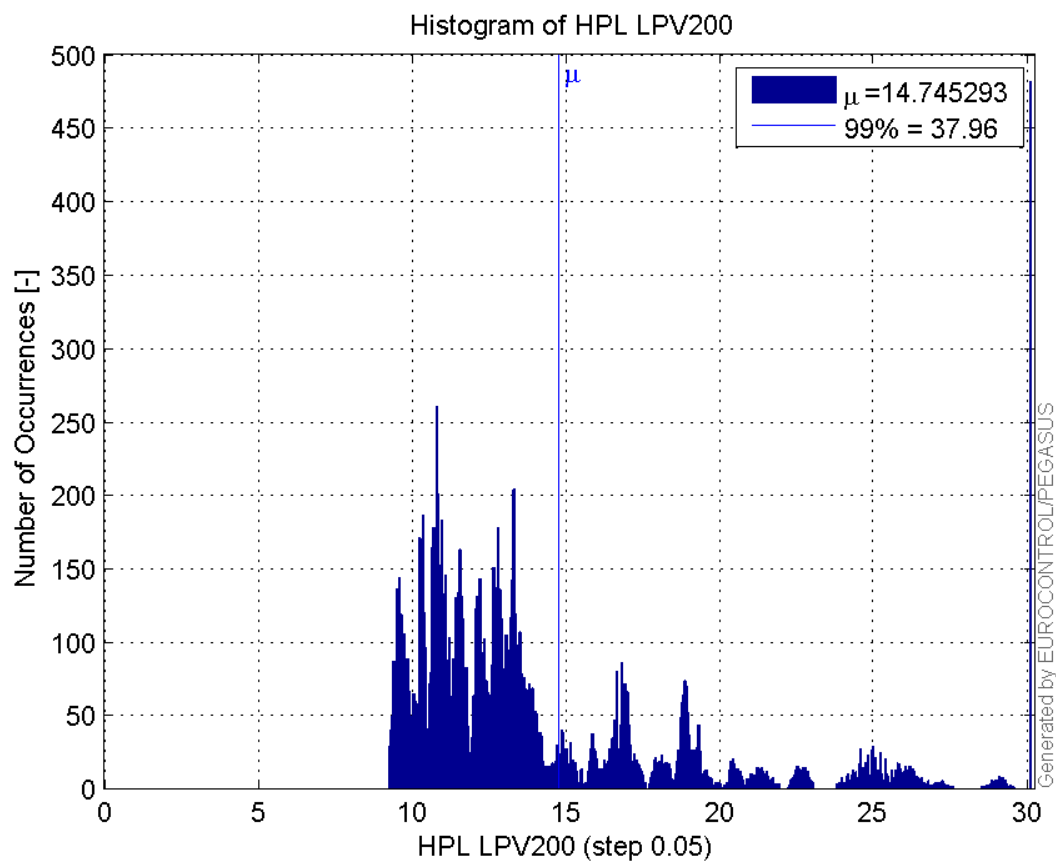
Histogram of HPE LPV200:



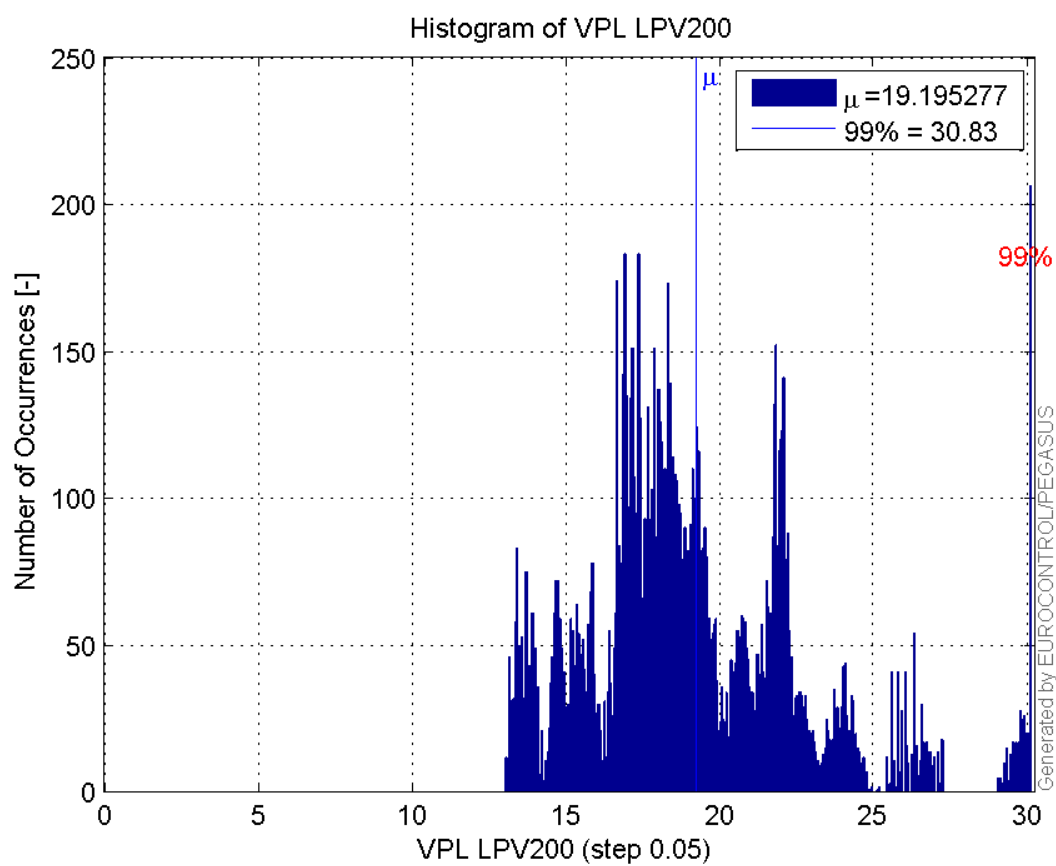
Histogram of VPE LPV200:



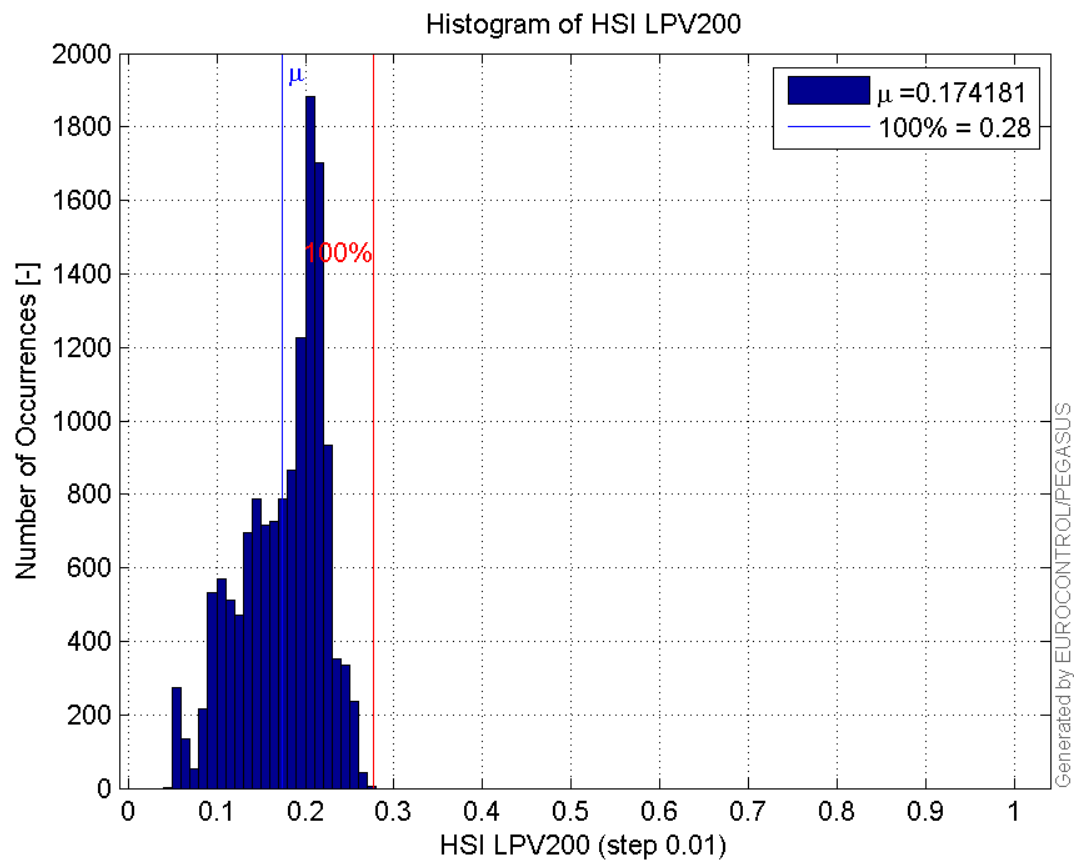
Histogram of HPL LPV200:



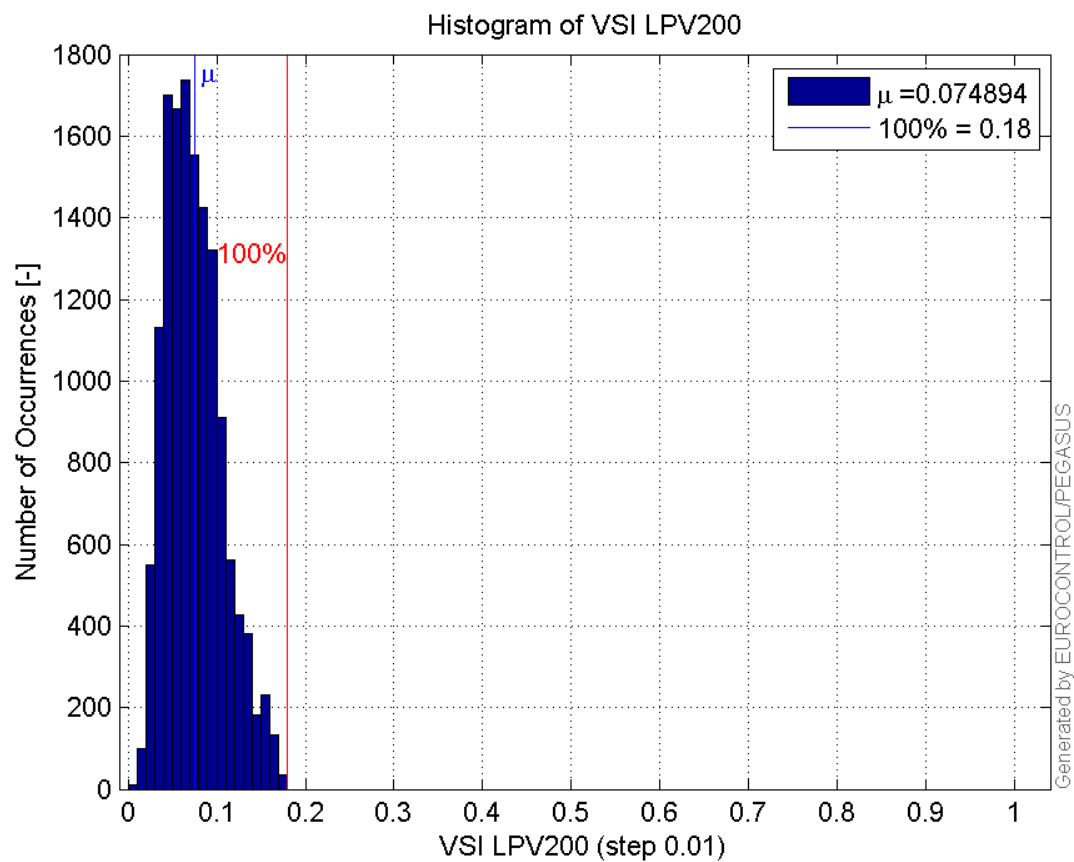
Histogram of VPL LPV200:



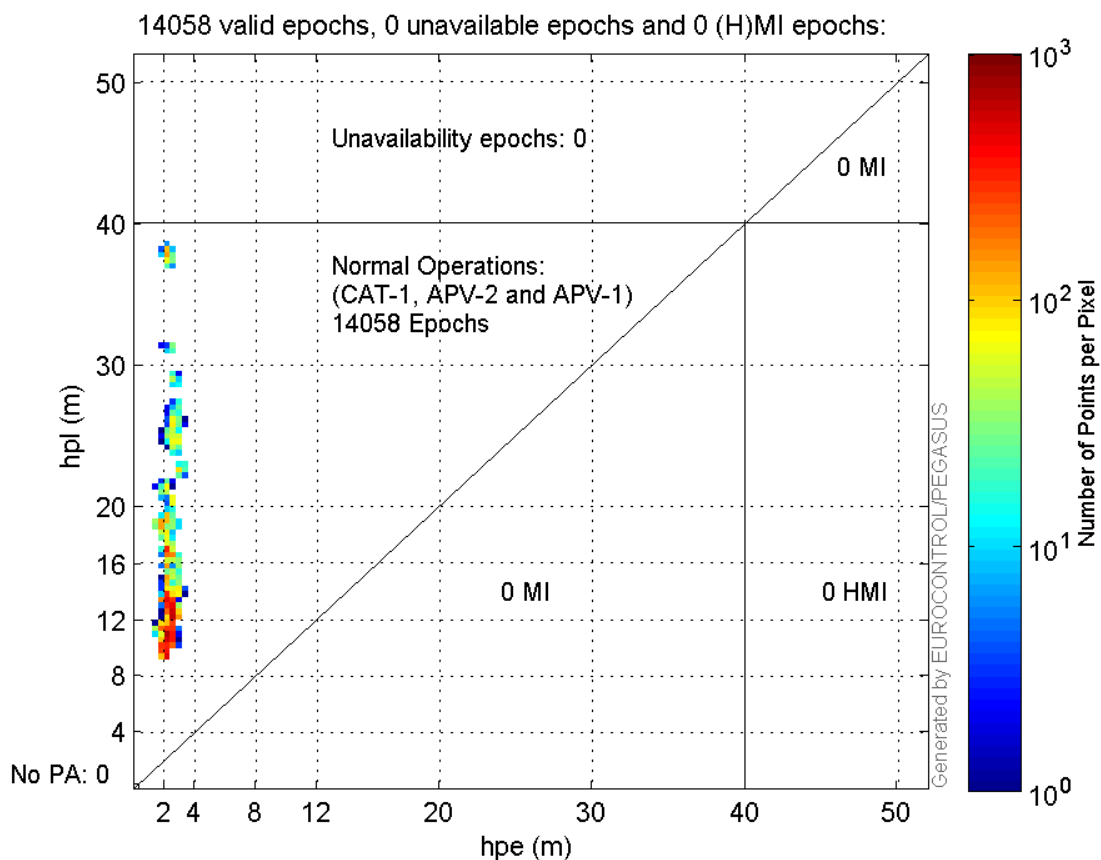
Histogram of HSI LPV200:



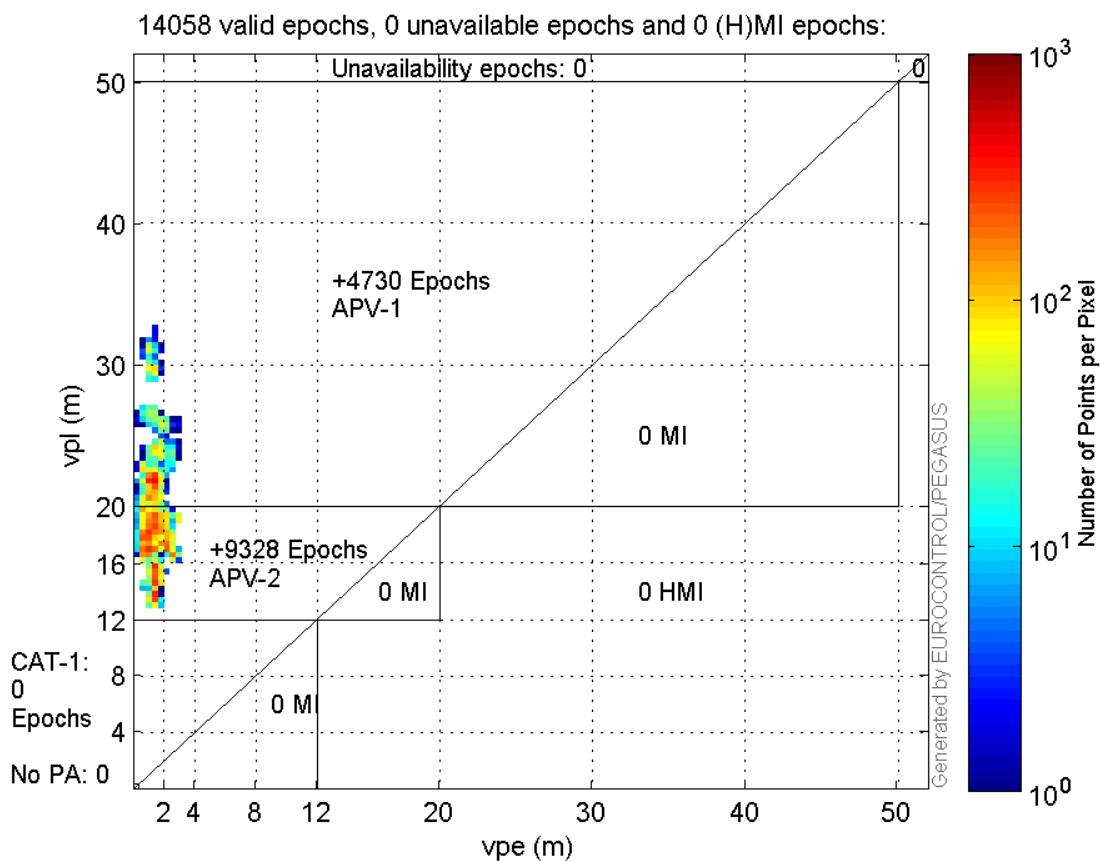
Histogram of VSI LPV200:



Horizontal_Stanford_Plot_SBAS:



Vertical_Stanford_Plot_SBAS:



Parameters

system

Name	Section	Value
name	system	GNSS_Solution
version	system	4.8.2.1
input_prefix	system	D:/PegasusDat/Jobs/Egnos2015_09_25/02_Convertor/02_Convertor
output_prefix	system	D:/PegasusDat/Jobs/Egnos2015_09_25/03_GNSS_Solution/03_GNSS_Solution_sol

settings

Name	Section	Value
ref_lat	settings	50.439
ref_lon	settings	30.4297
ref_alt	settings	214.43
smoothing	settings	yes
smoothing_constant	settings	100
smoothing_max_gap	settings	10
smoothing_max_divergence	settings	3
min_elevation	settings	5
aad_model	settings	a
output_range_file	settings	yes
sbas_prn	settings	120
gnss_mode	settings	sbas

results

Name	Section	Value
init_lat	results	50.4391
init_lon	results	30.4297
init_alt	results	247.7691
mi_numbers	results	0

Range Domain

start: 06:55:42 25.09.2015 (week: 1863 sec: 456942)
end: 10:56:00 25.09.2015 (week: 1863 sec: 471360)
duration: 04:00:19 ..

quality

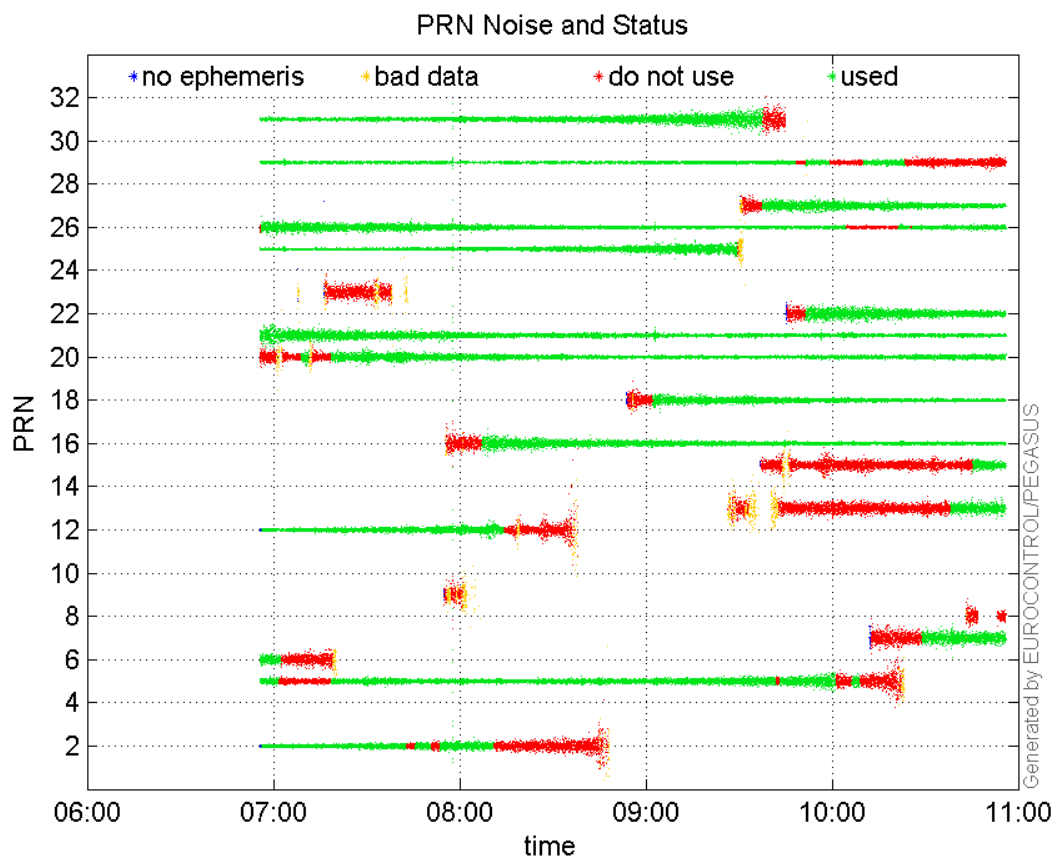
valid samples 14419
total samples 14419

PRN overview

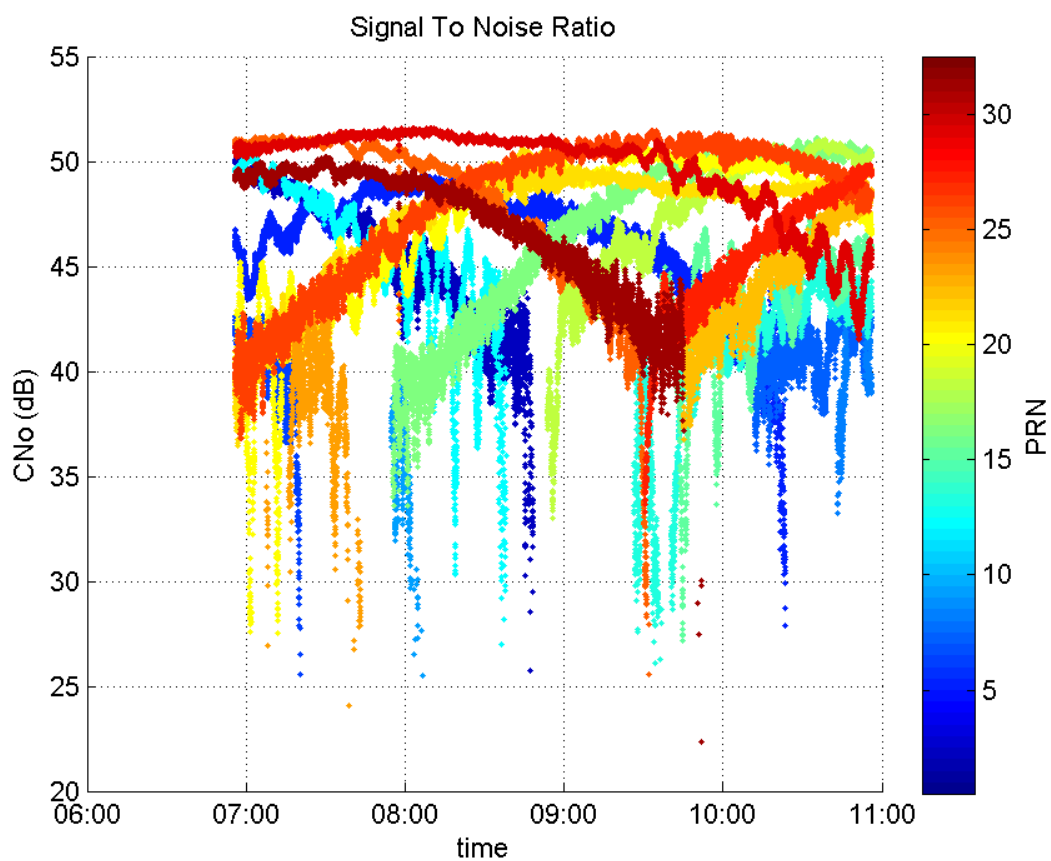
Number of Visible GPS Satellites 20
Number of Visible SBAS Satellites 2

signal quality and status

PRN Noise and Status:



Signal To Noise Ratio:



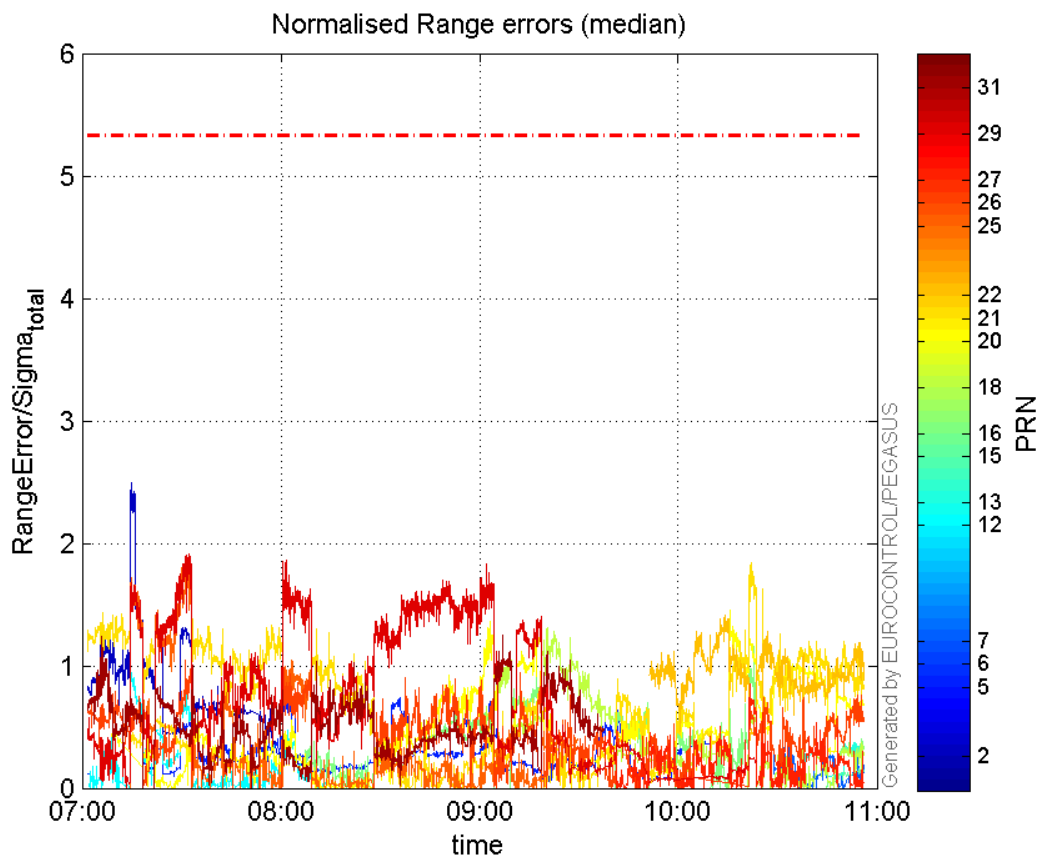
range errors

Number of Overbounding Norm Errors 0

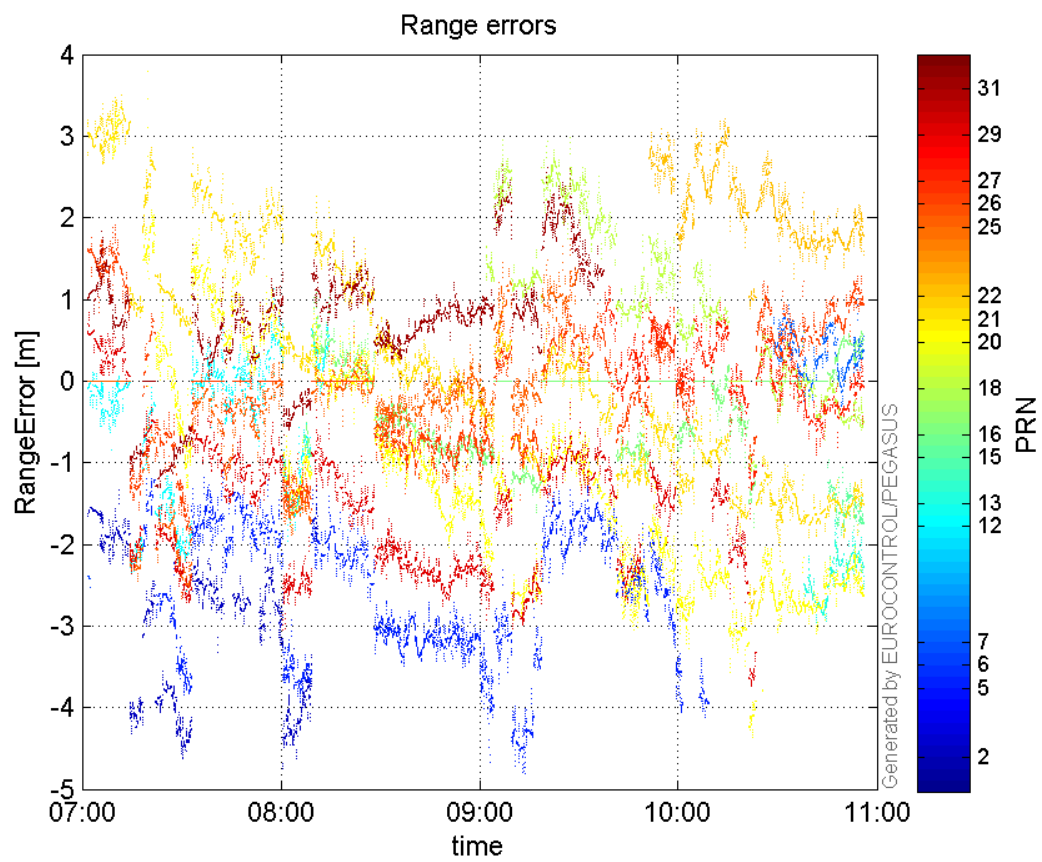
Max Norm Errors :

GPS Week	GPS Second	PRN	Norm Error	Range Error	Sigma
1863	458094	2	2.49454	-4.22757	1.69473
1863	462958	5	0.743584	-3.33255	4.48174
1863	457349	6	0.12206	-2.5289	20.7185
1863	471259	7	0.344716	1.01058	2.93164
1863	458091	12	0.946547	-2.34417	2.47654
1863	471207	13	0.367488	-2.39981	6.53032
1863	471279	15	0.156659	-1.8462	11.7849
1863	469373	16	1.15475	-1.79589	1.55523
1863	465623	18	1.31396	2.93051	2.2303
1863	468936	20	1.45095	-3.57371	2.46301
1863	469322	21	1.84274	-2.88463	1.5654
1863	468852	22	1.41096	3.20659	2.27263
1863	459009	25	1.80216	-2.59692	1.441
1863	459076	26	1.04979	-2.19127	2.08735
1863	469305	27	0.854649	-1.69088	1.97845
1863	459144	29	1.91472	-2.66704	1.39291
1863	464815	31	1.25155	2.6501	2.11745

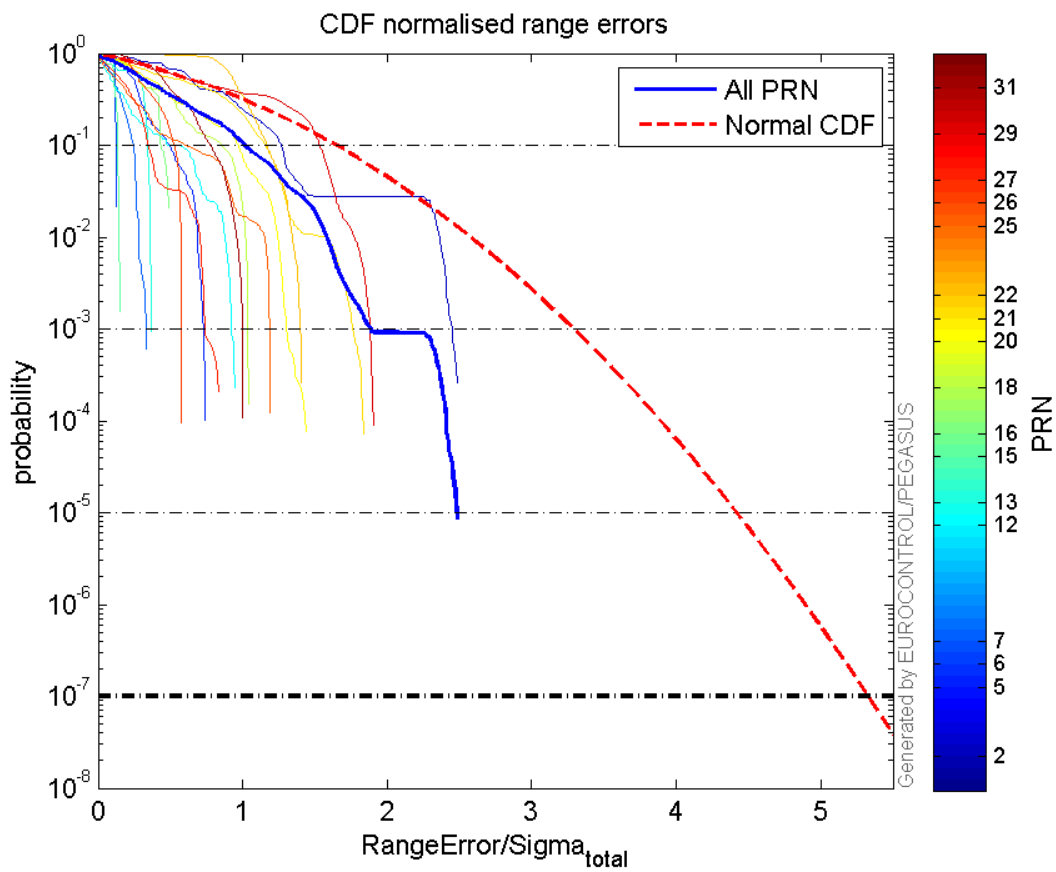
Normalised Range errors (median):



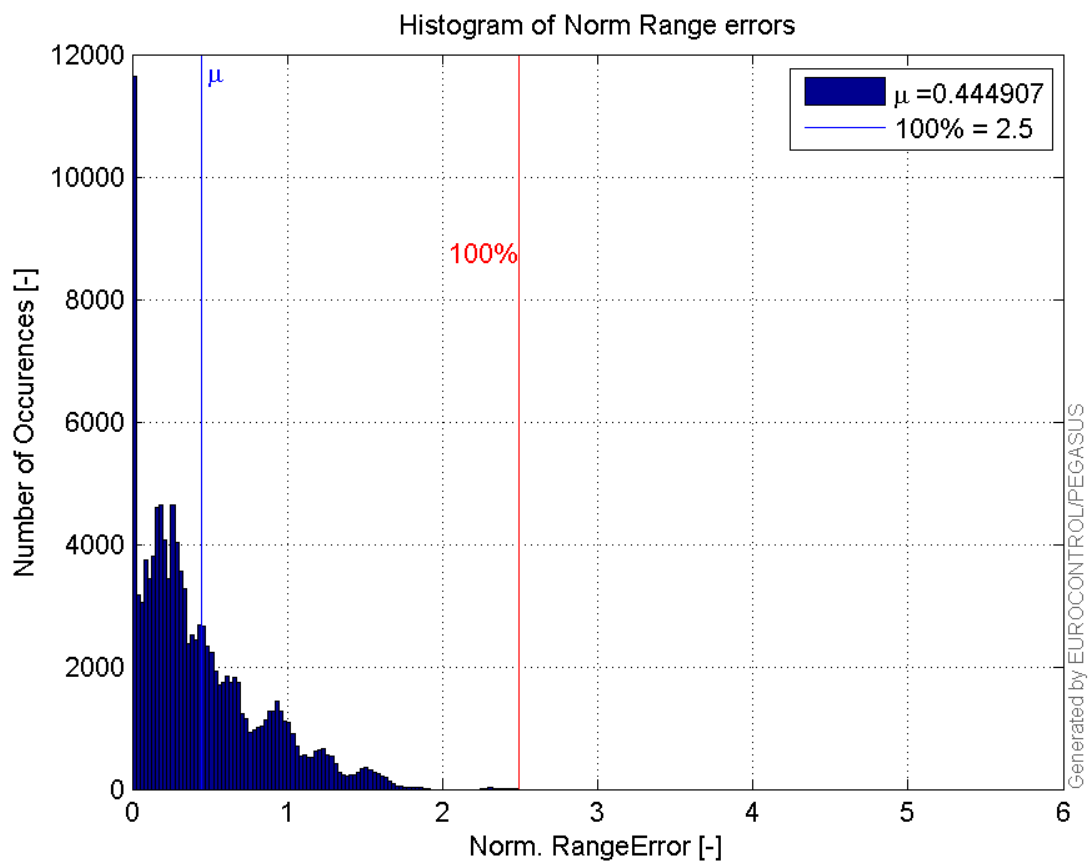
Range errors:



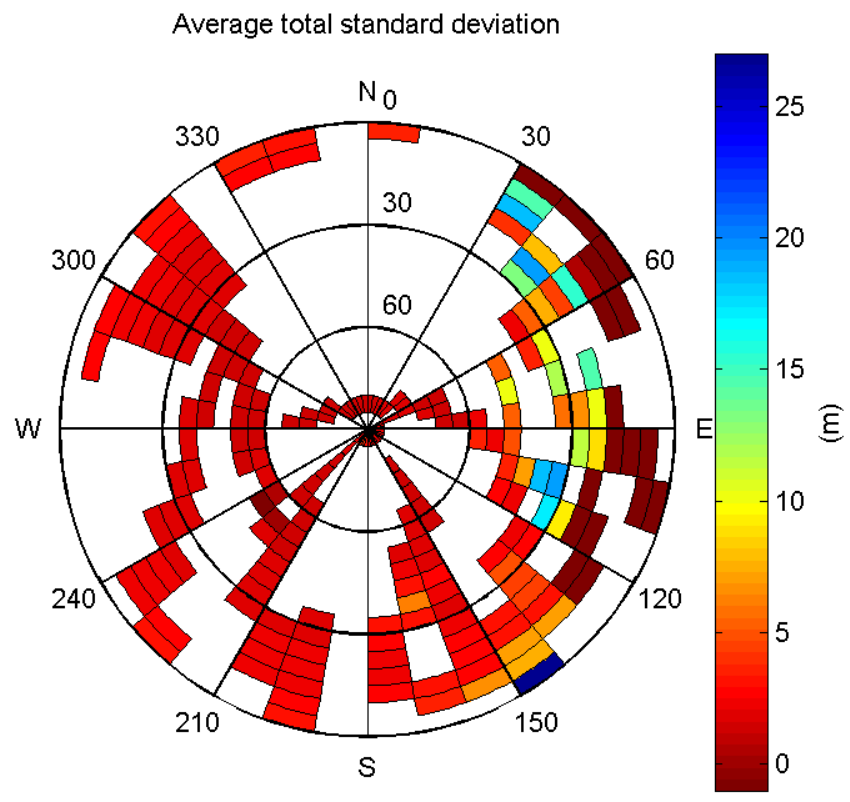
CDF normalised range errors:



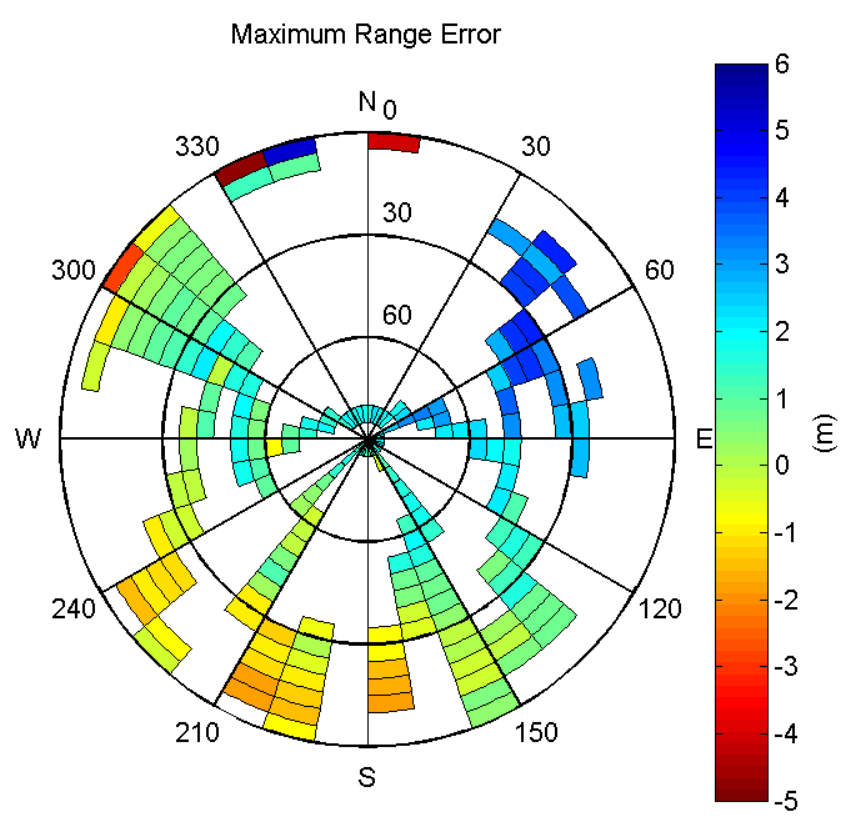
Histogram of Norm Range errors:



Sigma Sky Plot:

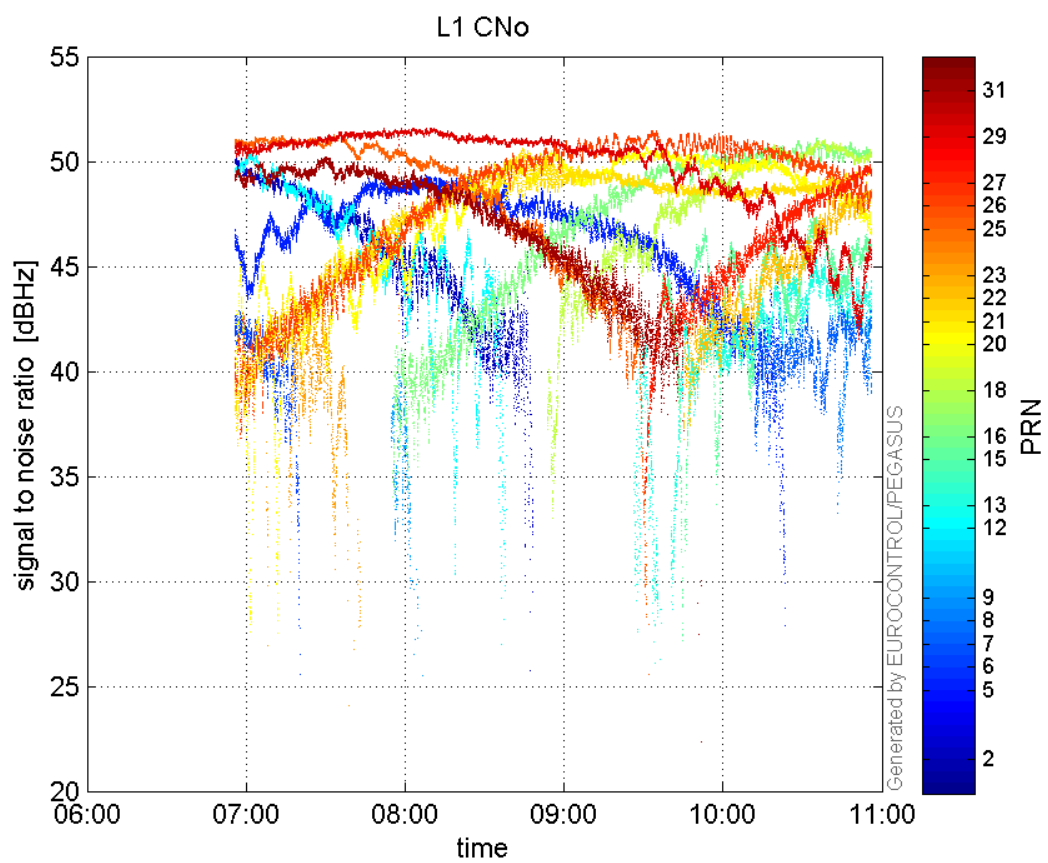


Norm Error Sky Plot:

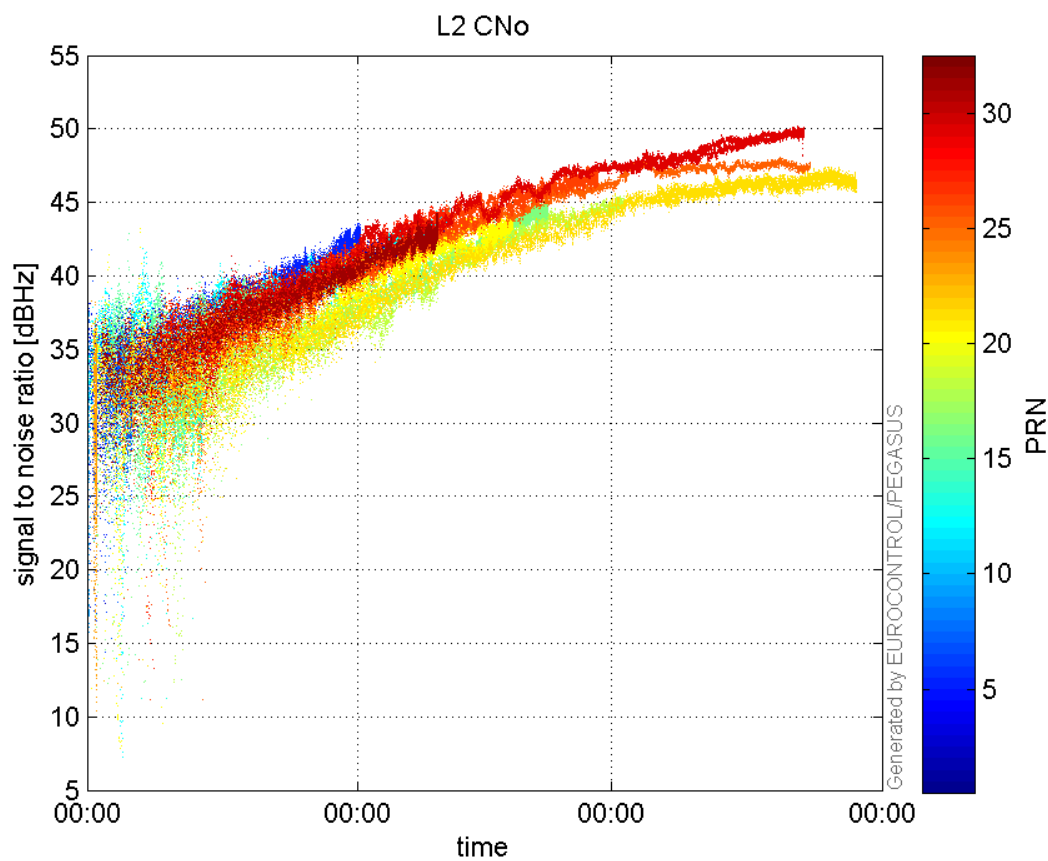


signal quality

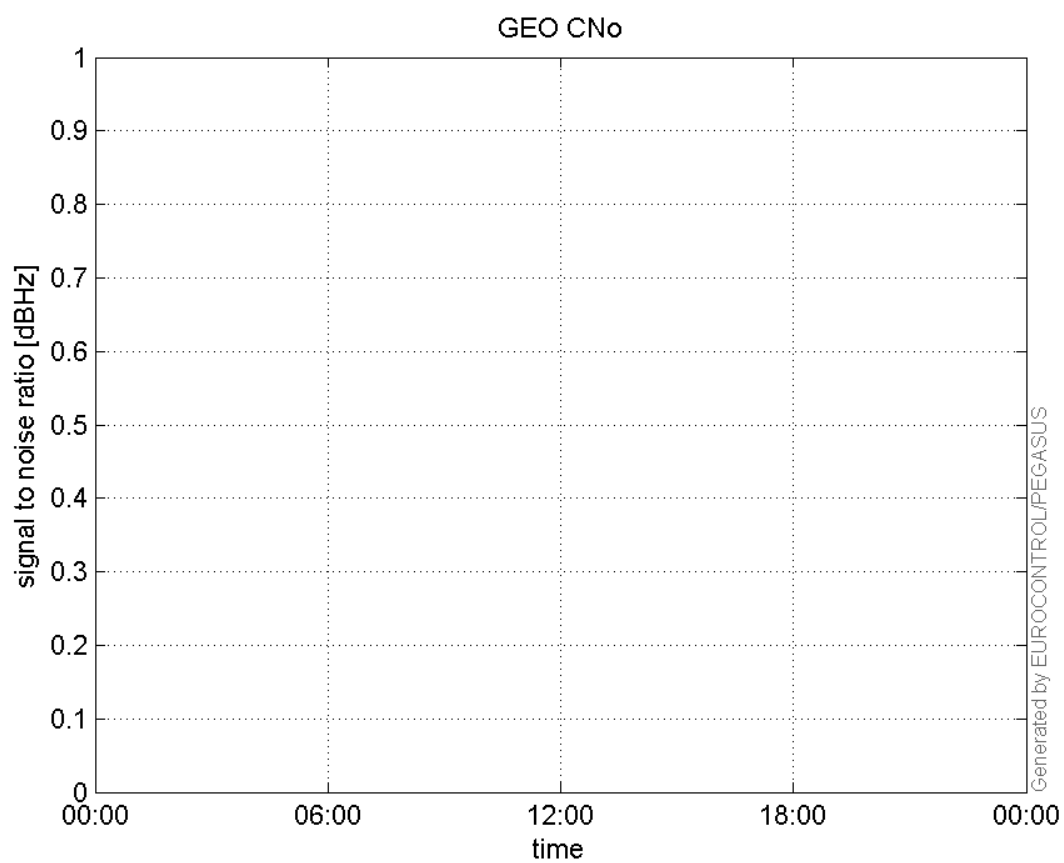
L1 CNo:



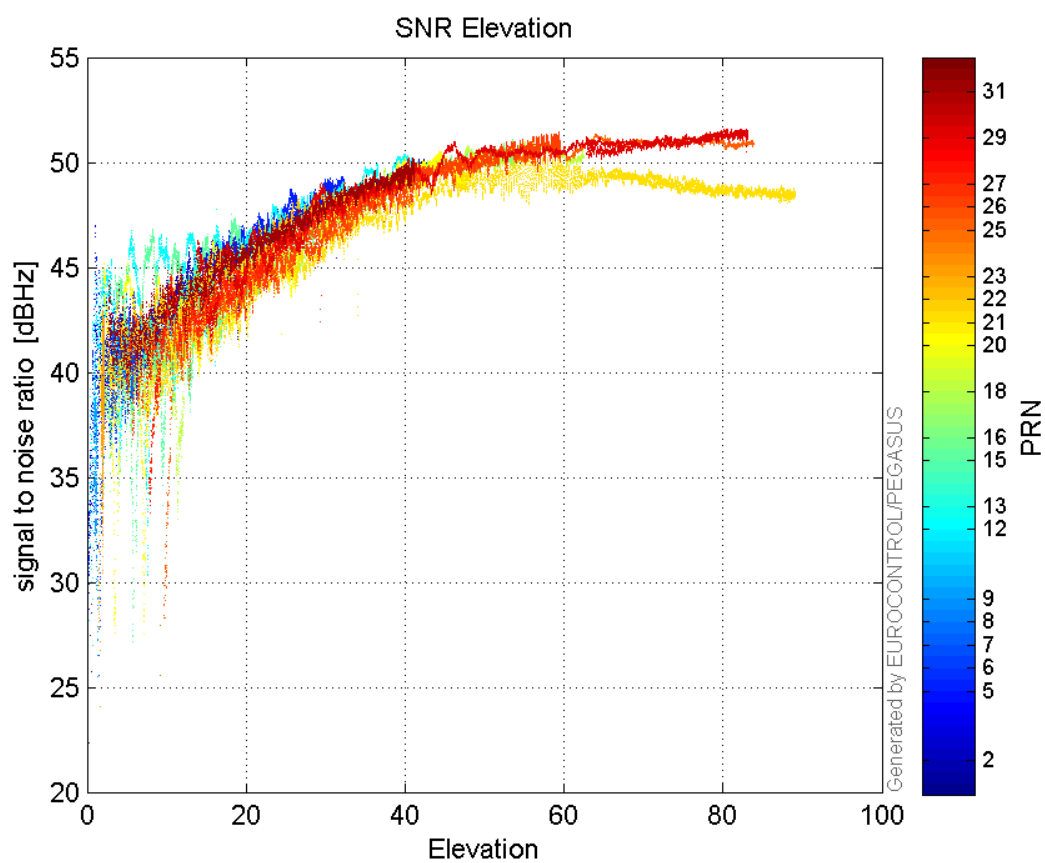
L2 CNo:



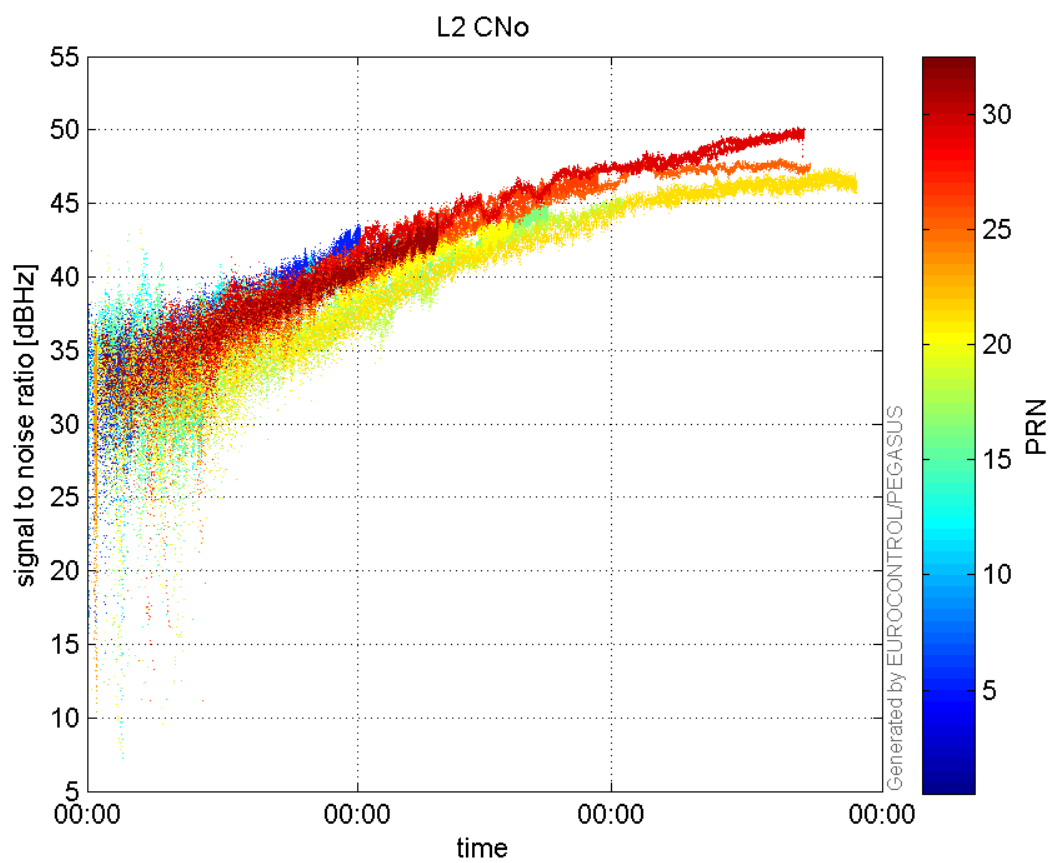
GEO CNo:



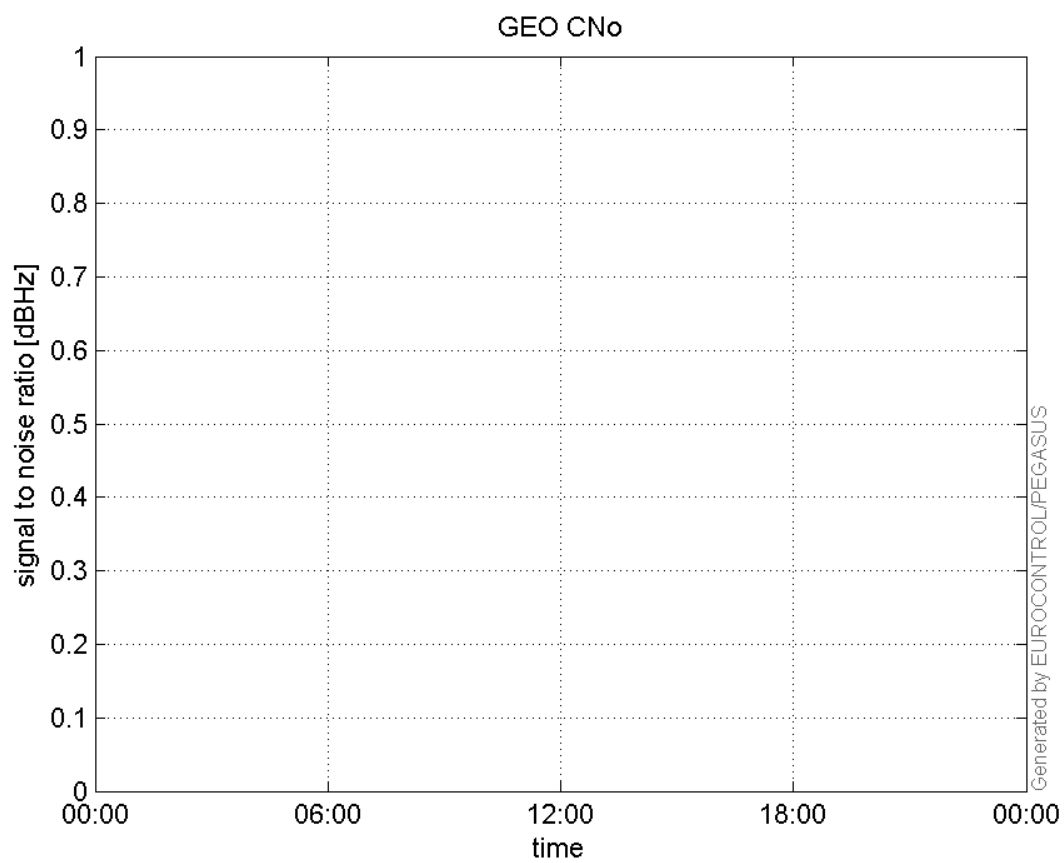
SNR Elevation:



L2 CNo:

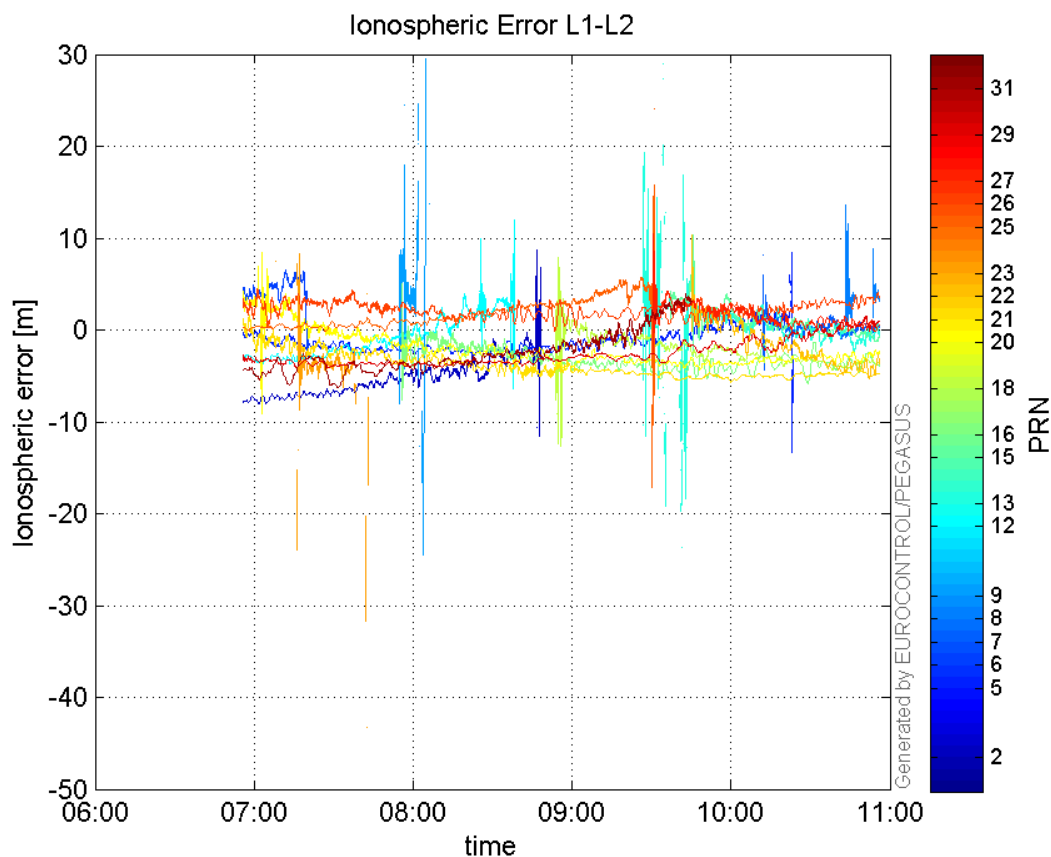


GEO CNo:



dual frequency

Ionospheric Error L1-L2:



Parameters

system

Name	Section	Value
name	system	GNSS_Solution
version	system	4.8.2.1
input_prefix	system	D:/PegasusDat/Jobs/Egnos2015_09_25/02_Convertor/02_Convertor
output_prefix	system	D:/PegasusDat/Jobs/Egnos2015_09_25/03_GNSS_Solution/03_GNSS_Solution_sol

settings

Name	Section	Value
ref_lat	settings	50.439
ref_lon	settings	30.4297
ref_alt	settings	214.43
smoothing	settings	yes
smoothing_constant	settings	100
smoothing_max_gap	settings	10
smoothing_max_divergence	settings	3
min_elevation	settings	5
aad_model	settings	a
output_range_file	settings	yes
sbas_prn	settings	120

gnss_mode	settings	sbas
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results

Name	Section	Value
init_lat	results	50.4391
init_lon	results	30.4297
init_alt	results	247.7691
mi_numbers	results	0