EUREF Densification: CEGRN Network

Document for the TWG Validation

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Appendixes:

1 Introduction

During the EUREF Symposium 2011 in Chisinau (Moldavia) a Memorandum of Understanding (MoU) between EUREF and CEGRN was signed by the respective Presidents dr. Johannes Ihde and prof. Alessandro Caporali.

The objective of the MoU is, in general, to create the conditions to facilitate the data exchange and to promote the increase in the co-operation between the two parties, for the benefit of both, and in particular, to facilitate the densification of the European GNSS network for reference frame definition and geokinematical applications.

It is expected that a closer co-operation between EUREF and CEGRN will increase the level of support to the IAG Dense Velocity Field Project, and the availability of a combined solution with respect to a denser network.

Moreover, the co-operation will contribute to:

- provide better and more consistent data for geokinematics, by the optimization of guidelines for approval of networks with position and velocities and the improvement of offset treatment in time series;
- stimulate reprocessing of old EPN data, taking into account the foreseen realization of CEGRN 2011 and the completion of the reprocessing of the EPN;
- involve more nations into the INSPIRE initiative, in particular with the CRS (Coordinate Reference Systems) Implementing Rules.

This document intends to provide a contribution to the MoU goals, and at the same time serve as technical basis for an assessment of the achievements of at least part of the goals.

We report on the reprocessing ('repro2') of the ten CEGRN campaigns in the time frame 1996-2013, and on the alignment of the multiyear solution to the EPN cumulative solution up to week 1725, following the guidelines foreseen for Densification campaigns. The net result is a set of coordinates and velocities of 71 CEGRN sites located Italy, Austria Germany, Czech, Poland, Slovakia, Ukraina, Slovenia, Croatia, Bosnia, Serbia, Macedonia, Rumania, Bulgaria, Hungary, Moldova.

Because of the temporal dimension of the CEGRN, and the parallel development of the EPN, some stations which started as CEGRN sites later became EPN sites, and viceversa EPN sites which stopped their activity, still remained in the CEGRN database and were considered in the stacking.

As a general rule we counted as CEGRN sites those sites which were never included in the EPN as class A or class B sites, because for these sites an official EPN set of coordinates already exists. For the 71 sites we generated logsheets according to the IGS form. We counted as one site sites which appear as multiple solution numbers in the STA file. Sites of the type EPN Class B or dismissed EPN thus exist in our adjustments. They are considered for check purposes, certainly not as constraints since for this purposes only EPN Class A are used. The coordinates of these sites which are neither CEGRN nor EPN_A still can be useful as soon as the repro2 activities of the EPN are completed, since our calculation complies already with the repro2 standards.

2 Description of the Densification Project

This report summarizes the processing of the "Central European GPS Geodynamic Reference Network", CEGRN, which was established in the framework of the project called CERGOP in 1994. In order to ensure the long term functionality of the CEGRN, in 2001, the CEGRN Consortium was established by the institutes which were participating in CERGOP.

The CEGRN Consortium serves the operation, maintenance and development of the CEGRN network, coordinates the measurements, data processing, and collaboration in different research topics. The Consortium also serves as the institutional background of the CERGOP-2/Environment Project, supported by the EU 5th Framework Programme under contract EVK2-CT-2002-00140.

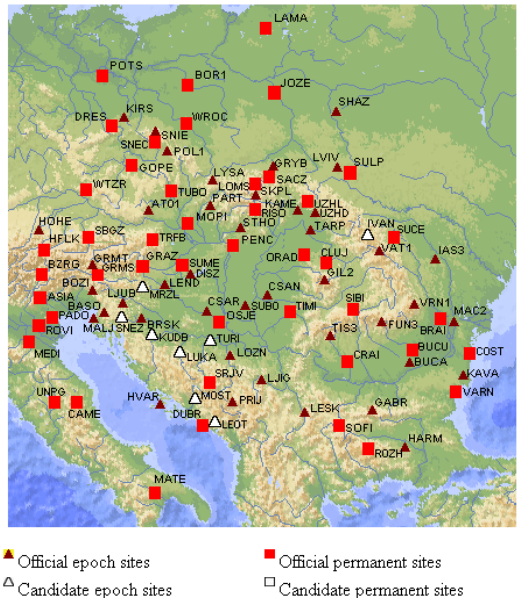

Fig. 1: CEGRN Network.

With a first campaign in 1996, since 1997, each 2 years, a week of GNSS observations has been computed as an independent daily-based campaign, strictly following the EUREF's guidelines for GNSS data computation. Once all the years are computed, the final combined solution, including the velocity field, is computed.

The final output is the result of the 10 different multiyear solution's combination.

2.a List of Densification Stations.

The full list of the processed sites is (EPN_A class sites not included):

ID	Full ID
0256	0256 00000M001
0266	0266 00000M001
0273	0273 00000M001
ALBR	ALBR 00000M000
ASIA	ASIA 12714M001
ASIA	ASIA 12714M002
AT01	AT01 11027M002
BABJ	BABJ 00000M000
BANO	BANO 00000M000
BASO	BASO 00000M000
BAST	BAST 00000M000
BIHA	BIHA 00000M000
BOSG	BOSG 00000M000
BOSP	BOSP 00000M000
BOZI	BOZI 00000M000
BRSK	BRSK 00000M000
BUCA	BUCA 00000M000
BUGO	BUGO 00000M000
BURG	BURG 00000S001
CAKO	CAKO 11906M001
CAME	CAME 12754M001
CAOP	CAOP 00000M000
CAPL	CAPL 00000M000
CLUJ	CLUJ 00000M000
CRAI	CRAI 00000M001
CSAN	CSAN 00000M000
CSAR	CSAR 00000M000
CVRS	CVRS 00000M000
DISZ	DISZ 00000M000
DUB2	DUB2 11901M002
DUBR	DUBR 11901M001
FOCA	FOCA 00000M000
FUN3	FUN3 00000M000
FUND	FUND 00000M000
GABR	GABR 00000M000
GIL2	GIL2 00000M000
GILA	GILA 00000M000
GMIL	GMIL 00000S001
GRDC	GRDC 00000M000
GRMS	GRMS 11028M001
GRMS	GRMS 11028S001
GRYB	GRYB 00000M000
HARM	HARM 00000M000
HFLK	HFLK 11006S003
HOHE	HOHE 00000M000
HVAR	HVAR 00000M000
IAS3	IAS3 00000M000
IVAN	IVAN 00000M000
KABA	KABA 00000M000
KAME	KAME 00000M000
KAVA	KAVA 00000M000
KIRS	KIRS 00000M000
KNJA	KNJA 12113M001
KONJ	KONJ 00000M000
KUDB	KUDB 00000M000
LEND	LEND 00000M000
LEOT	LEOT 00000M000
LESK	LESK 00000S001
LIE1	LIE1 00000S001
LIVN	LIVN 00000M000
LIVO	LIVO 00000M000
LJIG	LJIG 00000M000
LJUB	LJUB 00000M000
LOMS	LOMS 00000M000
LOVE	LOVE 00000S001
LOZN	LOZN 00000M000
LVIV	LVIV 00000M000
LYSA	LYSA 11522M002
LYSH	LYSH 11522M001
MAC5	MAC5 00000M000
MACI	MACI 00000M000
MALJ	MALJ 00000M000
MEDI	MEDI 12711M003
MONT	MONT 00000S001
MOPI	MOPI 11507M001
MOST	MOST 00000M000
MRZL	MRZL 00000M000
NEVE	NEVE 00000M000
NOVI	NOVI 00000M000
NPAZ	NPAZ 12110M001
NWSC	NWSC 12231M001
OLOV	OLOV 00000M000
ORAD	ORAD 00000M001
OSIJ	OSIJ 00000M000
OSJC	OSJC 00000M000
PADO	PADO 12750S001
PAR1	PAR1 00000S001
PART	PART 00000M000
PAT2	PAT2 11029M002
PEN2	PEN2 11206M007
PLND	PLND 12111M001
POL1	POL1 11530M001
PONI	PONI 00000M000
PORE	PORE 11907M001
POSU	POSU 00000M000
POZE	POZE 11908M001
PRIJ	PRIJ 00000S001
PUGS	PUGS 00000S001
PULA	PULA 11903S001
RISO	RISO 00000S001
ROVI	ROVI 12769M001
ROZH	ROZH 00000S001
SABA	SABA 12112M001
SACZ	SACZ 00000M000
SANS	SANS 00000M000
SEKO	SEKO 00000M000
SHAZ	SHAZ 00000M000
SHUM	SHUM 00000S001
SIB1	SIB1 00000M002
SIBI	SIBI 00000M001
SKPL	SKPL 00000M000
SNEC	SNEC 11519M001
SNEZ	SNEZ 00000M000
SNIE	SNIE 00000M000
SNZZ	SNZZ 00000M000
SOKO	SOKO 00000M000
SPRN	SPRN 211227M001
SREB	SREB 00000M000
SRJV	SRJV 11801S001
STAR	STAR 00000S001
STHO	STHO 00000M000
STOL	STOL 00000M000
SUB2	SUB2 00000S001
SUBO	SUBO 00000M000
SUCE	SUCE 00000M001
SULP	SULP 00000M000
SUME	SUME 11215M001
TARP	TARP 00000M000
TESL	TESL 00000M000
TIMI	TIMI 00000S001
TIS3	TIS3 00000M000
TREB	TREB 00000M000
TURI	TURI 00000M000
UPAD	UPAD 12750M002
UZHD	UZHD 00000M000
VARN	VARN 00000S001
VAT1	VAT1 00000M000
VAT2	VAT2 00000M000
VELI	VELI 00000M000
VLAS	VLAS 00000M000
VRN1	VRN1 00000M000
VRNA	VRNA 00000M000
ZADA	ZADA 11905M001
ZAVI	ZAVI 00000M000
ZENI	ZENI 00000M000

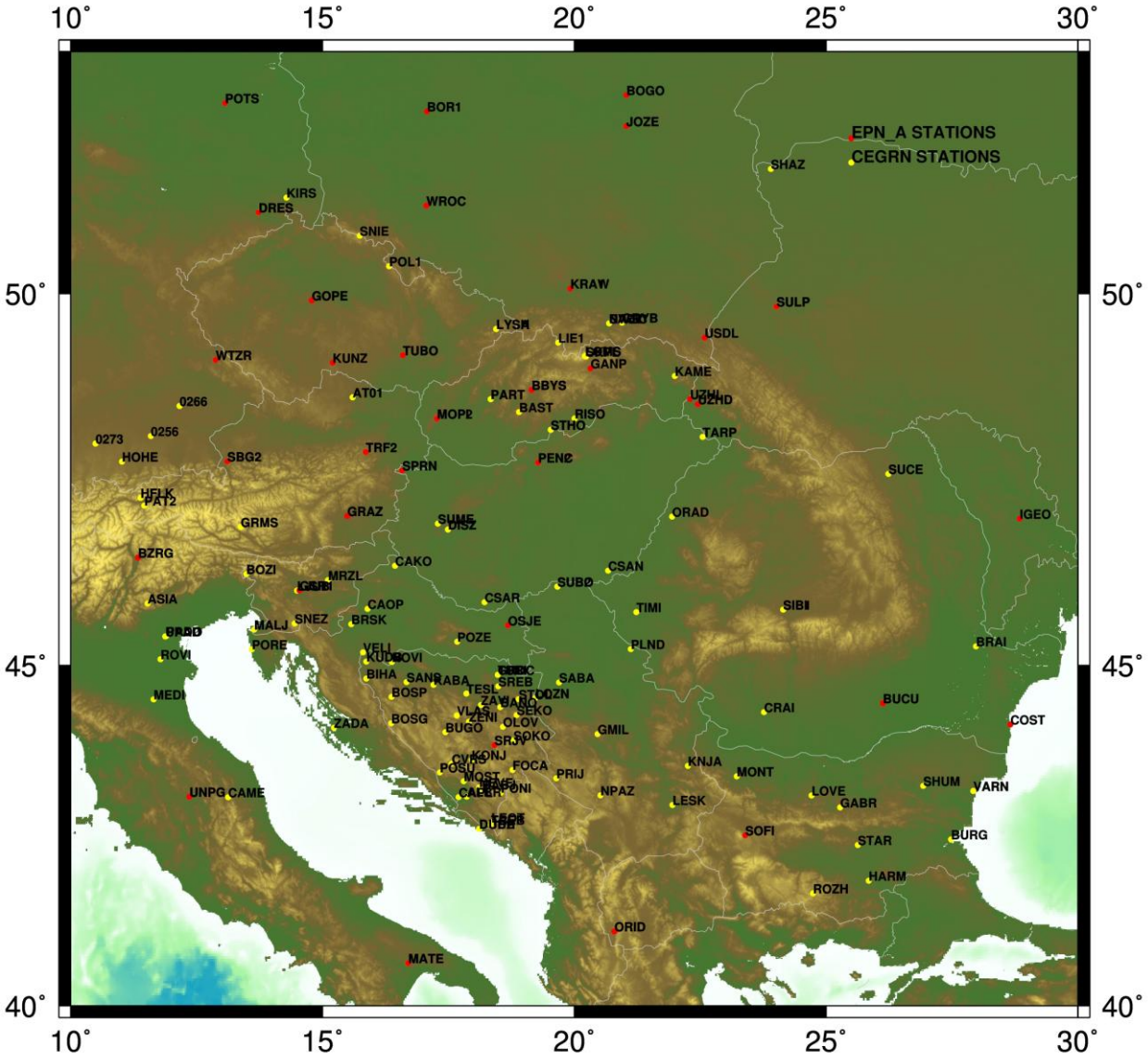

Fig. 2: CEGRN Network in the context of EPN Class A stations (wk 1725).

2.b Observation Period.

The CEGRN has been observed since 1997, each 2 years, over nearly a full week, plus an additional week in 1996. The observations period are:

- CEGRN 1996: from 1996-06-10 00:00:00 to 1996-06-15 23:59:30
- CEGRN 1997: from 1997-06-04 00:00:00 to 1997-06-10 23:59:30
- CEGRN 1999: from 1999-06-14 00:00:00 to 1999-06-19 23:59:30
- CEGRN 2001: from 2001-06-17 00:00:00 to 2001-06-23 23:59:30
- CEGRN 2003: from 2003-06-16 00:00:30 to 2003-06-21 23:59:30
- CEGRN 2005: from 2005-06-20 00:00:00 to 2005-06-25 23:59:30
- CEGRN 2007: from 2007-06-18 00:00:00 to 2007-06-23 23:59:30
- CEGRN 2009: from 2009-06-22 00:00:00 to 2009-06-27 23:59:30
- CEGRN 2011: from 2011-06-20 00:00:00 to 2011-06-25 23:59:30
- CEGRN 2013: from 2013-06-16 00:00:00 to 2013-06-22 23:59:30

2.c GNSS Equipment.

2.c.1 CEGRN1996.

Id.	From	To	Receiver	Antenna Name	SN	Eccentricities (UNE)		
BASO	96:162:00330	96:167:86370	LEICA SR399	LEISR399_INT	NONE -----	UNE 0.6910	0.0000	0.0000
BOR1	96:162:00000	96:167:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0621	0.0000	0.0000
BRSK	96:162:21210	96:167:21900	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0920	0.0000	0.0000
BUCA	96:162:21630	96:167:21570	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0450	0.0000	0.0000
CSAR	96:162:21690	96:167:21510	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
DISZ	96:162:21690	96:167:21600	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
FUND	96:162:21630	96:167:21570	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 0.0460	0.0000	0.0000
GILA	96:162:20370	96:167:21600	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0575	0.0000	0.0000
GOPE	96:162:00090	96:167:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0464	0.0000	0.0000
GRAZ	96:162:00000	96:167:86310	ROGUE SNR-8C	AOAD/M_T	NONE -----	UNE 2.0680	0.0000	0.0000
GRMS	96:162:00030	96:167:86220	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.6340	0.0000	0.0000
GRYB	96:162:00030	96:167:86340	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.8939	0.0000	0.0000
HARM	96:162:21600	96:167:21600	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.3550	0.0000	0.0000
HFLK	96:162:00030	96:167:86160	ROGUE SNR-8C	AOAD/M_B	OLGA -----	UNE 0.0000	0.0000	0.0000
HOHE	96:162:21330	96:167:21600	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.4360	0.0000	0.0000
HUTB	96:163:00030	96:167:29010	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.1080	0.0000	0.0000
IAS3	96:162:21750	96:167:21630	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.2200	0.0000	0.0000
IAS5	96:166:30750	96:166:48690	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.2900	0.0000	0.0000
IAS6	96:165:27030	96:165:43740	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.9775	0.0000	0.0000
IAS7	96:165:45330	96:165:57870	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.2145	0.0000	0.0000
JOZE	96:162:00030	96:167:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.1980	0.0000	0.0000
KIRS	96:162:21330	96:167:21660	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 1.4005	0.0000	0.0000
KOSG	96:162:00030	96:167:86370	ROGUE SNR-12 RM	AOAD/M_B	DUTD -----	UNE 0.1050	0.0000	0.0000
LAMA	96:162:00060	96:167:86340	ASHTECH Z-XII3	AOAD/M_T	NONE -----	UNE 0.0610	0.0000	0.0000
LJUB	96:162:21630	96:167:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0680	0.0000	0.0000
LVIV	96:162:21630	96:167:77490	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.0648	0.0000	0.0000
MACI	96:162:21630	96:167:21570	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0050	0.0000	0.0000
MATE	96:162:00000	96:167:86310	ROGUE SNR-8	AOAD/M_B	NONE -----	UNE 0.1350	0.0000	0.0000
METS	96:162:00000	96:167:86340	ROGUE SNR-8100	AOAD/M_B	NONE -----	UNE 0.0000	0.0000	0.0000
MOPI	96:162:00030	96:167:86310	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 0.0870	0.0000	0.0000
ONSA	96:162:00000	96:167:86370	ROGUE SNR-8000	AOAD/M_B	DUTD -----	UNE 0.9950	0.0000	0.0000
PENC	96:162:00030	96:167:86310	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0300	0.0000	0.0000
POLO	96:162:21360	96:162:86340	TRIMBLE 4000SST	TRM14532.00	NONE -----	UNE 0.1720	0.0000	0.0000
POTS	96:162:00030	96:167:86340	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0460	0.0000	0.0000
SKPL	96:162:00030	96:167:28770	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2850	0.0000	0.0000
SNIE	96:162:00030	96:167:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0650	0.0000	0.0000
SOFI	96:162:21210	96:167:21630	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.2270	0.0000	0.0000
STHO	96:162:00030	96:167:28710	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.2840	0.0000	0.0000
TIS3	96:162:21630	96:167:21600	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.2085	0.0000	0.0000
TIS4	96:163:37830	96:163:48600	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.5430	0.0000	0.0000
TIS5	96:164:36030	96:164:46800	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.3405	0.0000	0.0000
TIS6	96:165:30330	96:165:41100	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.3790	0.0000	0.0000
UPAD	96:162:00330	96:167:86280	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.9620	0.0000	0.0000
UZHD	96:162:21570	96:167:86340	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.0515	0.0000	0.0000
VAT1	96:162:21690	96:167:21630	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.9299	0.0000	0.0000
VAT2	96:164:63150	96:167:21630	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0453	0.0000	0.0000
VRN1	96:162:21630	96:167:21570	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 0.0720	0.0000	0.0000
VRN3	96:163:00000	96:165:21570	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 1.2240	0.0000	0.0000
WTZR	96:162:00030	96:167:86340	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0710	0.0000	0.0000
ZIMM	96:162:00030	96:167:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0000	0.0000	0.0000

2.c.2 CEGRN1997.

Id.	From	To	Receiver	Antenna Name	SN	Eccentities (UNE)		
BASO	97:155:00000	97:158:86370	LEICA SR399	LEISR399_INT	NONE -----	UNE 0.6000	0.0000	0.0000
BOGO	97:155:00060	97:158:86370	ASHTECH Z-XII3	ASH700936C_M	SNOW -----	UNE 0.0000	0.0000	0.0000
BOR1	97:156:00000	97:158:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0621	0.0000	0.0000
BRSK	97:155:63420	97:158:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0990	0.0000	0.0000
BUCA	97:155:54030	97:158:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0453	0.0000	0.0000
CSAR	97:155:54150	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
DISZ	97:155:64830	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
FUND	97:155:54030	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.8748	0.0000	0.0000
GIL2	97:155:54060	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0662	0.0000	0.0000
GOPE	97:155:00090	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0464	0.0000	0.0000
GRAZ	97:155:22650	97:158:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 1.9640	0.0000	0.0000
GRMS	97:155:56550	97:158:86340	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.6300	0.0000	0.0000
GRYB	97:155:64680	97:158:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.8940	0.0000	0.0000
HARM	97:155:64620	97:158:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.4703	0.0000	0.0000
HFLK	97:155:00000	97:158:86370	ROGUE SNR-8C	AOAD/M_B	OLGA -----	UNE 0.0000	0.0000	0.0000
HOHE	97:155:64860	97:158:86370	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 1.4340	0.0000	0.0000
HUTB	97:155:50100	97:158:86340	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.1260	0.0000	0.0000
HVAR	97:155:64800	97:158:86340	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 1.3404	0.0000	0.0000
IAS3	97:155:54690	97:158:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.1659	0.0000	0.0000
JOZE	97:155:00720	97:158:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.1980	0.0000	0.0000
KIRS	97:155:46950	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.4280	0.0000	0.0000
KOSG	97:155:00000	97:158:86190	ROGUE SNR-12 RM	AOAD/M_B	DUTD -----	UNE 0.1050	0.0000	0.0000
LAMA	97:155:00060	97:158:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0610	0.0000	0.0000
LJUB	97:155:07200	97:158:85800	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.5480	0.0000	0.0000
LVIV	97:155:64500	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0670	0.0000	0.0000
MACI	97:155:53160	97:158:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0653	0.0000	0.0000
MATE	97:155:00000	97:158:86160	ROGUE SNR-8100	AOAD/M_T	NONE -----	UNE 0.1010	0.0000	0.0000
METS	97:155:00060	97:157:86280	ROGUE SNR-8100	AOAD/M_B	NONE -----	UNE 0.0000	0.0000	0.0000
MOPI	97:155:00090	97:158:86340	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 0.0870	0.0000	0.0000
ONSA	97:155:00000	97:158:86190	ROGUE SNR-8000	AOAD/M_B	DUTD -----	UNE 0.9950	0.0000	0.0000
PENC	97:155:00030	97:158:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0300	0.0000	0.0000
POTS	97:155:00030	97:158:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0460	0.0000	0.0000
SKPL	97:155:61230	97:158:86310	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2940	0.0000	0.0000
SNIE	97:155:64350	97:158:86310	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0670	0.0000	0.0000
SOFI	97:155:00000	97:158:86340	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.2200	0.0000	0.0000
STHO	97:155:64830	97:158:86310	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2810	0.0000	0.0000
SULP	97:155:64530	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 4.6930	0.0000	0.0000
TIS3	97:155:54060	97:158:86370	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2010	0.0000	0.0000
UPAD	97:156:00330	97:158:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 1.9620	0.0000	0.0000
UZHD	97:155:64500	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0440	0.0000	0.0000
VAT1	97:155:59370	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0453	0.0000	0.0000
VRN1	97:155:54300	97:158:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0690	0.0000	0.0000
WTZR	97:155:00000	97:158:86190	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0710	0.0000	0.0000
ZIMM	97:155:00030	97:158:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0000	0.0000	0.0000

2.c.3 CEGRN1999.

Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
BOGO	99:165:00060	99:170:86370	ASHTECH Z-XII3	ASH700936C_M	SNOW -----	UNE 0.0000	0.0000	0.0000
BOR1	99:165:00060	99:170:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0624	0.0000	0.0000
BOZI	99:165:44130	99:170:44010	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
BRSK	99:165:39360	99:170:43320	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0980	0.0000	0.0000
BUCA	99:165:38220	99:170:43260	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 0.0870	0.0000	0.0000
BUCU	99:165:00030	99:170:86370	ASHTECH Z-XII3	ASH700936D_M	NONE -----	UNE 0.0810	0.0000	0.0000
BZRG	99:165:00000	99:170:86370	LEICA SR9500	LEIAT303	LEIC -----	UNE 0.2040	0.0000	0.0000
CSAR	99:165:43230	99:170:43200	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
DISZ	99:165:43020	99:170:43290	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3050	0.0000	0.0000
DRES	99:165:00000	99:170:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.5953	0.0000	-0.0000
FUN3	99:165:37650	99:170:41040	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 0.1000	0.0000	0.0000
GIL2	99:165:43200	99:169:70680	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 0.0950	0.0000	0.0000
GLSV	99:165:00060	99:170:86310	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
GOPE	99:165:00090	99:170:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0464	0.0000	0.0000
GRAZ	99:165:00000	99:170:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 1.9640	0.0000	0.0000
GRDC	99:165:27960	99:169:85350	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0719	0.0000	0.0000
GRMS	99:165:31890	99:170:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0000	0.0000	0.0000
GRYB	99:165:00240	99:170:86370	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.9010	0.0000	0.0000
HFLK	99:165:00000	99:170:86370	ROGUE SNR-8000	AOAD/M_T	OLGA -----	UNE -0.0200	0.0000	0.0000
HOHE	99:165:00090	99:170:43200	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 1.5000	0.0000	0.0000
HUTB	99:165:42660	99:170:43590	LEICA SR9500	LEIAT302-GP	NONE -----	UNE 0.1080	0.0000	0.0000
HVAR	99:165:40980	99:170:43830	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 1.3664	0.0000	0.0000
IAS3	99:165:39000	99:170:46890	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 0.1645	0.0000	0.0000
JOZE	99:165:00060	99:170:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.1980	0.0000	0.0000
KAME	99:165:00030	99:170:43230	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.2840	0.0000	0.0000
KIRS	99:165:42660	99:170:43230	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 1.3507	0.0000	0.0000
KOSG	99:165:00000	99:170:86370	ROGUE SNR-12 RM	AOAD/M_B	DOME -----	UNE 0.1050	0.0000	0.0000
LAMA	99:165:00060	99:170:86370	ASHTECH Z-XII3	AOAD/M_T	NONE -----	UNE 0.0610	0.0000	0.0000
LEND	99:165:46200	99:170:43290	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 0.1607	0.0000	0.0000
LJUB	99:165:00030	99:170:86280	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.5480	0.0000	0.0000
LVIV	99:165:43050	99:170:43260	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.0630	0.0000	0.0000
LYSA	99:165:00120	99:170:86370	GEOTRACER 100	TRM14532.00	NONE -----	UNE 0.0610	0.0000	0.0000
MAC5	99:165:34590	99:170:43230	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 0.0870	0.0000	0.0000
MALJ	99:165:42270	99:170:43200	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
MATE	99:165:00030	99:170:86340	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.1010	0.0000	0.0000
MEDI	99:165:00060	99:170:86370	ROGUE SNR-8100	AOAD/M_T	NONE -----	UNE 0.0000	0.0000	0.0000
METS	99:165:00000	99:170:86370	ROGUE SNR-8100	AOAD/M_B	NONE -----	UNE 0.0000	0.0000	0.0000
MOPI	99:165:00120	99:170:86340	TRIMBLE 4000SSI	TRM14532.00	DOME -----	UNE 0.0870	0.0000	0.0000
ONSA	99:165:00000	99:170:86370	ASHTECH Z-XII3	AOAD/M_B	NONE -----	UNE 0.9950	0.0000	0.0000
OSIJ	99:165:43230	99:170:43860	TRIMBLE 4800	TRM4800	NONE -----	UNE 0.1100	0.0000	0.0000
PART	99:165:00120	99:170:43740	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.2830	0.0000	0.0000
PENC	99:165:00030	99:170:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0300	0.0000	0.0000
POL1	99:165:00030	99:170:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0055	0.0000	0.0000
POTS	99:165:00000	99:170:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0460	0.0000	0.0000
SBGZ	99:165:00000	99:170:86370	TRIMBLE 4000SSI	TRM29659.00	GRAZ -----	UNE 0.0000	0.0000	0.0000
SKPL	99:165:00030	99:170:43200	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.2860	0.0000	0.0000
SNIE	99:165:00000	99:170:86370	ASHTECH Z-XII3	ASH700718B	NONE -----	UNE 0.0597	0.0000	0.0000
SOFI	99:165:00030	99:170:86340	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.2200	0.0000	0.0000
SRJV	99:165:00000	99:170:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.1740	0.0000	0.0000
STHO	99:165:00030	99:170:43170	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.2855	0.0000	0.0000
SULP	99:165:43200	99:170:43260	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 4.7140	0.0000	0.0000
TARP	99:165:43290	99:170:43200	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
TIS3	99:165:42990	99:170:43200	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 0.1473	0.0000	0.0000
TUBO	99:165:00120	99:170:86370	ASHTECH Z18	ASH701073.3	SNOW -----	UNE 0.1016	0.0000	0.0000
UPAD	99:166:00030	99:169:82800	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 1.9621	0.0000	0.0000
UZHD	99:165:43200	99:170:43200	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.0530	0.0000	0.0000
VAT1	99:165:42030	99:170:44250	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 0.0870	0.0000	0.0000
VRN1	99:168:00000	99:170:43140	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 0.0490	0.0000	0.0000
VRNA	99:165:39000	99:166:86370	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE -0.0220	0.0000	0.0000
WROC	99:165:00060	99:170:86370	ASHTECH Z-XII3	ASH700936D_M	NONE -----	UNE 0.0000	0.0000	0.0000
WTZR	99:165:00000	99:170:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0715	0.0000	-0.0000
ZIMM	99:165:28800	99:170:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000

2.c.4 CEGRN2001.

Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
BOGO	01:168:00060	01:174:86340	ASHTECH Z-XII3	ASH700936C_M	SNOW	----- UNE	0.0000	0.0000	0.0000
BOR1	01:168:00060	01:174:86340	ROGUE SNR-8000	AOAD/M_T	NONE	----- UNE	0.0624	0.0000	0.0000
BOZI	01:169:40560	01:174:43230	TRIMBLE 4000SSI	TRM22020.00+GP	NONE	----- UNE	0.3107	0.0000	0.0000
BRSK	01:169:42840	01:174:43680	TRIMBLE 4000SSI	TRM22020.00+GP	NONE	----- UNE	0.1068	0.0000	0.0000
BUCU	01:168:00060	01:174:86310	ASHTECH Z-XII3	ASH700936D_M	SNOW	----- UNE	0.0815	0.0000	0.0000
BZRG	01:169:00060	01:174:86310	LEICA CRS1000	LEIAT504	LEIS	----- UNE	0.2120	0.0000	0.0000
CAOP	01:168:64830	01:174:84570	TRIMBLE 4000SSI	TRM29659.00	NONE	----- UNE	0.0259	0.0000	0.0000
CSAN	01:169:43020	01:174:43200	TRIMBLE 4000SST	TRM14532.00	NONE	----- UNE	0.3050	0.0000	0.0000
CSAR	01:169:45540	01:174:43200	TRIMBLE 4000SSE	TRM14532.00	NONE	----- UNE	0.3050	0.0000	0.0000
DISZ	01:169:43230	01:174:43260	TRIMBLE 4000SSE	TRM22020.00+GP	NONE	----- UNE	0.3050	0.0000	0.0000
DRES	01:168:00060	01:174:86310	TRIMBLE 4000SSI	TRM22020.00+GP	DOME	----- UNE	0.5953	0.0000	0.0000
DUBR	01:168:00060	01:174:86310	ASHTECH Z-XII3	ASH700936D_M	SNOW	----- UNE	0.0810	0.0000	0.0000
FUN3	01:169:39600	01:174:46860	LEICA SR399	LEISR399_INT	NONE	----- UNE	0.3470	0.0000	0.0000
GLSV	01:168:00060	01:174:86310	TRIMBLE 4000SSI	TRM29659.00	NONE	----- UNE	0.0000	0.0000	0.0000
GOPE	01:168:00060	01:174:86310	ASHTECH Z18	ASH701946.2	SNOW	----- UNE	0.0464	0.0000	0.0000
GRAZ	01:169:60570	01:174:86310	ASHTECH UZ-12	ASH701945C_M	NONE	----- UNE	1.9640	0.0000	0.0000
GRYB	01:169:43560	01:174:49860	TRIMBLE 4000SSE	TRM14532.00	NONE	----- UNE	0.8328	0.0000	0.0000
GSR1	01:169:25200	01:174:84570	LEICA SR9500	LEIAT302-GP	NONE	----- UNE	0.0650	0.0000	0.0000
HFLK	01:168:00060	01:174:86310	TRIMBLE 4000SSI	TRM29659.00	OLGA	88087 UNE	-0.0200	0.0000	0.0000
HUTB	01:169:42390	01:173:43470	LEICA SR9500	LEIAT302-GP	NONE	----- UNE	0.1110	0.0000	0.0000
HVAR	01:169:43530	01:174:43200	TRIMBLE 4000SSI	TRM22020.00+GP	NONE	----- UNE	1.3670	0.0000	0.0000
JOZE	01:168:00060	01:174:86340	TRIMBLE 4000SSE	TRM14532.00	NONE	----- UNE	0.1980	0.0000	0.0000
KAME	01:169:43230	01:174:64800	TRIMBLE 4000SSE	TRM22020.00+GP	NONE	----- UNE	0.2850	0.0000	0.0000
KOSG	01:168:00000	01:174:86370	ROGUE SNR-12 ACT	AOAD/M_B	DUTD	----- UNE	0.1050	0.0000	0.0000
LAMA	01:168:20730	01:174:86340	ASHTECH Z-XII3	ASH700936F_C	SNOW	----- UNE	0.0610	0.0000	0.0000
LEND	01:169:43230	01:174:43260	TRIMBLE 4000SSI	TRM22020.00+GP	NONE	----- UNE	0.1607	0.0000	0.0000
LJUB	01:169:41610	01:174:56010	TRIMBLE 4000SSI	TRM22020.00+GP	NONE	----- UNE	0.5480	0.0000	0.0000
LVIV	01:169:43230	01:174:43200	TRIMBLE 4000SSE	TRM22020.00+GP	NONE	----- UNE	0.0765	0.0000	0.0000
LYSA	01:169:00090	01:174:43230	TRIMBLE 4000SSE	TRM14532.00	NONE	----- UNE	0.0678	0.0000	0.0000
MALJ	01:169:39810	01:174:43260	TRIMBLE 4000SSI	TRM22020.00+GP	NONE	----- UNE	0.3107	0.0000	0.0000
MATE	01:168:00060	01:174:86340	TRIMBLE 4000SSI	TRM29659.00	NONE	----- UNE	0.1010	0.0000	0.0000
MEDI	01:168:00060	01:171:86340	TRIMBLE 4000SSI	TRM29659.00	NONE	----- UNE	0.0000	0.0000	0.0000
METS	01:168:00030	01:174:86370	ASHTECH Z-XII3	AOAD/M_B	NONE	----- UNE	0.0000	0.0000	0.0000
MOPI	01:168:00090	01:174:86310	TRIMBLE 4000SSI	TRM14532.00	DOME	----- UNE	0.0870	0.0000	0.0000
ONSA	01:168:00000	01:174:86370	ASHTECH Z-XII3	AOAD/M_B	OSOD	----- UNE	0.9950	0.0000	0.0000
ORID	01:168:00060	01:174:86340	ASHTECH Z-XII3	ASH700936E	SNOW	----- UNE	0.0650	0.0000	-0.0000
OSJE	01:168:00090	01:174:86340	ASHTECH Z-XII3	ASH700936E	SNOW	----- UNE	0.0540	0.0000	0.0000
PART	01:169:40230	01:174:29220	TRIMBLE 4000SSE	TRM22020.00+GP	NONE	----- UNE	0.2850	0.0000	0.0000
PENC	01:168:00060	01:174:86340	TRIMBLE 4000SSE	TRM14532.00	NONE	----- UNE	0.0300	0.0000	0.0000
POL1	01:169:00150	01:174:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE	----- UNE	0.0600	0.0000	0.0000
POTS	01:168:00060	01:174:86340	AOA SNR-8000 ACT	AOAD/M_T	NONE	----- UNE	0.0460	0.0000	0.0000
PULA	01:169:43590	01:174:86310	TRIMBLE 4000SSI	TRM29659.00	NONE	----- UNE	0.0000	0.0000	0.0000
SBGZ	01:168:00060	01:174:86310	TRIMBLE 4000SSI	TRM29659.00	GRAZ	----- UNE	0.0000	0.0000	0.0000
SKPL	01:169:33060	01:174:42480	TRIMBLE 4000SSI	TRM22020.00+GP	NONE	----- UNE	0.2850	0.0000	0.0000
SNIE	01:169:00150	01:174:86340	ASHTECH Z-XII3	ASH700718B	NONE	----- UNE	0.0670	0.0000	0.0000
SOFI	01:168:00060	01:174:86310	AOA SNR-8000 ACT	AOAD/M_T	NONE	----- UNE	0.2200	0.0000	0.0000
SRJV	01:168:00060	01:174:86310	TRIMBLE 4000SSI	TRM22020.00+GP	NONE	----- UNE	0.1740	0.0000	0.0000
STHO	01:169:43020	01:174:43260	TRIMBLE 4000SSE	TRM22020.00+GP	NONE	----- UNE	0.2850	0.0000	0.0000
SULP	01:169:00030	01:174:86340	TRIMBLE 4700	TRM22020.00+GP	NONE	----- UNE	4.7340	0.0000	0.0000
TARP	01:169:43230	01:174:43110	TRIMBLE 4000SSE	TRM14532.00	NONE	----- UNE	0.3050	0.0000	0.0000
TUBO	01:169:00060	01:174:86370	TRIMBLE 4700	TRM29659.00	NONE	----- UNE	0.3107	0.0000	0.0000
UNPG	01:168:00060	01:173:86340	ASHTECH Z-XII3	ASH700936D_M	NONE	----- UNE	0.0520	0.0000	0.0000
UPAD	01:168:00060	01:174:86310	TRIMBLE 4000SSI	TRM29659.00	NONE	----- UNE	1.9621	0.0000	0.0000
UZHD	01:169:45690	01:174:43470	LEICA SR399	LEISR399_INT	NONE	----- UNE	0.2640	0.0000	0.0000
UZHL	01:169:45690	01:174:86310	TRIMBLE 4000SSI	TRM29659.00	NONE	----- UNE	0.0000	0.0000	0.0000
VRN1	01:169:39600	01:174:46650	LEICA SR399	LEISR399_INT	NONE	----- UNE	0.3620	0.0000	0.0000
WROC	01:168:00060	01:174:86340	ASHTECH Z18	ASH701941.1	SNOW	----- UNE	0.0000	0.0000	0.0000
WTZR	01:168:00060	01:174:86340	AOA SNR-8000 ACT	AOAD/M_T	NONE	----- UNE	0.0715	0.0000	0.0000
ZIMM	01:168:00060	01:174:86310	TRIMBLE 4000SSI	TRM29659.00	NONE	----- UNE	0.0000	0.0000	0.0000

2.c.5 CEGRN2003.

Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
AT01	03:167:35970	03:172:46770	LEICA SR530	LEIAT503	NONE -----	UNE 0.1110	0.0000	0.0000
BOGO	03:167:00060	03:172:86310	ASHTECH Z-XII3	ASH700936C_M	SNOW -----	UNE 0.0000	0.0000	0.0000
BOR1	03:167:00060	03:172:86310	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0624	0.0000	0.0000
BOZI	03:167:47550	03:172:43200	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
BRAI	03:167:00090	03:172:86340	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
BRSK	03:167:41880	03:172:43230	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0940	0.0000	0.0000
BUCA	03:167:38850	03:172:44820	LEICA SR520	LEIAT502	NONE -----	UNE 0.2380	0.0000	0.0000
BUCU	03:167:00090	03:172:86340	ASHTECH Z-XII3	ASH700936D_M	SNOW -----	UNE 0.0815	0.0000	0.0000
BZRG	03:167:00060	03:172:86310	LEICA CRS1000	LEIAT504	LEIS -----	UNE 0.2120	0.0000	0.0000
CAME	03:167:00060	03:172:86310	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
CAOP	03:167:21630	03:172:43200	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0260	0.0000	0.0000
CLUJ	03:167:00060	03:172:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
CSAN	03:167:43230	03:172:43200	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
CSAR	03:167:42150	03:172:44010	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
DISZ	03:167:43140	03:172:43230	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.3050	0.0000	0.0000
DRES	03:167:00060	03:172:86310	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.5943	0.0000	0.0000
DUBR	03:167:27090	03:172:58470	ASHTECH Z-XII3	ASH700936D_M	SNOW -----	UNE 0.0810	0.0000	0.0000
FUN3	03:167:38670	03:172:43320	LEICA SR520	LEIAT502	NONE -----	UNE 0.3110	0.0000	0.0000
GABR	03:167:42990	03:172:43230	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 1.1406	0.0000	0.0000
GLSV	03:167:00030	03:172:86310	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
GOPE	03:167:00060	03:172:86340	ASHTECH Z18	ASH701946.3	SNOW -----	UNE 0.0464	0.0000	0.0000
GRAZ	03:167:00060	03:172:86340	ASHTECH UZ-12	ASH701945C_M	NONE -----	UNE 1.9640	0.0000	0.0000
GRMS	03:167:36510	03:172:39720	ASHTECH UZ-12	TRM22020.00+GP	NONE -----	UNE 0.3300	0.0000	0.0000
GRMS	03:167:38730	03:172:39600	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
GRYB	03:167:42810	03:172:47910	TRIMBLE 4700	TRM14532.00	NONE -----	UNE 0.8328	0.0000	0.0000
GSR1	03:167:00060	03:172:86340	LEICA RS500	LEIAT504	LEIS -----	UNE 0.0650	0.0000	0.0000
HARM	03:167:42960	03:172:40500	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 1.4150	0.0000	0.0000
HOHE	03:167:00060	03:172:86310	TRIMBLE 4000SSI	TRM33429.00+GP	NONE -----	UNE 1.4805	0.0000	0.0000
HVAR	03:167:40320	03:171:21060	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 1.3724	0.0000	0.0000
IVAN	03:167:43230	03:169:66960	LEICA SR9500	LEIAT202-GP	NONE -----	UNE 0.1900	0.0000	0.0000
JOZE	03:167:00060	03:172:86310	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.1980	0.0000	0.0000
KAME	03:167:00060	03:172:86310	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2850	0.0000	0.0000
KAVA	03:167:43200	03:172:43200	TRIMBLE 5700	TRM39105.00	NONE -----	UNE 0.9530	0.0000	0.0000
KOSG	03:167:00060	03:170:86340	AOA SNR-12 ACT	AOAD/M_B	DUTD -----	UNE 0.1050	0.0000	0.0000
KRAW	03:167:00060	03:172:86340	ASHTECH UZ-12	ASH701945C_M	SNOW -----	UNE 0.0000	0.0000	0.0000
LAMA	03:167:00060	03:172:86340	ASHTECH Z-XII3	ASH700936F_C	SNOW -----	UNE 0.0610	0.0000	0.0000
LJUB	03:167:43020	03:172:47970	TRIMBLE 4000SSI	TRM22020.00-GP	NONE -----	UNE 0.5480	0.0000	0.0000
LVIV	03:167:43020	03:172:43200	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.0590	0.0000	0.0000
LYSA	03:167:31890	03:172:43260	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0699	0.0000	0.0000
MACI	03:167:43170	03:172:43170	LEICA SR520	LEIAT502	NONE -----	UNE 0.2750	0.0000	0.0000
MALJ	03:167:42750	03:172:43350	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
MATE	03:167:00060	03:172:86310	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.1010	0.0000	0.0000
MEDI	03:169:20400	03:172:86310	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
METS	03:167:00060	03:172:86340	ASHTECH Z-XII3	AOAD/M_B	NONE -----	UNE 0.0000	0.0000	0.0000
MIKL	03:167:00030	03:172:86340	TRIMBLE 4700	TRM41249.00	NONE -----	UNE 0.0237	0.0000	0.0000
MOPI	03:167:00090	03:172:86310	TRIMBLE 4000SSI	TRM14532.00	DOME -----	UNE 0.0870	0.0000	0.0000
MRZL	03:167:43230	03:172:43290	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
ORID	03:167:00060	03:170:86310	AOA SNR-8000 ACT	AOAD/M_T	NONE -----	UNE 0.0650	0.0000	-0.0000
OSJE	03:167:00090	03:172:86340	ASHTECH Z-XII3	ASH700936E	SNOW -----	UNE 0.0540	0.0000	0.0000
PADO	03:167:00060	03:172:86310	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
PART	03:167:00060	03:172:86310	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.2850	0.0000	0.0000
PENC	03:167:00060	03:172:86310	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0300	0.0000	0.0000
POL1	03:167:00060	03:172:86310	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0590	0.0000	0.0000
POTS	03:167:00060	03:172:86310	AOA SNR-8000 ACT	AOAD/M_T	NONE -----	UNE 0.0460	0.0000	0.0000
PUGS	03:167:33600	03:171:51210	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
SBGZ	03:167:00060	03:172:86310	TRIMBLE 4000SSI	TRM29659.00	GRAZ -----	UNE 0.0000	0.0000	0.0000
SIBI	03:167:18030	03:172:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
SKPL	03:167:25110	03:172:86310	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2860	0.0000	0.0000
SNEK	03:167:00060	03:172:86340	ASHTECH Z18	ASH701946.3	SNOW -----	UNE 0.0000	0.0000	0.0000
SNEZ	03:167:53670	03:172:43200	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
SNIE	03:167:36060	03:172:44280	ASHTECH Z-XII3	ASH700718B	NONE -----	UNE 0.0644	0.0000	0.0000
SOFI	03:167:00060	03:172:86340	AOA SNR-8000 ACT	AOAD/M_T	NONE -----	UNE 0.2200	0.0000	0.0000
SRJV	03:167:00090	03:172:86310	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.1740	0.0000	0.0000
STHO	03:167:00060	03:172:86310	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2840	0.0000	0.0000
SUCE	03:167:00060	03:172:86310	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
SULP	03:167:00060	03:172:86310	TRIMBLE 4700	TRM41249.00	NONE -----	UNE 4.7295	0.0000	0.0000
TARP	03:167:43200	03:172:43230	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
TIMI	03:167:00090	03:172:86340	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
TIS3	03:167:39720	03:172:43410	LEICA SR520	LEIAT502	NONE -----	UNE 0.3080	0.0000	0.0000
TUBO	03:167:00060	03:172:86310	TRIMBLE 4700	TRM29659.00	NONE -----	UNE 0.3107	0.0000	0.0000
UNPG	03:167:00060	03:172:86340	ASHTECH Z-XII3	ASH700936D_M	NONE -----	UNE 0.0520	0.0000	0.0000
UZHD	03:167:42540	03:172:43230	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.0520	0.0000	0.0000
UZHL	03:167:00060	03:172:86310	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
VRN1	03:167:43500	03:172:43170	LEICA SR520	LEIAT502	NONE -----	UNE 0.2640	0.0000	0.0000
WROC	03:167:00060	03:172:86340	ASHTECH Z18	ASH701941.1	SNOW -----	UNE 0.0000	0.0000	0.0000
WTZR	03:167:00060	03:172:86340	AOA SNR-8000 ACT	AOAD/M_T	NONE -----	UNE 0.0710	0.0000	0.0000
ZIMM	03:167:00060	03:172:86310	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000

2.c.6 CEGRN2005.

Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
0256	05:171:00000	05:176:86370	LEICA SR520	LEIAT503	LEIC -----	UNE 0.0590	0.0000	0.0000
0266	05:171:00000	05:176:86370	LEICA SR520	LEIAT503	LEIC -----	UNE 0.0590	0.0000	0.0000
0273	05:171:00000	05:176:86370	LEICA SR520	LEIAT503	LEIC -----	UNE 0.0960	0.0000	0.0000
ALBR	05:171:43140	05:175:35970	TPS LEGACY	TPSPG_A1	NONE -----	UNE 0.1405	0.0000	0.0000
ASIA	05:171:00000	05:176:86370	LEICA RS500	LEIAT504	DOME -----	UNE 0.0000	0.0000	0.0000
AT01	05:171:41490	05:176:43290	LEICA SR530	LEIAT503	NONE -----	UNE 0.1100	0.0000	0.0000
BABJ	05:171:37500	05:176:43200	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 1.5232	0.0000	0.0000
BJEL	05:171:42600	05:176:43200	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0759	0.0000	0.0000
BOGO	05:171:00000	05:176:86340	ASHTECH Z-XII3	ASH700936C_M	SNOW -----	UNE 0.0000	0.0000	0.0000
BOR1	05:171:00000	05:176:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0624	0.0000	0.0000
BOZI	05:171:00000	05:175:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
BRAI	05:171:00000	05:176:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
BRSK	05:171:42240	05:176:46830	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.1024	0.0000	0.0000
BUCA	05:171:39750	05:176:43200	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.1750	0.0000	0.0000
BUCU	05:171:00030	05:176:86370	ASHTECH Z-XII3	ASH700936D_M	SNOW -----	UNE 0.0815	0.0000	0.0000
BZRG	05:171:00000	05:176:86370	LEICA GRX1200	LEIAT504	LEIS -----	UNE 0.2120	0.0000	0.0000
CLUJ	05:171:00000	05:176:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
COST	05:171:00000	05:176:86370	ASHTECH UZ-12	ASH701945B_M	NONE -----	UNE 0.0380	0.0000	0.0000
CRAI	05:171:00000	05:176:86370	ASHTECH UZ-12	ASH701945B_M	SNOW -----	UNE 0.0000	0.0000	0.0000
CSAN	05:171:42630	05:176:43230	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
CSAR	05:171:43170	05:176:43200	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
CVRS	05:171:52380	05:176:86370	TPS LEGACY	TPSPG_A1	NONE -----	UNE 0.2215	0.0000	0.0000
DISZ	05:171:42150	05:176:43230	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3050	0.0000	0.0000
DRES	05:171:00030	05:176:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.5943	0.0000	0.0000
DUBR	05:171:00000	05:176:86370	ASHTECH Z-XII3	ASH700936D_M	SNOW -----	UNE 0.0810	0.0000	0.0000
FUN3	05:171:37230	05:176:43200	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2055	0.0000	0.0000
GABR	05:171:43230	05:176:42900	LEICA GX1230	LEIAX1202	NONE -----	UNE 1.5910	0.0000	0.0000
GLSV	05:171:00030	05:176:86340	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
GOPE	05:171:00000	05:176:86370	ASHTECH Z18	ASH701946.3	SNOW -----	UNE 0.0464	0.0000	0.0000
GRAZ	05:171:00000	05:176:86370	TRIMBLE NETRS	TRM29659.00	NONE -----	UNE 1.9640	0.0000	0.0000
GRMS	05:171:00000	05:176:25140	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.6300	0.0000	0.0000
GRMS	05:171:34320	05:176:27840	TRIMBLE 4000SSI	TRM29659.00	GRAZ -----	UNE 0.0300	0.0000	0.0000
GRYB	05:171:42720	05:176:43350	TRIMBLE 4700	TRM14532.00	NONE -----	UNE 0.8328	0.0000	0.0000
GSR1	05:171:00000	05:176:86370	LEICA RS500	LEIAT504	LEIS -----	UNE 0.0650	0.0000	0.0000
HARM	05:171:42930	05:176:42900	LEICA GX1230	LEIAX1202	NONE -----	UNE 1.5330	0.0000	0.0000
HFLK	05:171:00000	05:176:86370	TRIMBLE NETRS	TRM29659.00	OLGA -----	UNE -0.0200	0.0000	0.0000
HOHE	05:171:20370	05:176:86340	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 1.6052	0.0000	0.0000
HVAR	05:171:40320	05:175:40680	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 1.3724	0.0000	0.0000
IVAN	05:171:43500	05:176:43080	TPS HIPER_GGD	TPSHIPER_GGD	NONE -----	UNE 0.2140	0.0000	0.0000
JOZE	05:171:00000	05:176:86340	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.1980	0.0000	0.0000
KABA	05:171:57480	05:176:39600	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0784	0.0000	0.0000
KAME	05:171:00000	05:176:86310	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.2840	0.0000	0.0000
KAVA	05:171:43170	05:176:43200	LEICA GX1230	LEIAX1202	NONE -----	UNE 1.4050	0.0000	0.0000
KOSG	05:171:00000	05:176:86370	AOA SNR-12 ACT	AOAD/M_B	DUTD -----	UNE 0.1050	0.0000	0.0000
KRAW	05:171:00000	05:176:86370	ASHTECH UZ-12	ASH701945C_M	SNOW -----	UNE 0.0000	0.0000	0.0000
KUDB	05:171:40350	05:176:43650	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0794	0.0000	0.0000
LAMA	05:171:00000	05:176:86340	ASHTECH Z-XII3	ASH700936F_C	SNOW -----	UNE 0.0610	0.0000	0.0000
LEOT	05:171:36810	05:176:43500	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.6015	0.0000	0.0000
LESK	05:171:00000	05:176:86370	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
LIVN	05:171:40920	05:176:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 1.7080	0.0000	0.0000
LJIG	05:171:00000	05:176:86370	TRIMBLE 4400	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
LJUB	05:171:00000	05:176:34740	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.5480	0.0000	0.0000
LOMS	05:171:00000	05:176:86310	TRIMBLE NETRS	TRM41249.00	NONE -----	UNE 0.1080	0.0000	0.0000
LVIV	05:171:42870	05:176:43230	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0620	0.0000	0.0000
LYSA	05:171:00090	05:176:43260	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.0613	0.0000	0.0000
MAC3	05:171:39720	05:176:43230	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.8368	0.0000	0.0000
MALJ	05:171:00270	05:175:86370	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.3142	0.0000	0.0000
MATE	05:171:00000	05:176:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.1010	0.0000	0.0000
MEDI	05:171:00000	05:176:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
METS	05:171:00030	05:176:86370	ASHTECH Z-XII3	AOAD/M_B	NONE -----	UNE 0.0000	0.0000	0.0000
MIKL	05:171:00030	05:176:86340	TRIMBLE 4700	TRM41249.00	NONE -----	UNE 0.0237	0.0000	0.0000
MOPI	05:171:00090	05:176:86340	TRIMBLE 4000SSI	TRM14532.00	DOME -----	UNE 0.0870	0.0000	0.0000
MRZL	05:171:00540	05:175:86370	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
ONSA	05:171:00000	05:176:86370	JPS E_GGD	AOAD/M_B	OSOD -----	UNE 0.9950	0.0000	0.0000
ORID	05:171:00000	05:176:86370	AOA SNR-8000 ACT	AOAD/M_T	NONE -----	UNE 0.0650	0.0000	0.0000
OSJC	05:172:49560	05:176:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0780	0.0000	0.0000
PADO	05:171:00030	05:176:50400	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
PART	05:171:00090	05:176:86340	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2850	0.0000	0.0000
PENC	05:171:00000	05:176:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0300	0.0000	0.0000
POL1	05:171:00000	05:176:86370	TRIMBLE NETRS	TRM41249.00	NONE -----	UNE 0.0587	0.0000	0.0000
PONI	05:171:36630	05:176:43230	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 1.3114	0.0000	0.0000
POTS	05:171:00000	05:176:86370	AOA SNR-8000 ACT	AOAD/M_T	NONE -----	UNE 0.0460	0.0000	0.0000
RISO	05:171:00000	05:176:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0000	0.0000	0.0000
ROVI	05:171:00000	05:176:86370	LEICA RS500	LEIAT504	DOME -----	UNE 0.0000	0.0000	0.0000
ROZH	05:171:00000	05:175:86370	TPS E_GGD	TPSCR3_GGD	CONE -----	UNE 0.0000	0.0000	0.0000

Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
SACZ	05:171:39600	05:176:86370	ASHTECH UZ-12	ASH701945B_M	SNOW -----	UNE 0.0000	0.0000	0.0000
SBGZ	05:171:00000	05:176:86370	ASHTECH UZ-12	ASH701945C_M	GRAZ -----	UNE 0.0000	0.0000	0.0000
SHAZ	05:171:00000	05:176:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0000	0.0000	0.0000
SIBI	05:171:00000	05:176:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
SKPL	05:171:00000	05:176:86310	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.2855	0.0000	0.0000
SNEZ	05:171:00000	05:174:13740	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
SNIE	05:173:00540	05:175:85830	ASHTECH UZ-12	ASH700718B	NONE -----	UNE 0.0784	0.0000	0.0000
SNZZ	05:173:34530	05:175:34470	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3107	0.0000	0.0000
SOFI	05:171:00000	05:176:86370	TPS E_GGD	AOAD/M_T	NONE -----	UNE 0.2200	0.0000	0.0000
SRJV	05:171:00000	05:175:83070	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.1740	0.0000	0.0000
STHO	05:171:00030	05:176:86310	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2880	0.0000	0.0000
STOL	05:171:35880	05:176:42780	TPS LEGACY	TPSPG_A1	NONE -----	UNE 0.2495	0.0000	0.0000
SUBO	05:171:00000	05:176:86370	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
SUCE	05:171:00000	05:176:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
SULP	05:171:00000	05:176:86370	TRIMBLE 4700	TRM41249.00	NONE -----	UNE 4.7295	0.0000	0.0000
SUME	05:171:00000	05:176:86370	TRIMBLE NETRS	TRM41249.00	NONE -----	UNE 0.1400	0.0000	0.0000
TARP	05:171:42840	05:176:43200	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
TIMI	05:171:00000	05:176:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
TIS3	05:171:41730	05:176:43200	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2645	0.0000	0.0000
TRFB	05:171:00000	05:176:86370	LEICA SR520	LEIAT504	OLGA -----	UNE 0.0000	0.0000	0.0000
TUBO	05:171:00000	05:176:86370	TRIMBLE 4700	TRM29659.00	NONE -----	UNE 0.3107	0.0000	0.0000
TURI	05:171:36510	05:176:42780	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.1150	0.0000	0.0000
UNPG	05:171:00000	05:176:86370	ASHTECH Z-XII3	ASH700936D_M	NONE -----	UNE 0.0520	0.0000	0.0000
UZHD	05:171:42840	05:176:43200	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0710	0.0000	0.0000
UZHL	05:171:00120	05:176:86310	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
VARN	05:171:00000	05:173:86370	TPS E_GGD	TPSCR3_GGD	CONE -----	UNE 0.0000	0.0000	0.0000
VLAS	05:171:38490	05:176:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.1124	0.0000	0.0000
VRN1	05:171:39900	05:176:43140	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 1.2348	0.0000	0.0000
WROC	05:171:00000	05:176:86370	ASHTECH Z18	ASH701941.1	SNOW -----	UNE 0.0000	0.0000	0.0000
WTZR	05:171:00000	05:176:86370	TPS E_GGD	AOAD/M_T	NONE -----	UNE 0.0710	0.0000	0.0000
ZIMM	05:171:00000	05:176:22830	TRIMBLE 4700	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000

2.c.7 CEGRN2007.

Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
0256	07:169:00000	07:174:86370	LEICA SR520	LEIAT503	LEIC -----	UNE 0.0590	0.0000	0.0000
0266	07:169:00000	07:174:86370	LEICA SR520	LEIAT503	LEIC -----	UNE 0.0590	0.0000	0.0000
0273	07:169:00000	07:174:86370	LEICA SR520	LEIAT503	LEIC -----	UNE 0.0960	0.0000	0.0000
ASIA	07:169:00000	07:174:82770	LEICA GRX1200GGPRO	LEIAT504	DOME -----	UNE 0.0000	0.0000	0.0000
AT01	07:169:40110	07:174:42390	LEICA SR530	LEIAT503	NONE -----	UNE 0.1100	0.0000	0.0000
BOGO	07:169:00030	07:174:86370	TPS EUROCARD	ASH700936C_M	SNOW -----	UNE 0.0000	0.0000	0.0000
BOR1	07:169:00000	07:174:86370	ROGUE SNR-8000	AOAD/M_T	NONE -----	UNE 0.0624	0.0000	0.0000
BOZI	07:169:39990	07:174:43290	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
BRAI	07:169:00000	07:174:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
BUCA	07:169:35880	07:174:43410	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.1820	0.0000	0.0000
BUCU	07:169:00030	07:174:86370	ASHTECH Z-XII3	ASH700936D_M	SNOW -----	UNE 0.0815	0.0000	0.0000
BZRG	07:169:00000	07:174:86370	LEICA GRX1200	LEIAT504	LEIS -----	UNE 0.2120	0.0000	0.0000
CAME	07:169:23160	07:171:65190	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
CAOP	07:169:00030	07:174:21600	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
CLUJ	07:169:00000	07:174:43170	LEICA SR520	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
COST	07:169:00000	07:174:86370	ASHTECH Z-X	ASH701945B_M	NONE -----	UNE 0.0380	0.0000	0.0000
CRAI	07:169:00030	07:174:86370	ASHTECH UZ-12	ASH701945B_M	SNOW -----	UNE 0.0000	0.0000	0.0000
CSAN	07:169:43200	07:174:43200	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
CSAR	07:169:43200	07:174:43170	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
DISZ	07:169:43050	07:174:43200	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.3050	0.0000	0.0000
DRES	07:169:00000	07:174:86370	JPS LEGACY	TPSCR3_GGD	CONE -----	UNE 0.5660	0.0000	0.0000
FUN3	07:169:38310	07:174:43230	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2085	0.0000	0.0000
GABR	07:169:75630	07:172:75750	LEICA GX1230	LEIAX1202	NONE -----	UNE 1.4645	0.0000	0.0000
GLSV	07:169:00000	07:174:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
GOPE	07:169:00000	07:174:86370	ASHTECH Z18	TPSCR3_GGD	CONE -----	UNE 0.1114	0.0000	0.0000
GRAZ	07:169:00000	07:174:86370	TRIMBLE NETRS	TRM29659.00	NONE -----	UNE 1.9640	0.0000	0.0000
GRMS	07:169:28650	07:174:28620	TPS E_GGD	ASH701945C_M	NONE -----	UNE 0.6300	0.0000	0.0000
GRMS	07:169:28860	07:174:28620	ASHTECH UZ-12	ASH701945C_M	NONE -----	UNE 0.0350	0.0000	0.0000
GRYB	07:169:40470	07:174:43530	TRIMBLE 4700	TRM14532.00	NONE -----	UNE 0.8328	0.0000	0.0000
GSR1	07:169:00000	07:174:86370	LEICA RS500	LEIAT504	LEIS -----	UNE 0.0650	0.0000	0.0000
HARM	07:169:75630	07:172:75780	LEICA GX1230	LEIAX1202	NONE -----	UNE 1.5555	0.0000	0.0000
HFLK	07:169:00000	07:174:86370	TRIMBLE NETRS	TRM29659.00	OLGA -----	UNE -0.0200	0.0000	0.0000
HOHE	07:169:00000	07:173:86370	TRIMBLE 4700	TRM33429.00+GP	NONE -----	UNE 1.4922	0.0000	0.0000
HVAR	07:169:00000	07:173:83070	TRIMBLE R8	TRM5800	NONE -----	UNE 1.3710	0.0000	0.0000
JOZE	07:169:00030	07:174:85830	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE 0.1980	0.0000	0.0000
KAME	07:169:00000	07:174:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.2840	0.0000	0.0000
KOSG	07:169:00000	07:174:86370	AOA SNR-12 ACT	AOAD/M_B	DUTD -----	UNE 0.1050	0.0000	0.0000
KRAW	07:169:00000	07:174:86370	ASHTECH UZ-12	ASH701945C_M	SNOW -----	UNE 0.0000	0.0000	0.0000
KUDB	07:170:67650	07:174:43350	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.0764	0.0000	0.0000
KUNZ	07:169:00000	07:174:86370	SEPT POLARX2	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
LAMA	07:169:00030	07:174:86370	ASHTECH Z-XII3	ASH700936F_C	SNOW -----	UNE 0.0610	0.0000	0.0000
LESK	07:169:43200	07:174:43170	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
LJIG	07:169:43200	07:174:43170	TRIMBLE 4400	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
LJUB	07:169:28320	07:174:48960	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 0.5480	0.0000	0.0000
LOMS	07:169:00000	07:174:86370	TRIMBLE NETRS	TRM41249.00	NONE -----	UNE 0.1080	0.0000	0.0000
LOZN	07:169:43200	07:174:43170	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
LVIV	07:169:43170	07:174:43260	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0640	0.0000	0.0000
LYSA	07:169:00000	07:174:43530	TPS ODYSSEY_E	TPSCR3_GGD	CONE -----	UNE 0.0565	0.0000	0.0000
LYSH	07:169:00000	07:174:86370	TPS GB-1000	TPSCR3_GGD	CONE -----	UNE 0.1727	0.0000	0.0000
MAC3	07:169:35940	07:174:43230	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.6820	0.0000	0.0000
MALJ	07:169:39120	07:174:43260	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
MATE	07:169:00000	07:174:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.1010	0.0000	0.0000
METS	07:169:00030	07:174:86370	ASHTECH Z-XII3	AOAD/M_B	NONE -----	UNE 0.0000	0.0000	0.0000
MIKL	07:169:00030	07:174:86370	TRIMBLE 4700	TRM41249.00	NONE -----	UNE 0.0237	0.0000	0.0000
MOPI	07:169:00000	07:172:59400	TRIMBLE 4000SSI	TRM14532.00	DOME -----	UNE 0.0870	0.0000	0.0000
MRZL	07:169:42420	07:173:17100	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
ONSA	07:169:00000	07:174:86370	JPS E_GGD	AOAD/M_B	OSOD -----	UNE 0.9950	0.0000	0.0000
ORAD	07:169:00000	07:174:86370	LEICA GRX1200PRO	LEIAX1202	NONE -----	UNE 0.0000	0.0000	0.0000
ORID	07:169:00000	07:174:86370	AOA SNR-8000 ACT	AOAD/M_T	NONE -----	UNE 0.0650	0.0000	0.0000
PADO	07:169:25200	07:174:82770	TRIMBLE NETRS	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
PART	07:169:00000	07:174:86370	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.5910	0.0000	0.0000
PENC	07:169:00000	07:174:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0300	0.0000	0.0000
POL1	07:169:00000	07:174:86370	TPS ODYSSEY_E	TRM41249.00	TZGD -----	UNE 0.0590	0.0000	0.0000
POTS	07:169:00000	07:174:86370	AOA SNR-8000 ACT	AOAD/M_T	NONE -----	UNE 0.0460	0.0000	0.0000
PRIJ	07:169:43200	07:174:43170	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
RISO	07:169:00000	07:174:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.2850	0.0000	0.0000
ROZH	07:170:67530	07:174:86370	TPS E_GGD	TPSCR3_GGD	CONE -----	UNE 0.0000	0.0000	0.0000
SACZ	07:169:00000	07:174:86370	ASHTECH UZ-12	ASH701945B_M	SNOW -----	UNE 0.0000	0.0000	0.0000
SBGZ	07:169:00000	07:172:68430	TPS E_GGD	TPSCR3_GGD	GRAZ -----	UNE 0.0000	0.0000	0.0000
SHAZ	07:169:00000	07:174:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0000	0.0000	0.0000
SIBI	07:169:00000	07:174:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
SKPL	07:169:00000	07:174:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.2850	0.0000	0.0000
SNEC	07:172:00000	07:172:46770	TPS GB-1000	TPSCR3_GGD	CONE -----	UNE 0.1000	0.0000	0.0000
SNEZ	07:169:41760	07:174:43260	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.3107	0.0000	0.0000
SNIE	07:169:44070	07:174:43200	ASHTECH UZ-12	ASH700718B	NONE -----	UNE 0.0624	0.0000	0.0000

Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
SOFI	07:169:00000	07:174:86370	TPS E_GGD	AOAD/M_T	NONE -----	UNE 0.2200	0.0000	0.0000
SRJV	07:169:00000	07:174:83070	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE 0.1740	0.0000	0.0000
STHO	07:169:00000	07:174:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.2860	0.0000	0.0000
SUBO	07:169:43200	07:174:43170	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
SUCE	07:169:00000	07:174:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
SULP	07:169:00000	07:174:86370	TRIMBLE 4700	TRM41249.00	NONE -----	UNE 4.7295	0.0000	0.0000
SUME	07:169:00000	07:174:86370	TRIMBLE NETRS	TRM41249.00	NONE -----	UNE 0.1400	0.0000	0.0000
TARP	07:169:42780	07:174:43200	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
TIMI	07:169:00000	07:174:86370	LEICA SR530	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
TIS3	07:169:42120	07:174:45420	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 0.2812	0.0000	0.0000
TRFB	07:169:00000	07:174:86370	LEICA SR520	LEIAT504	OLGA -----	UNE 0.0000	0.0000	0.0000
TUBO	07:169:00000	07:174:86370	LEICA GRX1200PRO	LEIAT504	LEIS -----	UNE 0.3107	0.0000	0.0000
UNPG	07:169:00000	07:174:86370	TPS ODYSSEY_E	JPSREGANT_DD_E	NONE -----	UNE 0.1000	0.0000	0.0000
UZHD	07:169:42780	07:174:43200	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0720	0.0000	0.0000
UZHL	07:169:00000	07:174:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
VARN	07:169:00000	07:174:86370	TPS E_GGD	TPSCR3_GGD	CONE -----	UNE 0.0000	0.0000	0.0000
VRN1	07:169:37080	07:174:43200	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE 1.4730	0.0000	0.0000
WROC	07:169:00000	07:174:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE 0.0000	0.0000	0.0000
WTZR	07:169:00000	07:174:86370	TPS NETG3	AOAD/M_T	NONE -----	UNE 0.0710	0.0000	0.0000
ZIMM	07:169:00000	07:174:86370	TRIMBLE NETRS	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000

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Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
0256	09:173:00000	09:178:86370	TRIMBLE NETR5	TRM59800.00	SCIS -----	UNE	0.0750	0.0000	0.0000
0266	09:173:00000	09:178:86370	LEICA SR520	LEIAT503	LEIC -----	UNE	0.0590	0.0000	0.0000
0273	09:173:00000	09:178:86370	TRIMBLE NETR5	TRM55971.00	TZGD -----	UNE	0.1750	0.0000	0.0000
ASIA	09:173:43230	09:178:60900	LEICA GRX1200GGPRO	LEIAT504	NONE -----	UNE	0.0000	0.0000	0.0000
AT01	09:173:38520	09:178:55200	LEICA SR530	LEIAT503	NONE -----	UNE	0.1780	0.0000	0.0000
BAST	09:173:00000	09:178:42270	TRIMBLE 5700	TRM41249.00	NONE -----	UNE	0.0000	0.0000	0.0000
BBYS	09:173:00000	09:178:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE	0.1180	0.0000	0.0000
BOGO	09:173:00030	09:178:86370	TPS EUROCARD	ASH700936C_M	SNOW -----	UNE	0.0000	0.0000	0.0000
BOR1	09:173:00000	09:178:86370	TRIMBLE NETRS	AOAD/M_T	NONE -----	UNE	0.0624	0.0000	0.0000
BRAI	09:173:00000	09:178:86370	LEICA SR530	LEIAT504	LEIS -----	UNE	0.0000	0.0000	0.0000
BUCU	09:173:00000	09:178:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE	0.0970	0.0000	0.0000
BURG	09:173:00000	09:178:86340	TPS NETG3	TPSCR.G3	TPSH -----	UNE	0.0000	0.0000	0.0000
BZRG	09:173:00000	09:178:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE	0.2120	0.0000	0.0000
CAME	09:173:65730	09:178:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE	0.0000	0.0000	0.0000
CLUJ	09:173:00000	09:178:86370	LEICA SR520	LEIAT504	LEIS -----	UNE	0.0000	0.0000	0.0000
COST	09:173:00000	09:178:86370	ASHTECH Z-X	ASH701945B_M	NONE -----	UNE	0.0380	0.0000	0.0000
CSAN	09:173:43200	09:178:43200	TRIMBLE 4000SSE	TRM14532.00	NONE -----	UNE	0.3050	0.0000	0.0000
DRES	09:173:00000	09:178:86370	JPS LEGACY	TPSCR3_GGD	CONE -----	UNE	0.5660	0.0000	0.0000
DUBR	09:173:00000	09:178:86370	TRIMBLE NETR5	TRM55971.00	NONE -----	UNE	0.0580	0.0000	0.0000
GANP	09:173:00000	09:178:86370	TRIMBLE NETR5	TRM55971.00	NONE -----	UNE	0.3830	0.0000	0.0000
GLSV	09:173:00000	09:178:86370	NOV OEMV3	NOV702GG	NONE -----	UNE	0.0000	0.0000	0.0000
GOPE	09:173:00000	09:178:86370	ASHTECH Z18	TPSCR3_GGD	CONE -----	UNE	0.1114	0.0000	0.0000
GRAZ	09:173:00000	09:178:86370	TRIMBLE NETRS	TRM29659.00	NONE -----	UNE	1.9640	0.0000	0.0000
GRMS	09:173:32070	09:177:37890	ASHTECH UZ-12	ASH701945D_M	NONE -----	UNE	0.0000	0.0000	0.0000
GRYB	09:173:43200	09:178:43170	TRIMBLE 4700	TRM14532.00	NONE -----	UNE	0.8328	0.0000	0.0000
GSR1	09:173:00000	09:178:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE	0.0650	0.0000	0.0000
HFL2	09:173:00000	09:178:86370	TRIMBLE NETRS	TRM29659.00	OLGA -----	UNE	0.1670	0.0000	0.0000
JOZE	09:173:00000	09:178:86370	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE	0.1980	0.0000	0.0000
KAME	09:173:00000	09:178:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE	0.2840	0.0000	0.0000
KOSG	09:173:00000	09:178:86370	LEICA GRX1200GGPRO	AOAD/M_B	DUTD -----	UNE	0.1050	0.0000	0.0000
KRAW	09:173:00000	09:178:86370	ASHTECH UZ-12	ASH701945C_M	SNOW -----	UNE	0.0000	0.0000	0.0000
KUNZ	09:173:00000	09:178:86370	SEPT POLARX2	TRM41249.00	TZGD -----	UNE	0.0000	0.0000	0.0000
LAMA	09:173:00000	09:178:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE	0.0600	0.0000	0.0000
LIE1	09:173:00000	09:178:86370	TRIMBLE NETR5	TRM55971.00	NONE -----	UNE	0.3830	0.0000	0.0000
LJIG	09:173:43200	09:177:34560	TRIMBLE 4400	TRM29659.00	NONE -----	UNE	0.0000	0.0000	0.0000
LOMS	09:173:00000	09:178:86370	TRIMBLE NETRS	TRM41249.00	NONE -----	UNE	0.1080	0.0000	0.0000
LOVE	09:173:00000	09:178:86340	TPS NETG3	TPSCR.G3	TPSH -----	UNE	0.0000	0.0000	0.0000
LOZN	09:173:43200	09:178:43200	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE	0.0000	0.0000	0.0000
LYSA	09:173:38820	09:178:43410	TPS NETG3	TPSCR.G3	TPSH -----	UNE	0.0561	0.0000	0.0000
LYSH	09:173:00000	09:178:86370	TPS GB-1000	TPSCR.G3	TPSH -----	UNE	0.1727	0.0000	0.0000
MALJ	09:173:38250	09:178:43260	TRIMBLE 4000SSE	TRM22020.00+GP	NONE -----	UNE	0.3107	0.0000	0.0000
MATE	09:173:00000	09:178:86370	LEICA GRX1200GGPRO	LEIAT504GG	NONE -----	UNE	0.1010	0.0000	0.0000
MEDI	09:173:00000	09:178:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE	0.0000	0.0000	0.0000
METS	09:173:00030	09:178:86370	ASHTECH Z-XII3	AOAD/M_B	NONE -----	UNE	0.0000	0.0000	0.0000
MIKL	09:173:00030	09:178:86370	TRIMBLE 4700	TRM41249.00	NONE -----	UNE	0.0237	0.0000	0.0000
MONT	09:177:00000	09:178:86340	TPS NETG3	JPSREGANT_DD_E	NONE -----	UNE	0.0000	0.0000	0.0000
MOP2	09:173:00000	09:178:86370	TRIMBLE NETR5	TRM55971.00	TZGD -----	UNE	0.0580	0.0000	0.0000
MOPI	09:173:00000	09:178:86370	TRIMBLE 4000SSI	TRM14532.00	DOME -----	UNE	0.0870	0.0000	0.0000
MRZL	09:173:44220	09:178:43380	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE	0.3107	0.0000	0.0000
ONSA	09:173:00000	09:178:86370	JPS E_GGD	AOAD/M_B	OSOD -----	UNE	0.9950	0.0000	0.0000
ORAD	09:173:00000	09:178:86370	LEICA GRX1200PRO	LEIAX1202	NONE -----	UNE	0.0000	0.0000	0.0000
ORID	09:173:01380	09:178:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE	0.0640	0.0000	0.0000
OSJE	09:173:00000	09:178:86370	TRIMBLE NETR5	TRM55971.00	NONE -----	UNE	0.0635	0.0000	0.0000
PADO	09:173:00000	09:178:86370	TRIMBLE NETRS	TRM29659.00	NONE -----	UNE	0.0000	0.0000	0.0000
PAR1	09:173:00000	09:178:86370	TRIMBLE NETR5	TRM55971.00	NONE -----	UNE	0.8280	0.0000	0.0000
PART	09:173:00000	09:178:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE	0.2850	0.0000	0.0000
PENC	09:173:00000	09:178:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE	0.0300	0.0000	0.0000
POL1	09:173:00000	09:178:86370	TRIMBLE NETRS	TRM41249.00	TZGD -----	UNE	0.0587	0.0000	0.0000
POTS	09:173:00000	09:178:86370	SEPT POLARX2	AOAD/M_T	NONE -----	UNE	0.0460	0.0000	0.0000
PRIJ	09:173:43200	09:178:43200	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE	0.0000	0.0000	0.0000
RISO	09:173:00000	09:178:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE	0.2850	0.0000	0.0000
ROVI	09:173:43230	09:178:53910	LEICA GRX1200GGPRO	LEIAT504	LEIS -----	UNE	0.0000	0.0000	0.0000
ROZH	09:173:00030	09:178:86340	TPS E_GGD	TPSCR3_GGD	CONE -----	UNE	0.0000	0.0000	0.0000
SBG2	09:173:00000	09:178:86370	TPS E_GGD	TPSCR3_GGD	OLGA -----	UNE	0.1680	0.0000	0.0000
SHUM	09:173:00000	09:178:86340	TPS NETG3	TPSCR.G3	TPSH -----	UNE	0.0000	0.0000	0.0000
SIB1	09:173:00000	09:178:86370	LEICA SR530	LEIAT504	LEIS -----	UNE	0.0000	0.0000	0.0000
SNZZ	09:173:50520	09:178:43890	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE	0.3107	0.0000	0.0000
SOFI	09:173:00030	09:178:86340	TPS E_GGD	AOAD/M_T	NONE -----	UNE	0.2200	0.0000	0.0000
SPRN	09:173:00000	09:178:86370	LEICA GRX1200PRO	LEIAT504	LEIS -----	UNE	0.3650	0.0000	0.0000
SRJV	09:173:00000	09:176:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE -----	UNE	0.1740	0.0000	0.0000
STAR	09:175:00000	09:178:86340	TPS NETG3	TPSCR.G3	TPSH -----	UNE	0.0000	0.0000	0.0000
SUB2	09:173:43200	09:178:43200	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE	0.0000	0.0000	0.0000
SUCE	09:174:22590	09:178:86370	LEICA SR530	LEIAT504	LEIS -----	UNE	0.0000	0.0000	0.0000
SULP	09:173:00000	09:178:86370	TRIMBLE 4700	TRM41249.00	NONE -----	UNE	4.7295	0.0000	0.0000
SUME	09:173:00000	09:178:86370	TRIMBLE NETRS	TRM41249.00	NONE -----	UNE	0.1400	0.0000	0.0000

Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
TARP	09:173:42030	09:178:43200	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 0.3050	0.0000	0.0000
TRF2	09:173:00000	09:178:86370	TPS E_GGD	TPSCR3_GGD	OLGA -----	UNE 0.1650	0.0000	0.0000
TUBO	09:173:00000	09:178:86370	LEICA GRX1200PRO	LEIAT504	LEIS -----	UNE 0.3107	0.0000	0.0000
UNPG	09:173:34230	09:178:86370	TPS ODYSSEY_E	JPSREGANT_DD_E	NONE -----	UNE 0.1000	0.0000	0.0000
USDL	09:173:14190	09:178:86370	TRIMBLE NETR5	TRM55971.00	TZGD 36693	UNE 0.0000	0.0000	0.0000
UZHL	09:173:00000	09:178:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
VARN	09:173:00000	09:174:30780	TPS E_GGD	TPSCR3_GGD	CONE -----	UNE 0.0000	0.0000	0.0000
WROC	09:173:00000	09:178:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE 0.0000	0.0000	0.0000
WTZR	09:173:00000	09:178:86370	LEICA GRX1200GGPRO	LEIAR25	LEIT -----	UNE 0.0710	0.0000	0.0000
ZIMM	09:173:00000	09:178:86370	TRIMBLE NETRS	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000

2.c.9 CEGRN2011.

Id.	From	To	Receiver	Antenna Name		SN	Eccentrities (UNE)		
0256	11:171:00000	11:176:86370	TRIMBLE NETR5	TRM59800.00	SCIS	-----	UNE	0.0750	0.0000	0.0000
0266	11:171:00000	11:176:86370	TRIMBLE NETR5	TRM59800.00	SCIS	-----	UNE	0.0750	0.0000	0.0000
0273	11:171:00000	11:176:86370	TRIMBLE NETR5	TRM59800.00	SCIS	-----	UNE	0.1750	0.0000	0.0000
BBYS	11:171:00000	11:176:86370	TRIMBLE 5700	TRM41249.00	NONE	-----	UNE	0.1180	0.0000	0.0000
BOGO	11:171:00000	11:176:86370	TPS EUROCARD	ASH700936C_M	SNOW	-----	UNE	0.0000	0.0000	0.0000
BOR1	11:171:00000	11:176:86370	TRIMBLE NETRS	AOAD/M_T	NONE	-----	UNE	0.0624	0.0000	0.0000
BUCU	11:171:00000	11:176:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS	-----	UNE	0.0970	0.0000	0.0000
BURG	11:171:00000	11:176:86370	TPS NETG3	TPSCR.G3	TPSH	-----	UNE	0.0000	0.0000	0.0000
BZRG	11:171:00000	11:176:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS	-----	UNE	0.2120	0.0000	0.0000
COST	11:171:00000	11:176:86370	ASHTECH Z-X	ASH701945B_M	NONE	-----	UNE	0.0380	0.0000	0.0000
DRES	11:171:00000	11:176:86370	JPS LEGACY	LEIAR25.R3	LEIT	-----	UNE	0.5660	0.0000	0.0000
GANP	11:171:00000	11:176:86370	TRIMBLE NETR8	TRM55971.00	NONE	-----	UNE	0.3830	0.0000	0.0000
GLSV	11:171:00000	11:176:86370	NOV OEMV3	NOV702GG	NONE	-----	UNE	0.0000	0.0000	0.0000
GMIL	11:171:00000	11:176:86370	TRIMBLE 5700	TRM29659.00	NONE	-----	UNE	0.0000	0.0000	0.0000
GOPE	11:171:00000	11:176:86370	TPS NETG3	TPSCR.G3	TPSH	-----	UNE	0.1114	0.0000	0.0000
GRAZ	11:171:00000	11:176:86370	LEICA GRX1200+GNSS	LEIAR25.R3	LEIT	-----	UNE	1.9640	0.0000	0.0000
GSR1	11:171:00000	11:176:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS	-----	UNE	0.0650	0.0000	0.0000
HFL2	11:171:00000	11:176:86370	TRIMBLE NETRS	TRM29659.00	OLGA	-----	UNE	0.1670	0.0000	0.0000
JOZE	11:171:00000	11:176:86370	TRIMBLE 4000SSI	TRM14532.00	NONE	-----	UNE	0.1980	0.0000	0.0000
KRAW	11:171:00000	11:176:86370	ASHTECH UZ-12	ASH701945C_M	SNOW	-----	UNE	0.0000	0.0000	0.0000
LAMA	11:171:00000	11:176:86370	LEICA GRX1200+GNSS	LEIAT504GG	LEIS	-----	UNE	0.0600	0.0000	0.0000
LESK	11:171:00000	11:176:86370	TRIMBLE 5700	TRM41249.00	TZGD	-----	UNE	0.0000	0.0000	0.0000
LIE1	11:171:00000	11:171:86370	TRIMBLE NETR5	TRM55971.00	NONE	-----	UNE	0.3830	0.0000	0.0000
LIE1	11:172:00000	11:176:86370	TRIMBLE NETR5	TRM55971.00	NONE	-----	UNE	0.3830	0.0000	0.0000
LOVE	11:171:00000	11:176:72390	TPS NETG3	TPSCR.G3	TPSH	-----	UNE	0.0000	0.0000	0.0000
LOZN	11:171:00000	11:176:86370	TRIMBLE 5700	TRM41249.00	TZGD	-----	UNE	0.0000	0.0000	0.0000
LYSA	11:171:00000	11:176:43170	LEICA GRX1200+GNSS	ASH701946.3	NONE	-----	UNE	0.0524	0.0000	0.0000
LYSH	11:171:00000	11:176:86370	TPS GB-1000	TPSCR.G3	TPSH	-----	UNE	0.1727	0.0000	0.0000
MATE	11:171:00000	11:176:86370	LEICA GRX1200GGPRO	LEIAT504GG	NONE	-----	UNE	0.1010	0.0000	0.0000
METS	11:171:00030	11:176:86370	ASHTECH Z-XII3	AOAD/M_T	NONE	-----	UNE	0.0000	0.0000	0.0000
MIKL	11:171:00030	11:176:86370	TRIMBLE 4700	TRM41249.00	NONE	-----	UNE	0.0237	0.0000	0.0000
MONT	11:171:00000	11:175:55620	TPS NETG3	JPSREGANT_DD_E	NONE	-----	UNE	0.0000	0.0000	0.0000
MOP2	11:171:00000	11:176:86370	TRIMBLE NETR5	TRM55971.00	TZGD	-----	UNE	0.0580	0.0000	0.0000
ONSA	11:171:00000	11:176:86370	JPS E_GGD	AOAD/M_B	OSOD	-----	UNE	0.9950	0.0000	0.0000
ORID	11:171:00000	11:176:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS	-----	UNE	0.0640	0.0000	0.0000
OSJE	11:171:00000	11:176:86370	TRIMBLE NETR5	TRM55971.00	NONE	-----	UNE	0.0635	0.0000	0.0000
PADO	11:171:00000	11:176:86370	TRIMBLE NETRS	TRM29659.00	NONE	-----	UNE	0.0000	0.0000	0.0000
PAR1	11:171:00000	11:176:86370	TRIMBLE NETR5	TRM55971.00	NONE	-----	UNE	0.8280	0.0000	0.0000
PENC	11:171:00000	11:176:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS	-----	UNE	0.0300	0.0000	0.0000
POL1	11:171:00000	11:176:86370	TRIMBLE NETRS	TRM41249.00	TZGD	-----	UNE	0.0587	0.0000	0.0000
POTS	11:171:00000	11:176:86370	JAVAD TRE_G3TH DELTA	JAV_RINGANT_G3T	NONE	-----	UNE	0.1206	0.0000	0.0000
PRIJ	11:171:00000	11:176:86370	TRIMBLE 5700	TRM41249.00	TZGD	-----	UNE	0.0000	0.0000	0.0000
ROVI	11:171:00000	11:176:86370	LEICA GRX1200GGPRO	LEIAT504	LEIS	-----	UNE	0.0000	0.0000	0.0000
ROZH	11:171:00000	11:176:86370	TPS E_GGD	TPSCR3_GGD	CONE	-----	UNE	0.0000	0.0000	0.0000
SBG2	11:171:00000	11:176:86370	TPS E_GGD	TPSCR3_GGD	OLGA	-----	UNE	0.1680	0.0000	0.0000
SHUM	11:171:00000	11:176:86370	TPS NETG3	TPSCR.G3	TPSH	-----	UNE	0.0000	0.0000	0.0000
SOFI	11:171:00000	11:176:86370	LEICA GRX1200GGPRO	LEIAR25.R3	LEIT	-----	UNE	0.2200	0.0000	0.0000
SPRN	11:171:00000	11:176:86370	LEICA GRX1200+GNSS	LEIAR25.R3	LEIT	-----	UNE	0.3650	0.0000	0.0000
SRJV	11:171:00000	11:176:86370	TRIMBLE 4000SSI	TRM22020.00+GP	NONE	-----	UNE	0.1740	0.0000	0.0000
STAR	11:171:00000	11:176:86370	TPS NETG3	TPSCR.G3	TPSH	-----	UNE	0.0000	0.0000	0.0000
SUB2	11:171:00000	11:176:86370	TRIMBLE 5700	TRM41249.00	NONE	-----	UNE	0.0000	0.0000	0.0000
SULP	11:171:00000	11:176:86370	TRIMBLE 4700	TRM41249.00	NONE	-----	UNE	4.7290	0.0000	0.0000
TRF2	11:171:00000	11:176:86370	LEICA GRX1200+GNSS	LEIAT504	OLGA	-----	UNE	0.1650	0.0000	0.0000
TUBO	11:171:00000	11:176:86370	LEICA GRX1200PRO	LEIAT504	LEIS	-----	UNE	0.3107	0.0000	0.0000
UNPG	11:171:00000	11:176:86370	TPS ODYSSEY_E	JPSREGANT_DD_E	NONE	-----	UNE	0.1000	0.0000	0.0000
USDL	11:171:00000	11:176:86370	TRIMBLE NETR5	TRM55971.00	TZGD	36693	UNE	0.0000	0.0000	0.0000
VARN	11:171:00000	11:176:86370	TPS E_GGD	TPSCR.G3	TPSH	-----	UNE	0.0000	0.0000	0.0000
WROC	11:171:00000	11:176:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS	-----	UNE	0.0000	0.0000	0.0000
WTZR	11:171:00000	11:176:86370	LEICA GRX1200+GNSS	LEIAR25.R3	LEIT	-----	UNE	0.0710	0.0000	0.0000
ZIMM	11:171:00000	11:176:86370	TRIMBLE NETRS	TRM29659.00	NONE	-----	UNE	0.0000	0.0000	0.0000

2.c.10 CEGRN2013.

Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
0256	13:167:00000	13:168:86370	TRIMBLE NETR9	TRM59800.00	SCIS -----	UNE 0.0750	0.0000	0.0000
0266	13:167:00000	13:168:86370	TRIMBLE NETR5	TRM59800.00	SCIS -----	UNE 0.0750	0.0000	0.0000
0273	13:167:00000	13:168:86370	TRIMBLE NETR5	TRM59800.00	SCIS -----	UNE 0.1750	0.0000	0.0000
ASIA	13:167:00000	13:173:86370	LEICA GRX1200GGPRO	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
BANO	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
BBYS	13:167:00000	13:173:86370	TRIMBLE NETR9	TRM59800.00	NONE -----	UNE 0.1180	0.0000	0.0000
BIHA	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
BOGO	13:167:00000	13:173:86370	TPS EUROCARD	ASH700936C_M	SNOW -----	UNE 0.0000	0.0000	0.0000
BOR1	13:167:00000	13:173:86370	TRIMBLE NETRS	AOAD/M_T	NONE -----	UNE 0.0624	0.0000	0.0000
BOSG	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
BOSP	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
BRAI	13:167:00000	13:168:86370	LEICA GRX1200+GNSS	LEIAR25	LEIT -----	UNE 0.0000	0.0000	0.0000
BUCU	13:167:00000	13:173:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE 0.0970	0.0000	0.0000
BUGO	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
BURG	13:167:00000	13:173:86370	TPS NETG3	TPSCR.G3	TPSH -----	UNE 0.0000	0.0000	0.0000
BZRG	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.2120	0.0000	0.0000
CAKO	13:167:00000	13:173:86280	TRIMBLE NETR5	TRM55971.00	TZGD -----	UNE 0.0000	0.0000	0.0000
CAPL	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
CLUJ	13:167:00000	13:168:86370	LEICA GRX1200+GNSS	LEIAR25	NONE -----	UNE 0.0000	0.0000	0.0000
COST	13:167:00000	13:173:86370	ASHTECH Z-X	ASH701945B_M	NONE -----	UNE 0.0380	0.0000	0.0000
CRAI	13:167:00000	13:168:86370	LEICA GRX1200+GNSS	LEIAT504GG	NONE -----	UNE 0.0000	0.0000	0.0000
DRES	13:167:00000	13:173:86370	JPS LEGACY	LEIAR25.R3	LEIT -----	UNE 0.5660	0.0000	0.0000
DUB2	13:167:00000	13:173:86340	TRIMBLE NETR5	TRM55971.00	TZGD -----	UNE 0.0000	0.0000	0.0000
FOCA	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
GANP	13:167:00000	13:173:86370	TRIMBLE NETR9	TRM55971.00	NONE -----	UNE 0.3830	0.0000	0.0000
GLSV	13:167:00000	13:173:86370	NOV OEMV3	NOV702GG	NONE -----	UNE 0.0000	0.0000	0.0000
GMIL	13:168:43200	13:168:86370	RTCM 3.1 GPS1200	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
GOPE	13:167:00000	13:173:86370	TPS NETG3	TPSCR.G3	TPSH -----	UNE 0.1114	0.0000	0.0000
GRAZ	13:167:00030	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R3	LEIT -----	UNE 1.9640	0.0000	0.0000
GSR1	13:167:00000	13:173:86280	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE 0.0650	0.0000	0.0000
IGEO	13:167:00030	13:173:86370	ASHTECH Z-XII3	ASH700936D_M	SNOW -----	UNE -0.0136	0.0000	0.0000
JOZE	13:167:00000	13:173:86370	TRIMBLE 4000SSI	TRM14532.00	NONE -----	UNE 0.1980	0.0000	0.0000
KNJA	13:167:00000	13:173:86370	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
KONJ	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
KOSG	13:167:00000	13:173:86370	LEICA GRX1200GGPRO	AOAD/M_B	NONE -----	UNE 0.1050	0.0000	0.0000
KRA1	13:167:00000	13:173:86370	TRIMBLE NETR5	TRM57971.00	NONE -----	UNE 0.0000	0.0000	0.0000
KRAW	13:167:00000	13:173:86370	ASHTECH UZ-12	ASH701945C_M	SNOW -----	UNE 0.0000	0.0000	0.0000
KUNZ	13:167:00000	13:173:86370	SEPT POLARX2	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
LAMA	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAT504GG	LEIS -----	UNE 0.0600	0.0000	0.0000
LESK	13:168:43200	13:168:86370	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
LOMS	13:167:00000	13:173:86370	TRIMBLE NETRS	TRM41249.00	NONE -----	UNE 0.1080	0.0000	0.0000
LOVE	13:167:00000	13:173:86370	TPS NETG3	TPSCR.G3	TPSH -----	UNE 0.0000	0.0000	0.0000
LOZN	13:168:43200	13:168:86370	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
MATE	13:167:00000	13:173:86280	LEICA GRX1200GGPRO	LEIAT504GG	NONE -----	UNE 0.1010	0.0000	0.0000
MEDI	13:167:00000	13:173:86370	TRIMBLE 4000SSI	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
METS	13:167:00030	13:173:86370	ASHTECH Z-XII3	AOAD/M_T	NONE -----	UNE 0.0000	0.0000	0.0000
MIKL	13:167:00030	13:173:86370	TRIMBLE 4700	TRM41249.00	NONE -----	UNE 0.0237	0.0000	0.0000
MONT	13:167:00000	13:173:86370	TPS NETG3	TPSCR.G3	TPSH -----	UNE 0.0000	0.0000	0.0000
MOP2	13:167:00000	13:173:86370	TRIMBLE NETR5	TRM55971.00	TZGD -----	UNE 0.0580	0.0000	0.0000
MOPI	13:167:00000	13:173:86370	TRIMBLE 4000SSE	TRM14532.00	DOME -----	UNE 0.0870	0.0000	0.0000
MOST	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
NEVE	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
NOVI	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
NPAZ	13:167:00000	13:173:86370	LEICA GRX1200GGPRO	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
NWSC	13:167:00000	13:173:86370	TRIMBLE NETR9	TRM55971.00	TZGD -----	UNE 0.0000	0.0000	0.0000
OLOV	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
ONSA	13:167:00000	13:173:86370	JPS E_GGD	AOAD/M_B	OSOD -----	UNE 0.9950	0.0000	0.0000
ORAD	13:167:00000	13:168:86370	LEICA GRX1200+GNSS	LEIAR25	LEIT -----	UNE 0.0000	0.0000	0.0000
ORID	13:167:00000	13:173:86280	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE 0.0640	0.0000	0.0000
PADO	13:167:00000	13:173:86370	TRIMBLE NETRS	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000
PAT2	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R3	BEVA -----	UNE 0.0600	0.0000	0.0000
PEN2	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT 25364	UNE 0.0000	0.0000	0.0000
PENC	13:167:00000	13:173:86370	LEICA GRX1200GGPRO	LEIAT504GG	LEIS -----	UNE 0.0300	0.0000	0.0000
PLND	13:167:00000	13:173:86370	TRIMBLE NETR8	TRM55971.00	TZGD -----	UNE 0.0000	0.0000	0.0000
PORE	13:167:00000	13:173:86280	TRIMBLE NETR5	TRM55971.00	TZGD -----	UNE 0.0000	0.0000	0.0000
POSU	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
POTS	13:167:00000	13:173:86370	JAVAD TRE_G3TH DELTA	JAV_RINGANT_G3T	NONE -----	UNE 0.1206	0.0000	0.0000
POZE	13:167:00000	13:173:86310	TRIMBLE NETR5	TRM55971.00	TZGD -----	UNE 0.0000	0.0000	0.0000
PRIJ	13:168:43200	13:168:86370	TRIMBLE 5700	TRM41249.00	TZGD -----	UNE 0.0000	0.0000	0.0000
RISO	13:167:00000	13:173:86370	TRIMBLE 5700	TRM41249.00	NONE -----	UNE 0.0000	0.0000	0.0000
ROVI	13:167:00000	13:173:86370	LEICA GRX1200GGPRO	LEIAT504	LEIS -----	UNE 0.0000	0.0000	0.0000
ROZH	13:167:00000	13:173:86370	TPS GB-1000	TPSCR3_GGD	CONE -----	UNE 0.0000	0.0000	0.0000
SABA	13:167:00000	13:173:86370	TRIMBLE NETR5	TRM55971.00	TZGD -----	UNE 0.0000	0.0000	0.0000
SANS	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
SBG2	13:167:00000	13:173:86370	TPS E_GGD	TPSCR3_GGD	OLGA -----	UNE 0.1680	0.0000	0.0000
SEKO	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000

Id.	From	To	Receiver	Antenna Name	SN	Eccentrities (UNE)		
SHUM	13:167:00000	13:173:86370	TPS NETG3	TPSCR.G3	TPSH -----	UNE 0.0970	0.0000	0.0000
SIB1	13:167:00000	13:168:86370	LEICA GRX1200+GNSS	LEIAT504GG	LEIS -----	UNE 0.0000	0.0000	0.0000
SOKO	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
SPRN	13:167:00030	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R3	LEIT -----	UNE 0.3650	0.0000	0.0000
SREB	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
SRJV	13:167:00000	13:173:86370	TRIMBLE NETR5	TRM57971.00	NONE -----	UNE 0.1740	0.0000	0.0000
STAR	13:167:00000	13:173:86370	TPS NETG3	TPSCR.G3	TPSH -----	UNE 0.0000	0.0000	0.0000
SUCE	13:167:00000	13:168:86370	LEICA GRX1200+GNSS	LEIAR25	LEIT -----	UNE 0.0000	0.0000	0.0000
SULP	13:167:00000	13:173:86370	TPS NET-G3A	TPSCR.G5	TPSH -----	UNE 4.7290	0.0000	0.0000
SUME	13:167:00000	13:173:86280	LEICA GRX1200+GNSS	LEIAR25.R3	LEIT -----	UNE 0.1400	0.0000	0.0000
TESL	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
TREB	13:167:00000	13:173:86340	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
TRF2	13:167:00030	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R3	BEVA -----	UNE 0.0600	0.0000	0.0000
TUBO	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.3113	0.0000	0.0000
UNPG	13:167:00000	13:173:86370	TPS ODYSSEY_E	JPSREGANT_DD_E2	NONE -----	UNE 0.1000	0.0000	0.0000
USDL	13:167:00000	13:173:86370	TRIMBLE NETR5	TRM55971.00	TZGD 36693	UNE 0.0000	0.0000	0.0000
VARN	13:167:00000	13:173:86370	TPS GB-1000	TPSCR3_GGD	CONE -----	UNE 0.0000	0.0000	0.0000
VELI	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
WROC	13:167:00000	13:173:86370	LEICA GR25	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
WTZR	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R3	LEIT -----	UNE 0.0710	0.0000	0.0000
ZADA	13:167:00000	13:173:86280	TRIMBLE NETR5	TRM55971.00	TZGD -----	UNE 0.0000	0.0000	0.0000
ZAVI	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
ZENI	13:167:00000	13:173:86370	LEICA GRX1200+GNSS	LEIAR25.R4	LEIT -----	UNE 0.0000	0.0000	0.0000
ZIMM	13:167:00000	13:173:86370	TRIMBLE NETRS	TRM29659.00	NONE -----	UNE 0.0000	0.0000	0.0000

2.d Monument Description (logsheets)

To ease the readability of this memo, the logsheets of the finally used CEGRN sites are provided in the annexes to this document.

3 Other Data Used in the Processing.

3.a List of Reference Stations.

The reference stations belong to the EPN_A class sites (version C1725). The number of the site's EPN_A solution number is between the name and the DOMES code (5th character). The epoch-mapping of the reference sites is extracted from the EPN_A SSC file.

```
BBYS211514M001
BBYS311514M001
BOGO112207M002
BOGO212207M002
BOR1112205M002
BOR1212205M002
BUCU111401M001
BUCU211401M001
BZRG112751M001
BZRG212751M001
BZRG412751M001
BZRG512751M001
BZRG612751M001
COST111407M001
DRES114108M001
DRES214108M001
DRES314108M001
DRES414108M001
GANP211515M001
GLSV112356M001
GLSV212356M001
GOPE111502M002
GOPE411502M002
GOPE511502M002
GOPE611502M002
GRAZ111001M002
GRAZ211001M002
GRAZ311001M002
GRAZ411001M002
GRAZ511001M002
GSR1214501M001
GSR1314501M001
GSR1414501M001
IGEO115101M001
JOZE112204M001
JOZE212204M001
KOSG113504M003
KOSG213504M003
KOSG513504M003          NOT USED BECAUSE 11 mm SHIFT RESPECT THE PUBLISHED VALUE (EPN_A C1725)
KRA1112218M002
KRAW112218M001
KUNZ111524M001
LAMA112209M001
LAMA312209M001
LAMA412209M001
MATE312734M008
MATE412734M008
MATE512734M008
METS110503S011
METS210503S011          NOT USED BECAUSE 11 mm SHIFT RESPECT THE PUBLISHED VALUE (EPN_A C1725)
METS310503S011          NOT USED BECAUSE 12 mm SHIFT RESPECT THE PUBLISHED VALUE (EPN_A C1725)
MIKL112335M001
MOP2111507M002
ONSA110402M004
ONSA210402M004
ORID115601M001
ORID215601M001
ORID415601M001
OSJE111902M001
OSJE211902M001
PENC111206M006
PENC211206M006
PENC311206M006
POTS114106M003
POTS214106M003
POTS314106M003
SBG2111031M002
SOFI111101M002
```

```
SOFI211101M002
SPRN111227M001
SPRN211227M001
SRJV111801S001
SRJV211801S001
SRJV311801S001
SULP212366M001
TRF2111047M002
TUBO111503M001
TUBO311503M001
TUBO411503M001
UNPG312752M001
UNPG412752M001
UNPG512752M001
USDL112229M001
UZHL112301M001
WROC112217M001
WROC212217M001
WROC412217M001
WTZR114201M010
WTZR214201M010
ZIMM114001M004
ZIMM214001M004
```

3.b Orbits, ERP

CODE's repro2 IGb08 GPS+GLONASS orbits were used in the processing.

3.c Antenna Calibration Models

IGS08.ATX combined with the EPN08.ATX files was used to correct PCVs. The PCV corrections' merged file was produced with the ATX2PCV program (Bernese 5.2). If available, individual calibrations are used.

4 Processing Strategy

4.a Software

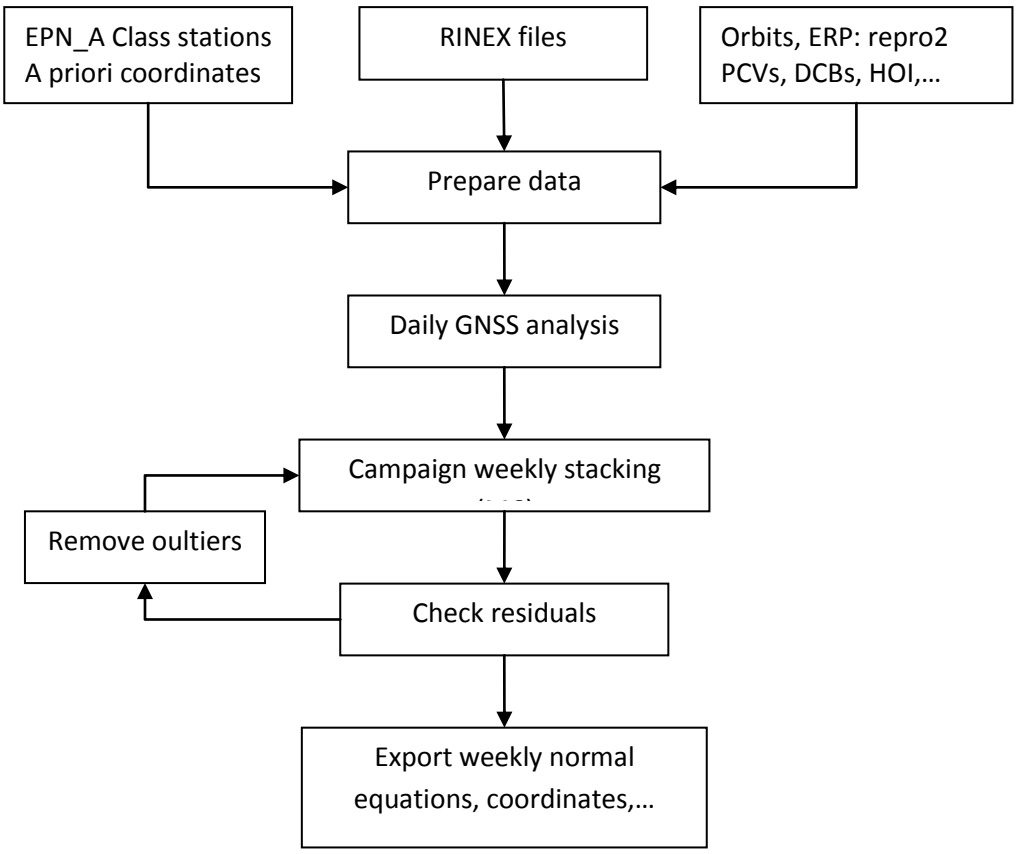
The software used for the computation of the campaigns and to get the final combined solution is Bernese 5.2. If available, GLONASS observations are used.

4.b Schematic Processing Method

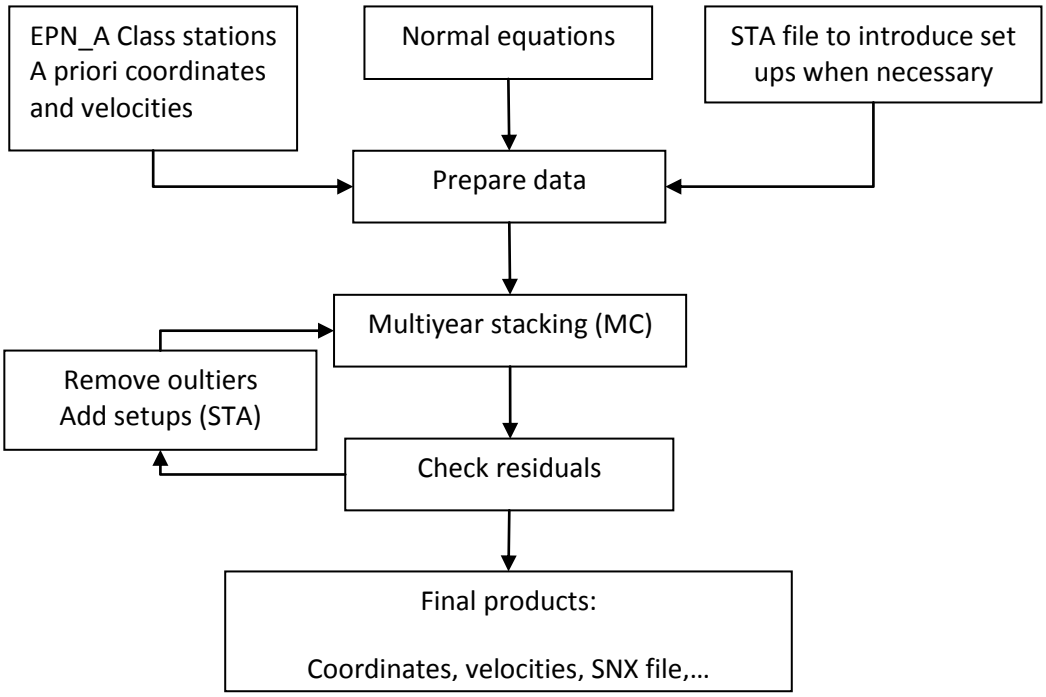
The processing phase is divided in two steps:

- Independent computation of the yearly solutions,
- Final combination, based on the normal equations previously generated.

4.b.1 Year Campaign's Combinations.



4.b.2 Multiyear Stacking.



4.c Elevation Cut Off

The elevation angle has been set to 3 degrees.

4.d Positioning Mode

The baselines have been computed by the double differences model. Independent baselines are defined by the criterion of maximum common observations.
Cycle slips are fixed with the MAUPRP program, analyzing triple phase differences for each independent baseline. If MAUPRP does not fix all slips for one station, that station is edited out.

4.e Modeling of Loading Effects

Tidal displacements according to IERS2010 conventions. Regarding the loading effects, two different models must be distinguished:

- Ocean loading: FES2004 coefficients (Scherneck).
- Atmospheric loading: computed for each site from a gridded model with GRDS1S2 (Bernese 5.2).

4.f Ambiguity Resolution Strategy

An advanced ambiguity resolution (AR) schema was used to compute the baselines:

- Code-Based Widelane (WL) AR for baselines shorter than 6000km, Melbourne-Wuebbena wide-lane and narrow-lane AR is computed.
- Phase-Based Widelane (L5) AR for baselines shorter than 200km, the code-based wide-lane AR is replaced by a phase-only wide-lane with a subsequent narrow-lane AR.
- Quasi-Ionosphere-Free (QIF)AR for the remaining real-valued ambiguities for baselines shorter than 2000km.
- Direct L1/L2 AR for baselines shorter than 20km

AR Verification:

- Each baseline is processed by introducing the resolved integer ambiguities and checking the residuals. If there is any problem, the ambiguities are re-initialized.

4.g Modeling of Troposphere.

Elevation dependent weighting, using GMF_DRY mapping function. ZPD parameters are estimated using WET GMF mapping function and CHENHER gradient estimation model.

4.h Modeling of Ionosphere.

No a priori model: ionospheric effect removed by the "iono-free" linear combination. CODE'S Ionospheric data used to compute 2nd and 3rd order ionospheric corrections.

4.i Method for Combining Daily Free Network Solutions in One Densification Solution.

All the daily solutions are stacked into a unique year solution. The final solution is the combination of all the yearly solutions.

4.j Parameters Used in Minimal Constraints, Including Identification of Reference Stations and Their Set of Reference Coordinates.

EPN_A (C1725) has been used to define the datum and only translations were solved for in the MC adjustment. In the multiyear combination, high residuals (10 mm or even more in any component) were found in the following EPN_A class sites:

STATION NAME	FLG	FROM	TO	REMARK
**********	***	YYYY MM DD HH MM SS	YYYY MM DD HH MM SS	
GRAZ111001M002	001	1996-06-11 00:00:00	1996-06-15 23:59:30	HIGH RESIDUAL
TUBO111503M001	001	1999-06-14 00:00:00	1999-06-19 23:59:30	HIGH RESIDUAL
UZHL112301M001	001	2001-06-23 00:00:00	2001-06-23 23:59:30	HIGH RESIDUAL

Also, the following reference sites have been fully excluded from the final solution due to the large differences with respect the EPN_A C1725solution obtained after the combined multiyear adjustment:

METS210503S011 METS310503S011 KOSG513504M003

4.j.1 Reference Sites' Coordinates and Velocities.

The coordinates and velocities sets have been extracted from the EPN_A version C1725 SSC file:

REFERENCE EPOCH: 2005.0, IGb08 Cartesian Coordinates:

ID	X (m)	Y (m)	Z (m)
BBYS111514M001	3980358.78800	1382292.08500	4772771.93700
BBYS211514M001	3980358.80200	1382292.09000	4772771.95200
BBYS311514M001	3980358.81700	1382292.09600	4772771.97200
BOGO112207M002	3633738.97600	1397434.13100	5035353.47700
BOGO212207M002	3633738.97200	1397434.13400	5035353.47700
BOR1112205M002	3738358.45600	1148173.70600	5021815.77300
BOR1212205M002	3738358.45300	1148173.70900	5021815.77200
BUCU111401M001	4093760.86400	2007793.80600	4445129.97400
BUCU211401M001	4093760.86600	2007793.80500	4445129.97700
BZRG112751M001	4312657.49300	864634.66100	4603844.44700
BZRG212751M001	4312657.48300	864634.65900	4603844.43500
BZRG412751M001	4312657.48600	864634.65800	4603844.43600
BZRG512751M001	4312657.48700	864634.65400	4603844.44600
BZRG612751M001	4312657.48100	864634.66200	4603844.44100
COST111407M001	4021613.70100	2197896.33400	4421014.70100
DRES114108M001	3904724.68200	954013.38600	4935789.96100
DRES214108M001	3904724.70400	954013.39200	4935789.99300
DRES314108M001	3904724.70200	954013.39200	4935789.99400
DRES414108M001	3904724.70100	954013.39200	4935789.98800
GANP111515M001	3929181.53400	1455236.73600	4793653.91000
GANP211515M001	3929181.51800	1455236.73400	4793653.90400
GLSV112356M001	3512888.95900	2068979.87500	4888903.21000
GLSV212356M001	3512888.95400	2068979.88200	4888903.20000
GOPE111502M002	3979316.11900	1050312.47200	4857067.09200
GOPE211502M002	3979316.11900	1050312.47800	4857067.09000

REFERENCE EPOCH: 2005.0, IGb08 Cartesian Coordinates:

ID	X (m)	Y (m)	Z (m)
GOPE311502M002	3979316.12300	1050312.47500	4857067.09700
GOPE411502M002	3979316.13600	1050312.48200	4857067.10600
GOPE511502M002	3979316.12700	1050312.47800	4857067.10800
GOPE611502M002	3979316.13000	1050312.47600	4857067.11000
GRAZ111001M002	4194423.81900	1162702.69200	4647245.41300
GRAZ211001M002	4194423.82400	1162702.69500	4647245.41900
GRAZ311001M002	4194423.82500	1162702.69800	4647245.41600
GRAZ411001M002	4194423.82100	1162702.69200	4647245.41600
GRAZ511001M002	4194423.81500	1162702.69200	4647245.41200
GSR1114501M001	4292609.51400	1113639.22700	4569215.62100
GSR1214501M001	4292609.51300	1113639.23100	4569215.61700
GSR1314501M001	4292609.50800	1113639.22800	4569215.61400
GSR1414501M001	4292609.51300	1113639.23100	4569215.62000
IGEO115101M001	3814975.27200	2101075.16300	4644143.97500
JOZE112204M001	3664940.16000	1409153.86700	5009571.38400
KOSG113504M003	3899225.12700	396731.94100	5015078.43400
KOSG213504M003	3899225.13100	396731.93900	5015078.42800
KOSG313504M003	3899225.13300	396731.93800	5015078.43100
KOSG413504M003	3899225.14000	396731.94200	5015078.43600
KRA1112218M002	3856938.59400	1397750.42200	4867717.52300
KRAW112218M001	3856935.83500	1397750.68800	4867719.63700
KUNZ111524M001	4037497.80200	1097034.25900	4798909.32700
LAMA112209M001	3524522.92300	1329693.63500	5129846.35400
LAMA312209M001	3524522.91900	1329693.62700	5129846.34200
LAMA412209M001	3524522.92600	1329693.62800	5129846.35800
LAMP112706M002	5073164.76000	1134512.56400	3683181.15200
LAMP212706M002	5073164.76200	1134512.56400	3683181.15500
LAMP312706M002	5073164.76300	1134512.56900	3683181.13900
MATE312734M008	4641949.55300	1393045.42100	4133287.46300
MATE412734M008	4641949.55800	1393045.42600	4133287.46600
MATE512734M008	4641949.55700	1393045.42100	4133287.46700
METS110503S011	2892570.78800	1311843.44500	5512634.13700
MIKL112335M001	3698553.98500	2308676.00200	4639769.49300
MOP2111507M002	4053742.64400	1260569.66300	4744940.15200
ONSA110402M004	3370658.54600	711877.14000	5349786.96000
ONSA210402M004	3370658.54200	711877.13800	5349786.95400
ORID115601M001	4498451.69400	1708266.98600	4173591.87300
ORID215601M001	4498451.68800	1708266.98300	4173591.86500
ORID315601M001	4498451.69100	1708266.97900	4173591.86900
ORID415601M001	4498451.69900	1708266.98300	4173591.87000
OSJE111902M001	4237753.24500	1432791.70100	4531310.28000
OSJE211902M001	4237753.23800	1432791.70000	4531310.27800
PENC111206M006	4052449.47000	1417681.12500	4701407.10400
PENC211206M006	4052449.46600	1417681.12300	4701407.10300
PENC311206M006	4052449.47600	1417681.12400	4701407.11400
POTS114106M003	3800689.63500	882077.38600	5028791.31900
POTS214106M003	3800689.63000	882077.38300	5028791.31600
POTS314106M003	3800689.63700	882077.38500	5028791.32600
SBG2111031M002	4180930.93900	973735.44200	4703203.50200
SOFI111101M002	4319372.08700	1868687.78100	4292063.93600
SOFI211101M002	4319372.08100	1868687.77800	4292063.93100
SPRN111227M001	4123047.96700	1227806.38600	4693474.21400
SPRN211227M001	4123047.97100	1227806.38400	4693474.22000
SRJV111801S001	4370292.98300	1454980.13900	4397965.32400
SRJV211801S001	4370292.97600	1454980.12900	4397965.32800
SRJV311801S001	4370292.97300	1454980.12900	4397965.32300
SULP212366M001	3765296.99100	1677559.20400	4851297.40900
TRF2111047M002	4119400.12300	1170248.72400	4712324.03000
TUBO111503M001	4001470.29100	1192345.53400	4805795.53400
TUBO211503M001	4001470.28700	1192345.53100	4805795.52700
TUBO311503M001	4001470.28700	1192345.53100	4805795.52700
TUBO411503M001	4001470.28400	1192345.53300	4805795.52200
UNPG112752M001	4555145.74500	997822.43200	4337432.73900
UNPG212752M001	4555145.73500	997822.43000	4337432.72900
UNPG312752M001	4555145.74400	997822.43000	4337432.73700
UNPG412752M001	4555145.75000	997822.43100	4337432.73200
UNPG512752M001	4555145.73700	997822.42300	4337432.73500
UNTR112785M001	4590764.45100	1032366.87500	4291666.48100
UNTR212785M001	4590764.45100	1032366.87700	4291666.48800
USDL112229M001	3837557.88700	1596303.24900	4822409.83900
UZHL112301M001	3907587.46100	1602428.69300	4763783.76500
UZHL212301M001	3907587.45300	1602428.68500	4763783.75000
WROC112217M001	3835751.29800	1177249.96100	4941605.24700
WROC212217M001	3835751.29600	1177249.95600	4941605.24200
WROC312217M001	3835751.30700	1177249.95100	4941605.24800
WROC412217M001	3835751.30700	1177249.96200	4941605.25300
WTZR114201M010	4075580.55400	931853.79800	4801568.13700
WTZR214201M010	4075580.54900	931853.79800	4801568.13300
ZIMM114001M004	4331297.06100	567555.87700	4633133.93400
ZIMM214001M004	4331297.06500	567555.87800	4633133.93700

IGb08 Cartesian Velocities:

ID	VX (m/Y)	VY (m/Y)	VZ (m/Y)
BBYS111514M001	-0.01740	0.01630	0.00960
BBYS211514M001	-0.01740	0.01630	0.00960
BBYS311514M001	-0.01740	0.01630	0.00960
BOGO112207M002	-0.01820	0.01500	0.00870
BOGO212207M002	-0.01820	0.01500	0.00870
BOR1112205M002	-0.01720	0.01560	0.00880
BOR1212205M002	-0.01720	0.01560	0.00880
BUCU111401M001	-0.01640	0.01800	0.01070
BUCU211401M001	-0.01640	0.01800	0.01070
BZRG112751M001	-0.01440	0.01740	0.01210
BZRG212751M001	-0.01440	0.01740	0.01210
BZRG412751M001	-0.01440	0.01740	0.01210
BZRG512751M001	-0.01440	0.01740	0.01210
BZRG612751M001	-0.01440	0.01740	0.01210
COST111407M001	-0.01880	0.01640	0.00910
DRES114108M001	-0.01620	0.01620	0.00990
DRES214108M001	-0.01620	0.01620	0.00990
DRES314108M001	-0.01620	0.01610	0.00990
DRES414108M001	-0.01620	0.01620	0.00990
GANP111515M001	-0.01730	0.01560	0.00890
GANP211515M001	-0.01730	0.01560	0.00890
GLSV112356M001	-0.01970	0.01420	0.00840
GLSV212356M001	-0.01960	0.01410	0.00840
GOPE111502M002	-0.01590	0.01670	0.01020
GOPE211502M002	-0.01590	0.01670	0.01020
GOPE311502M002	-0.01590	0.01670	0.01020
GOPE411502M002	-0.01590	0.01670	0.01020
GOPE511502M002	-0.01590	0.01670	0.01020
GOPE611502M002	-0.01590	0.01670	0.01020
GRAZ111001M002	-0.01660	0.01800	0.01100
GRAZ211001M002	-0.01660	0.01800	0.01100
GRAZ311001M002	-0.01660	0.01800	0.01100
GRAZ411001M002	-0.01660	0.01790	0.01100
GRAZ511001M002	-0.01660	0.01790	0.01100
GSR1114501M001	-0.01720	0.01730	0.01220
GSR1214501M001	-0.01720	0.01730	0.01220
GSR1314501M001	-0.01720	0.01730	0.01220
GSR1414501M001	-0.01720	0.01730	0.01220
IGEO115101M001	-0.01890	0.01550	0.00920
JOZE112204M001	-0.01790	0.01580	0.00930
KOSG113504M003	-0.01470	0.01650	0.00970
KOSG213504M003	-0.01460	0.01650	0.00970
KOSG313504M003	-0.01460	0.01650	0.00970
KOSG413504M003	-0.01460	0.01650	0.00970
KRA1112218M002	-0.01680	0.01630	0.01060
KRAW112218M001	-0.01770	0.01610	0.00960
KUNZ111524M001	-0.01700	0.01690	0.00950
LAMA112209M001	-0.01840	0.01460	0.00800
LAMA312209M001	-0.01840	0.01470	0.00800
LAMA412209M001	-0.01840	0.01470	0.00800
LAMP112706M002	-0.01460	0.01730	0.01560
LAMP212706M002	-0.01460	0.01730	0.01560
LAMP312706M002	-0.01470	0.01730	0.01560
MATE312734M008	-0.01820	0.01900	0.01510
MATE412734M008	-0.01820	0.01900	0.01510
MATE512734M008	-0.01820	0.01910	0.01510
METS110503S011	-0.01640	0.01440	0.01000
MIKL112335M001	-0.02010	0.01520	0.00860
MOP2111507M002	-0.01620	0.01740	0.01120
ONSA110402M004	-0.01420	0.01450	0.01030
ONSA210402M004	-0.01420	0.01450	0.01030
ORID115601M001	-0.01550	0.02010	0.00910
ORID215601M001	-0.01550	0.02010	0.00910
ORID315601M001	-0.01550	0.02010	0.00910
ORID415601M001	-0.01550	0.02010	0.00910
OSJE111902M001	-0.01780	0.01800	0.01060
OSJE211902M001	-0.01780	0.01800	0.01060
PENC111206M006	-0.01800	0.01740	0.00950
PENC211206M006	-0.01800	0.01740	0.00950
PENC311206M006	-0.01800	0.01740	0.00960
POTS114106M003	-0.01620	0.01590	0.00900
POTS214106M003	-0.01620	0.01590	0.00900
POTS314106M003	-0.01620	0.01590	0.00910
SBG2111031M002	-0.01690	0.01700	0.01150
SOFI111101M002	-0.01680	0.01900	0.00920
SOFI211101M002	-0.01680	0.01900	0.00920
SPRN111227M001	-0.01760	0.01800	0.01030
SPRN211227M001	-0.01760	0.01800	0.01030
SRJV111801S001	-0.01740	0.01870	0.01180
SRJV211801S001	-0.01740	0.01870	0.01180
SRJV311801S001	-0.01740	0.01870	0.01180
SULP212366M001	-0.01860	0.01540	0.00920
TRF2111047M002	-0.01810	0.01710	0.00920
TUBO111503M001	-0.01660	0.01670	0.01020
TUBO211503M001	-0.01670	0.01670	0.01020
TUBO311503M001	-0.01670	0.01670	0.01020

IGb08 Cartesian Velocities:

ID	VX (m/Y)	VY (m/Y)	VZ (m/Y)
TUBO411503M001	-0.01670	0.01670	0.01020
UNPG112752M001	-0.01570	0.01880	0.01280
UNPG212752M001	-0.01570	0.01880	0.01280
UNPG312752M001	-0.01570	0.01880	0.01280
UNPG412752M001	-0.01570	0.01880	0.01280
UNPG512752M001	-0.01580	0.01890	0.01280
UNTR112785M001	-0.01550	0.01660	0.01230
UNTR212785M001	-0.01550	0.01660	0.01230
USDL112229M001	-0.01900	0.01590	0.00850
UZHL112301M001	-0.01770	0.01640	0.00950
UZHL212301M001	-0.01770	0.01640	0.00950
WROC112217M001	-0.01690	0.01590	0.00930
WROC212217M001	-0.01690	0.01590	0.00930
WROC312217M001	-0.01690	0.01590	0.00930
WROC412217M001	-0.01700	0.01590	0.00940
WTZR114201M010	-0.01580	0.01730	0.01050
WTZR214201M010	-0.01580	0.01730	0.01050
ZIMM114001M004	-0.01350	0.01810	0.01210
ZIMM214001M004	-0.01350	0.01810	0.01210

4.j.2 List of Introduced Discontinuities.

Discontinuities have been introduced if the solution for the same site had a variation of at least:

- 10 mm in the height component,
- 6 mm for the horizontal components.

Discontinuities have been introduced for:

STATION NAME	FLG	FROM	TO	
**********	***	YYYY MM DD HH MM SS	YYYY MM DD HH MM SS	
0266 00000M001A	001		2011 01 01 00 00 00	
0266 00000M001B	001	2011 01 01 00 00 00		
0273 00000M001A	001		2011 01 01 00 00 00	
0273 00000M001B	001	2011 01 01 00 00 00		
AT01 11027M002A	001		1999 12 31 00 00 00	HUTB
AT01 11027M002B	001	1999 12 31 00 00 00		HUTB
AT01 11027M002A	001		1999 12 31 00 00 00	HUTB 000000
AT01 11027M002B	001	1999 12 31 00 00 00		HUTB 000000
AT01 11027M002A	001		1999 12 31 00 00 00	HUTB 00000M000
AT01 11027M002B	001	1999 12 31 00 00 00		HUTB 00000M000
AT01 11027M002B	001	2003 01 01 00 00 00	2009 12 31 00 00 00	AT01
AT01 11027M002B	001	2009 12 31 00 00 00		AT01
AT01 11027M002B	001	2003 01 01 00 00 00	2009 12 31 00 00 00	AT01 11027M002
AT01 11027M002B	001	2009 12 31 00 00 00		AT01 11027M002
AT01 11027M002	001			HUTB 000000
AT01 11027M002	001			HUTB 00000M000
BOZI 00000M000A	001		2003 06 16 00 00 00	
BOZI 00000M000B	001	2003 06 16 00 00 00		
BRAI 00000M001A	001		2009 06 23 23 59 59	
BRAI 00000M001B	001	2009 06 24 00 00 00	2011 06 21 23 59 59	
BRAI 00000M001C	001	2011 06 22 00 00 00		
BUCA 00000M000A	001		1997 01 01 00 00 00	
BUCA 00000M000B	001	1997 01 01 00 00 00	1999 01 01 00 00 00	
BUCA 00000M000C	001	1999 01 01 00 00 00	2005 01 01 00 00 00	
BUCA 00000M000D	001	2005 01 01 00 00 00		
CLUJ 00000M000A	001		2005 01 01 00 00 00	
CLUJ 00000M000B	001	2005 01 01 00 00 00	2007 01 01 00 00 00	
CLUJ 00000M000C	001	2007 01 01 00 00 00	2009 01 01 00 00 00	
CLUJ 00000M000D	001	2009 01 01 00 00 00		
DISZ 00000M000A	001		2003 06 18 00 00 00	
DISZ 00000M000B	001	2003 06 18 00 00 00		
FUN3 00000M000A	001		2001 01 01 00 00 00	
FUN3 00000M000B	001	2001 01 01 00 00 00	2003 01 01 00 00 00	
FUN3 00000M000C	001	2003 01 01 00 00 00	2007 01 01 00 00 00	
FUN3 00000M000D	001	2007 01 01 00 00 00		
FUND 00000M000A	001		1997 01 01 00 00 00	
FUND 00000M000B	001	1997 01 01 00 00 00		
GRMS 11028S001A	001		2005 01 01 00 00 00	
GRMS 11028S001B	001	2005 01 01 00 00 00	2009 01 01 00 00 00	
GRMS 11028S001C	001	2009 01 01 00 00 00		
GRYB 00000M000A	001		1997 01 01 00 00 00	
GRYB 00000M000B	001	1997 01 01 00 00 00	2001 01 01 00 00 00	
GRYB 00000M000C	001	2001 01 01 00 00 00		
HFLK 11006S003A	001	1990 01 01 00 00 00	1997 06 09 23 59 59	HFLK
HFLK 11006S003B	001	1997 06 10 00 00 00	2004 07 21 23 59 59	HFLK
HFLK 11006S003B	001	2004 07 22 00 00 00	2007 06 19 23 59 59	HFLK
HFLK 11006S003B	001	2007 06 20 00 00 00		HFLK
HFLK 11006S003A	001	1990 01 01 00 00 00	1997 06 09 23 59 59	HFLK 11006S003
HFLK 11006S003B	001	1997 06 10 00 00 00	2004 07 21 23 59 59	HFLK 11006S003
HFLK 11006S003B	001	2004 07 22 00 00 00	2007 06 19 23 59 59	HFLK 11006S003
HFLK 11006S003B	001	2007 06 20 00 00 00		HFLK 11006S003
HFLK 11006S003C	001			HFL2211006M003
HOHE 00000M000A	001		2005 01 01 00 00 00	
HOHE 00000M000B	001	2005 01 01 00 00 00	2007 01 01 00 00 00	
HOHE 00000M000C	001	2007 01 01 00 00 00		
HVAR 00000M000A	001		1999 01 01 00 00 00	
HVAR 00000M000B	001	1999 01 01 00 00 00	2005 01 01 00 00 00	
HVAR 00000M000C	001	2005 01 01 00 00 00	2007 01 01 00 00 00	
HVAR 00000M000D	001	2007 01 01 00 00 00		
IAS3 00000M000A	001	1997 01 01 00 00 00	1998 01 01 00 00 00	
IAS3 00000M000B	001	1998 01 01 00 00 00		
IVAN 00000M000A	001		2005 06 21 23 59 59	
IVAN 00000M000B	001	2005 06 22 00 00 00		
LEND 00000M000A	001		2001 01 01 00 00 00	
LEND 00000M000B	001	2001 01 01 00 00 00		
LJIG 00000M000A	001		2007 01 01 00 00 00	
LJIG 00000M000B	001	2007 01 01 00 00 00	2009 01 01 00 00 00	
LJIG 00000M000C	001	2009 01 01 00 00 00		
LJUB 00000M000A	001		2003 01 01 00 00 00	
LJUB 00000M000B	001	2003 01 01 00 00 00	2005 01 01 00 00 00	
LJUB 00000M000C	001	2005 01 01 00 00 00		
LOZN 00000M000A	001		2011 06 21 23 59 59	
LOZN 00000M000B	001	2011 06 22 00 00 00		
LVIV 00000M000A	001		1997 01 01 00 00 00	

```
LVIV 00000M000B       001  1997 01 01 00 00 00  1999 01 01 00 00 00
LVIV 00000M000C       001  1999 01 01 00 00 00  2001 01 01 00 00 00
LVIV 00000M000D       001  2001 01 01 00 00 00  2003 01 01 00 00 00
LVIV 00000M000E       001  2003 01 01 00 00 00  2005 01 01 00 00 00
LVIV 00000M000F       001  2005 01 01 00 00 00
MACI 00000M000A       001                       2000 12 31 23 59 59
MACI 00000M000B       001  2001 01 01 00 00 00
MALJ 00000M000A       001                       2009 01 01 00 00 00
MALJ 00000M000B       001  2009 01 01 00 00 00
MONT 00000S001A       001                       2011 01 01 00 00 00
MONT 00000S001B       001  2011 01 01 00 00 00  2013 01 01 00 00 00
MONT 00000S001C       001  2013 01 01 00 00 00
MOPI 11507M001A       001                       1999 01 01 00 00 00
MOPI 11507M001B       001  1999 01 01 00 00 00  2009 01 01 00 00 00
PAR1 00000S001A       001                       2011 01 01 00 00 00
PAR1 00000S001B       001  2011 01 01 00 00 00
PART 00000M000A       001                       2001 06 20 00 00 00
PART 00000M000A       001  2001 06 20 00 00 00  2009 06 24 00 00 00
PART 00000M000B       001  2009 06 24 00 00 00
POL1 11530M001A       001                       2005 01 01 00 00 00
POL1 11530M001B       001  2005 01 01 00 00 00  2013 01 01 00 00 00
POL1 11530M001C       001  2013 01 01 00 00 00
RISO 00000S001A       001                       2007 06 19 23 59 59
RISO 00000S001B       001  2007 06 20 00 00 00
ROZH 00000S001A       001                       2013 01 01 00 00 00
ROZH 00000S001B       001  2013 01 01 00 00 00
SBG2 11031M002A       001                       2001 01 01 00 00 00  SBGZ
SBG2 11031M002B       001  2001 01 01 00 00 00  2007 01 01 00 00 00  SBGZ
SBG2 11031M002A       001  2007 01 01 00 00 00  2008 11 05 00 00 00  SBGZ
SBG2111031M002        001  2008 11 05 00 00 00                       SBGZ
SBG2 11031M002A       001                       2001 01 01 00 00 00  SBGZ 11031S001
SBG2 11031M002B       001  2001 01 01 00 00 00  2007 01 01 00 00 00  SBGZ 11031S001
SBG2 11031M002A       001  2007 01 01 00 00 00  2008 11 05 00 00 00  SBGZ 11031S001
SBG2111031M002        001  2008 11 05 00 00 00                       SBGZ 11031S001
SBG2 11031M002A       001                       2001 01 01 00 00 00  SBG2 11031M002
SBG2 11031M002B       001  2001 01 01 00 00 00  2007 01 01 00 00 00  SBG2 11031M002
SBG2 11031M002A       001  2007 01 01 00 00 00  2008 11 05 00 00 00  SBG2 11031M002
SBG2111031M002        001  2008 11 05 00 00 00                       SBG2 11031M002
TRF2 11047M002        001                       2008 11 05 00 00 00  TRF2
TRF2111047M002        001  2008 11 05 00 00 00                       TRF2
TRF2 11047M002        001                       2008 11 05 00 00 00  TRF2 11047M002
TRF2111047M002        001  2008 11 05 00 00 00                       TRF2 11047M002
TRF2 11047M002        001                       2008 11 05 00 00 00  TRFB 11047M001
TRF2111047M002        001  2008 11 05 00 00 00                       TRFB 11047M001
SIB1 00000M002A       001                       2011 06 22 00 00 00
SIB1 00000M002B       001  2011 06 22 00 00 00
SKPL 00000M000A       001                       1997 01 01 00 00 00
SKPL 00000M000B       001  1997 01 01 00 00 00
SNEC 11519M001A       001                       2004 12 31 00 00 00
SNEC 11519M001B       001  2005 01 01 00 00 00
SNZZ 00000M000A       001                       2007 01 01 00 00 00
SNZZ 00000M000B       001  2007 01 01 00 00 00
STHO 00000M000A       001                       1999 01 01 00 00 00
STHO 00000M000B       001  1999 01 01 00 00 00  2005 01 01 00 00 00
STHO 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00
STHO 00000M000D       001  2007 01 01 00 00 00
SUCE 00000M001A       001                       2011 01 01 00 00 00
SUCE 00000M001B       001  2011 01 01 00 00 00
SULP 00000M000A       001                       1999 01 01 00 00 00
SULP 00000M000B       001  1999 01 01 00 00 00
SUME 11215M001A       001                       2009 01 01 00 00 00
SUME 11215M001B       001  2009 01 01 00 00 00
TARP 00000M000A       001                       2003 01 01 00 00 00
TARP 00000M000B       001  2003 01 01 00 00 00
TIS3 00000M000A       001                       1999 01 01 00 00 00
TIS3 00000M000B       001  1999 01 01 00 00 00  2003 01 01 00 00 00
TIS3 00000M000C       001  2003 01 01 00 00 00  2007 01 01 00 00 00
TIS3 00000M000D       001  2007 01 01 00 00 00
UPAD 12750M002A       001                       1999 01 01 00 00 00
UPAD 12750M002B       001  1999 01 01 00 00 00
UZHD 00000M000A       001                       2007 01 01 00 00 00
UZHD 00000M000B       001  2007 01 01 00 00 00
VARN 00000S001A       001                       2011 01 01 00 00 00
VARN 00000S001B       001  2011 01 01 00 00 00  2013 01 01 00 00 00
VARN 00000S001C       001  2013 01 01 00 00 00
VRN1 00000M000A       001                       1999 01 01 00 00 00
VRN1 00000M000B       001  1999 01 01 00 00 00  2001 01 01 00 00 00
VRN1 00000M000C       001  2001 01 01 00 00 00  2003 01 01 00 00 00
VRN1 00000M000D       001  2003 01 01 00 00 00  2005 01 01 00 00 00
VRN1 00000M000E       001  2005 01 01 00 00 00
```

5 Results From the Processing.

As stated previously, and advanced resolution (AR) strategy has been used to compute the GPS and GLONASS, if observations are available, ambiguities.

5.a Ambiguity Resolution Statistics.

5.a.1 CEGRN1996.

```
================================================================================
 Code-Based Widelane (WL) Ambiguity Resolution (<6000 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L5
                        (km)     #Amb  (mm)  #Amb  (mm)   (%)       (L5 Cycles)
Tot:  20              548.074     973   3.7   512   3.8  47.4 G     0.199  0.082                #AR_WL 96_162
Tot:  22              516.062    1191   1.7   311   1.7  73.9 G     0.196  0.081                #AR_WL 96_163
Tot:  18              597.436     917   3.7   452   3.7  50.7 G     0.199  0.072                #AR_WL 96_164
Tot:  18              564.801     850   3.6   397   3.6  53.3 G     0.205  0.076                #AR_WL 96_165
Tot:  14              594.189     696   3.8   336   3.8  51.7 G     0.195  0.079                #AR_WL 96_166
Tot:  19              599.070     765   3.6   371   3.7  51.5 G     0.177  0.075                #AR_WL 96_167

================================================================================
 Code-Based Narrowlane (NL) Ambiguity Resolution (<6000 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L1
                        (km)     #Amb  (mm)  #Amb  (mm)   (%)       (L1 Cycles)
Tot:  20              548.074     973   1.3   535   1.4  45.0 G     0.144  0.048                #AR_NL 96_162
Tot:  22              516.062    1222   1.2   415   1.3  66.0 G     0.147  0.045                #AR_NL 96_163
Tot:  18              597.436     918   1.4   470   1.4  48.8 G     0.142  0.049                #AR_NL 96_164
Tot:  18              564.801     851   1.2   434   1.3  49.0 G     0.147  0.046                #AR_NL 96_165
Tot:  14              594.189     696   0.9   350   1.0  49.7 G     0.133  0.033                #AR_NL 96_166
Tot:  19              599.070     765   0.9   386   1.0  49.5 G     0.143  0.037                #AR_NL 96_167

================================================================================
 Phase-Based Widelane (L5) Ambiguity Resolution (<200 km)
================================================================================
File                  Length      Before      After     Res  Sys  Max/RMS L5
                        (km)     #Amb  (mm)  #Amb  (mm)   (%)       (L5 Cycles)
Tot:  25              142.232     869   2.9     9   3.3  99.0 G     0.140  0.037                #AR_L5 96_162
Tot:  35              119.495    1468   4.9   111   5.4  92.4 G     0.182  0.060                #AR_L5 96_163
Tot:  25              140.090    1089   3.1    21   3.5  98.1 G     0.164  0.043                #AR_L5 96_164
Tot:  28              142.581    1165   2.8    15   3.2  98.7 G     0.150  0.042                #AR_L5 96_165
Tot:  29              140.647    1282   3.2    30   3.6  97.7 G     0.149  0.042                #AR_L5 96_166
Tot:  25              141.478     662   2.7     6   3.0  99.1 G     0.147  0.039                #AR_L5 96_167


================================================================================
 Phase-Based Narrowlane (L3) Ambiguity Resolution (<200 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L1
                        (km)     #Amb  (mm)  #Amb  (mm)   (%)       (L1 Cycles)
Tot:  25              142.232     869   1.4    77   1.6  91.1 G     0.169  0.065                #AR_L3 96_162
Tot:  35              119.495    1468   1.5   215   1.6  85.4 G     0.197  0.051                #AR_L3 96_163
Tot:  25              140.090    1089   1.4   104   1.5  90.4 G     0.176  0.056                #AR_L3 96_164
Tot:  28              142.581    1165   1.3    98   1.4  91.6 G     0.175  0.055                #AR_L3 96_165
Tot:  29              140.647    1282   1.1    66   1.1  94.9 G     0.149  0.047                #AR_L3 96_166
Tot:  25              141.478     662   1.0    38   1.1  94.3 G     0.157  0.050                #AR_L3 96_167

================================================================================
 Quasi-Ionosphere-Free (QIF) Ambiguity Resolution (<2000 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L5    Max/RMS L3
                        (km)     #Amb  (mm)  #Amb  (mm)   (%)       (L5 Cycles)   (L3 Cycles)
Tot:  40              338.904    1074   1.5   602   1.5  43.9 G     0.474  0.118  0.100  0.035  #AR_QIF 96_162
Tot:  54              277.449    1176   1.5   778   1.5  33.8 G     0.482  0.172  0.100  0.025  #AR_QIF 96_163
Tot:  40              342.192    1072   1.5   686   1.5  36.0 G     0.500  0.132  0.100  0.037  #AR_QIF 96_164
Tot:  41              321.919     936   1.4   552   1.4  41.0 G     0.499  0.138  0.100  0.033  #AR_QIF 96_165
Tot:  40              295.724     768   1.1   324   1.1  57.8 G     0.477  0.128  0.099  0.032  #AR_QIF 96_166
Tot:  40              353.640     704   1.1   320   1.1  54.5 G     0.492  0.121  0.098  0.031  #AR_QIF 96_167


================================================================================
 Direct L1/L2 Ambiguity Resolution (<20 km)
================================================================================
                       Length      Before      After     Res  Sys  Max/RMS L1
                         (km)     #Amb  (mm)  #Amb  (mm)   (%)       (L1 Cycles)
Tot:   3                9.211     172   3.9     6   4.3  96.5 G     0.144  0.038                #AR_L12 96_163
Tot:   3                0.043      76   1.8    20   1.9  73.7 G     0.136  0.032                #AR_L12 96_164
Tot:   3                0.015      74   1.3    30   1.5  59.5 G     0.137  0.035                #AR_L12 96_165
Tot:   2                0.008      52   1.5     0   1.7 100.0 G     0.106  0.024                #AR_L12 96_166
Tot:   1                0.009      22   2.0     2   2.2  90.9 G     0.128  0.038                #AR_L12 96_167
```

5.a.2 CEGRN1997.

```
================================================================================
 Code-Based Widelane (WL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L5 Cycles)
Tot:  20             598.585    781  2.3    306  2.3   60.8 G     0.191  0.072          #AR_WL 97_155
Tot:  19             561.088    967  2.3    318  2.3   67.1 G     0.188  0.076          #AR_WL 97_156
Tot:  18             610.701    951  2.3    364  2.4   61.7 G     0.195  0.078          #AR_WL 97_157
Tot:  18             555.507    911  2.3    283  2.3   68.9 G     0.180  0.075          #AR_WL 97_158
Tot:  17             627.175    895  2.4    310  2.4   65.4 G     0.205  0.077          #AR_WL 97_159
Tot:  18             589.003    902  2.3    308  2.3   65.9 G     0.174  0.073          #AR_WL 97_160
Tot:  19             590.115    769  2.3    299  2.3   61.1 G     0.190  0.077          #AR_WL 97_161

================================================================================
 Code-Based Narrowlane (NL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L1 Cycles)
Tot:  20             598.585    783  1.0    335  1.1   57.2 G     0.145  0.040          #AR_NL 97_155
Tot:  19             561.088    970  1.0    345  1.1   64.4 G     0.148  0.040          #AR_NL 97_156
Tot:  18             610.701    957  1.1    399  1.2   58.3 G     0.149  0.045          #AR_NL 97_157
Tot:  18             555.507    911  1.2    314  1.3   65.5 G     0.149  0.045          #AR_NL 97_158
Tot:  17             627.175    895  1.2    339  1.3   62.1 G     0.148  0.049          #AR_NL 97_159
Tot:  18             589.003    906  1.2    348  1.3   61.6 G     0.149  0.052          #AR_NL 97_160
Tot:  19             590.115    780  1.0    324  1.1   58.5 G     0.150  0.042          #AR_NL 97_161

================================================================================
 Phase-Based Widelane (L5) Ambiguity Resolution (<200 km)
================================================================================
File                 Length      Before      After     Res  Sys  Max/RMS L5
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L5 Cycles)
Tot:  24             141.786    572  4.8     18  5.2   96.9 G     0.149  0.053          #AR_L5 97_155
Tot:  28             140.744   1284  3.0     19  3.3   98.5 G     0.150  0.040          #AR_L5 97_156
Tot:  27             137.942   1296  3.5     29  3.8   97.8 G     0.150  0.042          #AR_L5 97_157
Tot:  28             140.424   1314  3.4     31  3.8   97.6 G     0.150  0.043          #AR_L5 97_158
Tot:  28             138.666   1294  3.2     27  3.5   97.9 G     0.171  0.043          #AR_L5 97_159
Tot:  28             140.744   1277  5.5     48  5.9   96.2 G     0.150  0.052          #AR_L5 97_160
Tot:  24             136.188    537  3.9     14  4.5   97.4 G     0.148  0.049          #AR_L5 97_161

================================================================================
 Phase-Based Narrowlane (L3) Ambiguity Resolution (<200 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L1 Cycles)
Tot:  24             141.786    572  1.1     44  1.2   92.3 G     0.192  0.049          #AR_L3 97_155
Tot:  28             140.744   1284  1.1     61  1.2   95.2 G     0.176  0.046          #AR_L3 97_156
Tot:  27             137.942   1296  1.2     96  1.3   92.6 G     0.149  0.046          #AR_L3 97_157
Tot:  28             140.424   1314  1.2    100  1.3   92.4 G     0.150  0.048          #AR_L3 97_158
Tot:  28             138.666   1294  1.2     90  1.2   93.0 G     0.194  0.049          #AR_L3 97_159
Tot:  28             140.744   1277  1.2     99  1.3   92.2 G     0.173  0.050          #AR_L3 97_160
Tot:  24             136.188    537  1.1     43  1.2   92.0 G     0.149  0.056          #AR_L3 97_161

================================================================================
 Quasi-Ionosphere-Free (QIF) Ambiguity Resolution (<2000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5    Max/RMS L3
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L5 Cycles)   (L3 Cycles)
Tot:  40             365.188    702  1.6    476  1.7   32.2 G     0.494  0.158  0.099  0.031   #AR_QIF 97_155
Tot:  42             324.861    708  1.7    458  1.7   35.3 G     1.018  0.154  0.099  0.035   #AR_QIF 97_156
Tot:  41             340.388    858  1.4    568  1.4   33.8 G     0.485  0.155  0.097  0.036   #AR_QIF 97_157
Tot:  41             316.321    716  1.3    534  1.3   25.4 G     0.773  0.142  0.100  0.035   #AR_QIF 97_158
Tot:  41             336.182    762  1.3    568  1.3   25.5 G     0.436  0.154  0.099  0.034   #AR_QIF 97_159
Tot:  41             331.355    770  1.3    506  1.4   34.3 G     0.491  0.149  0.099  0.035   #AR_QIF 97_160
Tot:  41             343.946    696  1.3    422  1.3   39.4 G     0.476  0.104  0.099  0.032   #AR_QIF 97_161

================================================================================
 Direct L1/L2 Ambiguity Resolution (<20 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L1 Cycles)
Tot:   1              10.107     28  4.6      0  4.7  100.0 G     0.061  0.022          #AR_L12 97_155
Tot:   1              10.107     86  3.9      0  4.0  100.0 G     0.119  0.026          #AR_L12 97_156
Tot:   1              10.107    104  4.0      5  4.4   95.2 G     0.147  0.040          #AR_L12 97_157
Tot:   1              10.107     90  2.8      0  3.0  100.0 G     0.107  0.023          #AR_L12 97_158
Tot:   1              10.107     82  3.1      1  3.2   98.8 G     0.110  0.022          #AR_L12 97_159
Tot:   1              10.107    102  4.1      4  4.3   96.1 G     0.059  0.023          #AR_L12 97_160
Tot:   1              10.107     24  3.1      2  4.1   91.7 G     0.132  0.057          #AR_L12 97_161
```

5.a.3 CEGRN1999.

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================================================================================
 Code-Based Widelane (WL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length     Before      After     Res  Sys  Max/RMS L5
                       (km)    #Amb  (mm)  #Amb  (mm)  (%)       (L5 Cycles)
Tot:  18             652.983    783  1.8    198  1.9   74.7 G    0.194  0.084                #AR_WL 99_165
Tot:  17             596.353    812  1.7    203  1.8   75.0 G    0.201  0.082                #AR_WL 99_166
Tot:  17             612.095    904  1.9    280  1.9   69.0 G    0.183  0.082                #AR_WL 99_167
Tot:  16             618.462    837  1.9    224  1.9   73.2 G    0.200  0.082                #AR_WL 99_168
Tot:  15             579.218    747  1.9    207  2.0   72.3 G    0.176  0.083                #AR_WL 99_169
Tot:  20             607.198    808  1.8    211  1.8   73.9 G    0.197  0.080                #AR_WL 99_170

================================================================================
 Code-Based Narrowlane (NL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length     Before      After     Res  Sys  Max/RMS L1
                       (km)    #Amb  (mm)  #Amb  (mm)  (%)       (L1 Cycles)
Tot:  18             652.983    785  1.1    249  1.2   68.3 G    0.150  0.053                #AR_NL 99_165
Tot:  17             596.353    880  1.2    327  1.2   62.8 G    0.150  0.049                #AR_NL 99_166
Tot:  17             612.095    907  1.1    329  1.2   63.7 G    0.149  0.049                #AR_NL 99_167
Tot:  16             618.462    842  1.1    272  1.2   67.7 G    0.147  0.049                #AR_NL 99_168
Tot:  15             579.218    748  1.2    240  1.2   67.9 G    0.148  0.048                #AR_NL 99_169
Tot:  20             607.198    935  1.0    372  1.1   60.2 G    0.142  0.045                #AR_NL 99_170

================================================================================
 Phase-Based Widelane (L5) Ambiguity Resolution (<200 km)
================================================================================
File                 Length     Before      After     Res  Sys  Max/RMS L5
                       (km)    #Amb  (mm)  #Amb  (mm)  (%)       (L5 Cycles)
Tot:  41             119.474   1762  3.5    112  3.9   93.6 G    0.196  0.053                #AR_L5 99_165
Tot:  41             116.950   2088  4.5     94  5.0   95.5 G    0.165  0.054                #AR_L5 99_166
Tot:  42             123.658   2302  4.6    123  5.0   94.7 G    0.157  0.054                #AR_L5 99_167
Tot:  43             121.267   2146  5.6    106  6.0   95.1 G    0.182  0.053                #AR_L5 99_168
Tot:  45             119.121   2244  5.3    129  5.7   94.3 G    0.168  0.053                #AR_L5 99_169
Tot:  39             118.604   1426  5.5    110  5.9   92.3 G    0.200  0.059                #AR_L5 99_170

================================================================================
 Phase-Based Narrowlane (L3) Ambiguity Resolution (<200 km)
================================================================================
                     Length     Before      After     Res  Sys  Max/RMS L1
                       (km)    #Amb  (mm)  #Amb  (mm)  (%)       (L1 Cycles)
Tot:  41             119.474   1762  1.2    221  1.3   87.5 G    0.181  0.054                #AR_L3 99_165
Tot:  41             116.950   2088  1.2    214  1.3   89.8 G    0.177  0.052                #AR_L3 99_166
Tot:  42             123.658   2302  1.2    246  1.3   89.3 G    0.164  0.052                #AR_L3 99_167
Tot:  43             121.267   2146  1.2    204  1.2   90.5 G    0.161  0.049                #AR_L3 99_168
Tot:  45             119.121   2244  1.2    242  1.3   89.2 G    0.169  0.049                #AR_L3 99_169
Tot:  39             118.604   1426  1.1    168  1.2   88.2 G    0.149  0.048                #AR_L3 99_170


================================================================================
 Quasi-Ionosphere-Free (QIF) Ambiguity Resolution (<2000 km)
================================================================================
                     Length     Before      After     Res  Sys  Max/RMS L5    Max/RMS L3
                       (km)    #Amb  (mm)  #Amb  (mm)  (%)       (L5 Cycles)   (L3 Cycles)
Tot:  57             285.437    858  1.3    586  1.3   31.7 G    0.851  0.180  0.099  0.033  #AR_QIF 99_165
Tot:  56             259.834    998  1.3    614  1.3   38.5 G    0.495  0.147  0.100  0.033  #AR_QIF 99_166
Tot:  55             269.517    968  1.3    652  1.3   32.6 G    0.495  0.157  0.100  0.031  #AR_QIF 99_167
Tot:  56             259.613    834  1.3    552  1.3   33.8 G    0.716  0.173  0.099  0.030  #AR_QIF 99_168
Tot:  57             236.441    844  1.3    586  1.3   30.6 G    0.499  0.176  0.097  0.034  #AR_QIF 99_169
Tot:  55             291.519    914  1.2    600  1.2   34.4 G    1.365  0.196  0.097  0.032  #AR_QIF 99_170

================================================================================
 Direct L1/L2 Ambiguity Resolution (<20 km)
================================================================================
                      Length     Before      After     Res  Sys  Max/RMS L1
                        (km)    #Amb  (mm)  #Amb  (mm)  (%)       (L1 Cycles)
Tot:   2              12.044    114  4.9      4  5.2   96.5 G    0.141  0.046                #AR_L12 99_165
Tot:   2              12.044    234  5.2      6  5.8   97.4 G    0.146  0.046                #AR_L12 99_166
Tot:   2              12.044    260  4.6      4  5.0   98.5 G    0.144  0.039                #AR_L12 99_167
Tot:   2              12.044    248  6.7      8  7.0   96.8 G    0.149  0.041                #AR_L12 99_168
Tot:   2              12.044    150  5.0      0  5.3  100.0 G    0.139  0.042                #AR_L12 99_169
Tot:   2              12.044    104  6.9      4  7.2   96.2 G    0.121  0.044                #AR_L12 99_170
```

5.a.4 CEGRN2001.

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================================================================================
 Code-Based Widelane (WL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)       (L5 Cycles)
Tot:  18             636.019    991  1.6    255  1.6   74.3 G    0.186  0.084          #AR_WL 01_168
Tot:  22             516.062   1191  1.7    311  1.7   73.9 G    0.196  0.081          #AR_WL 01_169
Tot:  20             527.978   1106  1.6    253  1.6   77.1 G    0.179  0.081          #AR_WL 01_170
Tot:  20             507.402   1196  1.6    321  1.7   73.2 G    0.185  0.081          #AR_WL 01_171
Tot:  23             512.336   1181  1.6    282  1.7   76.1 G    0.179  0.081          #AR_WL 01_172
Tot:  20             519.847   1098  1.5    235  1.6   78.6 G    0.194  0.082          #AR_WL 01_173
Tot:  21             539.886   1135  1.6    244  1.6   78.5 G    0.183  0.081          #AR_WL 01_174

================================================================================
 Code-Based Narrowlane (NL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)       (L1 Cycles)
Tot:  18             636.019   1036  1.1    366  1.2   64.7 G    0.149  0.047          #AR_NL 01_168
Tot:  22             516.062   1222  1.2    415  1.3   66.0 G    0.147  0.045          #AR_NL 01_169
Tot:  20             527.978   1120  1.0    318  1.0   71.6 G    0.139  0.040          #AR_NL 01_170
Tot:  20             507.402   1198  1.0    381  1.1   68.2 G    0.147  0.045          #AR_NL 01_171
Tot:  23             512.336   1254  1.1    428  1.2   65.9 G    0.149  0.050          #AR_NL 01_172
Tot:  20             519.847   1116  1.1    323  1.2   71.1 G    0.150  0.042          #AR_NL 01_173
Tot:  21             539.886   1246  1.0    429  1.1   65.6 G    0.150  0.047          #AR_NL 01_174

================================================================================
 Phase-Based Widelane (L5) Ambiguity Resolution (<200 km)
================================================================================
File                 Length      Before      After     Res  Sys  Max/RMS L5
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)       (L5 Cycles)
Tot:  10             136.111    626  5.6     67  6.1   89.3 G    0.179  0.059          #AR_L5 01_168
Tot:  35             119.495   1468  4.9    111  5.4   92.4 G    0.182  0.060          #AR_L5 01_169
Tot:  36             112.274   2053  5.7    159  6.2   92.3 G    0.185  0.056          #AR_L5 01_170
Tot:  35             111.552   1871  4.3    113  4.7   94.0 G    0.179  0.049          #AR_L5 01_171
Tot:  34             109.676   1999  4.6    135  5.0   93.2 G    0.187  0.053          #AR_L5 01_172
Tot:  36             113.909   2147  4.2    132  4.5   93.9 G    0.176  0.049          #AR_L5 01_173
Tot:  33             114.856   1429  5.2     98  5.6   93.1 G    0.198  0.054          #AR_L5 01_174

================================================================================
 Phase-Based Narrowlane (L3) Ambiguity Resolution (<200 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)       (L1 Cycles)
Tot:  10             136.111    626  1.3    108  1.4   82.7 G    0.155  0.052          #AR_L3 01_168
Tot:  35             119.495   1468  1.5    215  1.6   85.4 G    0.197  0.051          #AR_L3 01_169
Tot:  36             112.274   2053  1.3    265  1.4   87.1 G    0.194  0.050          #AR_L3 01_170
Tot:  35             111.552   1871  1.3    207  1.3   88.9 G    0.184  0.048          #AR_L3 01_171
Tot:  34             109.676   1999  1.4    254  1.5   87.3 G    0.185  0.053          #AR_L3 01_172
Tot:  36             113.909   2147  1.5    307  1.6   85.7 G    0.161  0.052          #AR_L3 01_173
Tot:  33             114.856   1429  1.4    177  1.5   87.6 G    0.172  0.049          #AR_L3 01_174

================================================================================
 Quasi-Ionosphere-Free (QIF) Ambiguity Resolution (<2000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5    Max/RMS L3
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)       (L5 Cycles)   (L3 Cycles)
Tot:  28             457.480    948  1.3    656  1.3   30.8 G    0.460  0.164  0.099  0.029  #AR_QIF 01_168
Tot:  54             277.449   1176  1.5    778  1.5   33.8 G    0.482  0.172  0.100  0.025  #AR_QIF 01_169
Tot:  54             263.347   1066  1.3    730  1.3   31.5 G    0.494  0.183  0.100  0.030  #AR_QIF 01_170
Tot:  53             257.956   1070  1.3    774  1.3   27.7 G    0.498  0.171  0.099  0.030  #AR_QIF 01_171
Tot:  54             276.871   1226  1.4    818  1.4   33.3 G    0.494  0.162  0.099  0.030  #AR_QIF 01_172
Tot:  54             261.425   1182  1.4    836  1.5   29.3 G    0.488  0.164  0.098  0.027  #AR_QIF 01_173
Tot:  52             283.599   1154  1.4    732  1.4   36.6 G    0.492  0.165  0.100  0.027  #AR_QIF 01_174

================================================================================
 Direct L1/L2 Ambiguity Resolution (<20 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L1
                        (km)    #Amb  (mm)  #Amb  (mm)   (%)       (L1 Cycles)
Tot:   0                                    #AR_L12 01_168
Tot:   3               9.211    172  3.9      6  4.3   96.5 G    0.144  0.038          #AR_L12 01_169
Tot:   3               9.211    322  5.1      4  5.5   98.8 G    0.142  0.032          #AR_L12 01_170
Tot:   3               9.211    248  4.5      9  5.2   96.4 G    0.147  0.042          #AR_L12 01_171
Tot:   3               9.211    254  4.1      7  4.4   97.2 G    0.145  0.035          #AR_L12 01_172
Tot:   3               9.211    314  4.5      8  4.8   97.5 G    0.150  0.042          #AR_L12 01_173
Tot:   3               9.211    174  4.4      5  4.8   97.1 G    0.147  0.041          #AR_L12 01_174
```

5.a.5 CEGRN2003.

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================================================================================
 Code-Based Widelane (WL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L5 Cycles)
Tot:  28             551.315   1478   1.6   262   1.7  82.3 G     0.187  0.077      #AR_WL 03_167
Tot:  24             557.457   1371   1.6   266   1.6  80.6 G     0.186  0.075      #AR_WL 03_168
Tot:  26             474.263   1342   1.5   227   1.6  83.1 G     0.178  0.073      #AR_WL 03_169
Tot:  25             572.761   1386   1.5   280   1.6  79.8 G     0.201  0.076      #AR_WL 03_170
Tot:  22             524.710   1224   1.6   228   1.6  81.4 G     0.205  0.074      #AR_WL 03_171
Tot:  23             567.785   1251   1.8   237   1.8  81.1 G     0.189  0.077      #AR_WL 03_172

================================================================================
 Code-Based Narrowlane (NL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L1 Cycles)
Tot:  28             551.315   1478   1.3   322   1.3  78.2 G     0.148  0.046      #AR_NL 03_167
Tot:  24             557.457   1371   1.1   306   1.2  77.7 G     0.149  0.046      #AR_NL 03_168
Tot:  26             474.263   1343   1.2   297   1.3  77.9 G     0.150  0.045      #AR_NL 03_169
Tot:  25             572.761   1386   1.2   342   1.3  75.3 G     0.149  0.051      #AR_NL 03_170
Tot:  22             524.710   1225   1.3   294   1.4  76.0 G     0.149  0.048      #AR_NL 03_171
Tot:  23             567.785   1251   1.2   278   1.2  77.8 G     0.149  0.043      #AR_NL 03_172

================================================================================
 Phase-Based Widelane (L5) Ambiguity Resolution (<200 km)
================================================================================
File                 Length      Before      After     Res  Sys  Max/RMS L5
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L5 Cycles)
Tot:  45             117.082   1936   4.0    87   4.4  95.5 G     0.169  0.052      #AR_L5 03_167
Tot:  48             113.484   2819   4.1   117   4.5  95.8 G     0.200  0.049      #AR_L5 03_168
Tot:  48             116.591   2691   5.2   127   5.7  95.3 G     0.189  0.053      #AR_L5 03_169
Tot:  47             114.507   2584   4.2    73   4.6  97.2 G     0.191  0.048      #AR_L5 03_170
Tot:  49             113.466   2742   3.9    91   4.3  96.7 G     0.169  0.048      #AR_L5 03_171
Tot:  45             114.554   1999   3.3    72   3.8  96.4 G     0.188  0.049      #AR_L5 03_172

================================================================================
 Phase-Based Narrowlane (L3) Ambiguity Resolution (<200 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L1 Cycles)
Tot:  45             117.082   1936   1.4   230   1.5  88.1 G     0.159  0.052      #AR_L3 03_167
Tot:  48             113.484   2819   1.2   277   1.3  90.2 G     0.180  0.052      #AR_L3 03_168
Tot:  48             116.591   2691   1.3   285   1.4  89.4 G     0.197  0.052      #AR_L3 03_169
Tot:  47             114.507   2584   1.3   218   1.3  91.6 G     0.156  0.049      #AR_L3 03_170
Tot:  49             113.466   2742   1.3   295   1.4  89.2 G     0.198  0.053      #AR_L3 03_171
Tot:  45             114.554   1999   1.3   202   1.3  89.9 G     0.192  0.051      #AR_L3 03_172

================================================================================
 Quasi-Ionosphere-Free (QIF) Ambiguity Resolution (<2000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5    Max/RMS L3
                       (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L5 Cycles)   (L3 Cycles)
Tot:  68             290.522    974   1.4   690   1.4  29.2 G     0.479  0.170  0.098  0.034  #AR_QIF 03_167
Tot:  68             265.558   1030   1.3   752   1.3  27.0 G     0.476  0.149  0.098  0.034  #AR_QIF 03_168
Tot:  68             246.778   1004   1.4   744   1.4  25.9 G     0.492  0.151  0.097  0.032  #AR_QIF 03_169
Tot:  66             281.129    956   1.3   726   1.3  24.1 G     0.483  0.165  0.092  0.029  #AR_QIF 03_170
Tot:  66             244.772   1040   1.4   820   1.4  21.2 G     0.493  0.172  0.099  0.031  #AR_QIF 03_171
Tot:  64             272.566    832   1.3   588   1.3  29.3 G     0.493  0.154  0.099  0.031  #AR_QIF 03_172

================================================================================
 Direct L1/L2 Ambiguity Resolution (<20 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L1
                        (km)    #Amb  (mm)  #Amb  (mm)   (%)        (L1 Cycles)
Tot:   7                8.422    402   4.0    12   4.3  97.0 G     0.149  0.039      #AR_L12 03_167
Tot:   7                8.422    698   4.0     7   4.3  99.0 G     0.150  0.035      #AR_L12 03_168
Tot:   7                8.422    678   4.7     9   5.1  98.7 G     0.149  0.034      #AR_L12 03_169
Tot:   7                8.422    726   4.4    20   4.6  97.2 G     0.149  0.038      #AR_L12 03_170
Tot:   7                8.422    752   4.0    18   4.3  97.6 G     0.147  0.035      #AR_L12 03_171
Tot:   7                8.422    396   3.7     8   4.0  98.0 G     0.141  0.041      #AR_L12 03_172
```

5.a.6 CEGRN2005.

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================================================================================
 Code-Based Widelane (WL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L5 Cycles)
Tot:  29             561.491  1214  1.9    308  1.9   74.6 G     0.196  0.072      #AR_WL 05_171
Tot:  26             520.611   976  1.8    236  1.9   75.8 G     0.189  0.074      #AR_WL 05_172
Tot:  27             503.120  1006  1.8    216  1.8   78.5 G     0.176  0.072      #AR_WL 05_173
Tot:  26             519.715   931  1.8    219  1.8   76.5 G     0.174  0.075      #AR_WL 05_174
Tot:  25             514.798  1097  1.7    230  1.8   79.0 G     0.192  0.072      #AR_WL 05_175
Tot:  27             564.854  1113  1.9    285  1.9   74.4 G     0.196  0.074      #AR_WL 05_176

================================================================================
 Code-Based Narrowlane (NL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L1 Cycles)
Tot:  29             561.491  1216  1.1    333  1.2   72.6 G     0.146  0.042      #AR_NL 05_171
Tot:  26             520.611   978  1.2    274  1.3   72.0 G     0.148  0.046      #AR_NL 05_172
Tot:  27             503.120  1006  1.2    238  1.2   76.3 G     0.150  0.047      #AR_NL 05_173
Tot:  26             519.715   933  1.2    254  1.3   72.8 G     0.149  0.048      #AR_NL 05_174
Tot:  25             514.798  1099  1.1    259  1.2   76.4 G     0.150  0.044      #AR_NL 05_175
Tot:  27             564.854  1114  1.2    324  1.3   70.9 G     0.147  0.048      #AR_NL 05_176

================================================================================
 Phase-Based Widelane (L5) Ambiguity Resolution (<200 km)
================================================================================
File                 Length      Before      After     Res  Sys  Max/RMS L5
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L5 Cycles)
Tot:  72             104.477  2465  2.9     68  3.2   97.2 G     0.167  0.047      #AR_L5 05_171
Tot:   2             154.570    90  3.4     17  3.7   81.1  R    0.150  0.060      #AR_L5 05_171
Tot:  72             104.477  2555  2.9     85  3.2   96.7 GR    0.167  0.047      #AR_L5 05_171
Tot:  78             110.551  3107  2.5     94  2.7   97.0 G     0.159  0.044      #AR_L5 05_172
Tot:   2             154.570    93  2.8     15  3.1   83.9  R    0.144  0.056      #AR_L5 05_172
Tot:  78             110.551  3200  2.5    109  2.7   96.6 GR    0.159  0.044      #AR_L5 05_172
Tot:  78             111.478  3287  2.9    108  3.2   96.7 G     0.185  0.044      #AR_L5 05_173
Tot:   2             154.570    99  3.2     20  3.6   79.8  R    0.149  0.060      #AR_L5 05_173
Tot:  78             111.478  3386  2.9    128  3.2   96.2 GR    0.185  0.045      #AR_L5 05_173
Tot:  78             109.654  2991  3.6    154  3.9   94.9 G     0.184  0.050      #AR_L5 05_174
Tot:   2             154.570   105  3.8     30  4.1   71.4  R    0.155  0.058      #AR_L5 05_174
Tot:  78             109.654  3096  3.6    184  3.9   94.1 GR    0.184  0.050      #AR_L5 05_174
Tot:  80             111.131  3678  2.6    120  2.8   96.7 G     0.157  0.040      #AR_L5 05_175
Tot:   2             154.570    96  2.8     28  3.0   70.8  R    0.143  0.055      #AR_L5 05_175
Tot:  80             111.131  3774  2.6    148  2.8   96.1 GR    0.157  0.040      #AR_L5 05_175
Tot:  64             105.977  2234  2.9     90  3.2   96.0 G     0.186  0.047      #AR_L5 05_176
Tot:   1             162.417    41  3.0     22  3.2   46.3  R    0.138  0.066      #AR_L5 05_176
Tot:  64             105.977  2275  2.9    112  3.2   95.1 GR    0.186  0.047      #AR_L5 05_176

================================================================================
 Phase-Based Narrowlane (L3) Ambiguity Resolution (<200 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L1 Cycles)
Tot:  72             104.477  2465  1.3    306  1.4   87.6 G     0.191  0.057      #AR_L3 05_171
Tot:   2             154.570    90  1.2     28  1.3   68.9  R    0.140  0.070      #AR_L3 05_171
Tot:  72             104.477  2555  1.3    334  1.4   86.9 GR    0.191  0.057      #AR_L3 05_171
Tot:  78             110.551  3107  1.3    435  1.3   86.0 G     0.193  0.056      #AR_L3 05_172
Tot:   2             154.570    93  1.2     26  1.3   72.0  R    0.129  0.059      #AR_L3 05_172
Tot:  78             110.551  3200  1.3    461  1.3   85.6 GR    0.193  0.056      #AR_L3 05_172
Tot:  78             111.478  3287  1.3    397  1.3   87.9 G     0.196  0.054      #AR_L3 05_173
Tot:   2             154.570    99  1.3     26  1.3   73.7  R    0.144  0.060      #AR_L3 05_173
Tot:  78             111.478  3386  1.3    423  1.3   87.5 GR    0.196  0.054      #AR_L3 05_173
Tot:  78             109.654  2991  1.3    459  1.4   84.7 G     0.184  0.056      #AR_L3 05_174
Tot:   2             154.570   105  1.3     46  1.4   56.2  R    0.151  0.069      #AR_L3 05_174
Tot:  78             109.654  3096  1.3    505  1.4   83.7 GR    0.184  0.056      #AR_L3 05_174
Tot:  80             111.131  3678  1.3    452  1.3   87.7 G     0.199  0.053      #AR_L3 05_175
Tot:   2             154.570    96  1.3     45  1.3   53.1  R    0.135  0.076      #AR_L3 05_175
Tot:  80             111.131  3774  1.3    497  1.3   86.8 GR    0.199  0.054      #AR_L3 05_175
Tot:  64             105.977  2234  1.3    335  1.4   85.0 G     0.173  0.056      #AR_L3 05_176
Tot:   1             162.417    41  1.5     29  1.6   29.3  R    0.118  0.071      #AR_L3 05_176
Tot:  64             105.977  2275  1.3    364  1.4   84.0 GR    0.173  0.056      #AR_L3 05_176
```

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================================================================================
 Quasi-Ionosphere-Free (QIF) Ambiguity Resolution (<2000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5     Max/RMS L3
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)       (L5 Cycles)    (L3 Cycles)
Tot:  93             240.673  1122  1.3   888  1.3  20.9 G     0.489  0.146  0.100  0.035        #AR_QIF 05_171
Tot:   6             578.970   424  1.2   270  1.2  36.3  R    0.498  0.126  0.100  0.036        #AR_QIF 05_171
Tot:  94             238.933  1546  1.3  1158  1.3  25.1 GR    0.498  0.139  0.100  0.035        #AR_QIF 05_171
Tot:  95             215.327  1234  1.3  1052  1.3  14.7 G     0.485  0.154  0.099  0.034        #AR_QIF 05_172
Tot:   6             578.970   424  1.3   212  1.3  50.0  R    0.419  0.117  0.097  0.036        #AR_QIF 05_172
Tot:  95             215.327  1658  1.3  1264  1.3  23.8 GR    0.485  0.135  0.099  0.035        #AR_QIF 05_172
Tot:  94             215.696  1086  1.3   918  1.3  15.5 G     0.402  0.118  0.098  0.035        #AR_QIF 05_173
Tot:   6             511.692   466  1.3   212  1.3  54.5  R    0.450  0.105  0.100  0.033        #AR_QIF 05_173
Tot:  96             214.307  1552  1.3  1130  1.3  27.2 GR    0.450  0.110  0.100  0.034        #AR_QIF 05_173
Tot:  94             215.613  1214  1.4  1042  1.4  14.2 G     0.487  0.153  0.098  0.033        #AR_QIF 05_174
Tot:   5             648.528   416  1.3   244  1.3  41.3  R    0.491  0.165  0.099  0.035        #AR_QIF 05_174
Tot:  95             214.346  1630  1.4  1286  1.4  21.1 GR    0.491  0.160  0.099  0.034        #AR_QIF 05_174
Tot:  95             209.091  1190  1.3  1026  1.3  13.8 G     0.483  0.147  0.097  0.037        #AR_QIF 05_175
Tot:   5             648.528   384  1.3   228  1.3  40.6  R    0.423  0.125  0.099  0.038        #AR_QIF 05_175
Tot:  95             209.091  1574  1.3  1254  1.3  20.3 GR    0.483  0.137  0.099  0.038        #AR_QIF 05_175
Tot:  82             253.574  1188  1.4   960  1.4  19.2 G     0.451  0.125  0.099  0.032        #AR_QIF 05_176
Tot:   4             737.580   364  1.5   224  1.5  38.5  R    0.486  0.127  0.098  0.037        #AR_QIF 05_176
Tot:  86             245.005  1552  1.4  1184  1.4  23.7 GR    0.486  0.126  0.099  0.034        #AR_QIF 05_176

================================================================================
 Direct L1/L2 Ambiguity Resolution (<20 km)
================================================================================
                      Length      Before      After    Res  Sys  Max/RMS L1
                        (km)     #Amb  (mm)  #Amb  (mm)  (%)       (L1 Cycles)
Tot:   9              10.767   436  4.1    12  4.4  97.2 G     0.150  0.040        #AR_L12 05_171
Tot:   9              10.767   592  3.3    20  3.5  96.6 G     0.149  0.036        #AR_L12 05_172
Tot:  10               9.691   712  3.4    24  3.6  96.6 G     0.149  0.036        #AR_L12 05_173
Tot:  10               9.691   610  3.5    13  3.8  97.9 G     0.148  0.041        #AR_L12 05_174
Tot:   9              10.767   752  3.3    25  3.5  96.7 G     0.147  0.036        #AR_L12 05_175
Tot:   0                                  #AR_L12 05_176
```

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================================================================================
 Code-Based Widelane (WL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)       (L5 Cycles)
Tot:  25             603.912  1073  1.7   245  1.7  77.2 G     0.166  0.070        #AR_WL 07_169
Tot:  25             562.528   938  1.7   254  1.7  72.9 G     0.176  0.073        #AR_WL 07_170
Tot:  26             597.592   979  1.6   251  1.7  74.4 G     0.191  0.072        #AR_WL 07_171
Tot:  27             592.364  1166  1.6   243  1.7  79.2 G     0.180  0.069        #AR_WL 07_172
Tot:  28             568.780  1142  1.6   266  1.6  76.7 G     0.182  0.072        #AR_WL 07_173
Tot:  28             604.496   985  1.7   259  1.7  73.7 G     0.182  0.072        #AR_WL 07_174

================================================================================
 Code-Based Narrowlane (NL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)       (L1 Cycles)
Tot:  25             603.912  1079  1.2   271  1.3  74.9 G     0.150  0.045        #AR_NL 07_169
Tot:  25             562.528   946  1.3   286  1.3  69.8 G     0.150  0.051        #AR_NL 07_170
Tot:  26             597.592   985  1.3   282  1.3  71.4 G     0.149  0.048        #AR_NL 07_171
Tot:  27             592.364  1178  1.4   285  1.5  75.8 G     0.149  0.049        #AR_NL 07_172
Tot:  28             568.780  1147  1.3   313  1.4  72.7 G     0.149  0.051        #AR_NL 07_173
Tot:  28             604.496   990  1.3   286  1.4  71.1 G     0.149  0.049        #AR_NL 07_174

================================================================================
 Phase-Based Widelane (L5) Ambiguity Resolution (<200 km)
================================================================================
File                 Length      Before      After     Res  Sys  Max/RMS L5
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)       (L5 Cycles)
Tot:  61             110.647  2643  2.7   181  2.9  93.2 G     0.177  0.043        #AR_L5 07_169
Tot:   3             131.876    97  2.5    39  2.7  59.8  R    0.149  0.059        #AR_L5 07_169
Tot:  61             110.647  2740  2.7   220  2.9  92.0 GR    0.177  0.044        #AR_L5 07_169
Tot:  65             114.714  2716  2.8   230  3.1  91.5 G     0.182  0.047        #AR_L5 07_170
Tot:   4             135.588   115  2.8    58  3.2  49.6  R    0.143  0.067        #AR_L5 07_170
Tot:  65             114.714  2831  2.8   288  3.1  89.8 GR    0.182  0.048        #AR_L5 07_170
Tot:  63             112.328  2850  3.7   256  3.9  91.0 G     0.180  0.046        #AR_L5 07_171
Tot:   3             132.439   102  3.5    55  3.9  46.1  R    0.148  0.077        #AR_L5 07_171
Tot:  63             112.328  2952  3.7   311  3.9  89.5 GR    0.180  0.047        #AR_L5 07_171
Tot:  61             112.877  3052  3.1   215  3.3  93.0 G     0.187  0.043        #AR_L5 07_172
Tot:   4             135.971   161  2.9    56  3.1  65.2  R    0.166  0.063        #AR_L5 07_172
Tot:  61             112.877  3213  3.1   271  3.3  91.6 GR    0.187  0.044        #AR_L5 07_172
Tot:  58             115.857  2672  3.0   195  3.2  92.7 G     0.198  0.043        #AR_L5 07_173
Tot:   2             145.878    71  2.8    34  3.1  52.1  R    0.146  0.068        #AR_L5 07_173
Tot:  58             115.857  2743  3.0   229  3.2  91.7 GR    0.198  0.043        #AR_L5 07_173
Tot:  52             111.574  1688  2.6   147  2.8  91.3 G     0.150  0.044        #AR_L5 07_174
Tot:   2             145.878    75  2.9    29  3.2  61.3  R    0.146  0.060        #AR_L5 07_174
Tot:  52             111.574  1763  2.6   176  2.8  90.0 GR    0.150  0.045        #AR_L5 07_174
```

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================================================================================
 Phase-Based Narrowlane (L3) Ambiguity Resolution (<200 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L1
                        (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L1 Cycles)
Tot:  61              110.647   2643  1.4    470  1.5   82.2 G     0.188  0.057          #AR_L3 07_169
Tot:   3              131.876     97  1.5     55  1.5   43.3  R    0.168  0.069          #AR_L3 07_169
Tot:  61              110.647   2740  1.4    525  1.5   80.8 GR    0.188  0.057          #AR_L3 07_169
Tot:  65              114.714   2716  1.4    512  1.4   81.1 G     0.175  0.061          #AR_L3 07_170
Tot:   4              135.588    115  1.4     77  1.5   33.0  R    0.150  0.084          #AR_L3 07_170
Tot:  65              114.714   2831  1.4    589  1.4   79.2 GR    0.175  0.062          #AR_L3 07_170
Tot:  63              112.328   2850  1.4    519  1.4   81.8 G     0.191  0.057          #AR_L3 07_171
Tot:   3              132.439    102  1.5     72  1.6   29.4  R    0.156  0.083          #AR_L3 07_171
Tot:  63              112.328   2952  1.4    591  1.4   80.0 GR    0.191  0.057          #AR_L3 07_171
Tot:  61              112.877   3052  1.5    558  1.6   81.7 G     0.204  0.056          #AR_L3 07_172
Tot:   4              135.971    161  1.5     81  1.6   49.7  R    0.146  0.079          #AR_L3 07_172
Tot:  61              112.877   3213  1.5    639  1.6   80.1 GR    0.204  0.057          #AR_L3 07_172
Tot:  58              115.857   2672  1.5    484  1.5   81.9 G     0.200  0.058          #AR_L3 07_173
Tot:   2              145.878     71  1.4     45  1.5   36.6  R    0.138  0.064          #AR_L3 07_173
Tot:  58              115.857   2743  1.5    529  1.5   80.7 GR    0.200  0.058          #AR_L3 07_173
Tot:  52              111.574   1688  1.6    358  1.6   78.8 G     0.193  0.061          #AR_L3 07_174
Tot:   2              145.878     75  1.4     42  1.5   44.0  R    0.151  0.073          #AR_L3 07_174
Tot:  52              111.574   1763  1.6    400  1.6   77.3 GR    0.193  0.062          #AR_L3 07_174

================================================================================
 Quasi-Ionosphere-Free (QIF) Ambiguity Resolution (<2000 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L5    Max/RMS L3
                        (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L5 Cycles)   (L3 Cycles)
Tot:  81              258.799   1376  1.4   1228  1.4   10.8 G     0.479  0.154  0.099  0.036  #AR_QIF 07_169
Tot:   9              438.864    618  1.4    376  1.4   39.2  R    0.462  0.098  0.099  0.038  #AR_QIF 07_169
Tot:  82              257.117   1994  1.4   1604  1.4   19.6 GR    0.479  0.122  0.099  0.038  #AR_QIF 07_169
Tot:  83              244.140   1442  1.4   1318  1.4    8.6 G     0.366  0.134  0.089  0.037  #AR_QIF 07_170
Tot:  11              451.418    720  1.5    448  1.5   37.8  R    0.485  0.122  0.100  0.039  #AR_QIF 07_170
Tot:  84              242.867   2162  1.4   1766  1.4   18.3 GR    0.485  0.126  0.100  0.039  #AR_QIF 07_170
Tot:  83              258.979   1430  1.4   1252  1.4   12.4 G     0.442  0.135  0.098  0.035  #AR_QIF 07_171
Tot:   9              446.727    892  1.5    512  1.5   42.6  R    0.484  0.128  0.100  0.038  #AR_QIF 07_171
Tot:  83              258.979   2322  1.4   1764  1.4   24.0 GR    0.484  0.130  0.100  0.037  #AR_QIF 07_171
Tot:  84              263.352   1600  1.5   1476  1.5    7.8 G     0.454  0.136  0.099  0.035  #AR_QIF 07_172
Tot:  11              430.564   1068  1.5    708  1.5   33.7  R    0.491  0.117  0.099  0.039  #AR_QIF 07_172
Tot:  84              263.352   2668  1.5   2184  1.5   18.1 GR    0.491  0.122  0.099  0.038  #AR_QIF 07_172
Tot:  80              268.794   1440  1.5   1282  1.5   11.0 G     0.470  0.124  0.100  0.034  #AR_QIF 07_173
Tot:   9              502.541   1024  1.4    598  1.4   41.6  R    0.456  0.100  0.100  0.035  #AR_QIF 07_173
Tot:  80              268.794   2464  1.5   1880  1.5   23.7 GR    0.470  0.107  0.100  0.035  #AR_QIF 07_173
Tot:  75              292.610   1206  1.6   1054  1.6   12.6 G     0.496  0.149  0.099  0.037  #AR_QIF 07_174
Tot:  10              454.760   1348  1.4    710  1.4   47.3  R    0.498  0.112  0.100  0.034  #AR_QIF 07_174
Tot:  76              289.005   2554  1.6   1764  1.6   30.9 GR    0.498  0.120  0.100  0.035  #AR_QIF 07_174

================================================================================
 Direct L1/L2 Ambiguity Resolution (<20 km)
================================================================================
                       Length      Before      After     Res  Sys  Max/RMS L1
                         (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L1 Cycles)
Tot:  10                9.694    620  4.0     36  4.2   94.2 G     0.148  0.033          #AR_L12 07_169
Tot:  10                9.694    720  4.2     35  4.4   95.1 G     0.144  0.038          #AR_L12 07_170
Tot:  10                9.694    698  4.5     36  4.9   94.8 G     0.166  0.038          #AR_L12 07_171
Tot:  10                9.694    846  4.0     34  4.1   96.0 G     0.168  0.036          #AR_L12 07_172
Tot:   9               10.767    722  4.6     42  4.8   94.2 G     0.176  0.040          #AR_L12 07_173
Tot:  10                9.694    364  3.4     19  3.6   94.8 G     0.151  0.035          #AR_L12 07_174
```

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================================================================================
 Code-Based Widelane (WL) Ambiguity Resolution (<6000 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L5
                        (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L5 Cycles)
Tot:  27              562.503   1181  1.4    338  1.4   71.4 G     0.192  0.071          #AR_WL 09_173
Tot:  29              514.819   1186  1.4    335  1.4   71.8 G     0.173  0.069          #AR_WL 09_174
Tot:  27              550.959   1096  1.4    320  1.4   70.8 G     0.178  0.073          #AR_WL 09_175
Tot:  26              563.820    986  1.3    309  1.3   68.7 G     0.190  0.071          #AR_WL 09_176
Tot:  24              539.780    936  1.3    268  1.4   71.4 G     0.168  0.072          #AR_WL 09_177
Tot:  26              575.488   1006  1.4    259  1.4   74.3 G     0.173  0.070          #AR_WL 09_178

================================================================================
 Code-Based Narrowlane (NL) Ambiguity Resolution (<6000 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L1
                        (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L1 Cycles)
Tot:  27              562.503   1195  1.3    381  1.3   68.1 G     0.149  0.048          #AR_NL 09_173
Tot:  29              514.819   1259  1.3    446  1.4   64.6 G     0.149  0.053          #AR_NL 09_174
Tot:  27              550.959   1138  1.3    400  1.4   64.9 G     0.149  0.052          #AR_NL 09_175
Tot:  26              563.820   1003  1.5    388  1.6   61.3 G     0.150  0.057          #AR_NL 09_176
Tot:  24              539.780    949  1.4    312  1.4   67.1 G     0.149  0.052          #AR_NL 09_177
Tot:  26              575.488   1020  1.4    320  1.4   68.6 G     0.150  0.049          #AR_NL 09_178
```

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================================================================================
 Phase-Based Widelane (L5) Ambiguity Resolution (<200 km)
================================================================================
File                    Length      Before      After     Res  Sys  Max/RMS L5
                          (km)     #Amb  (mm)  #Amb  (mm)   (%)        (L5 Cycles)
Tot:  53               107.890  2132  2.2   225  2.4  89.4 G    0.185  0.038          #AR_L5 09_173
Tot:  16               132.093   705  2.3   216  2.5  69.4  R   0.156  0.047          #AR_L5 09_173
Tot:  53               107.890  2837  2.2   441  2.4  84.5 GR   0.185  0.040          #AR_L5 09_173
Tot:  53               109.964  2501  2.3   198  2.5  92.1 G    0.166  0.041          #AR_L5 09_174
Tot:  16               131.402   679  2.5   236  2.7  65.2  R   0.148  0.046          #AR_L5 09_174
Tot:  53               109.964  3180  2.3   434  2.5  86.4 GR   0.166  0.042          #AR_L5 09_174
Tot:  54               114.884  2271  3.0   216  3.2  90.5 G    0.150  0.041          #AR_L5 09_175
Tot:  18               138.133   776  3.5   269  3.7  65.3  R   0.155  0.053          #AR_L5 09_175
Tot:  54               114.884  3047  3.0   485  3.2  84.1 GR   0.155  0.043          #AR_L5 09_175
Tot:  56               110.091  2157  2.2   227  2.4  89.5 G    0.157  0.037          #AR_L5 09_176
Tot:  19               132.562   842  2.7   261  2.9  69.0  R   0.150  0.049          #AR_L5 09_176
Tot:  56               110.091  2999  2.2   488  2.4  83.7 GR   0.157  0.040          #AR_L5 09_176
Tot:  57               107.588  2209  1.8   218  2.0  90.1 G    0.150  0.034          #AR_L5 09_177
Tot:  20               130.436   896  2.0   246  2.2  72.5  R   0.145  0.042          #AR_L5 09_177
Tot:  57               107.588  3105  1.8   464  2.0  85.1 GR   0.150  0.036          #AR_L5 09_177
Tot:  53               108.020  1951  2.2   164  2.5  91.6 G    0.175  0.036          #AR_L5 09_178
Tot:  20               130.267   826  2.5   245  2.7  70.3  R   0.143  0.048          #AR_L5 09_178
Tot:  53               108.020  2777  2.2   409  2.5  85.3 GR   0.175  0.039          #AR_L5 09_178
================================================================================
 Phase-Based Narrowlane (L3) Ambiguity Resolution (<200 km)
================================================================================
                        Length      Before      After     Res  Sys  Max/RMS L1
                          (km)     #Amb  (mm)  #Amb  (mm)   (%)        (L1 Cycles)
Tot:  53               107.890  2132  1.4   428  1.4  79.9 G    0.182  0.053          #AR_L3 09_173
Tot:  16               132.093   705  1.3   274  1.4  61.1  R   0.194  0.056          #AR_L3 09_173
Tot:  53               107.890  2837  1.4   702  1.4  75.3 GR   0.194  0.053          #AR_L3 09_173
Tot:  53               109.964  2501  1.4   457  1.5  81.7 G    0.189  0.055          #AR_L3 09_174
Tot:  16               131.402   679  1.4   316  1.5  53.5  R   0.179  0.065          #AR_L3 09_174
Tot:  53               109.964  3180  1.4   773  1.5  75.7 GR   0.189  0.057          #AR_L3 09_174
Tot:  54               114.884  2271  1.4   413  1.5  81.8 G    0.191  0.054          #AR_L3 09_175
Tot:  18               138.133   776  1.4   355  1.4  54.3  R   0.149  0.067          #AR_L3 09_175
Tot:  54               114.884  3047  1.4   768  1.5  74.8 GR   0.191  0.057          #AR_L3 09_175
Tot:  56               110.091  2157  1.5   473  1.6  78.1 G    0.189  0.059          #AR_L3 09_176
Tot:  19               132.562   842  1.5   369  1.6  56.2  R   0.162  0.072          #AR_L3 09_176
Tot:  56               110.091  2999  1.5   842  1.6  71.9 GR   0.189  0.062          #AR_L3 09_176
Tot:  57               107.588  2209  1.5   436  1.6  80.3 G    0.178  0.056          #AR_L3 09_177
Tot:  20               130.436   896  1.4   366  1.5  59.2  R   0.181  0.069          #AR_L3 09_177
Tot:  57               107.588  3105  1.5   802  1.6  74.2 GR   0.181  0.059          #AR_L3 09_177
Tot:  53               108.020  1951  1.4   347  1.5  82.2 G    0.172  0.056          #AR_L3 09_178
Tot:  20               130.267   826  1.4   318  1.4  61.5  R   0.159  0.064          #AR_L3 09_178
Tot:  53               108.020  2777  1.4   665  1.5  76.1 GR   0.172  0.058          #AR_L3 09_178
================================================================================
 Quasi-Ionosphere-Free (QIF) Ambiguity Resolution (<2000 km)
================================================================================
                        Length      Before      After     Res  Sys  Max/RMS L5    Max/RMS L3
                          (km)     #Amb  (mm)  #Amb  (mm)   (%)       (L5 Cycles)   (L3 Cycles)
Tot:  77               264.736  1574  1.4  1470  1.4   6.6 G    0.435  0.123  0.098  0.038  #AR_QIF 09_173
Tot:  31               355.987  2082  1.3  1256  1.3  39.7  R   0.478  0.090  0.100  0.031  #AR_QIF 09_173
Tot:  78               263.286  3656  1.4  2726  1.4  25.4 GR   0.478  0.094  0.100  0.032  #AR_QIF 09_173
Tot:  77               258.270  1536  1.5  1434  1.5   6.6 G    0.496  0.117  0.097  0.031  #AR_QIF 09_174
Tot:  31               331.567  2024  1.4  1316  1.4  35.0  R   0.491  0.092  0.099  0.032  #AR_QIF 09_174
Tot:  78               256.492  3560  1.5  2750  1.5  22.8 GR   0.496  0.096  0.099  0.032  #AR_QIF 09_174
Tot:  75               267.183  1398  1.4  1298  1.4   7.2 G    0.489  0.151  0.095  0.032  #AR_QIF 09_175
Tot:  31               330.503  2076  1.4  1382  1.4  33.4  R   0.477  0.102  0.100  0.033  #AR_QIF 09_175
Tot:  76               265.051  3474  1.4  2680  1.4  22.9 GR   0.489  0.110  0.100  0.033  #AR_QIF 09_175
Tot:  78               258.435  1662  1.6  1576  1.6   5.2 G    0.412  0.138  0.094  0.038  #AR_QIF 09_176
Tot:  31               306.050  2044  1.6  1398  1.6  31.6  R   0.430  0.076  0.100  0.034  #AR_QIF 09_176
Tot:  79               256.590  3706  1.6  2974  1.6  19.8 GR   0.430  0.086  0.100  0.034  #AR_QIF 09_176
Tot:  78               238.560  1456  1.5  1342  1.5   7.8 G    0.446  0.114  0.095  0.031  #AR_QIF 09_177
Tot:  32               291.206  2054  1.5  1362  1.5  33.7  R   0.472  0.075  0.099  0.036  #AR_QIF 09_177
Tot:  79               236.934  3510  1.5  2704  1.5  23.0 GR   0.472  0.081  0.099  0.035  #AR_QIF 09_177
Tot:  73               273.375  1290  1.5  1190  1.5   7.8 G    0.454  0.133  0.100  0.038  #AR_QIF 09_178
Tot:  32               301.872  1894  1.4  1190  1.4  37.2  R   0.494  0.095  0.100  0.035  #AR_QIF 09_178
Tot:  77               263.874  3184  1.5  2380  1.5  25.3 GR   0.494  0.101  0.100  0.036  #AR_QIF 09_178
================================================================================
 Direct L1/L2 Ambiguity Resolution (<20 km)
================================================================================
                         Length      Before      After     Res  Sys  Max/RMS L1
                           (km)     #Amb  (mm)  #Amb  (mm)   (%)        (L1 Cycles)
Tot:   4                 4.927   312  2.8    12  3.0  96.2 G    0.145  0.035          #AR_L12 09_173
Tot:   1                 0.033    42  1.7     1  1.9  97.6  R   0.057  0.024          #AR_L12 09_173
Tot:   4                 4.927   354  2.8    13  3.0  96.3 GR   0.145  0.034          #AR_L12 09_173
Tot:   3                 6.568   264  3.2    16  3.6  93.9 G    0.172  0.038          #AR_L12 09_174
Tot:   1                 0.033    90  1.7     4  2.2  95.6  R   0.112  0.034          #AR_L12 09_174
Tot:   3                 6.568   354  3.2    20  3.6  94.4 GR   0.172  0.037          #AR_L12 09_174
Tot:   3                 6.568   238  3.0     8  3.4  96.6 G    0.156  0.039          #AR_L12 09_175
Tot:   1                 0.033    88  2.1     3  2.8  96.6  R   0.141  0.048          #AR_L12 09_175
Tot:   3                 6.568   326  3.0    11  3.4  96.6 GR   0.156  0.041          #AR_L12 09_175
Tot:   4                 4.927   296  3.6    20  4.0  93.2 G    0.136  0.036          #AR_L12 09_176
Tot:   1                 0.033    96  2.5     7  3.8  92.7  R   0.150  0.068          #AR_L12 09_176
Tot:   4                 4.927   392  3.6    27  4.0  93.1 GR   0.150  0.046          #AR_L12 09_176
Tot:   3                 6.559   236  3.2    12  3.3  94.9 G    0.178  0.035          #AR_L12 09_177
Tot:   4                 4.927   276  3.2    12  3.4  95.7 G    0.137  0.033          #AR_L12 09_178
Tot:   1                 0.033    44  1.7     2  2.1  95.5  R   0.137  0.052          #AR_L12 09_178
Tot:   4                 4.927   320  3.2    14  3.4  95.6 GR   0.137  0.036          #AR_L12 09_178
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================================================================================
 Code-Based Widelane (WL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5
                       (km)     #Amb (mm)  #Amb (mm)   (%)        (L5 Cycles)
Tot:  23             568.815  1287  1.4   437  1.4   66.0 G     0.196  0.075          #AR_WL 11_171
Tot:  21             605.055  1182  1.4   402  1.4   66.0 G     0.168  0.079          #AR_WL 11_172
Tot:  23             569.727  1281  1.4   450  1.5   64.9 G     0.179  0.076          #AR_WL 11_173
Tot:  22             569.785  1236  1.5   389  1.5   68.5 G     0.193  0.076          #AR_WL 11_174
Tot:  23             569.206  1244  1.5   365  1.5   70.7 G     0.207  0.076          #AR_WL 11_175
Tot:  22             588.490  1280  1.4   439  1.5   65.7 G     0.191  0.076          #AR_WL 11_176

================================================================================
 Code-Based Narrowlane (NL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)     #Amb (mm)  #Amb (mm)   (%)        (L1 Cycles)
Tot:  23             568.815  1337  1.2   548  1.2   59.0 G     0.143  0.042          #AR_NL 11_171
Tot:  21             605.055  1199  1.2   471  1.3   60.7 G     0.150  0.041          #AR_NL 11_172
Tot:  23             569.727  1298  1.3   537  1.4   58.6 G     0.146  0.043          #AR_NL 11_173
Tot:  22             569.785  1276  1.3   476  1.3   62.7 G     0.147  0.044          #AR_NL 11_174
Tot:  23             569.206  1257  1.3   431  1.3   65.7 G     0.150  0.044          #AR_NL 11_175
Tot:  22             588.490  1298  1.3   505  1.3   61.1 G     0.150  0.046          #AR_NL 11_176

================================================================================
 Phase-Based Widelane (L5) Ambiguity Resolution (<200 km)
================================================================================
File                 Length      Before      After     Res  Sys  Max/RMS L5
                       (km)     #Amb (mm)  #Amb (mm)   (%)        (L5 Cycles)
Tot:  36             117.894  2081  3.2   228  3.5   89.0 G     0.165  0.043          #AR_L5 11_171
Tot:  23             121.418  1566  3.2   493  3.5   68.5  R    0.169  0.053          #AR_L5 11_171
Tot:  36             117.894  3647  3.2   721  3.5   80.2 GR    0.169  0.047          #AR_L5 11_171
Tot:  36             121.194  2006  3.9   261  4.2   87.0 G     0.180  0.044          #AR_L5 11_172
Tot:  23             129.039  1577  4.1   503  4.4   68.1  R    0.150  0.056          #AR_L5 11_172
Tot:  36             121.194  3583  3.9   764  4.2   78.7 GR    0.180  0.049          #AR_L5 11_172
Tot:  37             122.977  2024  4.1   261  4.4   87.1 G     0.162  0.047          #AR_L5 11_173
Tot:  24             128.932  1560  4.1   502  4.4   67.8  R    0.182  0.056          #AR_L5 11_173
Tot:  37             122.977  3584  4.1   763  4.4   78.7 GR    0.182  0.051          #AR_L5 11_173
Tot:  39             123.193  2096  3.4   235  3.7   88.8 G     0.166  0.046          #AR_L5 11_174
Tot:  24             128.932  1519  3.3   499  3.7   67.1  R    0.150  0.058          #AR_L5 11_174
Tot:  39             123.193  3615  3.4   734  3.7   79.7 GR    0.166  0.050          #AR_L5 11_174
Tot:  37             124.084  2018  3.5   226  3.8   88.8 G     0.150  0.046          #AR_L5 11_175
Tot:  23             131.773  1435  3.5   482  3.8   66.4  R    0.161  0.052          #AR_L5 11_175
Tot:  37             124.084  3453  3.5   708  3.8   79.5 GR    0.161  0.048          #AR_L5 11_175
Tot:  36             122.074  1977  3.5   276  3.7   86.0 G     0.163  0.045          #AR_L5 11_176
Tot:  22             128.833  1467  3.4   434  3.7   70.4  R    0.153  0.056          #AR_L5 11_176
Tot:  36             122.074  3444  3.5   710  3.7   79.4 GR    0.163  0.049          #AR_L5 11_176

================================================================================
 Phase-Based Narrowlane (L3) Ambiguity Resolution (<200 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)     #Amb (mm)  #Amb (mm)   (%)        (L1 Cycles)
Tot:  36             117.894  2081  1.3   355  1.3   82.9 G     0.163  0.047          #AR_L3 11_171
Tot:  23             121.418  1566  1.3   647  1.4   58.7  R    0.190  0.064          #AR_L3 11_171
Tot:  36             117.894  3647  1.3  1002  1.3   72.5 GR    0.190  0.053          #AR_L3 11_171
Tot:  36             121.194  2006  1.3   380  1.4   81.1 G     0.161  0.044          #AR_L3 11_172
Tot:  23             129.039  1577  1.3   702  1.4   55.5  R    0.151  0.065          #AR_L3 11_172
Tot:  36             121.194  3583  1.3  1082  1.4   69.8 GR    0.161  0.052          #AR_L3 11_172
Tot:  37             122.977  2024  1.3   388  1.4   80.8 G     0.186  0.046          #AR_L3 11_173
Tot:  24             128.932  1560  1.4   673  1.4   56.9  R    0.168  0.070          #AR_L3 11_173
Tot:  37             122.977  3584  1.3  1061  1.4   70.4 GR    0.186  0.055          #AR_L3 11_173
Tot:  39             123.193  2096  1.4   373  1.5   82.2 G     0.177  0.049          #AR_L3 11_174
Tot:  24             128.932  1519  1.4   670  1.4   55.9  R    0.187  0.068          #AR_L3 11_174
Tot:  39             123.193  3615  1.4  1043  1.5   71.1 GR    0.187  0.056          #AR_L3 11_174
Tot:  37             124.084  2018  1.4   373  1.5   81.5 G     0.173  0.049          #AR_L3 11_175
Tot:  23             131.773  1435  1.4   634  1.4   55.8  R    0.182  0.067          #AR_L3 11_175
Tot:  37             124.084  3453  1.4  1007  1.5   70.8 GR    0.182  0.055          #AR_L3 11_175
Tot:  36             122.074  1977  1.3   396  1.3   80.0 G     0.190  0.046          #AR_L3 11_176
Tot:  22             128.833  1467  1.3   552  1.3   62.4  R    0.184  0.062          #AR_L3 11_176
Tot:  36             122.074  3444  1.3   948  1.3   72.5 GR    0.190  0.052          #AR_L3 11_176
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================================================================================
 Quasi-Ionosphere-Free (QIF) Ambiguity Resolution (<2000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5     Max/RMS L3
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L5 Cycles)    (L3 Cycles)
Tot:  57             297.390  1710  1.3   1374  1.3   19.6 G     0.493  0.153   0.100  0.034   #AR_QIF 11_171
Tot:  37             306.535  2896  1.3   2084  1.3   28.0  R    0.484  0.122   0.099  0.032   #AR_QIF 11_171
Tot:  57             297.390  4606  1.3   3458  1.3   24.9 GR    0.493  0.132   0.100  0.032   #AR_QIF 11_171
Tot:  55             303.362  1628  1.3   1314  1.4   19.3 G     0.487  0.137   0.098  0.030   #AR_QIF 11_172
Tot:  36             309.169  2812  1.4   1990  1.4   29.2  R    0.485  0.134   0.099  0.030   #AR_QIF 11_172
Tot:  55             303.362  4440  1.3   3304  1.4   25.6 GR    0.487  0.135   0.099  0.030   #AR_QIF 11_172
Tot:  56             303.680  1762  1.4   1424  1.4   19.2 G     0.474  0.135   0.100  0.034   #AR_QIF 11_173
Tot:  38             316.646  3108  1.4   2204  1.4   29.1  R    0.489  0.131   0.100  0.035   #AR_QIF 11_173
Tot:  57             299.798  4870  1.4   3628  1.4   25.5 GR    0.489  0.132   0.100  0.035   #AR_QIF 11_173
Tot:  57             290.966  1534  ****  1268  ****  17.3 G     0.473  0.140   0.100  0.033   #AR_QIF 11_174
Tot:  38             298.381  3018  ****  2268  ****  24.9  R    0.500  0.137   0.100  0.034   #AR_QIF 11_174
Tot:  57             290.966  4552  ****  3536  ****  22.3 GR    0.500  0.138   0.100  0.034   #AR_QIF 11_174
Tot:  56             304.198  1522  1.4   1298  1.4   14.7 G     0.448  0.128   0.098  0.030   #AR_QIF 11_175
Tot:  37             308.929  2646  1.4   1914  1.4   27.7  R    0.497  0.124   0.100  0.033   #AR_QIF 11_175
Tot:  57             300.307  4168  1.4   3212  1.4   22.9 GR    0.497  0.125   0.100  0.032   #AR_QIF 11_175
Tot:  56             302.845  1722  1.3   1442  1.4   16.3 G     0.496  0.133   0.096  0.033   #AR_QIF 11_176
Tot:  36             296.793  2618  1.3   1886  1.4   28.0  R    0.495  0.123   0.100  0.032   #AR_QIF 11_176
Tot:  56             302.845  4340  1.3   3328  1.4   23.3 GR    0.496  0.126   0.100  0.032   #AR_QIF 11_176

================================================================================
 Direct L1/L2 Ambiguity Resolution (<20 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L1
                        (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L1 Cycles)
Tot:   1               0.033   108  0.8    16  0.9   85.2 G     0.036  0.008   #AR_L12 11_171
Tot:   1               0.033   112  0.8    16  0.9   85.7 G     0.076  0.013   #AR_L12 11_172
Tot:   1               0.033   112  0.9    16  0.9   85.7 G     0.034  0.008   #AR_L12 11_173
Tot:   1               0.033   120  0.8    16  0.9   86.7 G     0.029  0.007   #AR_L12 11_174
Tot:   1               0.033   134  0.9    16  0.9   88.1 G     0.063  0.012   #AR_L12 11_175
Tot:   1               0.033    78  0.9    12  0.9   84.6 G     0.067  0.015   #AR_L12 11_176
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================================================================================
 Code-Based Widelane (WL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L5 Cycles)
Tot:  23             648.317  1686  1.3    861  1.3   48.9 G     0.196  0.076   #AR_WL 13_167
Tot:  22             648.791  1796  1.2    972  1.3   45.9 G     0.179  0.076   #AR_WL 13_168
Tot:  23             592.787  1848  1.2    992  1.3   46.3 G     0.207  0.073   #AR_WL 13_169
Tot:  23             571.725  1796  1.3    991  1.3   44.8 G     0.185  0.076   #AR_WL 13_170
Tot:  24             580.322  1859  1.3   1049  1.3   43.6 G     0.193  0.077   #AR_WL 13_171
Tot:  21             637.864  1666  1.2    902  1.2   45.9 G     0.185  0.074   #AR_WL 13_172
Tot:  23             647.904  1882  1.2   1062  1.3   43.6 G     0.194  0.073   #AR_WL 13_173

================================================================================
 Code-Based Narrowlane (NL) Ambiguity Resolution (<6000 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L1
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L1 Cycles)
Tot:  23             648.317  1704  1.4    931  1.4   45.4 G     0.149  0.050   #AR_NL 13_167
Tot:  22             648.791  1798  1.3   1026  1.4   42.9 G     0.149  0.048   #AR_NL 13_168
Tot:  21             592.787  1850  1.4   1039  1.4   43.8 G     0.150  0.052   #AR_NL 13_169
Tot:  22             571.725  1812  1.4   1053  1.4   41.9 G     0.149  0.052   #AR_NL 13_170
Tot:  23             580.322  1875  1.5   1127  1.5   39.9 G     0.150  0.051   #AR_NL 13_171
Tot:  20             637.864  1683  1.5    992  1.6   41.1 G     0.154  0.052   #AR_NL 13_172
Tot:  22             647.904  1894  1.5   1143  1.6   39.7 G     0.150  0.052   #AR_NL 13_173

================================================================================
 Phase-Based Widelane (L5) Ambiguity Resolution (<200 km)
================================================================================
                     Length      Before      After     Res  Sys  Max/RMS L5
                       (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L5 Cycles)
Tot:  71              96.748  4578  6.4   1339  6.6   70.8 G     0.195  0.054   #AR_L5 13_167
Tot:  36             129.071  2674  7.5   1002  7.7   62.5  R    0.202  0.063   #AR_L5 13_167
Tot:  71              96.748  7252  6.4   2341  6.6   67.7 GR    0.202  0.057   #AR_L5 13_167
Tot:  75              94.757  4725  6.9   1515  7.2   67.9 G     0.190  0.057   #AR_L5 13_168
Tot:  36             127.552  2716  7.9   1209  8.3   55.5  R    0.190  0.069   #AR_L5 13_168
Tot:  75              94.757  7441  6.9   2724  7.2   63.4 GR    0.190  0.061   #AR_L5 13_168
Tot:  63              94.635  4915  4.9   1349  5.2   72.6 G     0.194  0.053   #AR_L5 13_169
Tot:  28             126.754  2509  5.6    891  5.9   64.5  R    0.199  0.065   #AR_L5 13_169
Tot:  64              94.635  7424  4.9   2240  5.2   69.8 GR    0.199  0.057   #AR_L5 13_169
Tot:  58              95.701  4523  4.1   1199  4.4   73.5 G     0.204  0.050   #AR_L5 13_170
Tot:  27             128.103  2639  4.8    819  5.1   69.0  R    0.182  0.061   #AR_L5 13_170
Tot:  58              95.701  7162  4.1   2018  4.4   71.8 GR    0.204  0.054   #AR_L5 13_170
Tot:  61              93.223  4943  4.1   1322  4.4   73.3 G     0.199  0.052   #AR_L5 13_171
Tot:  27             128.103  2632  4.8    895  5.2   66.0  R    0.181  0.064   #AR_L5 13_171
Tot:  61              93.223  7575  4.1   2217  4.4   70.7 GR    0.199  0.056   #AR_L5 13_171
Tot:  63              94.602  4824  3.6   1174  3.8   75.7 G     0.206  0.049   #AR_L5 13_172
Tot:  27             126.506  2712  4.1    874  4.3   67.8  R    0.187  0.061   #AR_L5 13_172
Tot:  63              94.602  7536  3.6   2048  3.8   72.8 GR    0.206  0.054   #AR_L5 13_172
Tot:  62              95.265  4782  3.7   1296  3.9   72.9 G     0.190  0.049   #AR_L5 13_173
Tot:  27             127.552  2702  4.3    922  4.6   65.9  R    0.205  0.061   #AR_L5 13_173
Tot:  62              95.265  7484  3.7   2218  3.9   70.4 GR    0.205  0.054   #AR_L5 13_173
```

```
================================================================================
 Phase-Based Narrowlane (L3) Ambiguity Resolution (<200 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L1
                        (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L1 Cycles)
Tot:  71               96.748   4578  1.5   1708  1.5   62.7 G     0.204  0.051                  #AR_L3 13_167
Tot:  36              129.071   2674  1.4   1234  1.5   53.9  R    0.186  0.062                  #AR_L3 13_167
Tot:  71               96.748   7252  1.5   2942  1.5   59.4 GR    0.204  0.055                  #AR_L3 13_167
Tot:  75               94.757   4725  1.5   1823  1.5   61.4 G     0.183  0.052                  #AR_L3 13_168
Tot:  36              127.552   2716  1.4   1438  1.5   47.1  R    0.180  0.065                  #AR_L3 13_168
Tot:  75               94.757   7441  1.5   3261  1.5   56.2 GR    0.183  0.056                  #AR_L3 13_168
Tot:  63               94.635   4915  1.5   1796  1.6   63.5 G     0.206  0.054                  #AR_L3 13_169
Tot:  28              126.754   2509  1.5   1174  1.5   53.2  R    0.188  0.066                  #AR_L3 13_169
Tot:  64               94.635   7424  1.5   2970  1.6   60.0 GR    0.206  0.058                  #AR_L3 13_169
Tot:  58               95.701   4523  1.6   1672  1.6   63.0 G     0.198  0.056                  #AR_L3 13_170
Tot:  27              128.103   2639  1.5   1159  1.6   56.1  R    0.174  0.065                  #AR_L3 13_170
Tot:  58               95.701   7162  1.6   2831  1.6   60.5 GR    0.198  0.059                  #AR_L3 13_170
Tot:  61               93.223   4943  1.6   1873  1.7   62.1 G     0.205  0.056                  #AR_L3 13_171
Tot:  27              128.103   2632  1.6   1251  1.6   52.5  R    0.178  0.067                  #AR_L3 13_171
Tot:  61               93.223   7575  1.6   3124  1.7   58.8 GR    0.205  0.060                  #AR_L3 13_171
Tot:  63               94.602   4824  1.6   1747  1.6   63.8 G     0.205  0.057                  #AR_L3 13_172
Tot:  27              126.506   2712  1.5   1281  1.6   52.8  R    0.200  0.067                  #AR_L3 13_172
Tot:  63               94.602   7536  1.6   3028  1.6   59.8 GR    0.205  0.060                  #AR_L3 13_172
Tot:  62               95.265   4782  1.6   1838  1.7   61.6 G     0.209  0.056                  #AR_L3 13_173
Tot:  27              127.552   2702  1.6   1299  1.6   51.9  R    0.182  0.064                  #AR_L3 13_173
Tot:  62               95.265   7484  1.6   3137  1.7   58.1 GR    0.209  0.059                  #AR_L3 13_173

================================================================================
 Quasi-Ionosphere-Free (QIF) Ambiguity Resolution (<2000 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L5    Max/RMS L3
                        (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L5 Cycles)   (L3 Cycles)
Tot:  92              229.695   5128  1.5   4712  1.5    8.1 G     0.498  0.171  0.099  0.035  #AR_QIF 13_167
Tot:  52              297.134   4832  1.5   3702  1.5   23.4  R    0.498  0.127  0.100  0.033  #AR_QIF 13_167
Tot:  92              229.695   9960  1.5   8414  1.5   15.5 GR    0.498  0.141  0.100  0.034  #AR_QIF 13_167
Tot:  95              218.424   5522  1.5   5116  1.5    7.4 G     0.500  0.169  0.100  0.034  #AR_QIF 13_168
Tot:  52              297.908   5380  1.5   4294  1.5   20.2  R    0.500  0.144  0.100  0.034  #AR_QIF 13_168
Tot:  95              218.424  10902  1.5   9410  1.5   13.7 GR    0.500  0.151  0.100  0.034  #AR_QIF 13_168
Tot:  82              208.639   5460  1.6   5200  1.6    4.8 G     0.485  0.164  0.099  0.036  #AR_QIF 13_169
Tot:  42              292.642   4920  1.5   4034  1.5   18.0  R    0.500  0.132  0.100  0.035  #AR_QIF 13_169
Tot:  83              208.639  10380  1.6   9234  1.6   11.0 GR    0.500  0.140  0.100  0.035  #AR_QIF 13_169
Tot:  77              209.177   5270  1.6   4996  1.6    5.2 G     0.483  0.158  0.100  0.035  #AR_QIF 13_170
Tot:  42              285.130   4886  1.6   4018  1.6   17.8  R    0.500  0.128  0.100  0.033  #AR_QIF 13_170
Tot:  78              209.177  10156  1.6   9014  1.6   11.2 GR    0.500  0.136  0.100  0.033  #AR_QIF 13_170
Tot:  81              209.560   5772  1.7   5536  1.7    4.1 G     0.495  0.156  0.098  0.037  #AR_QIF 13_171
Tot:  42              285.130   4936  1.6   3984  1.6   19.3  R    0.498  0.139  0.100  0.034  #AR_QIF 13_171
Tot:  81              209.560  10708  1.7   9520  1.7   11.1 GR    0.498  0.142  0.100  0.035  #AR_QIF 13_171
Tot:  82              210.056   5414  1.6   5176  1.6    4.4 G     0.493  0.162  0.099  0.036  #AR_QIF 13_172
Tot:  42              284.024   5056  1.6   4104  1.6   18.8  R    0.499  0.134  0.100  0.035  #AR_QIF 13_172
Tot:  82              210.056  10470  1.6   9280  1.6   11.4 GR    0.499  0.140  0.100  0.035  #AR_QIF 13_172
Tot:  82              223.138   5808  1.6   5592  1.6    3.7 G     0.491  0.159  0.100  0.039  #AR_QIF 13_173
Tot:  42              289.620   5198  1.6   4368  1.6   16.0  R    0.499  0.147  0.100  0.035  #AR_QIF 13_173
Tot:  82              221.716  11006  1.6   9960  1.6    9.5 GR    0.499  0.150  0.100  0.036  #AR_QIF 13_173

================================================================================
 Direct L1/L2 Ambiguity Resolution (<20 km)
================================================================================
                      Length      Before      After     Res  Sys  Max/RMS L1
                        (km)     #Amb  (mm)  #Amb  (mm)  (%)        (L1 Cycles)
Tot:   4                4.926    440  4.0     31  4.1   93.0 G     0.149  0.039                  #AR_L12 13_167
Tot:   1                0.033    136  1.2      2  1.3   98.5  R    0.148  0.034                  #AR_L12 13_167
Tot:   4                4.926    576  4.0     33  4.1   94.3 GR    0.149  0.038                  #AR_L12 13_167
Tot:   4                4.926    454  6.4     40  6.7   91.2 G     0.147  0.043                  #AR_L12 13_168
Tot:   1                0.033    130  1.2      2  1.3   98.5  R    0.131  0.031                  #AR_L12 13_168
Tot:   4                4.926    584  6.4     42  6.7   92.8 GR    0.147  0.040                  #AR_L12 13_168
Tot:   4                4.926    442  3.9     33  4.2   92.5 G     0.144  0.039                  #AR_L12 13_169
Tot:   1                0.033    130  1.2      2  1.3   98.5  R    0.144  0.036                  #AR_L12 13_169
Tot:   4                4.926    572  3.9     35  4.2   93.9 GR    0.144  0.038                  #AR_L12 13_169
Tot:   4                4.926    430  3.7     32  3.9   92.6 G     0.146  0.039                  #AR_L12 13_170
Tot:   1                0.033    126  1.2      2  1.3   98.4  R    0.131  0.029                  #AR_L12 13_170
Tot:   4                4.926    556  3.7     34  3.9   93.9 GR    0.146  0.037                  #AR_L12 13_170
Tot:   4                4.926    452  3.5     35  3.8   92.3 G     0.142  0.037                  #AR_L12 13_171
Tot:   1                0.033    136  1.2      2  1.3   98.5  R    0.146  0.032                  #AR_L12 13_171
Tot:   4                4.926    588  3.5     37  3.8   93.7 GR    0.146  0.036                  #AR_L12 13_171
Tot:   4                4.926    436  3.7     53  3.8   87.8 G     0.147  0.037                  #AR_L12 13_172
Tot:   1                0.033    144  1.2      6  1.3   95.8  R    0.141  0.024                  #AR_L12 13_172
Tot:   4                4.926    580  3.7     59  3.8   89.8 GR    0.147  0.034                  #AR_L12 13_172
Tot:   4                4.926    428  3.4     35  3.6   91.8 G     0.161  0.042                  #AR_L12 13_173
Tot:   1                0.033    118  1.2      1  1.3   99.2  R    0.125  0.022                  #AR_L12 13_173
Tot:   4                4.926    546  3.4     36  3.6   93.4 GR    0.161  0.038                  #AR_L12 13_173
```

5.b Comparison of Solutions. Identification of Outliers.

Once the ambiguity resolution phase is over, the daily residuals have been carefully checked. The thresholds are:

- 5 mm for the E, N components,
- 10 mm for the U component.

Any value exceeding any of those thresholds has been considered as an outlier and, in case it was a EPN_A class site, has been considered as a non-fixed site in the yearly stacking.

5.b.1 Daily Residual Filtering.

CEGRN1996:

STATION NAME	FLG	FROM	TO	REMARK
**********	***	YYYY MM DD HH MM SS	YYYY MM DD HH MM SS	**********
GRAZ111001M002	001	1996-06-10 00:00:00	1996-06-10 23:59:30	HIGH RESIDUAL
DISZ	001	1996 06 15 00 00 00	1996 06 15 23 59 59	HIGH RESIDUAL
HARM	001	1996-06-15 00:00:00	1996-06-15 23:59:30	HIGH RESIDUAL
HOHE	001	1996-06-11 00:00:00	1996-06-11 23:59:30	HIGH RESIDUAL
MACI	001	1996-06-10 00:00:00	1996-06-10 23:59:30	HIGH RESIDUAL
VAT1	001	1996-06-10 00:00:00	1996-06-12 23:59:30	HIGH RESIDUAL
VAT2	001	1996-06-10 00:00:00	1996-06-12 23:59:30	HIGH RESIDUAL
VRN1	001	1996-06-13 00:00:00	1996-06-13 23:59:30	HIGH RESIDUAL
VRN3	001	1996-06-13 00:00:00	1996-06-13 23:59:30	HIGH RESIDUAL

CEGRN1997:

STATION NAME	FLG	FROM	TO	REMARK
**********	***	YYYY MM DD HH MM SS	YYYY MM DD HH MM SS	**********
GRAZ111001M002	001	1997-06-04 00:00:00	1997-06-04 23:59:30	HIGH RESIDUAL
GRMS 11028M001	001	1997-06-07 00:00:00	1997-06-08 23:59:30	HIGH RESIDUAL
PENC111206M006	001	1997-06-10 00:00:00	1997-06-10 23:59:30	HIGH RESIDUAL
BASO	001	1997-06-10 00:00:00	1997-06-10 23:59:30	HIGH RESIDUAL
GIL2	001	1997-06-10 00:00:00	1997-06-10 23:59:30	HIGH RESIDUAL
GRYB	001	1997-06-10 00:00:00	1997-06-10 23:59:30	HIGH RESIDUAL
SULP	001	1997-06-10 00:00:00	1997-06-10 23:59:30	HIGH RESIDUAL
VAT1	001	1997-06-04 00:00:00	1997-06-04 23:59:30	HIGH RESIDUAL
VAT1	001	1997-06-06 00:00:00	1997-06-06 23:59:30	HIGH RESIDUAL
VAT1	001	1997-06-09 00:00:00	1997-06-10 23:59:30	HIGH RESIDUAL
VRN1	001	1997-06-05 00:00:00	1997-06-05 23:59:30	HIGH RESIDUAL
VRN1	001	1997-06-10 00:00:00	1997-06-10 23:59:30	HIGH RESIDUAL

CEGRN1999:

STATION NAME	FLG	FROM	TO	REMARK
**********	***	YYYY MM DD HH MM SS	YYYY MM DD HH MM SS	**********
BUCU111401M001	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
BZRG112751M001	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
GRAZ111001M002	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
MATE312734M008	001	1999-06-19 00:00:00	1999-06-19 23:59:30	HIGH RESIDUAL
MATE312734M008	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
METS110503S011	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
METS110503S011	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
ONSA210402M004	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
SOFI111101M002	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
ZIMM214001M004	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
BOZI	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
BRSK	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
BUCA	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
GIL2	001	1999-06-18 00:00:00	1999-06-18 23:59:30	HIGH RESIDUAL
LVIV	001	1999-06-18 00:00:00		HIGH RESIDUAL
MAC5	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
MEDI 12711M003	001	1999-06-15 00:00:00	1999-06-16 23:59:30	HIGH RESIDUAL
SNIE	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
SRJV 11801S001	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
SULP	001	1999-06-14 00:00:00	1999-06-14 23:59:30	HIGH RESIDUAL
VAT1	001	1999-06-19 00:00:00	1999-06-19 23:59:30	HIGH RESIDUAL

CEGRN2001:

STATION NAME	FLG	FROM	TO	REMARK
**********	***	YYYY MM DD HH MM SS	YYYY MM DD HH MM SS	**********
BZRG212751M001	001	2001-06-18 00:00:30	2001-06-18 23:59:30	HIGH RESIDUAL
SOFI111101M002	001	2001-06-18 00:00:30	2001-06-18 23:59:30	HIGH RESIDUAL
UZHL112301M001	001	2001-06-18 00:00:30	2001-06-22 23:59:30	HIGH RESIDUAL
BOZI	001	2001-06-23 00:00:00	2001-06-23 23:59:30	HIGH RESIDUAL
GRYB	001	2001-06-18 00:00:30	2001-06-18 23:59:30	HIGH RESIDUAL
GRYB	001	2001-06-23 00:00:00	2001-06-23 23:59:30	HIGH RESIDUAL
HUTB	001			USELESS: E COMPONENT IS WRONG
PART	001	2001-06-23 00:00:00	2001-06-23 23:59:30	HIGH RESIDUAL
UZHD	001			USELESS: U COMPONENT IS WRONG

CEGRN2003:

STATION NAME	FLG	FROM	TO	REMARK
BZRG412751M001	001	2003-06-16 00:00:30	2003-06-16 23:59:30	HIGH RESIDUAL
MATE412734M008	001	2003-06-18 00:00:00	2003-06-18 23:59:30	HIGH RESIDUAL
SOFI111101M002	001	2003-06-16 00:00:30	2003-06-16 23:59:30	HIGH RESIDUAL
CAME 12754M001	001	2003-06-16 00:00:30	2003-06-16 23:59:30	HIGH RESIDUAL
HVAR	001	2003-06-20 00:00:00	2003-06-20 23:59:30	HIGH RESIDUAL
KAVA	001	2003-06-16 00:00:30	2003-06-16 23:59:30	HIGH RESIDUAL
SKPL	001	2003-06-18 00:00:00	2003-06-18 23:59:30	HIGH RESIDUAL
SKPL	001	2003-06-21 00:00:00	2003-06-21 23:59:30	HIGH RESIDUAL
VRN1	001	2003-06-21 00:00:00	2003-06-21 23:59:30	HIGH RESIDUAL
BUCA	001	2003-06-16 00:00:30	2003-06-16 23:59:30	HIGH RESIDUAL
SNIE	001	2003-06-21 00:00:00	2003-06-21 23:59:30	HIGH RESIDUAL
TARP	001	2003-06-19 00:00:00	2003-06-19 23:59:30	HIGH RESIDUAL
TIS3	001	2003-06-16 00:00:30	2003-06-16 23:59:30	HIGH RESIDUAL

CEGRN2005:

STATION NAME	FLG	FROM	TO	REMARK
COST111407M001	001	2005-06-22 00:00:00	2005-06-22 23:59:30	HIGH RESIDUAL
GRMS 11028S001	001	2005-06-20 00:00:00	2005-06-20 23:59:30	HIGH RESIDUAL
ALBR	001	2005-06-24 00:00:00	2005-06-24 23:59:30	HIGH RESIDUAL
BJEL	001			NO WAY TO ISOLATE RESIDUALS: ALL DAYS WRONG
KABA	001	2005-06-20 00:00:00	2005-06-20 23:59:30	HIGH RESIDUAL
KUDB	001	2005-06-20 00:00:00	2005-06-20 23:59:30	HIGH RESIDUAL
BABJ	001	2005-06-20 00:00:00	2005-06-20 23:59:30	HIGH RESIDUAL
CVRS	001	2005-06-20 00:00:00	2005-06-20 23:59:30	HIGH RESIDUAL
LOMS	001	2005-06-20 00:00:00	2005-06-20 23:59:30	HIGH RESIDUAL
SKPL	001	2005-06-23 00:00:00	2005-06-23 23:59:30	HIGH RESIDUAL
TIS3	001	2005-06-21 00:00:00	2005-06-21 23:59:30	HIGH RESIDUAL
UZHD	001	2005-06-25 00:00:00	2005-06-25 23:59:30	HIGH RESIDUAL
DISZ	001	2005-06-25 00:00:00	2005-06-25 23:59:30	HIGH RESIDUAL

CEGRN2007:

STATION NAME	FLG	FROM	TO	REMARK
BUCU111401M001	001	2007-06-19 00:00:00	2007-06-19 23:59:30	HIGH RESIDUAL
BZRG412751M001	001	2007-06-18 00:00:00	2007-06-18 23:59:30	HIGH RESIDUAL
ORID215601M001	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
SOFI111101M002	001	2007-06-21 00:00:00	2007-06-21 23:59:30	HIGH RESIDUAL
SOFI111101M002	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
UZHL112301M001	001	2007-06-20 00:00:00	2007-06-20 23:59:30	HIGH RESIDUAL
UZHL112301M001	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
BOZI	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
BUCA	001	2007-06-18 00:00:00	2007-06-18 23:59:30	HIGH RESIDUAL
BUCA	001	2007-06-20 00:00:00	2007-06-20 23:59:30	HIGH RESIDUAL
CSAR	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
CAOP	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
GRMS 11028M001	001	2007-06-20 00:00:00	2007-06-20 23:59:30	HIGH RESIDUAL
GRMS 11028M001	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
GRYB	001	2007-06-18 00:00:00	2007-06-18 23:59:30	HIGH RESIDUAL
HOHE	001	2007-06-20 00:00:00	2007-06-20 23:59:30	HIGH RESIDUAL
KAME	001	2007-06-19 00:00:00	2007-06-19 23:59:30	HIGH RESIDUAL
KUDB	001	2007-06-19 00:00:00	2007-06-19 23:59:30	HIGH RESIDUAL
KUDB	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
LJIG	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
LJUB	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
LOZN	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
PADO 12750S001	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
SIBI 00000M001	001	2007-06-22 00:00:00	2007-06-22 23:59:30	HIGH RESIDUAL
SKPL	001	2007-06-19 00:00:00	2007-06-19 23:59:30	HIGH RESIDUAL
TIS3	001	2007-06-22 00:00:00	2007-06-22 23:59:30	HIGH RESIDUAL
TIS3	001	2007-06-23 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
TRFB 11047M001	001	2007-06-18 00:00:00	2007-06-18 23:59:30	HIGH RESIDUAL
VRN1	001	2007-06-19 00:00:00	2007-06-19 23:59:30	HIGH RESIDUAL

CEGRN2009:

STATION NAME	FLG	FROM	TO	REMARK
MOP2111507M002	001	2009-06-24 00:00:00	2009-06-24 23:59:30	HIGH RESIDUAL
UZHL112301M001	001	2009-06-22 00:00:00	2009-06-22 23:59:30	HIGH RESIDUAL
ASIA 12714M002	001	2009-06-26 00:00:00	2009-06-26 23:59:30	HIGH RESIDUAL
CAME 12754M001	001	2009-06-22 00:00:00	2009-06-22 23:59:30	HIGH RESIDUAL
LJIG	001	2009-06-26 00:00:00	2009-06-26 23:59:30	HIGH RESIDUAL
LJIG	001	2009-06-23 00:00:00	2009-06-23 23:59:30	HIGH RESIDUAL
LYSA 11522M002	001	2009-06-25 00:00:00	2009-06-25 23:59:30	HIGH RESIDUAL
LYSA 11522M002	001	2009-06-27 00:00:00	2009-06-27 23:59:30	HIGH RESIDUAL
MOPI 11507M001	001	2009-06-26 00:00:00	2009-06-26 23:59:30	HIGH RESIDUAL
RISO 00000S001	001	2009-06-27 00:00:00	2009-06-27 23:59:30	HIGH RESIDUAL
ROVI 12769M001	001	2009-06-22 00:00:00	2009-06-22 23:59:30	HIGH RESIDUAL
ROVI 12769M001	001	2009-06-26 00:00:00	2009-06-26 23:59:30	HIGH RESIDUAL
VARN 00000S001	001	2009-06-23 00:00:00	2009-06-23 23:59:30	HIGH RESIDUAL

CEGRN2011: NO RESIDUALS EXCEEDING THE TRESHOLDS.

CEGRN2013: NO RESIDUALS EXCEEDING THE TRESHOLDS.

5.b.2 Yearly Repetibilities.

In this section, the repeatibilities for the 10 different considered campaigns (CEGRN1996 to CEGRN2013) are shown.

CEGRN1996:

Total number of stations: 50

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
BASO	6	XXXXXX	1.39	1.17	3.88
BOR1112205M002	6	XXXXXX	1.57	0.71	2.55
BRSK	6	XXXXXX	2.52	1.00	3.34
BUCA	6	XXXXXX	1.35	1.56	1.44
CSAR	6	XXXXXX	0.97	0.69	2.87
DISZ	5	XXXXX	2.63	1.32	3.04
FUND	6	XXXXXX	1.27	1.44	3.09
GILA	6	XXXXXX	2.50	1.09	5.46
GOPE111502M002	6	XXXXXX	0.88	1.03	3.49
GRAZ111001M002	5	XXXXX	1.06	0.38	1.42
GRMS 11028M001	6	XXXXXX	2.06	1.46	5.02
GRYB	6	XXXXXX	2.26	0.54	3.19
HARM	5	XXXXX	1.10	0.90	3.10
HFLK 11006S003	6	XXXXXX	1.05	1.06	6.35
HOHE	5	X XXXX	1.64	1.54	6.11
HUTB	5	XXXXX	0.84	0.19	3.32
IAS3	6	XXXXXX	1.47	2.64	4.89
IAS5	1	X	0.22	0.40	1.56
IAS6	1	X	0.29	0.07	1.70
IAS7	1	X	0.36	0.16	2.61
JOZE112204M001	6	XXXXXX	0.46	1.01	2.80
KIRS	6	XXXXXX	1.20	1.50	4.56
KOSG113504M003	6	XXXXXX	0.73	0.77	2.98
LAMA112209M001	6	XXXXXX	1.89	0.75	4.72
LJUB	6	XXXXXX	0.78	0.93	3.49
LVIV	6	XXXXXX	1.15	1.13	4.62
MACI	5	XXXXX	1.44	1.01	3.98
MATE 12734M008	6	XXXXXX	1.19	1.03	2.64
METS110503S011	6	XXXXXX	1.31	0.35	2.76
MOPI 11507M001	6	XXXXXX	1.74	0.87	3.00
ONSA110402M004	6	XXXXXX	0.42	0.37	2.54
PENC111206M006	6	XXXXXX	1.33	0.58	1.83
POLO	1	X	0.04	0.21	0.63
POTS114106M003	6	XXXXXX	0.71	0.56	1.83
SKPL	6	XXXXXX	1.70	1.90	5.73
SNIE	6	XXXXXX	1.28	1.70	6.26
SOFI111101M002	6	XXXXXX	1.08	0.81	3.38
STHO	6	XXXXXX	2.72	0.59	2.19
TIS3	6	XXXXXX	2.05	1.61	2.56
TIS4	0		0.00	0.00	0.00
TIS5	0		0.00	0.00	0.00
TIS6	0		0.00	0.00	0.00
UPAD 12750M002	6	XXXXXX	2.12	1.47	4.63
UZHD	6	XXXXXX	0.71	0.55	4.20
VAT1	2	XX	0.34	0.94	0.67
VAT2	3	XXX	0.69	0.78	3.96
VRN1	5	XXX XX	2.01	1.78	4.44
VRN3	2	XX	1.44	0.34	3.95
WTZR114201M010	6	XXXXXX	1.44	0.58	3.01
ZIMM114001M004	6	XXXXXX	0.85	1.10	1.57
Total	244		1.54	1.16	3.82

CEGRN1997:

Total number of stations: 44

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
BASO	6	XXXXXX	1.44	2.16	2.64
BOGO112207M002	7	XXXXXXX	1.33	0.56	2.18
BOR1112205M002	6	XXXXXX	1.24	0.51	2.59
BRSK	6	XXXXXX	2.46	2.27	3.88
BUCA	7	XXXXXXX	1.32	0.29	2.44
CSAR	7	XXXXXXX	0.82	0.69	2.71
DISZ	7	XXXXXXX	1.05	0.66	2.75
FUND	7	XXXXXXX	2.58	0.76	4.07
GIL2	6	XXXXXX	0.97	0.57	3.81
GOPE111502M002	7	XXXXXXX	1.08	0.70	2.82
GRAZ111001M002	6	XXXXXX	0.76	1.08	1.41
GRMS 11028M001	5	XXX XX	0.92	1.62	3.63
GRYB	6	XXXXXX	0.66	0.50	1.99
HARM	7	XXXXXXX	1.50	0.47	3.14
HFLK 11006S003	7	XXXXXXX	1.33	0.67	5.85
HOHE	7	XXXXXXX	0.83	0.65	3.61
HUTB	7	XXXXXXX	1.29	0.30	3.34
HVAR	7	XXXXXXX	1.44	0.83	3.84
IAS3	7	XXXXXXX	1.28	1.48	2.13
JOZE112204M001	7	XXXXXXX	0.41	0.42	3.07
KIRS	7	XXXXXXX	1.63	1.17	3.19
KOSG113504M003	7	XXXXXXX	0.99	0.73	3.63
LAMA112209M001	7	XXXXXXX	0.31	0.42	2.99
LJUB	7	XXXXXXX	2.81	2.14	3.51
LVIV	7	XXXXXXX	1.32	1.56	5.31
MACI	7	XXXXXXX	1.23	0.49	4.90
MATE312734M008	7	XXXXXXX	1.31	0.60	2.10
METS110503S011	5	XXX XX	1.43	0.86	2.68
MOPI 11507M001	7	XXXXXXX	1.58	0.70	2.36
ONSA110402M004	6	XXXXX X	0.44	0.77	0.85
PENC111206M006	6	XXXXXX	0.79	0.51	2.17
POTS114106M003	7	XXXXXXX	0.76	0.88	2.38
SKPL	7	XXXXXXX	1.20	1.14	4.32
SNIE	7	XXXXXXX	1.30	0.89	4.06
SOFI	7	XXXXXXX	1.23	0.54	2.29
STHO	7	XXXXXXX	1.32	1.06	3.82
SULP	6	XXXXXX	0.86	0.35	3.15
TIS3	7	XXXXXXX	0.96	0.50	4.17
UPAD 12750M002	5	X XXXX	1.95	2.23	5.62
UZHD	7	XXXXXXX	0.96	0.71	2.46
VAT1	3	X XX	2.48	1.42	6.33
VRN1	5	X XXXX	1.92	1.22	4.59
WTZR 14201M010	7	XXXXXXX	1.06	0.79	2.61
ZIMM114001M004	7	XXXXXXX	0.63	1.07	2.88
Total	287		1.34	1.01	3.40

CEGRN1999:

Total number of stations: 62

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
BOGO112207M002	6	XXXXXX	0.91	0.90	4.51
BOR1212205M002	6	XXXXXX	0.75	0.39	1.88
BOZI	5	XXXXX	0.84	0.70	2.33
BRSK	5	XXXXX	0.92	0.27	4.03
BUCA	5	XXXXX	1.41	0.27	2.56
BUCU111401M001	5	XXXXX	1.03	1.11	3.50
BZRG112751M001	4	XXXX	1.17	1.05	2.64
CSAR	6	XXXXXX	1.44	0.47	4.00
DISZ	6	XXXXXX	1.14	0.95	2.80
DRES114108M001	6	XXXXXX	0.47	0.73	4.24
FUN3	6	XXXXXX	2.14	0.89	6.21
GIL2	4	XXXX	1.51	1.24	2.80
GLSV112356M001	6	XXXXXX	1.10	0.73	2.95
GOPE111502M002	6	XXXXXX	0.83	0.39	3.35
GRAZ111001M002	5	XXXXX	1.03	0.85	2.21
GRDC	5	XXXXX	1.44	0.67	4.47
GRMS 11028S001	6	XXXXXX	0.71	0.41	1.41
GRYB	6	XXXXXX	2.03	0.90	4.05
HFLK 11006S003	6	XXXXXX	0.77	0.99	1.95
HOHE	6	XXXXXX	0.82	0.39	5.09
HUTB	6	XXXXXX	0.90	1.20	4.24
HVAR	6	XXXXXX	1.26	0.73	2.85
IAS3	6	XXXXXX	2.44	0.80	2.56
JOZE112204M001	6	XXXXXX	1.41	0.73	2.08
KAME	6	XXXXXX	1.84	0.83	5.62
KIRS	6	XXXXXX	1.31	0.44	4.11
KOSG113504M003	6	XXXXXX	0.66	0.54	2.27
LAMA112209M001	6	XXXXXX	0.75	0.66	1.86
LEND	6	XXXXXX	1.99	0.98	3.03
LJUB	6	XXXXXX	0.79	0.84	3.19
LVIV	4	XXXX	1.36	1.13	2.47
LYSA 11522M002	6	XXXXXX	1.00	0.96	3.86
MAC5	5	XXXXX	1.52	1.94	2.47
MALJ	6	XXXXXX	0.66	0.44	1.83
MATE312734M008	4	XXXX	2.65	2.24	2.83
MEDI 12711M003	4	X XXX	4.58	2.94	4.69
METS110503S011	3	XX X	1.16	1.53	3.31
MOPI 11507M001	6	XXXXXX	0.75	0.70	5.32
ONSA210402M004	5	XXXXX	0.92	0.36	1.89
OSIJ	6	XXXXXX	1.89	1.14	6.18
PART	6	XXXXXX	1.00	0.51	3.76
PENC111206M006	6	XXXXXX	0.90	1.01	3.32
POL1 11530M001	6	XXXXXX	0.75	0.61	1.95
POTS114106M003	6	XXXXXX	1.22	0.53	2.48
SBGZ 11031S001	6	XXXXXX	1.17	0.27	2.64
SKPL	6	XXXXXX	1.39	0.94	5.40
SNIE	5	XXXXX	1.01	0.71	5.61
SOFI111101M002	4	X XXX	1.30	1.38	4.38
SRJV 11801S001	5	XXXXX	2.17	0.53	3.94
STHO	6	XXXXXX	1.46	1.43	6.81
SULP	5	XXXXX	1.26	0.93	6.15
TARP	6	XXXXXX	3.00	1.30	3.74
TIS3	6	XXXXXX	0.72	0.95	3.56
TUBO	6	XXXXXX	0.66	0.73	1.03
UPAD 12750M002	2	X X	0.51	1.38	1.67
UZHD	6	XXXXXX	1.52	1.19	4.16
VAT1	5	XXXXX	3.97	2.24	4.23
VRN1	3	XXX	1.04	0.96	5.14
VRNA	2	XX	0.35	2.17	4.88
WROC112217M001	6	XXXXXX	0.41	0.38	1.89
WTZR114201M010	6	XXXXXX	0.38	0.56	1.93
ZIMM214001M004	4	XXXX	0.64	0.27	2.85
Total	332		1.46	0.97	3.73

CEGRN2001:

Total number of stations: 57

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
BOGO112207M002	7	XXXXXXX	0.80	0.38	1.78
BOR1212205M002	7	XXXXXXX	0.28	0.31	1.59
BOZI	5	XXXXX	3.31	1.73	5.12
BRSK	6	XXXXXX	0.82	0.87	4.26
BUCU111401M001	7	XXXXXXX	0.47	0.84	4.14
BZRG212751M001	5	XXXXX	1.89	1.43	6.23
CAOP	7	XXXXXXX	1.92	0.92	2.78
CSAN	6	XXXXXX	1.05	1.09	5.51
CSAR	6	XXXXXX	1.11	0.45	5.01
DISZ	6	XXXXXX	1.72	1.06	2.90
DRES114108M001	7	XXXXXXX	0.71	0.41	5.04
DUBR 11901M001	7	XXXXXXX	0.70	0.68	3.30
FUN3	6	XXXXXX	2.14	1.41	2.88
GLSV112356M001	7	XXXXXXX	0.74	0.96	2.80
GOPE411502M002	7	XXXXXXX	0.70	0.55	3.56
GRAZ211001M002	6	XXXXXX	0.99	1.00	2.76
GRYB	4	XXXX	0.99	0.61	5.00
GSR1214501M001	6	XXXXXX	0.61	0.50	2.68
HFLK 11006S003	7	XXXXXXX	0.82	0.95	2.75
HVAR	6	XXXXXX	1.76	0.36	5.09
JOZE112204M001	7	XXXXXXX	0.65	0.62	2.46
KAME	6	XXXXXX	1.46	1.21	8.71
KOSG113504M003	4	X XXX	1.04	0.34	2.45
LAMA312209M001	7	XXXXXXX	0.57	0.40	1.55
LEND	6	XXXXXX	1.14	0.45	1.56
LJUB	6	XXXXXX	0.61	0.68	3.70
LVIV	6	XXXXXX	1.06	0.64	2.05
LYSA 11522M002	6	XXXXXX	1.40	1.17	2.60
MALJ	6	XXXXXX	0.70	0.77	5.24
MATE412734M008	7	XXXXXXX	0.88	1.37	5.17
MEDI 12711M003	4	XXXX	0.59	0.27	2.50
METS110503S011	7	XXXXXXX	1.29	0.43	3.28
MOPI 11507M001	7	XXXXXXX	1.81	1.24	5.29
ONSA210402M004	7	XXXXXXX	0.58	0.54	3.71
ORID115601M001	7	XXXXXXX	1.06	0.83	3.85
OSJE111902M001	7	XXXXXXX	1.31	0.42	2.23
PART	5	XXXXX	1.36	1.00	5.64
PENC111206M006	7	XXXXXXX	1.05	0.95	2.13
POL1 11530M001	6	XXXXXX	0.54	0.32	2.75
POTS114106M003	7	XXXXXXX	0.54	0.77	4.25
PULA 11903S001	6	XXXXXX	0.57	0.57	4.38
SBGZ 11031S001	7	XXXXXXX	0.60	0.25	1.81
SKPL	6	XXXXXX	2.18	0.58	6.32
SNIE	6	XXXXXX	1.17	1.08	3.59
SOFI111101M002	6	X XXXXX	1.71	1.33	3.77
SRJV 11801S001	6	XXX XXX	0.92	1.14	3.03
STHO	6	XXXXXX	1.26	0.83	4.87
SULP	6	XXXXXX	0.72	0.68	2.79
TARP	6	XXXXXX	1.16	0.64	3.92
TUBO 115??M???	6	XXXXXX	0.76	0.70	3.02
UNPG312752M001	6	XXXXXX	1.13	0.75	1.02
UPAD 12750M002	7	XXXXXXX	0.50	0.87	4.42
UZHL112301M001	1	X	0.28	0.13	0.33
VRN1	6	XXXXXX	1.62	1.13	2.75
WROC212217M001	7	XXXXXXX	0.49	0.45	2.10
WTZR114201M010	7	XXXXXXX	0.78	0.31	1.46
ZIMM214001M004	7	XXXXXXX	0.86	0.43	2.29
Total	352		1.16	0.83	3.77

CEGRN2003:

Total number of stations: 77

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
AT01 11027M002	6	XXXXXX	1.04	0.84	2.61
BOGO212207M002	6	XXXXXX	0.39	0.65	1.39
BOR1212205M002	6	XXXXXX	0.64	0.48	1.83
BOZI	6	XXXXXX	1.95	0.47	3.31
BRAI 00000M001	6	XXXXXX	0.55	0.32	2.46
BRSK	6	XXXXXX	1.59	0.73	3.47
BUCA	5	XXXXX	1.64	1.33	4.54
BUCU111401M001	6	XXXXXX	0.67	0.47	3.91
BZRG412751M001	5	XXXXX	2.66	1.21	2.10
CAME 12754M001	5	XXXXX	1.93	1.49	2.33
CAOP	6	XXXXXX	1.36	0.32	4.37
CLUJ 00000M001	6	XXXXXX	1.32	0.45	2.49
CSAN	6	XXXXXX	0.88	0.49	1.18
CSAR	6	XXXXXX	1.14	0.56	1.14
DISZ	6	XXXXXX	0.92	0.90	1.35
DRES214108M001	6	XXXXXX	0.74	1.42	2.16
DUBR 11901M001	5	XXX XX	1.35	0.50	5.35
FUN3	6	XXXXXX	1.37	1.09	5.34
GABR	6	XXXXXX	1.15	0.32	4.93
GLSV112356M001	6	XXXXXX	0.73	0.76	1.50
GOPE411502M002	6	XXXXXX	0.71	0.66	3.58
GRAZ211001M002	6	XXXXXX	0.68	0.55	2.94
GRMS 11028M001	6	XXXXXX	1.45	1.34	1.83
GRMS 11028S001	6	XXXXXX	1.30	1.64	1.24
GRYB	6	XXXXXX	1.33	0.81	2.99
GSR1314501M001	6	XXXXXX	0.72	0.79	3.79
HARM	4	XX XX	1.29	1.02	4.21
HOHE	6	XXXXXX	1.14	0.56	1.32
HVAR	4	XXXX	1.84	0.78	4.43
IVAN	3	XXX	1.10	0.95	2.84
JOZE112204M001	6	XXXXXX	0.70	0.60	4.10
KAME	6	XXXXXX	0.90	1.00	5.26
KAVA	5	XXXXX	1.20	0.74	3.11
KOSG213504M003	4	XXXX	0.74	0.76	3.18
KRAW112218M001	6	XXXXXX	1.09	0.60	1.36
LAMA312209M001	6	XXXXXX	0.64	0.44	1.83
LJUB	6	XXXXXX	0.93	0.42	5.17
LVIV	6	XXXXXX	0.76	0.29	2.54
LYSA 11522M002	6	XXXXXX	0.68	0.83	1.84
MACI	6	XXXXXX	0.76	0.97	3.16
MALJ	6	XXXXXX	1.30	0.57	1.44
MATE412734M008	5	XX XXX	1.42	1.25	4.69
MEDI 12711M003	4	XXXX	0.90	0.75	2.24
METS110503S011	6	XXXXXX	0.73	0.82	1.71
MIKL112335M001	6	XXXXXX	0.78	0.67	2.49
MOPI 11507M001	6	XXXXXX	0.94	1.28	3.64
MRZL	6	XXXXXX	0.56	0.48	3.63
ORID215601M001	4	XXXX	1.24	0.92	5.36
OSJE111902M001	6	XXXXXX	0.44	0.68	3.39
PADO 12750S001	6	XXXXXX	1.39	0.65	4.56
PART	6	XXXXXX	2.11	1.03	3.60
PENC211206M006	6	XXXXXX	0.70	1.23	3.93
POL1 11530M001	6	XXXXXX	1.36	0.96	2.37
POTS114106M003	6	XXXXXX	0.53	0.27	1.85
PUGS 00000S001	5	XXXXX	0.70	0.76	0.89
SBGZ 11031S001	6	XXXXXX	0.47	0.39	1.73
SIBI 00000M001	6	XXXXXX	0.64	0.64	1.85
SKPL	4	XX XX	4.00	1.74	4.59
SNEK	6	XXXXXX	1.59	2.21	2.23
SNEZ	6	XXXXXX	0.82	1.18	3.26
SNIE	5	XXXXX	1.41	1.34	3.36
SOFI111101M002	5	XXXXX	0.63	0.99	2.51
SRJV 11801S001	6	XXXXXX	0.71	0.73	2.26
STHO	6	XXXXXX	0.59	0.54	5.04
SUCE 00000M001	6	XXXXXX	0.65	0.63	1.58
SULP212366M001	6	XXXXXX	0.42	0.85	2.10
TARP	5	XXX XX	1.04	1.37	3.12
TIMI 00000S001	6	XXXXXX	0.89	0.24	2.87
TIS3	5	XXXXX	3.31	2.78	4.66
TUBO111503M001	6	XXXXXX	0.69	0.86	4.54
UNPG412752M001	6	XXXXXX	1.02	1.24	1.69
UZHD	6	XXXXXX	1.09	0.51	2.20
UZHL112301M001	6	XXXXXX	0.49	0.53	2.87
VRN1	5	XXXXX	1.90	1.10	5.12
WROC212217M001	6	XXXXXX	0.40	0.52	2.23
WTZR114201M010	6	XXXXXX	1.22	0.96	3.74
ZIMM214001M004	6	XXXXXX	0.79	0.61	2.64
Total	435		1.20	0.93	3.19

CEGRN2005:

Total number of stations: 105

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
0256 00000M001	6	XXXXXX	0.57	0.36	3.40
0266 00000M001	6	XXXXXX	1.35	0.47	2.82
0273 00000M001	6	XXXXXX	0.63	1.39	3.82
ALBR	4	XXXX	0.48	0.99	3.90
ASIA 12714M001	6	XXXXXX	1.21	0.90	3.54
AT01 11027M002	6	XXXXXX	0.76	0.59	3.05
BABJ	5	XXXXX	0.44	0.42	2.58
BOGO212207M002	6	XXXXXX	0.85	0.53	2.67
BOR1212205M002	6	XXXXXX	0.92	0.38	1.64
BOZI	5	XXXXX	0.82	0.38	3.56
BRAI 00000M001	6	XXXXXX	0.82	0.48	4.26
BRSK	6	XXXXXX	1.90	1.16	2.70
BUCA	6	XXXXXX	1.16	1.25	4.84
BUCU111401M001	6	XXXXXX	0.49	0.52	5.30
BZRG412751M001	6	XXXXXX	1.65	2.21	3.18
CLUJ 00000M001	6	XXXXXX	1.28	0.32	3.49
COST111407M001	5	XX XXX	0.88	0.84	4.18
CRAI 00000M001	6	XXXXXX	0.86	0.46	3.57
CSAN	6	XXXXXX	0.77	0.52	1.54
CSAR	6	XXXXXX	1.24	0.81	5.13
CVRS	5	XXXXX	1.77	0.36	1.58
DISZ	5	XXXXX	1.26	0.87	3.05
DRES214108M001	6	XXXXXX	0.51	0.65	5.22
DUBR 11901M001	6	XXXXXX	1.19	0.76	2.50
FUN3	6	XXXXXX	1.23	1.40	5.48
GABR	6	XXXXXX	1.34	0.54	4.07
GLSV112356M001	6	XXXXXX	0.62	0.91	3.48
GOPE411502M002	6	XXXXXX	0.94	0.85	3.65
GRAZ311001M002	6	XXXXXX	0.99	0.96	4.18
GRMS 11028M001	6	XXXXXX	1.30	1.27	2.96
GRMS 11028S001	5	XXXXX	1.17	1.12	1.28
GRYB	6	XXXXXX	1.02	0.66	4.53
GSR1314501M001	6	XXXXXX	1.21	1.25	2.05
HARM	6	XXXXXX	1.23	0.82	1.38
HFLK 11006S003	6	XXXXXX	0.93	0.40	3.53
HOHE	6	XXXXXX	0.99	0.94	2.04
HVAR	5	XXXXX	1.22	0.60	3.24
IVAN	6	XXXXXX	1.40	1.25	4.80
JOZE212204M001	6	XXXXXX	1.62	0.96	4.78
KABA	5	XXXXX	1.91	0.47	3.66
KAME	6	XXXXXX	0.86	0.81	3.42
KAVA	6	XXXXXX	0.63	1.15	5.29
KOSG213504M003	6	XXXXXX	0.82	0.69	3.44
KRAW112218M001	6	XXXXXX	0.63	0.52	2.48
KUDB	5	XXXXX	0.40	1.27	2.72
LAMA312209M001	6	XXXXXX	0.78	0.80	3.67
LEOT	6	XXXXXX	1.37	0.72	4.25
LESK	6	XXXXXX	0.53	0.63	1.77
LIVN	6	XXXXXX	2.11	1.17	4.49
LJIG	6	XXXXXX	1.21	0.66	3.17
LJUB	6	XXXXXX	1.01	0.81	4.52
LOMS	5	XXXXX	0.77	0.52	3.86
LVIV	6	XXXXXX	0.99	0.44	4.83
LYSA 11522M002	6	XXXXXX	1.05	0.80	2.11
MAC3	6	XXXXXX	1.14	0.75	1.95
MALJ	5	XXXXX	0.82	0.59	2.91
MATE412734M008	6	XXXXXX	0.83	0.67	3.09
MEDI 12711M003	6	XXXXXX	1.61	0.76	5.04
METS110503S011	6	XXXXXX	0.70	0.96	2.95
MIKL112335M001	6	XXXXXX	0.72	1.00	4.29
MOPI 11507M001	6	XXXXXX	1.48	1.01	1.76
MRZL	5	XXXXX	1.47	0.74	1.78
ONSA210402M004	6	XXXXXX	0.87	0.55	4.53
ORID215601M001	6	XXXXXX	0.57	0.66	2.64
OSJC	5	XXXXX	1.01	0.32	2.40
PADO 12750S001	6	XXXXXX	1.47	1.15	3.01
PART	6	XXXXXX	0.62	1.02	4.46
PENC211206M006	6	XXXXXX	0.63	0.57	2.90
POL1 11530M001	6	XXXXXX	0.76	0.66	5.90
PONI	6	XXXXXX	0.95	1.42	6.09
POTS114106M003	6	XXXXXX	0.57	0.67	3.14
RISO 00000S001	6	XXXXXX	0.75	0.68	3.46
ROVI 12769M001	6	XXXXXX	0.90	1.14	5.75
ROZH 00000S001	5	XXXXX	0.79	1.45	2.85
SACZ	6	XXXXXX	1.23	0.94	1.50
SBGZ 11031S001	6	XXXXXX	0.66	0.49	2.45
SHAZ	6	XXXXXX	0.91	0.16	3.17
SIBI 00000M001	6	XXXXXX	0.60	0.39	6.49
SKPL	5	XXX XX	1.54	1.66	4.38
SNEZ	4	XXXX	0.86	1.43	4.73
SNIE	3	XXX	1.05	1.31	4.19
SNZZ	3	XXX	4.15	1.02	4.11
SOFI111101M002	6	XXXXXX	1.27	0.54	3.95
SRJV 11801S001	5	XXXXX	1.06	1.08	3.79
STHO	6	XXXXXX	0.78	1.09	3.79
STOL	6	XXXXXX	0.71	1.11	3.16

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
SUBO	6	XXXXXX	0.87	0.75	1.61
SUCE 00000M001	6	XXXXXX	0.65	0.60	1.94
SULP212366M001	6	XXXXXX	0.50	0.69	1.35
SUME 11215M001	6	XXXXXX	0.82	1.12	4.40
TARP	6	XXXXXX	0.86	1.16	4.89
TIMI 00000S001	6	XXXXXX	0.83	0.28	2.43
TIS3	5	X XXXX	2.06	1.64	2.46
TRFB 11047M001	6	XXXXXX	1.34	0.73	3.16
TUBO111503M001	6	XXXXXX	0.72	0.75	4.20
TURI	6	XXXXXX	2.26	0.82	5.57
UNPG412752M001	6	XXXXXX	0.85	1.17	4.76
UZHD	5	XXXXX	1.46	1.35	2.80
UZHL112301M001	6	XXXXXX	0.94	0.59	5.80
VARN 00000S001	3	XXX	1.06	0.88	2.58
VLAS	6	XXXXXX	2.41	1.05	3.26
VRN1	6	XXXXXX	1.82	1.78	4.52
WROC212217M001	6	XXXXXX	0.77	0.40	3.07
WTZR114201M010	6	XXXXXX	0.95	0.53	1.67
ZIMM214001M004	6	XXXXXX	0.51	1.29	5.82
Total	599		1.14	0.91	3.74

CEGRN2007:

Total number of stations: 95

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
0256 00000M001	6	XXXXXX	1.14	0.78	5.17
0266 00000M001	6	XXXXXX	1.04	0.80	1.48
0273 00000M001	6	XXXXXX	1.16	0.90	2.95
ASIA 12714M002	6	XXXXXX	2.34	2.06	5.07
AT01 11027M002	6	XXXXXX	1.18	0.89	4.82
BOGO212207M002	6	XXXXXX	1.21	0.67	2.24
BOR1212205M002	6	XXXXXX	1.14	0.70	1.55
BOZI	5	XXXXX	2.79	0.61	2.83
BRAI 00000M001	6	XXXXXX	0.38	0.75	5.79
BUCA	4	X XXX	1.44	1.07	3.09
BUCU111401M001	5	X XXXX	1.16	0.73	3.50
BZRG412751M001	5	XXXXX	1.78	2.15	2.28
CAME 12754M001	3	XXX	1.11	3.98	7.09
CAOP	5	XXXXX	1.25	0.88	3.31
CLUJ 00000M001	6	XXXXXX	1.60	0.90	4.51
COST111407M001	6	XXXXXX	1.16	1.39	3.50
CRAI 00000M001	6	XXXXXX	0.87	1.11	3.51
CSAN	6	XXXXXX	0.63	0.75	2.86
CSAR	5	XXXXX	1.87	0.72	2.99
DISZ	6	XXXXXX	0.73	1.15	5.54
DRES314108M001	6	XXXXXX	0.95	0.67	4.21
FUN3	6	XXXXXX	1.26	2.47	5.92
GABR	4	XXXX	2.58	0.58	2.14
GLSV112356M001	6	XXXXXX	0.98	0.42	3.21
GOPE511502M002	5	XX XXX	1.43	0.49	4.32
GRAZ411001M002	6	XXXXXX	1.00	0.80	3.48
GRMS 11028M001	4	XX XX	0.49	2.21	1.93
GRMS 11028S001	6	XXXXXX	0.97	1.17	3.19
GRYB	5	XXXXX	0.80	0.59	4.92
GSR1314501M001	6	XXXXXX	1.47	1.08	3.68
HARM	4	XXXX	1.95	0.91	3.34
HFLK 11006S003	6	XXXXXX	0.99	0.57	3.73
HOHE	4	XX XX	0.50	0.93	1.39
HVAR	5	XXXXX	0.84	0.66	2.62
JOZE212204M001	6	XXXXXX	1.26	0.91	4.18
KAME	5	X XXXX	1.28	0.47	4.05
KOSG213504M003	6	XXXXXX	1.09	1.16	4.02
KRAW112218M001	6	XXXXXX	1.09	0.49	2.14
KUDB	3	XXX	0.72	1.99	3.92
KUNZ111524M001	6	XXXXXX	1.21	0.54	5.54
LAMA312209M001	6	XXXXXX	1.18	0.84	3.37
LESK	6	XXXXXX	1.22	0.87	3.59
LJIG	5	XXXXX	0.95	1.10	3.37
LJUB	5	XXXXX	0.91	1.67	5.73
LOMS	6	XXXXXX	1.52	1.21	2.80
LOZN	5	XXXXX	0.94	0.88	3.10
LVIV	6	XXXXXX	1.28	1.13	4.28
LYSA 11522M002	6	XXXXXX	1.09	1.18	4.64
LYSH 11522M001	6	XXXXXX	1.34	1.10	2.10
MAC3	6	XXXXXX	1.34	1.55	4.00
MALJ	6	XXXXXX	1.83	1.57	4.94
MATE412734M008	6	XXXXXX	1.28	0.96	4.04
METS110503S011	6	XXXXXX	0.68	1.02	5.12
MIKL112335M001	6	XXXXXX	1.81	1.30	3.85
MOPI 11507M001	4	XXXX	0.59	2.29	2.12
MRZL	5	XXXXX	0.82	0.89	2.39
ONSA210402M004	6	XXXXXX	0.95	0.52	4.73
ORAD 00000M001	6	XXXXXX	0.97	0.64	4.37
ORID215601M001	5	XXXXX	0.86	0.77	1.62

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
PADO 12750S001	5	XXXXX	2.22	0.61	1.95
PART	6	XXXXXX	1.39	1.20	2.58
PENC211206M006	6	XXXXXX	0.83	1.00	4.93
POL1 11530M001	6	XXXXXX	0.56	0.56	3.82
POTS114106M003	6	XXXXXX	0.75	0.74	2.37
PRIJ	6	XXXXXX	1.02	1.66	5.48
RISO 00000S001	6	XXXXXX	0.50	0.74	4.57
ROZH 00000S001	5	XXXXX	2.77	3.65	4.25
SACZ	6	XXXXXX	0.83	1.28	3.60
SBGZ 11031S001	4	XXXX	1.44	0.30	2.84
SHAZ	6	XXXXXX	1.07	0.64	4.96
SIBI 00000M001	5	XXXX X	1.03	0.84	5.42
SKPL	5	X XXXX	3.24	1.30	5.76
SNEC 11519M001	1	X	0.26	0.02	0.75
SNEZ	6	XXXXXX	1.93	2.17	4.34
SNIE	6	XXXXXX	3.01	2.48	6.12
SOFI111101M002	4	XXX X	0.62	1.38	4.34
SRJV 11801S001	6	XXXXXX	1.65	0.84	5.93
STHO	6	XXXXXX	0.88	1.00	5.34
SUBO	6	XXXXXX	1.21	0.93	4.36
SUCE 00000M001	6	XXXXXX	2.33	1.17	2.34
SULP212366M001	6	XXXXXX	0.97	0.51	3.65
SUME 11215M001	6	XXXXXX	1.20	0.77	4.98
TARP	6	XXXXXX	1.62	1.08	2.67
TIMI 00000S001	6	XXXXXX	0.81	0.31	4.48
TIS3	4	XXXX	2.12	0.52	3.63
TRFB 11047M001	5	XXXXX	0.89	1.09	2.89
TUBO311503M001	6	XXXXXX	1.39	0.66	3.61
UNPG512752M001	6	XXXXXX	0.66	1.01	3.82
UZHD	6	XXXXXX	1.35	1.63	5.22
UZHL112301M001	4	XX XX	0.95	0.75	3.19
VARN 00000S001	6	XXXXXX	1.21	1.03	3.88
VRN1	5	X XXXX	1.05	3.22	4.06
WROC412217M001	6	XXXXXX	1.38	0.86	4.82
WTZR114201M010	6	XXXXXX	1.06	0.68	2.58
ZIMM214001M004	6	XXXXXX	2.24	1.04	5.72
Total	519		1.37	1.23	4.06

CEGRN2009:

Total number of stations: 85

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
0256 00000M001	6	XXXXXX	0.53	0.80	3.62
0266 00000M001	6	XXXXXX	1.29	1.38	2.99
0273 00000M001	6	XXXXXX	0.38	0.46	1.96
ASIA 12714M002	3	X X X	1.98	1.27	5.16
AT01 11027M002	6	XXXXXX	1.19	0.75	3.46
BAST	6	XXXXXX	1.31	1.08	5.86
BBYS211514M001	6	XXXXXX	0.76	0.38	5.51
BOGO212207M002	6	XXXXXX	0.77	0.75	1.37
BOR1212205M002	6	XXXXXX	0.67	0.76	4.51
BRAI 00000M001	6	XXXXXX	2.41	1.56	4.22
BUCU211401M001	6	XXXXXX	1.09	0.77	2.42
BURG 00000S001	6	XXXXXX	1.45	0.84	3.26
BZRG512751M001	6	XXXXXX	0.78	1.22	4.17
CAME 12754M001	5	XXXXX	0.80	0.79	3.71
CLUJ 00000M001	6	XXXXXX	0.82	1.19	3.33
COST111407M001	6	XXXXXX	1.12	0.86	3.38
CSAN	6	XXXXXX	0.55	1.22	4.41
DRES314108M001	6	XXXXXX	0.68	0.35	2.13
DUBR 11901M001	6	XXXXXX	1.38	1.25	4.75
GANP211515M001	6	XXXXXX	0.79	0.49	4.69
GLSV212356M001	6	XXXXXX	0.93	0.72	1.93
GOPE511502M002	6	XXXXXX	0.95	0.40	1.55
GRAZ411001M002	6	XXXXXX	0.37	0.54	3.25
GRMS 11028S001	5	XXXXX	1.23	0.94	2.97
GRYB 00000M001	6	XXXXXX	1.60	1.84	3.62
GSR1414501M001	6	XXXXXX	1.15	1.11	1.38
HFL2211006M003	6	XXXXXX	0.77	0.41	1.34
JOZE212204M001	6	XXXXXX	0.95	0.84	5.38
KAME	6	XXXXXX	1.96	0.72	3.16
KOSG213504M003	6	XXXXXX	0.66	1.49	3.68
KRAW112218M001	6	XXXXXX	1.56	0.81	3.08
KUNZ111524M001	6	XXXXXX	1.39	0.71	4.54
LAMA412209M001	6	XXXXXX	0.75	0.71	1.22
LIE1 2624TS-77	6	XXXXXX	1.23	1.20	3.93
LJIG	3	X XX	2.32	3.56	3.82
LOMS	6	XXXXXX	1.88	0.52	4.39
LOVE 00000S001	6	XXXXXX	0.82	1.05	1.93
LOZN	6	XXXXXX	1.92	1.24	5.33
LYSA 11522M002	3	XXX	2.14	3.37	3.74
LYSH 11522M001	6	XXXXXX	0.79	1.01	4.27
MALJ	6	XXXXXX	1.25	0.66	5.66
MATE512734M008	6	XXXXXX	0.46	0.64	1.81

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
MEDI 12711M003	6	XXXXXX	1.17	0.38	4.75
METS110503S011	6	XXXXXX	0.54	0.68	2.36
MIKL112335M001	6	XXXXXX	1.19	0.91	3.75
MONT 00000S001	2	XX	0.08	0.16	7.20
MOP2111507M002	5	XX XXX	0.91	0.49	4.32
MOPI 11507M001	5	XXXX X	1.43	1.05	5.86
MRZL	6	XXXXXX	1.76	0.84	6.04
ONSA210402M004	6	XXXXXX	0.75	0.61	2.54
ORAD 00000M001	6	XXXXXX	1.80	0.85	3.04
ORID415601M001	6	XXXXXX	0.73	0.49	3.36
OSJE211902M001	6	XXXXXX	0.32	0.62	3.40
PADO 12750S001	6	XXXXXX	0.82	0.55	3.27
PAR1	6	XXXXXX	0.69	0.62	4.23
PART	6	XXXXXX	1.23	0.94	5.45
PENC311206M006	6	XXXXXX	0.39	0.92	2.41
POL1 11530M001	5	XX XXX	2.69	1.84	4.88
POTS214106M003	6	XXXXXX	0.89	0.80	3.65
PRIJ	6	XXXXXX	1.14	0.90	5.70
RISO 00000S001	5	XXXXX	0.54	0.76	3.77
ROVI 12769M001	2	X X	1.68	0.12	1.41
ROZH 00000S001	6	XXXXXX	0.94	0.69	2.27
SBG2111031M002	6	XXXXXX	0.63	0.42	1.70
SHUM 00000S001	6	XXXXXX	0.68	0.99	4.25
SIB1 00000M002	6	XXXXXX	0.64	0.97	5.17
SNZZ	6	XXXXXX	0.76	0.52	2.68
SOFI111101M002	6	XXXXXX	0.63	0.76	2.10
SPRN111227M001	6	XXXXXX	1.25	0.63	1.77
SRJV 11801S001	3	XX X	0.37	1.13	1.33
STAR 00000S001	4	XXXX	0.80	1.07	4.87
SUB2	6	XXXXXX	1.29	0.64	3.24
SUCE 00000M001	5	XXXXX	0.64	0.56	3.42
SULP212366M001	6	XXXXXX	1.26	0.98	4.76
SUME 11215M001	6	XXXXXX	0.71	0.35	3.62
TARP	6	XXXXXX	1.48	1.08	3.46
TRF2111047M002	6	XXXXXX	0.96	1.12	4.64
TUBO311503M001	6	XXXXXX	1.93	0.76	6.18
UNPG512752M001	6	XXXXXX	0.48	0.82	2.13
USDL 12229M001	6	XXXXXX	1.03	0.60	1.95
UZHL112301M001	5	XXXXX	1.27	1.46	4.34
VARN 00000S001	1	X	0.20	0.19	2.59
WROC412217M001	6	XXXXXX	1.11	0.35	4.28
WTZR114201M010	6	XXXXXX	2.53	1.85	4.82
ZIMM214001M004	6	XXXXXX	0.97	1.49	3.53
Total	475		1.18	0.98	3.83

CEGRN2011:

Total number of stations: 60

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
0256 00000M001	6	XXXXXX	0.57	0.61	1.96
0266 00000M001	6	XXXXXX	0.60	0.37	1.08
0273 00000M001	6	XXXXXX	0.62	0.84	1.28
BBYS211514M001	6	XXXXXX	0.83	1.05	4.01
BOGO212207M002	6	XXXXXX	0.46	0.54	2.15
BOR1212205M002	6	XXXXXX	0.43	0.39	2.82
BUCU211401M001	6	XXXXXX	1.05	0.33	3.01
BURG 00000S001	6	XXXXXX	0.68	0.61	1.32
BZRG512751M001	6	XXXXXX	1.42	1.05	3.77
COST111407M001	6	XXXXXX	0.83	0.53	2.92
DRES414108M001	6	XXXXXX	1.14	0.74	2.16
GANP211515M001	6	XXXXXX	0.50	0.90	3.55
GLSV212356M001	6	XXXXXX	0.60	1.12	4.23
GMIL	6	XXXXXX	0.62	0.43	1.84
GOPE611502M002	6	XXXXXX	0.19	0.55	0.90
GRAZ511001M002	6	XXXXXX	0.83	0.91	5.13
GSR1414501M001	6	XXXXXX	0.34	0.73	4.11
HFL2211006M003	6	XXXXXX	1.22	0.64	4.35
JOZE212204M001	6	XXXXXX	0.92	0.64	4.04
KRAW112218M001	6	XXXXXX	0.88	0.84	2.53
LAMA412209M001	6	XXXXXX	0.56	0.30	1.67
LESK	6	XXXXXX	0.70	0.64	1.29
LIE1	1	X	0.05	0.07	0.10
LIE1 2624TS-77	5	XXXXX	0.56	0.54	5.52
LOVE 00000S001	6	XXXXXX	0.86	0.45	1.52
LOZN	6	XXXXXX	1.67	1.15	3.51
LYSA 11522M002	6	XXXXXX	0.49	1.56	3.58
LYSH 11522M001	6	XXXXXX	0.73	1.45	5.36
MATE512734M008	6	XXXXXX	0.80	1.27	1.19
METS210503S011	6	XXXXXX	0.75	0.71	1.67
MIKL112335M001	6	XXXXXX	0.77	1.36	5.48
MONT 00000S001	5	XXXXX	0.88	0.74	2.02
MOP2111507M002	6	XXXXXX	0.72	0.94	3.76
ONSA210402M004	6	XXXXXX	1.00	0.68	2.09
ORID415601M001	6	XXXXXX	0.75	1.56	3.85

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
OSJE211902M001	6	XXXXXX	0.42	0.45	1.19
PADO 12750S001	6	XXXXXX	0.71	1.03	3.26
PAR1	6	XXXXXX	0.48	0.52	3.14
PENC311206M006	6	XXXXXX	0.76	0.46	1.91
POL1 11530M001	6	XXXXXX	0.70	0.70	3.49
POTS314106M003	6	XXXXXX	0.56	0.39	2.29
PRIJ	6	XXXXXX	0.30	1.42	4.03
ROVI 12769M001	6	XXXXXX	0.93	0.56	3.57
ROZH 00000S001	6	XXXXXX	1.03	0.96	3.80
SBG2111031M002	6	XXXXXX	0.35	0.91	1.77
SHUM 00000S001	5	X XXXX	1.41	1.76	7.78
SOFI211101M002	6	XXXXXX	0.65	1.10	2.14
SPRN211227M001	6	XXXXXX	0.36	1.16	3.77
SRJV 11801S001	5	X XXXX	1.18	0.80	1.25
STAR 00000S001	6	XXXXXX	0.96	0.93	2.90
SUB2	6	XXXXXX	0.65	0.89	1.54
SULP212366M001	6	XXXXXX	0.77	0.49	3.84
TRF2111047M002	6	XXXXXX	1.71	1.59	2.39
TUBO311503M001	6	XXXXXX	0.64	0.87	1.77
UNPG512752M001	6	XXXXXX	0.88	1.39	3.25
USDL 12229M001	6	XXXXXX	0.86	0.52	2.58
VARN 00000S001	6	XXXXXX	1.13	1.07	1.89
WROC412217M001	6	XXXXXX	0.29	0.54	5.42
WTZR214201M010	6	XXXXXX	0.59	0.92	3.87
ZIMM214001M004	6	XXXXXX	0.91	0.52	2.28
Total	351		0.82	0.90	3.24

CEGRN2013:

Total number of stations: 101

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
0256 00000M001	7	XXXXXXX	0.97	0.94	2.42
0266 00000M001	7	XXXXXXX	0.51	0.59	2.71
0273 00000M001	7	XXXXXXX	0.45	0.53	2.70
ASIA 12714M002	7	XXXXXXX	1.76	1.06	5.67
BANOVICI	7	XXXXXXX	0.57	0.79	2.69
BBYS311514M001	7	XXXXXXX	0.84	0.48	3.53
BIHAC	7	XXXXXXX	1.47	1.46	4.81
BOGO212207M002	7	XXXXXXX	1.13	0.43	1.74
BOR1212205M002	7	XXXXXXX	1.05	0.85	1.46
BOSG 00000M000	7	XXXXXXX	1.16	1.24	4.35
BOSP 00000M000	7	XXXXXXX	1.54	0.74	3.70
BRAI 00000M001	7	XXXXXXX	0.63	0.48	2.03
BUCU211401M001	7	XXXXXXX	0.47	0.91	3.03
BUGO BUGO	7	XXXXXXX	1.08	0.87	3.15
BURG 00000S001	7	XXXXXXX	1.22	1.18	5.91
BZRG612751M001	7	XXXXXXX	1.44	1.84	3.51
CAKO 11906M001	7	XXXXXXX	0.69	0.86	2.79
CAPL CAPL	7	XXXXXXX	0.65	0.54	4.30
CLUJ 00000M001	7	XXXXXXX	1.32	0.69	5.37
COST111407M001	7	XXXXXXX	0.71	0.60	5.50
CRAI 00000M001	7	XXXXXXX	0.82	1.10	3.94
DRES414108M001	7	XXXXXXX	0.75	0.52	3.17
DUB2 11901M002	7	XXXXXXX	0.28	0.95	2.10
FOCA FOCA	7	XXXXXXX	1.17	1.89	3.93
GANP211515M001	7	XXXXXXX	1.59	1.75	2.47
GLSV212356M001	7	XXXXXXX	0.71	0.58	3.66
GMIL	6	XXXXXX	1.54	0.67	3.09
GOPE611502M002	7	XXXXXXX	0.80	0.80	2.20
GRAZ511001M002	7	XXXXXXX	0.52	0.56	3.70
GSR1414501M001	7	XXXXXXX	0.33	0.90	5.73
IGEO115101M001	7	XXXXXXX	0.96	1.35	2.72
JOZE212204M001	7	XXXXXXX	0.97	0.87	2.81
KNJA 12113M001	6	XXX XXX	0.61	0.99	4.17
KONJIC	7	XXXXXXX	0.89	1.17	2.15
KOSG513504M003	7	XXXXXXX	1.22	1.92	1.82
KRA1 12218M002	7	XXXXXXX	0.79	0.86	3.29
KRAW112218M001	7	XXXXXXX	1.27	1.00	2.61
KUNZ111524M001	6	X XXXXX	0.89	0.65	6.23
LAMA412209M001	7	XXXXXXX	0.51	0.29	2.23
LESK	6	XXXXXX	1.62	0.77	3.48
LIVNO	7	XXXXXXX	1.04	1.03	5.20
LOMS	7	XXXXXXX	1.34	1.09	5.41
LOVE 00000S001	7	XXXXXXX	0.42	0.40	4.55
LOZN	6	XXXXXX	0.93	1.10	2.16
MATE512734M008	7	XXXXXXX	0.70	0.71	2.49
MEDI 12711M003	7	XXXXXXX	1.43	0.89	4.23
METS310503S011	7	XXXXXXX	0.97	1.17	1.43
MIKL112335M001	7	XXXXXXX	1.36	0.56	4.06
MONT 00000S001	7	XXXXXXX	0.71	0.81	2.97
MOP2111507M002	7	XXXXXXX	1.18	1.01	3.84
MOPI 11507M001	7	XXXXXXX	1.25	1.19	3.84
MOSTAR	7	XXXXXXX	1.30	0.81	4.56

Station	#Days	Weekday 0123456	Repeatability (mm) N	E	U
NEVESINJE	7	XXXXXXX	0.58	0.84	5.72
NOVI GRAD	7	XXXXXXX	0.95	1.11	5.86
NPAZ 12110M001	6	XXX XXX	1.33	1.06	5.17
NWSC 12231M001	7	XXXXXXX	0.75	0.86	2.74
OLOVO	7	XXXXXXX	1.56	0.84	2.44
ONSA210402M004	7	XXXXXXX	0.48	0.62	4.17
ORAD 00000M001	7	XXXXXXX	1.31	1.11	4.20
ORID415601M001	7	XXXXXXX	1.03	1.61	5.01
PADO 12750S001	7	XXXXXXX	0.70	0.95	3.71
PAT2 11029M002	7	XXXXXXX	1.22	0.94	2.40
PEN2 11206M007	7	XXXXXXX	1.35	0.31	3.33
PENC311206M006	7	XXXXXXX	0.69	0.41	2.99
PLND 12111M001	6	XXX XXX	1.14	1.06	3.43
PORE 11907M001	7	XXXXXXX	0.58	0.66	1.64
POSUSJE	7	XXXXXXX	0.87	0.64	3.80
POTS314106M003	7	XXXXXXX	0.56	0.73	2.66
POZE 11908M001	7	XXXXXXX	0.82	1.07	3.21
PRIJ	6	XXXXXX	1.36	1.13	7.26
RISO 00000S001	7	XXXXXXX	0.86	0.79	2.74
ROVI 12769M001	7	XXXXXXX	0.72	0.79	2.92
ROZH 00000S001	7	XXXXXXX	1.67	4.16	7.12
SABA 12112M001	6	XXX XXX	0.84	0.56	6.75
SANSKI MOST	7	XXXXXXX	1.39	0.95	4.14
SBG2111031M002	7	XXXXXXX	0.90	1.32	2.84
SEKOVICI	7	XXXXXXX	0.73	1.03	2.40
SHUM 00000S001	7	XXXXXXX	0.41	0.45	3.22
SIB1 00000M002	7	XXXXXXX	0.87	1.24	4.89
SOKOLAC	7	XXXXXXX	1.33	0.78	8.06
SPRN211227M001	7	XXXXXXX	1.58	1.18	3.94
SREBRENIK	7	XXXXXXX	0.57	0.82	1.33
SRJV 11801S001	7	XXXXXXX	1.15	1.85	4.28
STAR 00000S001	7	XXXXXXX	0.93	0.50	1.25
SUCE 00000M001	7	XXXXXXX	0.76	0.44	2.55
SULP212366M001	7	XXXXXXX	1.23	0.86	3.15
SUME 11215M001	7	XXXXXXX	0.65	0.96	2.70
TESLIC	7	XXXXXXX	0.35	0.97	5.95
TREBINJE	7	XXXXXXX	1.50	0.55	3.77
TRF2111047M002	7	XXXXXXX	1.01	1.16	4.58
TUBO411503M001	7	XXXXXXX	0.48	0.46	1.23
UNPG512752M001	7	XXXXXXX	0.69	1.38	1.47
USDL 12229M001	7	XXXXXXX	0.67	0.86	4.11
VARN 00000S001	7	XXXXXXX	1.75	4.69	5.43
VELIKA KLADUSA	7	XXXXXXX	1.52	0.90	3.53
WROC412217M001	7	XXXXXXX	1.08	0.45	3.25
WTZR214201M010	7	XXXXXXX	0.63	0.87	3.43
ZADA 11905M001	7	XXXXXXX	0.62	1.02	3.54
ZAVIDOVICI	7	XXXXXXX	0.92	1.15	3.93
ZENICA	7	XXXXXXX	0.67	1.49	3.68
ZIMM214001M004	7	XXXXXXX	0.61	0.85	5.33
Total	698		1.02	1.15	3.90

6 The subset of CEGRN sites for which the validation of the TWG is requested

The sections above contain the analysis of the entire set of CEGRN sites.

However it was recognized that not all of them qualify for official recognition, in the sense that to our judgment the requirements for being a densification site are not all fulfilled.

As a consequence we filtered out a number of sites by listing them as Type 3 sites in the STA file used in ADDNEQ2.

STATION	YEARS OBSERVED	REMARKS
AT01	1996-2009	Identical with HUTB
KUDB	2005-2007	Bosnian site, permission to publish coordinates is pending
ORAD	2007-2013	
ROVI	2005-2013	
SHUM	2009-2013	
STAR	2009-2013	
TRFB	2005-2007	Former EPN site, identical to TRF2 if different antenna height applied

Table 1. Stations proposed for evaluation observed more than 1 campaign.

STATION	YEARS OBSERVED	REMARKS
BRAI	2003-2007, 2009, 2013	
BURG	2009-2013	
CLUJ	2003, 2005, 2007, 2009-2013	
HFLK	1996-1997, 1999-2007	Former EPN site, identical to HFL2 if different antenna height applied
HOHE	1996-2003, 2005, 2007	
KOSG	1996-2001, 2003-2009, 2013	
LOMS	2005-2009, 2013	
LOVE	2009-2013	
RISO	2005, 2013	
ROZH	2005-2011, 2013	
SBGZ	1999, 2001-2005, 2007	
SIB1	2009, 2013	
SUCE	2003-2009, 2013	
SULP	1997, 1999-2001, 2003-2013	
SUME	2005-2007, 2009-2013	
VARN	2005, 2011, 2013	

Table 2. Stations proposed for evaluation, with discontinuities.

STATION	YEARS OBSERVED	REMARKS
ALBR	2005	Bosnian site, permission to publish coordinates is pending
BABJ	2005	Bosnian site, permission to publish coordinates is pending
BANO	2013	Bosnian site, permission to publish coordinates is pending.
BIHA	2013	Bosnian site, permission to publish coordinates is pending.
BOSA	2013	Bosnian site, permission to publish coordinates is pending.
BUGO	2013	Bosnian site, permission to publish coordinates is pending.
CAPL	2013	Bosnian site, permission to publish coordinates is pending.
CVRS	2005	Bosnian site, permission to publish coordinates is pending.
FOCA	2013	Bosnian site, permission to publish coordinates is pending.
GRDC	1999	Bosnian site, permission to publish coordinates is pending.
KABA	2005	Bosnian site, permission to publish coordinates is pending.
KNJA	2013	EPN candidate
KONJ	2013	Bosnian site, permission to publish coordinates is pending.
LEOT	2005	Bosnian site, permission to publish coordinates is pending.
MOST	2013	Bosnian site, permission to publish coordinates is pending.
NEVE	2013	Bosnian site, permission to publish coordinates is pending.
NOVI	2013	Bosnian site, permission to publish coordinates is pending.
NPAZ	2013	EPN candidate
OLOV	2013	Bosnian site, permission to publish coordinates is pending.
PLND	2013	EPN candidate
PONI	2005	Bosnian site, permission to publish coordinates is pending.
POSU	2013	Bosnian site, permission to publish coordinates is pending.
SABA	2013	EPN candidate
SANS	2013	Bosnian site, permission to publish coordinates is pending.
SEKO	2013	Bosnian site, permission to publish coordinates is pending.
SOKO	2013	Bosnian site, permission to publish coordinates is pending.
SREB	2013	Bosnian site, permission to publish coordinates is pending.
STOL	2005	Bosnian site, permission to publish coordinates is pending.
TESL	2013	Bosnian site, permission to publish coordinates is pending.
TREB	2013	Bosnian site, permission to publish coordinates is pending.
TURI	2005	Bosnian site, permission to publish coordinates is pending.
VELI	2013	Bosnian site, permission to publish coordinates is pending.
VLAS	2005	Bosnian site, permission to publish coordinates is pending.
ZAVI	2013	Bosnian site, permission to publish coordinates is pending.
ZENI	2013	Bosnian site, permission to publish coordinates is pending.

Table 3. Stations proposed for evaluation, only 1 campaign.

STATION	YEARS OBSERVED	REMARKS
BASO	1997	Poor repeatability with former campaigns
BUCA	1996, 1997, 1999, 2005-2007	Not observed anymore, poor repeatability
FUN3	1999, 2001, 2005, 2007	Not observed anymore, poor repeatability
FUND	1996, 1997	Not observed anymore, poor repeatability
GIL2	1997-1999	Poor quality, poor reference
GILA	1996	Poor quality, poor reference
GRMS	1996-2009	2 sites, but not observed anymore, partially poor quality
HVAR	1997, 1999-2003, 2005, 2007	Apply Geo++ calibration for TRM5800 first to remove discontinuities but antenna SN is unknown
IAS3	1997, 1999	Not observed anymore, poor repeatability
IVAN	2003, 2005	Not observed anymore, poor repeatability
KAVA	2003-2005	Never observed anymore, poor quality
LEND	1999, 2001	Tower moving, excluded from CEGRN
LJIG	2005, 2007	Not observed anymore, poor repeatability
LIVN	2005, 2013	2 different sites!
LVIV	1996, 1997, 1999, 2001, 2003, 2005-2007	Not observed anymore, poor repeatability
MAC5	1999	Not observed anymore, poor reference
MACI	1997, 2003	Not observed anymore, poor repeatability
OSIJ	1999	Poor quality, poor reference
OSJC	2005	Not observed anymore, poor reference
PAR1	2009, 2011	Poor repeatability
PUGS	2003	Former short-term EPN site, reference unreliable
PULA	2001	destroyed
SNEC	2003, 2007	Removed from EPN and CEGRN
SNZZ	2005, 2009	SNZZ is eccenter of SNEZ, but badly measured
TIS3	1996-1997, 1999, 2005, 2007	Not observed anymore, poor repeatability
VAT1	1999	Not observed anymore, poor reference
VAT2	1996	Not observed anymore, poor reference
VRN1	1999, 2001, 2003, 2005-2007	Not observed anymore, poor repeatability
VRNA	1999	Not observed anymore, poor reference

Table 4. Stations not recommended for evaluation because of poor quality

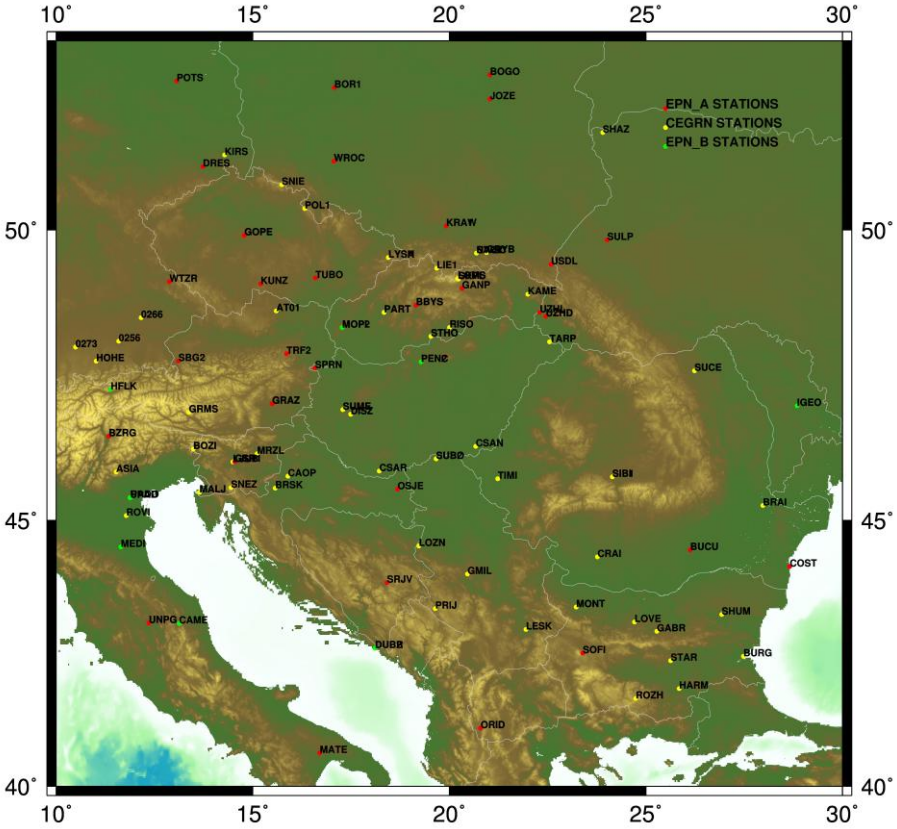

Fig. 3: Sites whose coordinates are requested to be validated.

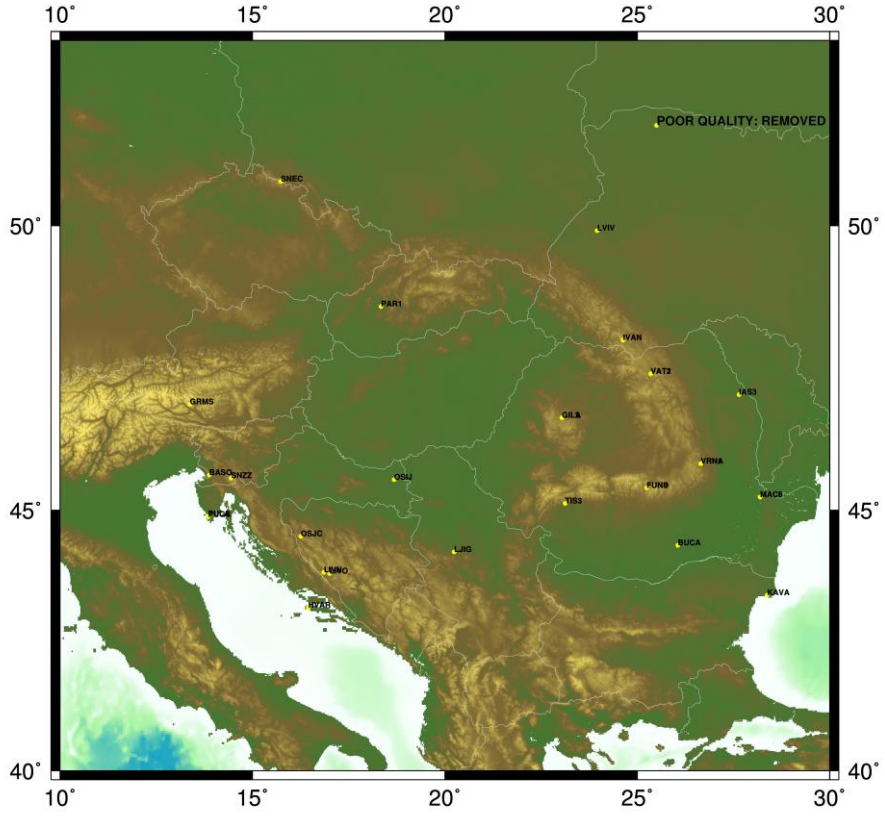

Fig. 4: Removed sites due to poor quality.

6.a Removal of uneligible sites

an extract from the STA file used in the multiyear stacking of the CEGRN campaigns, where the sites in Table 4 above are shown to have been removed. Consequently, only the sites qualifying for TWG validation plus the EPN sites used for frame alignment are present. The keyword 'ACCORDING TO G.S.' means that the original proposal of site removal came from an analysis of Guenter Stangl, and was shared by the rest of the analysts.

STATION NAME	FLG	FROM	TO	REMARK
**********	***	YYYY MM DD HH MM SS	YYYY MM DD HH MM SS	**********
BASO 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
BUCA 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
BUCA 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
BUCA 00000M000C	001			REMOVED, ACCORDING TO G. S. TABLE4
BUCA 00000M000D	001			REMOVED, ACCORDING TO G. S. TABLE4
FUN3 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
FUN3 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
FUN3 00000M000C	001			REMOVED, ACCORDING TO G. S. TABLE4
FUN3 00000M000D	001			REMOVED, ACCORDING TO G. S. TABLE4
FUND 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
FUND 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
GIL2 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
GILA 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
GRMS 11028S001A	001			REMOVED, ACCORDING TO G. S. TABLE4
GRMS 11028S001B	001			REMOVED, ACCORDING TO G. S. TABLE4
GRMS 11028S001C	001			REMOVED, ACCORDING TO G. S. TABLE4
HVAR 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
HVAR 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
HVAR 00000M000C	001			REMOVED, ACCORDING TO G. S. TABLE4
HVAR 00000M000D	001			REMOVED, ACCORDING TO G. S. TABLE4
IAS3 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
IAS3 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
IVAN 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
IVAN 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
KAVA 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
LEND 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
LEND 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
LIVN 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
LIVO 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
LJIG 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
LJIG 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
LJIG 00000M000C	001			REMOVED, ACCORDING TO G. S. TABLE4
LVIV 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
LVIV 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
LVIV 00000M000C	001			REMOVED, ACCORDING TO G. S. TABLE4
LVIV 00000M000D	001			REMOVED, ACCORDING TO G. S. TABLE4
LVIV 00000M000E	001			REMOVED, ACCORDING TO G. S. TABLE4
LVIV 00000M000F	001			REMOVED, ACCORDING TO G. S. TABLE4
MAC5 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
MACI 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
MACI 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
OSIJ 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
OSJC 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
PAR1 00000S001A	001			REMOVED, ACCORDING TO G. S. TABLE4
PAR1 00000S001B	001			REMOVED, ACCORDING TO G. S. TABLE4
PUGS 00000S001	001			REMOVED, ACCORDING TO G. S. TABLE4
PULA 11903S001	001			REMOVED, ACCORDING TO G. S. TABLE4
SNEC 11519M001A	001			REMOVED, ACCORDING TO G. S. TABLE4
SNEC 11519M001B	001			REMOVED, ACCORDING TO G. S. TABLE4
SNZZ 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
SNZZ 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
TIS3 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
TIS3 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
TIS3 00000M000C	001			REMOVED, ACCORDING TO G. S. TABLE4
TIS3 00000M000D	001			REMOVED, ACCORDING TO G. S. TABLE4
VAT1 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
VAT2 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
VRN1 00000M000A	001			REMOVED, ACCORDING TO G. S. TABLE4
VRN1 00000M000B	001			REMOVED, ACCORDING TO G. S. TABLE4
VRN1 00000M000C	001			REMOVED, ACCORDING TO G. S. TABLE4
VRN1 00000M000D	001			REMOVED, ACCORDING TO G. S. TABLE4
VRN1 00000M000E	001			REMOVED, ACCORDING TO G. S. TABLE4
VRNA 00000M000	001			REMOVED, ACCORDING TO G. S. TABLE4
GRAZ111001M002	001	1996-06-11 00:00:00	1996-06-15 23:59:30	HIGH RESIDUAL
TUBO111503M001	001	1999-06-14 00:00:00	1999-06-19 23:59:30	HIGH RESIDUAL
UZHL112301M001	001	2001-06-23 00:00:00	2001-06-23 23:59:30	HIGH RESIDUAL
BASO 00000M000	001	1996-06-10 00:00:00	1996-06-15 23:59:30	HIGH RESIDUAL
BRAI 00000M001	001	2009 06 24 00 00 00	2011 06 21 23 59 59	HIGH RESIDUAL
BRSK 00000M000	001	2003-06-16 00:00:30	2003-06-21 23:59:30	HIGH RESIDUAL
BRSK 00000M000	001	1999-06-15 00:00:00	1999-06-19 23:59:30	HIGH RESIDUAL
BUCA 00000M000C	001	2003-06-17 00:00:00	2003-06-21 23:59:30	HIGH RESIDUAL
FUN3 00000M000C	001	2003-06-16 00:00:30	2003-06-21 23:59:30	HIGH RESIDUAL
AT01 11027M002AX	001	1996-06-11 00:00:00	1996-06-15 23:59:30	HIGH RESIDUAL
AT01 11027M002A	001	1999-06-14 00:00:00	1999-06-19 23:59:30	HIGH RESIDUAL

STATION NAME	FLG	FROM	TO	REMARK
		YYYY MM DD HH MM SS	YYYY MM DD HH MM SS	
IAS5 00000M000	001			HIGH RESIDUAL. ISOLATED SITES.
IAS6 00000M000	001			HIGH RESIDUAL. ISOLATED SITES.
IAS7 00000M000	001			HIGH RESIDUAL. ISOLATED SITES.
KAME 00000M000	001	2001-06-18 00:00:30	2001-06-23 23:59:30	HIGH RESIDUAL
LJUB 00000M000A	001	1996-06-10 00:00:00	1996-06-15 23:59:30	HIGH RESIDUAL
MACI 00000M000A	001	1996 06 10 00 00 00	1996 06 16 00 00 00	HIGH RESIDUAL
MAC3 00000M000	001			HIGH RESIDUAL
MATE 12734M008	001	1996-06-10 00:00:00	1996-06-15 23:59:30	HIGH RESIDUAL
PART 00000M000A	001	2001-06-18 00:00:30	2001-06-22 23:59:30	HIGH RESIDUAL
RISO 00000S001B	001	2007-06-18 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
RISO 00000S001B	001	2009-06-22 00:00:00	2009-06-26 23:59:30	HIGH RESIDUAL
SKPL 00000M000B	001	2005 01 01 00 00 00	2006 01 01 00 00 00	HIGH RESIDUAL
SHUM 00000S001	001	2011-06-20 00:00:00	2011-06-25 23:59:30	HIGH RESIDUAL
SNIE 00000M000	001	2005-06-22 00:00:00	2005-06-24 23:59:30	HIGH RESIDUAL
TIS3 00000M000C	001	2003-06-17 00:00:00	2003-06-21 23:59:30	HIGH RESIDUAL
UZHD 00000M000A	001	1996-06-10 00:00:00	1996-06-15 23:59:30	HIGH RESIDUAL
VAT1 00000M000	001	1996-06-14 00:00:00	1996-06-15 23:59:30	HIGH RESIDUAL
VAT1 00000M000	001	1997-06-05 00:00:00	1997-06-08 23:59:30	HIGH RESIDUAL
VARN 00000S001A	001	2009-06-22 00:00:00	2009-06-22 23:59:30	HIGH RESIDUAL
VARN 00000S001A	001	2007-06-18 00:00:00	2007-06-23 23:59:30	HIGH RESIDUAL
VRN1 00000M000A	001	1996-06-10 00:00:00	1996-06-15 23:59:30	HIGH RESIDUAL
VRN3 00000M000	001	1996-06-11 00:00:00	1996-06-12 23:59:30	HIGH RESIDUAL
TUBO 115??M???	001			PROBLEMATIC
TIS4 00000M000	001			TO AVOID SINGULARITIES
TIS5 00000M000	001			TO AVOID SINGULARITIES
TIS6 00000M000	001			TO AVOID SINGULARITIES
POLO 00000M000	001			TO AVOID SINGULARITIES

6.b EPN_A Class residuals after MC Adjustment of yearly CEGRN Campaigns.

For each yearly campaign, a 7 parameter Helmert 3D transformation has been computed in order to check the correct alignment of the yearly solutions to the Reference Frame resulting from the multiyear EPN Class A stacking. Reference sites with residuals higher than 10 mm in X, Y or Z in the combined multiyear solution are not considered as fixed sites.

In the following summaries, residuals higher than 3 mm for N or E components are marked, as well as residuals higher than 6 mm for the U component.

6.b.1 CEGRN1996.

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
65	BOR1112205M002	I W	-0.55	-0.87	-2.22	
250	GOPE111502M002	I W	0.78	1.55	0.30	
267	GRAZ111001M002	I W	-4.45	0.27	22.02	*
346	JOZE112204M001	I W	1.13	1.10	2.20	
374	KOSG113504M003	I W	0.28	0.67	-0.69	
388	LAMA112209M001	I W	0.86	-0.97	-3.02	
479	METS110503S011	I W	0.31	-0.36	0.55	
531	ONSA110402M004	I W	0.16	0.20	1.09	
566	PENC111206M006	I W	0.76	-0.55	-0.70	
591	POTS114106M003	I W	-0.62	-0.72	2.03	
693	SOFI111101M002	I W	-1.31	-1.25	0.82	
876	WTZR114201M010	I W	-1.80	1.19	-0.36	
	RMS / COMPONENT		0.95	0.99	1.62	
	MEAN		0.00	0.00	-0.00	
	MIN		-1.80	-1.25	-3.02	
	MAX		1.13	1.55	2.20	

NUMBER OF PARAMETERS : 7
NUMBER OF COORDINATES : 33
RMS OF TRANSFORMATION : 1.32 MM

BARYCENTER COORDINATES:

LATITUDE : 51 31 15.36
LONGITUDE : 16 39 40.68
HEIGHT : -28.834 KM

PARAMETERS:

TRANSLATION IN N : -0.96 +- 0.40 MM
TRANSLATION IN E : -1.91 +- 0.40 MM
TRANSLATION IN U : -1.40 +- 0.40 MM
ROTATION AROUND N-AXIS: 0 0 0.000348 +- 0.000226 "
ROTATION AROUND E-AXIS: 0 0 0.000409 +- 0.000167 "
ROTATION AROUND U-AXIS: - 0 0 0.000176 +- 0.000133 "
SCALE FACTOR : 0.00050 +- 0.00064 MM/KM

NUMBER OF ITERATIONS : 3

6.b.2 CEGRN1997.

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
63	BOGO112207M002	I W	0.87	0.31	0.56	
65	BOR1112205M002	I W	-0.49	-0.30	0.59	
250	GOPE111502M002	I W	0.71	1.20	3.04	
267	GRAZ111001M002	I W	0.60	0.09	0.15	
346	JOZE112204M001	I W	-0.26	0.50	2.99	
374	KOSG113504M003	I W	0.08	0.86	-0.91	
388	LAMA112209M001	I W	-0.61	-0.98	-4.42	
465	MATE312734M008	I W	-1.22	-0.11	-0.47	
479	METS110503S011	I W	-0.36	-0.52	-0.26	
531	ONSA110402M004	I W	0.54	-0.14	2.28	
566	PENC111206M006	I W	-0.13	-0.62	-0.52	
591	POTS114106M003	I W	0.27	-0.28	-3.02	
	RMS / COMPONENT		0.63	0.63	2.22	
	MEAN		0.00	-0.00	-0.00	
	MIN		-1.22	-0.98	-4.42	
	MAX		0.87	1.20	3.04	

NUMBER OF PARAMETERS : 7
NUMBER OF COORDINATES : 36
RMS OF TRANSFORMATION : 1.47 MM

BARYCENTER COORDINATES:

LATITUDE : 51 37 30.23
LONGITUDE : 16 41 27.56
HEIGHT : -30.004 KM

PARAMETERS:

TRANSLATION IN N : -1.52 +- 0.42 MM
TRANSLATION IN E : -1.77 +- 0.42 MM
TRANSLATION IN U : 0.18 +- 0.42 MM
ROTATION AROUND N-AXIS: - 0 0 0.000664 +- 0.000279 "
ROTATION AROUND E-AXIS: - 0 0 0.000434 +- 0.000165 "
ROTATION AROUND U-AXIS: - 0 0 0.000232 +- 0.000141 "
SCALE FACTOR : 0.00018 +- 0.00068 MM/KM

NUMBER OF ITERATIONS : 2

6.b.3 CEGRN1999.

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
63	BOGO112207M002	I W	0.33	0.14	0.60	
66	BOR1212205M002	I W	0.46	-0.26	1.97	
102	BUCU111401M001	I W	-0.72	2.54	-0.58	
110	BZRG112751M001	I W	1.61	1.40	-9.01	*
195	DRES114108M001	I W	0.24	-1.01	0.58	
246	GLSV112356M001	I W	-2.02	-0.89	1.37	
250	GOPE111502M002	I W	1.76	-1.50	-0.02	
267	GRAZ111001M002	I W	0.83	-0.20	1.62	
346	JOZE112204M001	I W	0.87	1.54	-3.19	
374	KOSG113504M003	I W	1.46	0.80	-3.38	
388	LAMA112209M001	I W	1.19	-0.06	0.52	
465	MATE312734M008	I W	1.52	1.56	-10.41	*
479	METS110503S011	I W	-2.35	-1.45	0.06	
532	ONSA210402M004	I W	-0.61	-1.44	0.89	
566	PENC111206M006	I W	2.95	0.58	-6.05	*
591	POTS114106M003	I W	-0.75	1.18	-0.94	
693	SOFI111101M002	I W	-0.33	0.69	-1.70	
876	WTZR114201M010	I W	-0.12	1.00	0.04	
892	ZIMM214001M004	I W	-0.25	-1.10	2.18	
	RMS / COMPONENT		1.15	1.21	1.65	
	MEAN		0.00	0.00	0.00	
	MIN		-2.35	-1.50	-3.38	
	MAX		1.76	2.54	2.18	

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 NUMBER OF PARAMETERS  :     7
 NUMBER OF COORDINATES :    48
 RMS OF TRANSFORMATION :    1.42 MM

 BARYCENTER COORDINATES:

 LATITUDE              :    50  7 45.62
 LONGITUDE             :    17 11 21.87
 HEIGHT                :         -36.080 KM


 PARAMETERS:

 TRANSLATION IN  N     :          -1.67     +-  0.36    MM
 TRANSLATION IN  E     :          -2.00     +-  0.36    MM
 TRANSLATION IN  U     :           0.98     +-  0.36    MM
 ROTATION AROUND N-AXIS:     0  0  0.000695 +-  0.000156 "
 ROTATION AROUND E-AXIS:  -  0  0  0.000023 +-  0.000155 "
 ROTATION AROUND U-AXIS:  -  0  0  0.000130 +-  0.000110 "
 SCALE FACTOR          :           0.00089  +-  0.00053 MM/KM


 NUMBER OF ITERATIONS  :     3
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6.b.4 CEGRN2001.

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
65	BOR1112205M002	I W	-0.55	-0.87	-2.22	
250	GOPE111502M002	I W	0.78	1.55	0.30	
267	GRAZ111001M002	I W	-4.45	0.27	22.02	*
346	JOZE112204M001	I W	1.13	1.10	2.20	
374	KOSG113504M003	I W	0.28	0.67	-0.69	
388	LAMA112209M001	I W	0.86	-0.97	-3.02	
479	METS110503S011	I W	0.31	-0.36	0.55	
531	ONSA110402M004	I W	0.16	0.20	1.09	
566	PENC111206M006	I W	0.76	-0.55	-0.70	
591	POTS114106M003	I W	-0.62	-0.72	2.03	
693	SOFI111101M002	I W	-1.31	-1.25	0.82	
876	WTZR114201M010	I W	-1.80	1.19	-0.36	
	RMS / COMPONENT		0.95	0.99	1.62	
	MEAN		0.00	0.00	-0.00	
	MIN		-1.80	-1.25	-3.02	
	MAX		1.13	1.55	2.20	

NUMBER OF PARAMETERS : 7
NUMBER OF COORDINATES : 33
RMS OF TRANSFORMATION : 1.32 MM

BARYCENTER COORDINATES:

LATITUDE : 51 31 15.36
LONGITUDE : 16 39 40.68
HEIGHT : -28.834 KM

PARAMETERS:

TRANSLATION IN N : -0.96 +- 0.40 MM
TRANSLATION IN E : -1.91 +- 0.40 MM
TRANSLATION IN U : -1.40 +- 0.40 MM
ROTATION AROUND N-AXIS: 0 0 0.000348 +- 0.000226 "
ROTATION AROUND E-AXIS: 0 0 0.000409 +- 0.000167 "
ROTATION AROUND U-AXIS: - 0 0 0.000176 +- 0.000133 "
SCALE FACTOR : 0.00050 +- 0.00064 MM/KM

NUMBER OF ITERATIONS : 3

6.b.5 CEGRN2003.

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
64	BOGO212207M002	I W	0.32	-0.03	-1.35	
66	BOR1212205M002	I W	0.33	0.80	1.69	
102	BUCU111401M001	I W	-1.37	-0.82	2.46	
112	BZRG412751M001	I W	0.99	-0.64	-2.20	
196	DRES214108M001	I W	-1.28	1.99	-0.62	
246	GLSV112356M001	I W	0.24	-0.31	-1.55	
253	GOPE411502M002	I W	0.67	-0.59	0.57	
268	GRAZ211001M002	I W	-0.34	1.56	-1.63	
280	GSR1314501M001	I W	-0.32	1.80	-2.71	
346	JOZE112204M001	I W	0.90	0.74	-2.66	
375	KOSG213504M003	I W	-0.07	-0.06	-0.38	
381	KRAW112218M001	I W	-2.06	-0.77	0.86	
390	LAMA312209M001	I W	0.13	0.21	-0.78	
466	MATE412734M008	I W	1.09	0.83	0.42	
479	METS110503S011	I W	2.12	-0.10	2.40	
482	MIKL112335M001	I W	0.63	-0.82	-1.88	
535	ORID215601M001	I W	0.99	0.49	3.79	
549	OSJE111902M001	I W	-1.07	-0.11	-0.03	
567	PENC211206M006	I W	0.45	-0.84	-0.31	
591	POTS114106M003	I W	-0.05	-0.56	2.03	
693	SOFI111101M002	I W	0.02	-1.05	-0.01	
724	SULP212366M001	I W	-0.50	-0.40	-1.44	
783	TUBO111503M001	I W	0.26	-1.06	-1.40	
793	UNPG412752M001	I W	-1.09	-1.02	-0.25	
804	UZHL112301M001	I W	-0.26	0.27	1.67	
870	WROC212217M001	I W	-0.66	0.92	1.61	
876	WTZR114201M010	I W	-0.23	0.42	1.62	
892	ZIMM214001M004	I W	0.18	-0.86	0.10	
	RMS / COMPONENT		0.88	0.88	1.69	
	MEAN		0.00	-0.00	-0.00	
	MIN		-2.06	-1.06	-2.71	
	MAX		2.12	1.99	3.79	

NUMBER OF PARAMETERS : 7
NUMBER OF COORDINATES : 84
RMS OF TRANSFORMATION : 1.24 MM

BARYCENTER COORDINATES:

LATITUDE : 48 51 22.17
LONGITUDE : 18 17 39.49
HEIGHT : -31.648 KM

PARAMETERS:

TRANSLATION IN N : -1.27 +- 0.24 MM
TRANSLATION IN E : -1.83 +- 0.24 MM
TRANSLATION IN U : -0.04 +- 0.24 MM
ROTATION AROUND N-AXIS: 0 0 0.000088 +- 0.000110 "
ROTATION AROUND E-AXIS: 0 0 0.000734 +- 0.000105 "
ROTATION AROUND U-AXIS: - 0 0 0.000071 +- 0.000076 "
SCALE FACTOR : -0.00039 +- 0.00037 MM/KM

NUMBER OF ITERATIONS : 2

6.b.6 CEGRN2005.

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
64	BOGO212207M002	I W	0.20	0.41	2.86	
66	BOR1212205M002	I W	-0.75	-0.64	-0.54	
102	BUCU111401M001	I W	-0.88	0.74	0.35	
112	BZRG412751M001	I W	2.03	0.87	5.68	*
156	COST111407M001	I W	0.19	-0.79	-0.70	
196	DRES214108M001	I W	-3.49	1.23	-0.74	*
246	GLSV112356M001	I W	-0.89	-1.20	1.00	
253	GOPE411502M002	I W	0.01	-0.84	-1.26	
269	GRAZ311001M002	I W	0.62	0.73	-4.05	
280	GSR1314501M001	I W	0.41	-0.48	0.67	
347	JOZE212204M001	I W	0.14	0.15	-1.32	
375	KOSG213504M003	I W	-0.26	0.14	2.32	
381	KRAW112218M001	I W	-1.99	-1.04	-1.52	
390	LAMA312209M001	I W	0.43	0.46	-1.23	
466	MATE412734M008	I W	0.68	0.20	1.73	
479	METS110503S011	I W	-0.15	-0.26	0.58	
482	MIKL112335M001	I W	0.56	0.32	-0.82	
532	ONSA210402M004	I W	0.54	-1.08	2.34	
535	ORID215601M001	I W	-0.09	0.57	-0.17	
567	PENC211206M006	I W	0.15	-0.32	-1.45	
591	POTS114106M003	I W	-0.33	0.29	-3.25	
693	SOFI111101M002	I W	-2.12	1.43	1.58	
724	SULP212366M001	I W	-0.42	-0.29	2.93	
783	TUBO111503M001	I W	0.09	0.08	-2.62	
793	UNPG412752M001	I W	-0.22	3.65	5.72	*
804	UZHL112301M001	I W	1.27	0.79	2.75	
870	WROC212217M001	I W	0.56	0.28	-3.92	
876	WTZR114201M010	I W	0.66	0.41	2.46	
892	ZIMM214001M004	I W	1.37	-0.06	1.28	
	RMS / COMPONENT		0.83	0.66	2.10	
	MEAN		0.00	0.00	-0.00	
	MIN		-2.12	-1.20	-4.05	
	MAX		1.37	1.43	2.93	

NUMBER OF PARAMETERS : 7
NUMBER OF COORDINATES : 78
RMS OF TRANSFORMATION : 1.39 MM

BARYCENTER COORDINATES:

LATITUDE : 49 7 31.32
LONGITUDE : 18 29 24.36
HEIGHT : -35.461 KM

PARAMETERS:

TRANSLATION IN N : -1.21 +- 0.27 MM
TRANSLATION IN E : -2.02 +- 0.27 MM
TRANSLATION IN U : -0.42 +- 0.28 MM
ROTATION AROUND N-AXIS: - 0 0 0.000592 +- 0.000124 "
ROTATION AROUND E-AXIS: 0 0 0.000236 +- 0.000115 "
ROTATION AROUND U-AXIS: 0 0 0.000020 +- 0.000083 "
SCALE FACTOR : -0.00014 +- 0.00040 MM/KM

NUMBER OF ITERATIONS : 2

6.b.7 CEGRN2007.

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
64	BOGO212207M002	I W	0.07	1.55	-1.47	
66	BOR1212205M002	I W	-0.16	-0.56	0.73	
102	BUCU111401M001	I W	-1.17	0.24	0.81	
112	BZRG412751M001	I W	1.48	0.02	-1.16	
156	COST111407M001	I W	0.36	0.22	-0.37	
197	DRES314108M001	I W	0.79	-1.51	4.10	
246	GLSV112356M001	I W	-2.58	-1.43	1.99	
254	GOPE511502M002	I W	0.78	0.59	-2.58	
270	GRAZ411001M002	I W	-0.52	0.33	-3.00	
280	GSR1314501M001	I W	0.24	-1.04	-1.04	
347	JOZE212204M001	I W	-0.46	0.08	0.14	
375	KOSG213504M003	I W	-1.53	-1.64	1.31	
381	KRAW112218M001	I W	-3.83	-1.03	-0.34	*
383	KUNZ111524M001	I W	2.82	-0.49	-1.14	
390	LAMA312209M001	I W	0.76	-0.06	0.05	
466	MATE412734M008	I W	0.62	1.98	3.42	
479	METS110503S011	I W	-0.31	-0.10	1.76	
482	MIKL112335M001	I W	-0.11	0.27	-0.73	
532	ONSA210402M004	I W	0.31	-0.15	-0.82	
535	ORID215601M001	I W	-0.37	-0.06	8.54	*
567	PENC211206M006	I W	1.08	1.38	-5.67	*
591	POTS114106M003	I W	0.24	-0.14	1.03	
693	SOFI111101M002	I W	-2.00	1.72	6.52	*
724	SULP212366M001	I W	-0.73	-0.10	-2.43	
785	TUBO311503M001	I W	0.05	-0.53	-1.00	
794	UNPG512752M001	I W	-0.13	0.89	-0.42	
804	UZHL112301M001	I W	-0.01	-0.19	2.25	
872	WROC412217M001	I W	0.58	1.15	-2.74	
876	WTZR114201M010	I W	-0.49	2.33	-0.14	
892	ZIMM214001M004	I W	-0.89	-1.70	1.46	
	RMS / COMPONENT		1.01	1.03	1.84	
	MEAN		0.00	0.00	-0.00	
	MIN		-2.58	-1.70	-3.00	
	MAX		2.82	2.33	4.10	

NUMBER OF PARAMETERS : 7
NUMBER OF COORDINATES : 78
RMS OF TRANSFORMATION : 1.39 MM

BARYCENTER COORDINATES:

LATITUDE : 49 7 34.61
LONGITUDE : 18 22 47.55
HEIGHT : -34.400 KM

PARAMETERS:

TRANSLATION IN N : -1.10 +- 0.27 MM
TRANSLATION IN E : -1.88 +- 0.27 MM
TRANSLATION IN U : -0.35 +- 0.27 MM
ROTATION AROUND N-AXIS: 0 0 0.000278 +- 0.000116 "
ROTATION AROUND E-AXIS: 0 0 0.000316 +- 0.000122 "
ROTATION AROUND U-AXIS: - 0 0 0.000006 +- 0.000084 "
SCALE FACTOR : -0.00146 +- 0.00041 MM/KM

NUMBER OF ITERATIONS : 2

6.b.8 CEGRN2009.

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
51	BBYS211514M001	I W	-0.68	0.37	0.30	
64	BOGO212207M002	I W	-0.27	0.92	-0.07	
66	BOR1212205M002	I W	-0.75	-0.23	-1.89	
103	BUCU211401M001	I W	-0.49	-1.01	-1.65	
113	BZRG512751M001	I W	0.88	2.37	-0.94	
156	COST111407M001	I W	1.02	0.18	-2.63	
197	DRES314108M001	I W	1.58	-1.39	4.45	
240	GANP211515M001	I W	-0.03	-0.90	1.93	
247	GLSV212356M001	I W	-2.02	-2.26	-3.87	
254	GOPE511502M002	I W	0.97	1.14	-2.65	
270	GRAZ411001M002	I W	-0.60	-0.11	-2.43	
281	GSR1414501M001	I W	-0.56	0.13	0.22	
347	JOZE212204M001	I W	-0.85	-0.06	-0.96	
375	KOSG213504M003	I W	2.44	0.13	-2.91	
381	KRAW112218M001	I W	-2.29	0.84	1.52	
383	KUNZ111524M001	I W	4.74	-0.50	-4.26	*
391	LAMA412209M001	I W	0.15	0.31	0.08	
467	MATE512734M008	I W	-0.38	-0.70	0.69	
479	METS110503S011	I W	0.16	-0.09	1.53	
482	MIKL112335M001	I W	0.85	-0.04	-1.92	
489	MOP2111507M002	I W	0.40	-0.75	1.75	
532	ONSA210402M004	I W	1.10	-1.55	2.29	
537	ORID415601M001	I W	0.72	0.97	4.97	
550	OSJE211902M001	I W	0.08	0.75	2.93	
568	PENC311206M006	I W	1.25	-1.35	-5.34	*
592	POTS214106M003	I W	-0.19	-0.48	-1.78	
649	SBG2111031M002	I W	-2.35	0.27	-0.92	
693	SOFI111101M002	I W	0.29	1.97	-1.24	
700	SPRN111227M001	I W	-0.12	0.09	1.36	
724	SULP212366M001	I W	-0.16	-0.89	0.80	
772	TRF2111047M002	I W	-1.09	0.12	0.48	
785	TUBO311503M001	I W	0.70	0.49	3.48	
794	UNPG512752M001	I W	0.06	0.31	-1.70	
804	UZHL112301M001	I W	-1.21	-0.34	4.79	
872	WROC412217M001	I W	1.74	0.31	-3.06	
876	WTZR114201M010	I W	-1.26	0.66	8.36	*
892	ZIMM214001M004	I W	0.89	-0.87	-2.94	
	RMS / COMPONENT		1.08	0.94	2.40	
	MEAN		0.00	0.00	0.00	
	MIN		-2.35	-2.26	-3.87	
	MAX		2.44	2.37	4.97	

```
NUMBER OF PARAMETERS  :     7
NUMBER OF COORDINATES :   102
RMS OF TRANSFORMATION :    1.65 MM

BARYCENTER COORDINATES:

LATITUDE              :    48 53 37.76
LONGITUDE             :    18  9 58.21
HEIGHT                :         -28.681 KM


PARAMETERS:

TRANSLATION IN  N     :          -1.41     +-  0.28    MM
TRANSLATION IN  E     :          -1.80     +-  0.28    MM
TRANSLATION IN  U     :          -0.00     +-  0.28    MM
ROTATION AROUND N-AXIS:     0  0  0.000529 +-  0.000135 "
ROTATION AROUND E-AXIS:  -  0  0  0.000089 +-  0.000127 "
ROTATION AROUND U-AXIS:     0  0  0.000062 +-  0.000093 "
SCALE FACTOR          :          -0.00018  +-  0.00045 MM/KM


NUMBER OF ITERATIONS  :     2
```

6.b.9 CEGRN2011.

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
51	BBYS211514M001	I W	-1.15	-0.03	1.16	
64	BOGO212207M002	I W	-0.26	1.38	2.10	
66	BOR1212205M002	I W	0.59	0.35	-1.23	
103	BUCU211401M001	I W	0.37	-0.80	-1.25	
113	BZRG512751M001	I W	0.53	0.10	-3.86	
156	COST111407M001	I W	-0.81	0.06	1.66	
198	DRES414108M001	I W	0.00	0.78	2.83	
240	GANP211515M001	I W	0.27	-0.63	2.66	
247	GLSV212356M001	I W	-0.13	-1.18	-4.24	
255	GOPE611502M002	I W	1.09	-0.35	-2.35	
271	GRAZ511001M002	I W	-0.43	-0.93	2.05	
281	GSR1414501M001	I W	-0.77	-0.36	-0.72	
347	JOZE212204M001	I W	1.55	0.20	4.67	
381	KRAW112218M001	I W	-2.16	0.54	2.67	
391	LAMA412209M001	I W	0.05	0.79	-0.72	
467	MATE512734M008	I W	0.48	1.08	-1.14	
482	MIKL112335M001	I W	1.00	-1.21	-1.56	
489	MOP2111507M002	I W	0.22	0.19	0.18	
532	ONSA210402M004	I W	0.63	0.09	-1.60	
537	ORID415601M001	I W	-0.26	-0.24	2.99	
550	OSJE211902M001	I W	-0.81	0.04	-1.17	
568	PENC311206M006	I W	1.17	-1.49	-2.08	
649	SBG2111031M002	I W	-1.50	1.54	-1.63	
724	SULP212366M001	I W	-0.52	0.28	-1.56	
772	TRF2111047M002	I W	0.37	-1.29	-2.72	
785	TUBO311503M001	I W	0.63	-0.75	2.49	
794	UNPG512752M001	I W	-1.61	1.49	1.28	
872	WROC412217M001	I W	1.43	0.81	1.78	
892	ZIMM214001M004	I W	0.03	-0.46	-0.66	
	RMS / COMPONENT		0.91	0.84	2.27	
	MEAN		-0.00	0.00	0.00	
	MIN		-2.16	-1.49	-4.24	
	MAX		1.55	1.54	4.67	

NUMBER OF PARAMETERS : 7
NUMBER OF COORDINATES : 87
RMS OF TRANSFORMATION : 1.53 MM

BARYCENTER COORDINATES:

LATITUDE : 48 28 49.26
LONGITUDE : 18 33 14.75
HEIGHT : -25.938 KM

PARAMETERS:

TRANSLATION IN N : -1.41 +- 0.28 MM
TRANSLATION IN E : -1.92 +- 0.28 MM
TRANSLATION IN U : -0.33 +- 0.28 MM
ROTATION AROUND N-AXIS: 0 0 0.000501 +- 0.000140 "
ROTATION AROUND E-AXIS: 0 0 0.000287 +- 0.000146 "
ROTATION AROUND U-AXIS: 0 0 0.000155 +- 0.000101 "
SCALE FACTOR : -0.00032 +- 0.00049 MM/KM

NUMBER OF ITERATIONS : 2

6.b.10 CEGRN2013.

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
62	BBYS311514M001	I W	1.29	0.56	-2.13	
75	BOGO212207M002	I W	-0.26	1.21	1.29	
77	BOR1212205M002	I W	0.92	-0.81	0.87	
116	BUCU211401M001	I W	-0.44	-0.10	-2.56	
128	BZRG612751M001	I W	2.70	0.98	4.66	
171	COST111407M001	I W	-0.82	-0.45	2.91	
217	DRES414108M001	I W	0.14	0.13	1.05	
260	GANP211515M001	I W	1.72	-0.78	4.39	
267	GLSV212356M001	I W	0.39	-2.62	-1.80	
274	GOPE611502M002	I W	0.81	0.39	-3.82	
285	GRAZ511001M002	I W	-1.10	-0.29	-0.35	
296	GSR1414501M001	I W	-1.43	-0.78	1.65	
351	IGEO115101M001	I W	-2.16	-2.10	-0.17	
366	JOZE212204M001	I W	2.27	2.61	13.24	*
404	KOSG513504M003	I W	-5.71	-12.41	-8.77	*
407	KRAW112218M001	I W	1.74	2.37	-7.34	*
410	KUNZ111524M001	I W	1.82	-1.22	-2.01	
417	LAMA412209M001	I W	0.71	-0.01	0.10	
509	MATE512734M008	I W	-1.27	0.62	-2.40	
524	METS310503S011	I W	-10.69	5.75	6.09	*
525	MIKL112335M001	I W	5.52	-2.77	0.45	*
531	MOP2111507M002	I W	-1.66	-0.98	4.21	
572	ONSA210402M004	I W	-0.28	-0.76	-0.81	
577	ORID415601M001	I W	-0.86	-0.73	3.16	
612	PENC311206M006	I W	1.90	-1.30	-2.23	
640	POTS314106M003	I W	-4.19	-1.20	1.35	*
693	SBG2111031M002	I W	-0.62	2.96	-2.01	
752	SPRN211227M001	I W	-0.93	4.12	6.53	*
777	SULP212366M001	I W	0.71	2.35	2.34	
822	TRF2111047M002	I W	-0.13	0.58	-1.45	
839	TUBO411503M001	I W	0.53	1.96	-4.09	
848	UNPG512752M001	I W	-2.61	1.97	-5.25	
924	WROC412217M001	I W	0.43	2.47	6.64	*
929	WTZR214201M010	I W	0.90	2.09	8.13	*
939	ZIMM214001M004	I W	-0.00	-0.78	4.43	
	RMS / COMPONENT		1.31	1.34	2.85	
	MEAN		0.00	-0.00	0.00	
	MIN		-2.61	-2.62	-5.25	
	MAX		2.70	2.96	4.66	

NUMBER OF PARAMETERS : 7
NUMBER OF COORDINATES : 78
RMS OF TRANSFORMATION : 2.03 MM

BARYCENTER COORDINATES:

LATITUDE : 49 8 1.09
LONGITUDE : 18 10 45.84
HEIGHT : -29.818 KM

PARAMETERS:

TRANSLATION IN N : 0.30 +- 0.40 MM
TRANSLATION IN E : -0.09 +- 0.40 MM
TRANSLATION IN U : -0.75 +- 0.41 MM
ROTATION AROUND N-AXIS: 0 0 0.000392 +- 0.000193 "
ROTATION AROUND E-AXIS: - 0 0 0.000573 +- 0.000203 "
ROTATION AROUND U-AXIS: 0 0 0.000117 +- 0.000140 "
SCALE FACTOR : -0.00070 +- 0.00068 MM/KM

NUMBER OF ITERATIONS : 2

6.c Full CEGRN Stacking.

To conclude, the Helmert transformation of the MC adjusted solution and the a priori EPN_A (version C1725) coordinates is provided. Both a 7 parameter and a 3 parameter transformation are considered.

6.c.1 Residuals of a 7 parameter Transformation

RESIDUALS IN LOCAL SYSTEM (NORTH, EAST, UP)

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS		
51	BBYS211514M001	I W	-1.07	-0.00	0.60
52	BBYS311514M001	I W	0.92	0.07	-2.77
63	BOGO112207M002	I W	0.88	-0.02	0.06
64	BOGO212207M002	I W	-0.31	0.47	0.47
65	BOR1112205M002	I W	0.45	-0.13	0.15
66	BOR1212205M002	I W	0.06	-0.18	0.46
102	BUCU111401M001	I W	-1.15	0.44	-0.03
103	BUCU211401M001	I W	0.02	-0.75	-2.15
110	BZRG112751M001	I W	0.80	0.83	-5.45
111	BZRG212751M001	I W	1.47	-0.32	-0.46
112	BZRG412751M001	I W	1.41	0.26	1.65
113	BZRG512751M001	I W	0.01	1.10	-1.48
114	BZRG612751M001	I W	2.08	0.97	4.53
156	COST111407M001	I W	0.19	-0.46	0.97
195	DRES114108M001	I W	0.37	-1.30	1.85
196	DRES214108M001	I W	-2.22	1.65	0.20
197	DRES314108M001	I W	0.71	-1.55	4.63
198	DRES414108M001	I W	-0.52	0.03	1.46
240	GANP211515M001	I W	0.63	-1.05	2.74
246	GLSV112356M001	I W	-1.66	-1.11	0.11
247	GLSV212356M001	I W	-0.18	-2.75	-4.95
250	GOPE111502M002	I W	1.75	0.22	1.61
253	GOPE411502M002	I W	-0.13	-1.21	2.04
254	GOPE511502M002	I W	0.49	0.63	-1.58
255	GOPE611502M002	I W	0.43	-0.31	-3.44
267	GRAZ111001M002	I W	1.00	-0.09	1.38
268	GRAZ211001M002	I W	-0.20	1.76	-1.96
269	GRAZ311001M002	I W	0.51	0.49	-3.51
270	GRAZ411001M002	I W	-0.79	0.03	-2.07
271	GRAZ511001M002	I W	-1.21	-0.66	0.81
279	GSR1214501M001	I W	-1.20	0.24	-2.16
280	GSR1314501M001	I W	0.09	0.36	-0.96
281	GSR1414501M001	I W	-1.51	-0.33	0.86
331	IGEO115101M001	I W	-2.31	-2.67	-1.51
346	JOZE112204M001	I W	0.74	1.17	-0.98
347	JOZE212204M001	I W	0.58	0.16	2.98
374	KOSG113504M003	I W	1.45	0.28	-1.19
375	KOSG213504M003	I W	-0.07	-0.22	-0.03
380	KRA1112218M002	I W	-0.52	-0.78	-1.97
381	KRAW112218M001	I W	-1.86	-0.22	-0.68
383	KUNZ111524M001	I W	2.56	-1.01	-2.42
388	LAMA112209M001	I W	0.94	0.09	-1.17
390	LAMA312209M001	I W	0.23	0.26	0.57
391	LAMA412209M001	I W	-0.01	-0.41	-1.62
465	MATE312734M008	I W	-0.74	-0.00	-0.04
466	MATE412734M008	I W	0.31	1.07	1.90
467	MATE512734M008	I W	-0.92	0.70	0.32
479	METS110503S011	I W	0.63	-0.05	1.27
482	MIKL112335M001	I W	1.52	-1.13	-0.52
489	MOP2111507M002	I W	-0.95	-0.77	2.11
531	ONSA110402M004	I W	1.88	0.56	0.26
532	ONSA210402M004	I W	-0.13	-1.30	-0.24
534	ORID115601M001	I W	-1.18	-0.30	1.19
535	ORID215601M001	I W	0.41	0.50	2.68
537	ORID415601M001	I W	-0.19	0.12	4.42
549	OSJE111902M001	I W	-1.32	-0.53	0.57
550	OSJE211902M001	I W	-0.73	0.40	0.34
566	PENC111206M006	I W	1.39	0.06	-1.69
567	PENC211206M006	I W	0.34	-0.38	-1.12
568	PENC311206M006	I W	1.23	-1.66	-3.06
591	POTS114106M003	I W	0.26	0.21	0.95
592	POTS214106M003	I W	-0.82	-0.87	-1.03

593	POTS314106M003	I W	-4.80	-1.64	1.08	*
649	SBG2111031M002	I W	-1.93	1.72	-1.44	
693	SOFI111101M002	I W	-1.08	-0.00	0.28	
694	SOFI211101M002	I W	-1.65	3.23	-5.54	*
700	SPRN111227M001	I W	-0.60	0.08	2.41	
701	SPRN211227M001	I W	-1.54	3.01	6.90	*
706	SRJV211801S001	I W	0.70	0.68	-0.59	
707	SRJV311801S001	I W	-1.29	0.66	0.39	
724	SULP212366M001	I W	-0.39	-0.06	1.17	
772	TRF2111047M002	I W	-0.00	0.22	-9.30	*
783	TUBO111503M001	I W	0.02	-0.78	-0.75	
785	TUBO311503M001	I W	0.28	-0.45	1.80	
786	TUBO411503M001	I W	0.06	1.50	-4.78	
792	UNPG312752M001	I W	-1.80	0.58	-4.83	
793	UNPG412752M001	I W	-1.03	0.78	0.96	
794	UNPG512752M001	I W	-1.97	1.56	-0.54	
801	USDL112229M001	I W	-0.09	0.16	0.07	
804	UZHL112301M001	I W	0.01	0.15	3.19	
869	WROC112217M001	I W	1.43	0.66	4.89	
870	WROC212217M001	I W	0.00	0.37	1.00	
872	WROC412217M001	I W	0.59	0.95	1.44	
876	WTZR114201M010	I W	-0.36	0.90	2.59	
877	WTZR214201M010	I W	0.56	1.47	6.65	*
891	ZIMM114001M004	I W	2.69	0.80	-3.12	
892	ZIMM214001M004	I W	-0.08	-0.88	1.98	
	RMS / COMPONENT		1.08	0.87	2.17	
	MEAN		-0.00	-0.00	-0.00	
	MIN		-2.31	-2.75	-5.45	
	MAX		2.69	1.76	4.89	

```
NUMBER OF PARAMETERS  :     7
NUMBER OF COORDINATES :   246
RMS OF TRANSFORMATION :    1.50 MM

BARYCENTER COORDINATES:

LATITUDE              :    48 28 58.41
LONGITUDE             :    17 20  1.29
HEIGHT                :         -25.640 KM


PARAMETERS:

TRANSLATION IN  N     :           0.09     +-  0.17    MM
TRANSLATION IN  E     :          -0.08     +-  0.17    MM
TRANSLATION IN  U     :           0.00     +-  0.17    MM
ROTATION AROUND N-AXIS:     0  0  0.000138 +-  0.000087 "
ROTATION AROUND E-AXIS:     0  0  0.000249 +-  0.000079 "
ROTATION AROUND U-AXIS:  -  0  0  0.000052 +-  0.000059 "
SCALE FACTOR          :          -0.00025  +-  0.00028 MM/KM


NUMBER OF ITERATIONS  :     2
```

Solutions with differences higher than 3 mm (N and E components) or 6 mm (U component) are marked in the previous output. The most remarkable difference between our solution and the EPN_A C1725 solution is for TRF2, which is considered since the difference does not exceed 10 mm.

6.c.2 Residuals of a 3 parameter Transformation

In this section the 3D Helmert parameters of the computed EPN_A class sites and the published values are provided, allowing for three translations only, whereas in the previous section a full 7 parameter transformation was examined. We see that there is no appreciable difference, a fact wich strongly suggests proper alignement of the CEGRN+EPN 'densified' frame to the original EPN frame.

NUM	NAME	FLG	RESIDUALS IN MILLIMETERS			
51	BBYS211514M001	I W	-1.17	0.09	0.58	
52	BBYS311514M001	I W	0.83	0.16	-2.81	
63	BOGO112207M002	I W	0.90	-0.17	0.22	
64	BOGO212207M002	I W	-0.52	0.63	0.89	
65	BOR1112205M002	I W	0.52	-0.18	0.49	
66	BOR1212205M002	I W	0.01	-0.09	0.92	
102	BUCU111401M001	I W	-1.10	0.08	-1.09	
103	BUCU211401M001	I W	-0.04	-0.95	-3.08	
110	BZRG112751M001	I W	1.21	0.61	-5.62	
111	BZRG212751M001	I W	1.84	-0.47	-0.63	
112	BZRG412751M001	I W	1.55	0.44	1.79	
113	BZRG512751M001	I W	0.14	1.28	-1.40	
114	BZRG612751M001	I W	2.22	1.13	4.61	
156	COST111407M001	I W	0.10	-0.71	-0.04	
195	DRES114108M001	I W	0.58	-1.41	2.07	
196	DRES214108M001	I W	-2.25	1.87	0.76	
197	DRES314108M001	I W	0.59	-1.22	5.22	
198	DRES414108M001	I W	-0.57	0.27	1.97	
240	GANP211515M001	I W	0.50	-0.97	2.69	
246	GLSV112356M001	I W	-1.80	-1.38	-0.28	
247	GLSV212356M001	I W	-0.46	-2.85	-5.19	
250	GOPE111502M002	I W	1.94	0.10	1.75	
253	GOPE411502M002	I W	-0.10	-1.13	2.24	
254	GOPE511502M002	I W	0.38	0.90	-1.21	
255	GOPE611502M002	I W	0.38	-0.12	-3.11	
267	GRAZ111001M002	I W	1.26	-0.31	1.11	
268	GRAZ211001M002	I W	-0.03	1.68	-2.16	
269	GRAZ311001M002	I W	0.42	0.75	-3.49	
270	GRAZ411001M002	I W	-0.81	0.20	-2.09	
271	GRAZ511001M002	I W	-1.19	-0.55	0.73	
279	GSR1214501M001	I W	-0.90	0.01	-2.55	
280	GSR1314501M001	I W	0.14	0.49	-1.06	
281	GSR1414501M001	I W	-1.43	-0.23	0.70	
331	IGEO115101M001	I W	-2.49	-2.84	-2.18	
346	JOZE112204M001	I W	0.72	1.07	-0.82	
347	JOZE212204M001	I W	0.37	0.32	3.35	
374	KOSG113504M003	I W	1.78	0.35	-0.26	
375	KOSG213504M003	I W	0.02	0.20	1.14	
380	KRA1112218M002	I W	-0.66	-0.68	-1.88	
381	KRAW112218M001	I W	-2.00	-0.10	-0.53	
383	KUNZ111524M001	I W	2.51	-0.81	-2.20	
388	LAMA112209M001	I W	0.96	-0.05	-0.81	
390	LAMA312209M001	I W	0.08	0.34	1.11	
391	LAMA412209M001	I W	-0.24	-0.22	-1.02	
465	MATE312734M008	I W	-0.31	-0.42	-1.22	
466	MATE412734M008	I W	0.63	0.83	0.89	
467	MATE512734M008	I W	-0.67	0.58	-0.67	
479	METS110503S011	I W	0.42	0.05	2.55	
482	MIKL112335M001	I W	1.32	-1.38	-1.27	
489	MOP2111507M002	I W	-1.00	-0.65	2.11	
531	ONSA110402M004	I W	1.97	0.68	1.54	
532	ONSA210402M004	I W	-0.19	-1.00	1.12	
534	ORID115601M001	I W	-0.85	-0.77	-0.21	
535	ORID215601M001	I W	0.57	0.30	1.58	
537	ORID415601M001	I W	-0.04	-0.08	3.27	
549	OSJE111902M001	I W	-1.16	-0.72	-0.05	
550	OSJE211902M001	I W	-0.72	0.41	-0.11	
566	PENC111206M006	I W	1.54	-0.18	-2.10	
567	PENC211206M006	I W	0.27	-0.34	-1.26	
568	PENC311206M006	I W	1.16	-1.60	-3.24	
591	POTS114106M003	I W	0.31	0.35	1.61	
592	POTS214106M003	I W	-0.89	-0.58	-0.30	
593	POTS314106M003	I W	-4.87	-1.36	1.82	*
649	SBG2111031M002	I W	-1.87	1.87	-1.29	
693	SOFI111101M002	I W	-0.96	-0.33	-0.88	

694	SOFI211101M002	I W	-1.61	3.04	-6.62	*
700	SPRN111227M001	I W	-0.63	0.20	2.36	
701	SPRN211227M001	I W	-1.56	3.11	6.84	*
706	SRJV211801S001	I W	0.83	0.54	-1.29	
707	SRJV311801S001	I W	-1.22	0.61	-0.28	
724	SULP212366M001	I W	-0.58	-0.04	1.10	
772	TRF2111047M002	I W	-0.01	0.36	-9.29	*
783	TUBO111503M001	I W	-0.03	-0.66	-0.56	
785	TUBO311503M001	I W	0.19	-0.26	1.99	
786	TUBO411503M001	I W	0.00	1.65	-4.65	
792	UNPG312752M001	I W	-1.35	0.32	-5.44	
793	UNPG412752M001	I W	-0.75	0.80	0.59	
794	UNPG512752M001	I W	-1.75	1.64	-0.93	
801	USDL112229M001	I W	-0.26	0.19	-0.03	
804	UZHL112301M001	I W	-0.12	0.15	3.02	
869	WROC112217M001	I W	1.58	0.48	4.99	
870	WROC212217M001	I W	-0.03	0.42	1.31	
872	WROC412217M001	I W	0.45	1.16	1.82	
876	WTZR114201M010	I W	-0.26	0.98	2.86	
877	WTZR214201M010	I W	0.57	1.68	6.98	*
891	ZIMM114001M004	I W	3.10	0.75	-2.93	*
892	ZIMM214001M004	I W	0.21	-0.74	2.22	
	RMS / COMPONENT		1.06	0.90	2.24	
	MEAN		-0.00	-0.00	-0.00	
	MIN		-2.49	-2.85	-5.62	
	MAX		2.51	1.87	5.22	

```
NUMBER OF PARAMETERS  :     3
NUMBER OF COORDINATES :   243
RMS OF TRANSFORMATION :    1.52 MM

BARYCENTER COORDINATES:

LATITUDE              :    48 28 58.41
LONGITUDE             :    17 20  1.29
HEIGHT                :         -25.640 KM


PARAMETERS:

TRANSLATION IN  N     :           0.05     +-  0.17    MM
TRANSLATION IN  E     :          -0.10     +-  0.17    MM
TRANSLATION IN  U     :           0.04     +-  0.17    MM


NUMBER OF ITERATIONS  :     2
```

No sites exceed the 10 mm threshold. The highest residuals in the U component are for SOFI211101M002, TRF2111047M002 and WTZR214201M010 (-6.62, -9.29 and 6.98 mm respectively).

7 Maps of the Intra-plate Velocities.

In this section the maps of the velocity estimates are shown, in the ETRF2000 frame, i.e. relative to a 'stable' Eurasian plate.

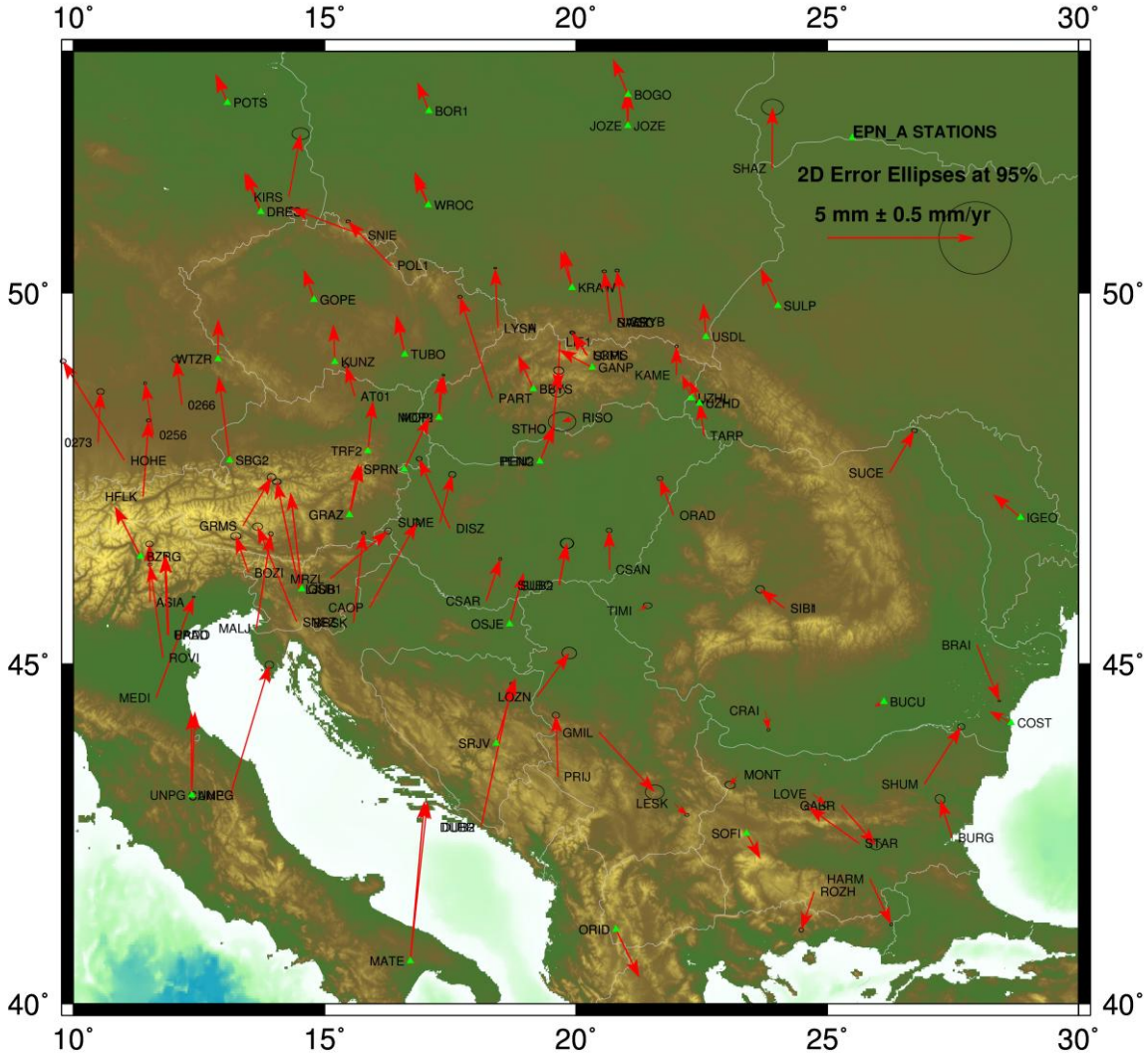

Fig. 5: CEGRN Network: Horizontal Velocity Field with respect to Eurasian plate.

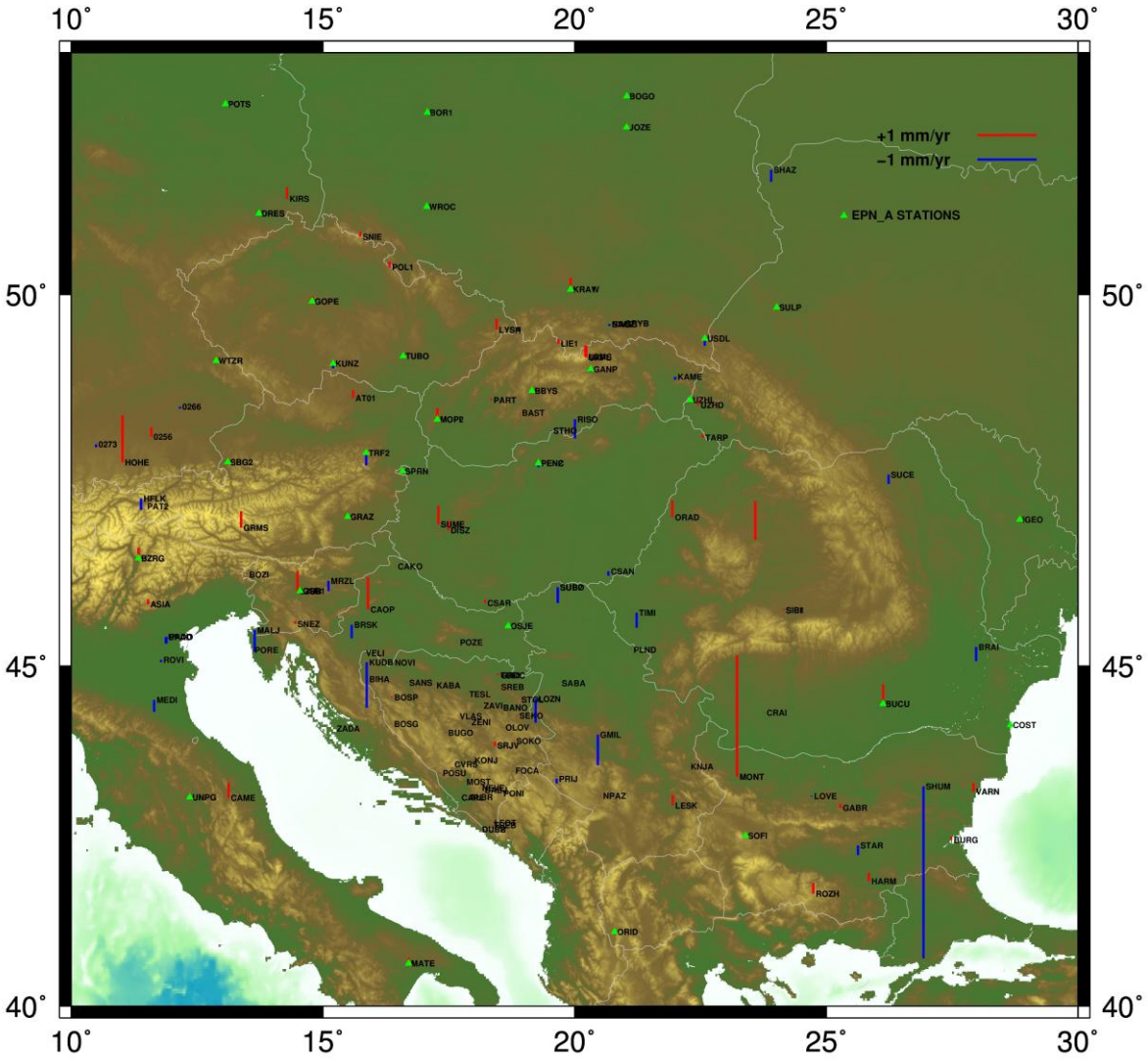

Fig. 6: CEGRN Network: Vertical Velocity Field.

8 Lists of the Files available to the TWG.

In addition to the requested files, all the used files in the final stacking (BSW52) and some additional outputs are provided to the TWG. For the Bosnian sites in Table 3, CEGRN has requested permission for web publication.

The following files are provided (CONTENTS file):

```
|-- BSW52               BSW52 ORIGINAL FILES USED TO GET THE FINAL SOLUTIONS
|   |-- CEGRN52.CRD             CRD FILE
|   |-- CEGRN52.VEL             VEL FILE
|   |-- CEGRN.FIX               FIX FILE
|   |-- CEGRN.SIG               SIG FILE
|   `-- CEGRN.STA               STA FILE
|-- CONTENTS                    THIS FILE
|-- COORDINATES                 FOLDER THAT CONTAINS THE LIST OF COORDINATES AND VELOCITIES
|   |-- CEGRN.CRD               MC ADJUSTED COORDINATES OF THE CEGRN NETWORK, INCLUDING NOTES
|   |-- CEGRN.VEL               MC ADJUSTED VELOCITIES OF THE CEGRN NETWORK
|   |-- EPN_A.CRD               MC ADJUSTED COORDINATES OF THE REFERENCE SITES
|   |-- EPN_A.VEL               MC ADJUSTED VELOCITIES OF THE REFERENCE SITES
|   |-- REFSITES        LIST OF REFERENCE SITES
|-- FORMS               FOLDER THAT WILL HOLD ALL THE FORMS OF THE SITES.
|   |-- blank.log               BLANK FORM
|   |-- CEGRN                   LOGSHEETS OF ALL THE CEGRN SITES
|   |   |-- 0256_20140408.log
|   |   |-- 0266_20140408.log
|   |   |-- 0273_20140408.log
|   |   |-- asia_20140408.log
|   |   |-- at01_20140408.log
|   |   |-- baso_20140408.log
|   |   |-- bast_20140408.log
|   |   |-- bozi_20140408.log
|   |   |-- brai_20140408.log
|   |   |-- brsk_20140408.log
|   |   |-- burg_20140408.log
|   |   |-- caop_20140408.log
|   |   |-- cluj_20140408.log
|   |   |-- crai_20140408.log
|   |   |-- csan_20140408.log
|   |   |-- csar_20140408.log
|   |   |-- disz_20140408.log
|   |   |-- gabr_20140408.log
|   |   |-- gmil_20140408.log
|   |   |-- grms_20140408.log
|   |   |-- gryb_20140408.log
|   |   |-- harm_20140408.log
|   |   |-- hohe_20140408.log
|   |   |-- kame_20140408.log
|   |   |-- kirs_20140408.log
|   |   |-- konj_20140408.log
|   |   |-- lend_20140408.log
|   |   |-- lesk_20140408.log
|   |   |-- lie1_20140408.log
|   |   |-- livn_20140408.log
|   |   |-- ljub_20140408.log
|   |   |-- loms_20140408.log
|   |   |-- love_20140408.log
|   |   |-- lozn_20140408.log
|   |   |-- lysa_20140408.log
|   |   |-- lysh_20140408.log
|   |   |-- malj_20140408.log
|   |   |-- mont_20140408.log
|   |   |-- mrzl_20140408.log
|   |   |-- npaz_20140408.log
|   |   |-- nwsc_20140408.log
|   |   |-- orad_20140408.log
|   |   |-- part_20140408.log
|   |   |-- pat2_20140408.log
|   |   |-- pen2_20140408.log
|   |   |-- plnd_20140408.log
|   |   |-- pol1_20140408.log
|   |   |-- prij_20140408.log
|   |   |-- riso_20140408.log
|   |   |-- rovi_20140408.log
|   |   |-- rozh_20140408.log
|   |   |-- saba_20140408.log
```

```
|   |   |-- sacz_20140408.log
|   |   |-- shaz_20140408.log
|   |   |-- shum_20140408.log
|   |   |-- sib1_20140408.log
|   |   |-- sibi_20140408.log
|   |   |-- skpl_20140408.log
|   |   |-- snez_20140408.log
|   |   |-- snie_20140408.log
|   |   |-- star_20140408.log
|   |   |-- stho_20140408.log
|   |   |-- sub2_20140408.log
|   |   |-- subo_20140408.log
|   |   |-- suce_20140408.log
|   |   |-- sulp_20140408.log
|   |   |-- sume_20140408.log
|   |   |-- tarp_20140408.log
|   |   |-- timi_20140408.log
|   |   |-- uzhd_20140408.log
|   |   `-- varn_20140408.log
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|       |-- bbys_20131111.log
|       |-- bogo_20080304.log
|       |-- bor1_20080310.log
|       |-- bucu_20110408.log
|       |-- bzrg_20120217.log
|       |-- cako_20130107.log
|       |-- came_20090729.log
|       |-- cost_20140109.log
|       |-- dres_20140320.log
|       |-- dub2_20130107.log
|       |-- dubr_20120918.log
|       |-- fata_20050927.log
|       |-- ganp_20131211.log
|       |-- glsv_20100430.log
|       |-- gope_20130319.log
|       |-- graz_20140326.log
|       |-- gsr1_20120111.log
|       |-- hfl2_20110704.log
|       |-- hflk_20080903.log
|       |-- igeo_20070716.log
|       |-- joze_20091113.log
|       |-- kosg_20120622.log
|       |-- kra1_20140211.log
|       |-- kraw_20130813.log
|       |-- kunz_20131212.log
|       |-- lama_20110209.log
|       |-- mate_20131220.log
|       |-- medi_20130607.log
|       |-- mets_20130828.log
|       |-- mikl_20080402.log
|       |-- mop2_20131213.log
|       |-- mopi_20130107.log
|       |-- onsa_20140120.log
|       |-- orid_20131017.log
|       |-- osje_20120918.log
|       |-- pado_20140103.log
|       |-- penc_20140320.log
|       |-- pore_20130107.log
|       |-- pots_20130109.log
|       |-- poze_20130107.log
|       |-- pula_20020613.log
|       |-- sbg2_20100621.log
|       |-- sbgz_20080904.log
|       |-- snec_20100701.log
|       |-- sofi_20100503.log
|       |-- sprn_20130610.log
|       |-- srjv_20130822.log
|       |-- sulp_20130415.log
|       |-- trf2_20140324.log
|       |-- trfb_20080904.log
|       |-- tubo_20120405.log
|       |-- unpg_20121007.log
|       |-- upad_20120109.log
|       |-- usdl_20110708.log
|       |-- uzhl_20131114.log
|       |-- wett_19951201.log
|       |-- wroc_20140303.log
|       |-- wtzr_20140213.log
|       |-- zada_20130107.log
|       `-- zimm_20120417.log
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|-- NOTPUBLISH-logsheets       LOGSHEETS OF ALL THE SITES WHICH COORDINATES MUST NOT BE PUBLISHED
|   |-- albr_20140408.log
|   |-- babj_20140408.log
|   |-- bano_20140408.log
|   |-- biha_20140408.log
|   |-- bosg_20140408.log
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|   |-- bugo_20140408.log
|   |-- capl_20140408.log
|   |-- cvrs_20140408.log
|   |-- foca_20140408.log
|   |-- grdc_20140408.log
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|   |-- knja_20140408.log
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|   |-- most_20140408.log
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|   |-- sreb_20140408.log
|   |-- stol_20140408.log
|   |-- tesl_20140408.log
|   |-- treb_20140408.log
|   |-- turi_20140408.log
|   |-- veli_20140408.log
|   |-- vlas_20140408.log
|   |-- zavi_20140408.log
|   `-- zeni_20140408.log
|-- OUTPUTS                    FOLDER THAT CONTAINS SOME OUTPUTS. POOR QUALITY SITES REMOVED.
|   |-- ALLNEUs.DAT            RESIDUALS IN NEU, INCLUDING GPSW AND RMS
|   |-- CEG-FREE.OUT           FREE NETWORK OUTPUT OF ADDNEQ2
|   |-- CEG-FREE.PLT           FREE NETWORK RESIDUALS PLOTS OF ADDNEQ2
|   |-- CEG-FREE.SUM           FREE NETWORK REPEATIBILITIES OF ADDNEQ2
|   |-- CEGRNOUT.OUT           MC NETWORK OUTPUT OF ADDNEQ2
|   |-- CEGRNOUT.PLT           MC NETWORK RESIDUALS PLOTS OF ADDNEQ2
|   `-- CEGRNOUT.SUM           MC NETWORK REPEATIBILITIES OF ADDNEQ2
|-- SINEX               FOLDER THAT CONTAINS THE SINEX OUTPUTS
|   |-- CEG-FREE.SNX           FREE NETWORK SOLUTION. POOR QUALITY SITES REMOVED.
|   `-- CEGRNOUT.SNX           MC NETWORK SOLUTION. POOR QUALITY SITES REMOVED.
`-- UPASNX                     SINEX FOR EACH OF THE CAMPAIGNS
    |-- UPA08577.SNX           1996
    |-- UPA09087.SNX           1997\_COVERS 2 WEEKS
    |-- UPA09097.SNX           1997/
    |-- UPA10147.SNX           1999
    |-- UPA11197.SNX           2001
    |-- UPA12237.SNX           2003
    |-- UPA13287.SNX           2005
    |-- UPA14327.SNX           2007
    |-- UPA15377.SNX           2009
    |-- UPA16417.SNX           2011
    `-- UPA17457.SNX           2013
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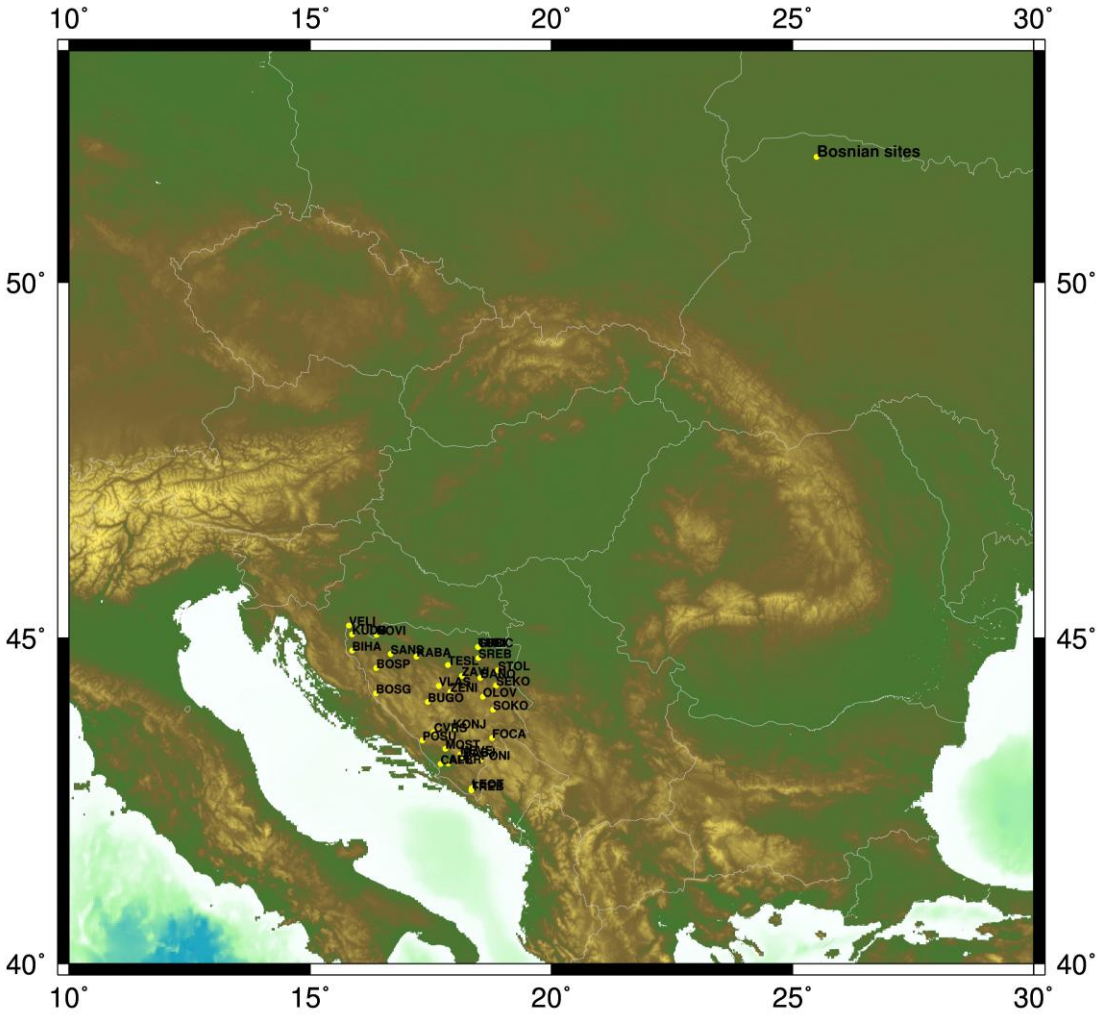

Fig. 7: Sites in Bosnia.

9 Conclusions.

In this report, the CEGRN multiyear combination has been summarized. The achieved accuracies are very high and agree with the nowadays results in the EUREF's weekly LAC-solutions' combinations: around 1 mm for the horizontal coordinates and between 3-6 mm for the vertical component (extracted from the final-combination repeatibilities, and in mm):

	SITES	n	e	u
Total	623	1.28	1.29	3.79

On the other hand, the EPN_A sites have been checked and the result has been excellent. The used EPN_A sites' response has been very stable through the years, which means it is a very reliable and accurate frame to be considered in any high accuracy working scenario. The differences between the EPN_A C1725 solution and the one shown in this study are very small (extracted from the full CEGRN stacking, and in mm):

	RMS / COMPONENT		1.08	0.87	2.17	
	MEAN		-0.00	-0.00	-0.00	
	MIN		-2.31	-2.75	-5.45	
	MAX		2.69	1.76	4.89	

Some sites, however, deserve deeper analysis. In these sites, several discontinuities have been introduced to have continuous series, but the computed velocities are too high. In this set we would like to stress the following sites (only concerns the H velocity since the V velocity is much more sensible to short time spams due to its less accuracy and conclusions are difficult to be drawn):

Site	**Remark (H velocity)**
CLUJ	Too high velocity
HOHE	H velocity slightly different to the sites nearby

Considering the age of the earliest data sets, we can conclude by saying that the horizontal millimetric-level goal has been achieved and that the CEGRN densification is an excellent frame to analyze the deformations in the coming years in central Europe.

10 REFERENCES

Bruyninx, C., Altamimi, Z., Caporali, A., Kenyeres, A., Lidberg, M., Stangl, G., Torres, G. A. (2010) Guidelines for EUREF Densifications, version 5: 28-05-2013, ftp://epncb.oma.be/pub/general/Guidelines_for_EUREF_Densifications.pdf.

Dach, R., Hugentobler, U., Fridez, P., Meindl, M. (eds) (2007): "Bernese GPS Software Version 5.0". Astronomical Institute of the University of Bern, Switzerland.

Dach, R. (2013): "Bernese GNSS Software: New features in version 5.2". EUREF-Local Analysis Center Workshop. Brussels, May 14th 2013.

EPN Coordination Group, EPN Central Bureau (2013), Guidelines for EPN Analysis Centres, version 19-11-2013, http://www.epncb.oma.be/_documentation/guidelines/guidelines_analysis_centres.pdf

Appendix A: Numerical and Graphical Time Series' Residuals.

Numerical Time Series' Residuals

The time series residuals have been graphically shown in a previous section. In this section all the residuals throughout the full period are shown.

0256 00000M001	N	0.52					0.02	-0.90
			0.16	-0.50	-0.00			
0256 00000M001	E	0.51					-0.06	0.98
			-0.18	0.12	-0.16			
0256 00000M001	U	2.53					0.13	-2.96
			-1.37	3.84	-0.41			
0266 00000M001A	N	0.40					0.23	-0.43
			-0.29					
0266 00000M001A	E	0.68					0.44	-0.69
			0.50					
0266 00000M001A	U	2.03					-1.18	0.09
			-2.61					
0266 00000M001B	N	0.83						
				-0.78	0.27			
0266 00000M001B	E	0.11						
				-0.10	-0.06			
0266 00000M001B	U	3.84						
				3.75	-0.83			
0273 00000M001A	N	0.28					-0.18	-0.32
			-0.13					
0273 00000M001A	E	0.91					0.44	-1.13
			0.43					
0273 00000M001A	U	1.71					0.21	0.52
			-2.35					
0273 00000M001B	N	0.25						
				-0.21	-0.13			
0273 00000M001B	E	0.54						
				0.42	-0.35			
0273 00000M001B	U	1.70						
				1.40	0.97			
ALBR 00000M000	N	0.05					-0.05	
ALBR 00000M000	E	0.06					0.06	
ALBR 00000M000	U	0.58					-0.58	
ASIA 12714M001	N	0.23					-0.23	
ASIA 12714M001	E	0.18					0.18	
ASIA 12714M001	U	1.25					-1.25	
ASIA 12714M002	N	0.38						0.03
			0.51		-0.17			
ASIA 12714M002	E	0.33						0.41
			0.24		0.00			
ASIA 12714M002	U	4.83						-0.54
			6.80		-0.39			
AT01 11027M002A	N	1.81	-1.54	0.94				
AT01 11027M002A	E	1.90	-1.73	0.77				
AT01 11027M002A	U	6.63	-5.99	2.83				
AT01 11027M002B	N	0.45				0.01	0.29	0.22
			-0.68					
AT01 11027M002B	E	0.61				-0.18	0.96	-0.21
			-0.37					
AT01 11027M002B	U	2.41				-0.18	1.52	-3.35
			1.95					
BABJ 00000M000	N	0.08					-0.08	
BABJ 00000M000	E	0.04					0.04	
BABJ 00000M000	U	0.68					-0.68	
BANO 00000M000	N	0.04						
					0.04			

BANO 00000M000	E	0.05			0.05				
BANO 00000M000	U	0.16			0.16				
BAST 00000M000	N	0.02	0.02						
BAST 00000M000	E	0.03	0.03						
BAST 00000M000	U	0.16	0.16						
BBYS211514M001	N	0.20	-0.14	0.15					
BBYS211514M001	E	0.18	-0.15	0.09					
BBYS211514M001	U	0.24	0.19	-0.15					
BBYS311514M001	N	0.02			-0.02				
BBYS311514M001	E	0.11			-0.11				
BBYS311514M001	U	0.24			0.24				
BIHA 00000M000	N	0.00			-0.00				
BIHA 00000M000	E	0.06			0.06				
BIHA 00000M000	U	0.19			0.19				
BOGO112207M002	N	0.68		-0.87	0.41	-0.04			
BOGO112207M002	E	1.12		-0.69	-0.28	1.41			
BOGO112207M002	U	1.38		0.38	0.98	1.65			
BOGO212207M002	N	0.35	0.22	0.21	0.31		-0.36	-0.42	-0.36
BOGO212207M002	E	0.41	-0.05	-0.39	-0.24		0.25	0.42	-0.64
BOGO212207M002	U	1.95	0.85	-1.08	1.49		0.73	-3.78	0.33
BOR1112205M002	N	0.16	-0.14	-0.08					
BOR1112205M002	E	0.48	0.48	-0.08					
BOR1112205M002	U	1.35	1.35	0.00					
BOR1212205M002	N	0.60	1.06	-0.31	-0.38	-0.31	0.08	0.80	0.45
BOR1212205M002	E	0.79	0.42	-0.15	0.19	-0.48	-1.20	0.81	0.72
BOR1212205M002	U	1.89	2.71	1.94	-0.93	0.81	-2.19	-0.20	-2.25
BOSG 00000M000	N	0.02			0.02				
BOSG 00000M000	E	0.07			0.07				
BOSG 00000M000	U	0.22			0.22				
BOSP 00000M000	N	0.01			0.01				
BOSP 00000M000	E	0.06			0.06				
BOSP 00000M000	U	0.19			0.19				
BOZI 00000M000A	N	3.39			2.58	-2.21			
BOZI 00000M000A	E	0.80			-0.65	0.47			
BOZI 00000M000A	U	2.97			-1.72	2.43			
BOZI 00000M000B	N	1.16					-0.89	0.63	1.23
BOZI 00000M000B	E	0.22					0.16	0.22	-0.13
BOZI 00000M000B	U	1.00					-0.77	-0.58	-1.04
BRAI 00000M001	N	0.80			0.09		-0.15	0.30	1.34
BRAI 00000M001	E	1.33					1.16	-1.22	-1.54

					0.28				
BRAI 00000M001	U	0.55			-0.18		-0.09	-0.11	0.93
BRSK 00000M000	N	1.74	-0.05	1.57		-2.27		1.19	
BRSK 00000M000	E	1.18	0.01	-1.19		1.53		-0.65	
BRSK 00000M000	U	4.34	-0.68	4.94		-5.07		2.43	
BUCU111401M001	N	0.52			0.59	-0.59	0.32	-0.26	-0.44
BUCU111401M001	E	1.68			-2.83	-0.04	1.68	-0.31	0.59
BUCU111401M001	U	2.21			0.75	2.31	-3.32	-1.12	-1.18
BUCU211401M001	N	0.79							
			0.40	-0.89	0.54				
BUCU211401M001	E	0.46							
			0.62	0.03	-0.19				
BUCU211401M001	U	0.81							
			-1.09	0.10	0.35				
BUGO 00000M000	N	0.03							
					0.03				
BUGO 00000M000	E	0.07							
					0.07				
BUGO 00000M000	U	0.21							
					0.21				
BURG 00000S001	N	1.09							
			-1.38	0.65	-0.19				
BURG 00000S001	E	0.61							
			-0.37	0.74	-0.26				
BURG 00000S001	U	0.67							
			-0.74	-0.55	0.24				
BZRG112751M001	N	0.13			0.13				
BZRG112751M001	E	0.26			-0.26				
BZRG112751M001	U	1.18			1.18				
BZRG212751M001	N	0.23				0.23			
BZRG212751M001	E	0.03				0.03			
BZRG212751M001	U	1.28				1.28			
BZRG412751M001	N	0.67					0.70	-0.63	0.04
BZRG412751M001	E	0.92					1.11	-0.59	0.36
BZRG412751M001	U	3.82					3.22	-4.32	0.43
BZRG512751M001	N	0.55							
			-0.55	0.05					
BZRG512751M001	E	1.53							
			-1.26	0.88					
BZRG512751M001	U	2.21							
			-0.68	2.10					
BZRG612751M001	N	0.09							
					-0.09				
BZRG612751M001	E	0.01							
					0.01				
BZRG612751M001	U	0.25							
					-0.25				
CAKO 11906M001	N	0.04							
					0.04				
CAKO 11906M001	E	0.01							
					0.01				
CAKO 11906M001	U	0.14							
					0.14				
CAME 12754M001	N	0.57					-0.12		0.67
			-0.42						
CAME 12754M001	E	2.00					-0.27		2.72
			-0.73						
CAME 12754M001	U	2.74					-0.89		-3.52
			1.33						
CAOP 00000M000	N	0.38				0.15	-0.39		0.33
CAOP 00000M000	E	0.16				0.15	-0.07		0.15

CAOP 00000M000	U	5.44				3.39	-6.37		2.66
CAPL 00000M000	N	0.06			0.06				
CAPL 00000M000	E	0.09			0.09				
CAPL 00000M000	U	0.28			0.28				
CLUJ 00000M000A	N	0.16					0.16		
CLUJ 00000M000A	E	0.03					0.03		
CLUJ 00000M000A	U	0.04					0.04		
CLUJ 00000M000B	N	0.12						0.12	
CLUJ 00000M000B	E	0.05						0.05	
CLUJ 00000M000B	U	0.46						0.46	
CLUJ 00000M000C	N	0.13							0.13
CLUJ 00000M000C	E	0.28							-0.28
CLUJ 00000M000C	U	0.15							0.15
CLUJ 00000M000D	N	0.17	-0.07		0.16				
CLUJ 00000M000D	E	0.18	0.18		-0.03				
CLUJ 00000M000D	U	3.05	-2.99		0.63				
COST111407M001	N	0.56	-0.53	0.40	0.82			0.06	-0.39
COST111407M001	E	0.68	-0.88	-0.40	0.81			0.07	-0.50
COST111407M001	U	1.95	2.93	0.37	-2.07			0.87	1.22
CRAI 00000M001	N	0.59			0.13			0.05	0.83
CRAI 00000M001	E	0.31			0.02			0.10	-0.43
CRAI 00000M001	U	0.78			0.17			1.02	-0.39
CSAN 00000M000	N	2.39	2.56			0.58	-0.69	1.55	-3.61
CSAN 00000M000	E	0.90	-0.31			-1.08	1.29	-0.13	-0.50
CSAN 00000M000	U	2.67	-1.72			-2.75	1.92	-2.78	2.57
CSAR 00000M000	N	1.38	2.08	-0.87	-0.49	-1.60	1.62	-0.95	0.21
CSAR 00000M000	E	1.65	3.00	-1.73	-0.76	-0.31	1.44	-0.04	-1.23
CSAR 00000M000	U	3.66	3.49	4.56	-6.56	-0.60	-0.34	-0.81	1.79
CVRS 00000M000	N	0.01						-0.01	
CVRS 00000M000	E	0.11						0.11	
CVRS 00000M000	U	0.50						-0.50	
DISZ 00000M000A	N	1.69	0.12	2.11	-0.48	-1.97			
DISZ 00000M000A	E	3.01	-3.74	-2.23	1.55	2.39			
DISZ 00000M000A	U	4.29	6.91	0.16	-2.75	0.22			
DISZ 00000M000B	N	1.81					-1.67	1.29	1.45
DISZ 00000M000B	E	4.35					3.82	-4.43	-1.92
DISZ 00000M000B	U	4.17					-2.61	-1.78	4.98
DRES114108M001	N	0.25			0.25	0.01			
DRES114108M001	E	0.25			-0.01	0.25			
DRES114108M001	U	1.13			0.80	0.80			

DRES214108M001	N	1.58					-0.85	1.34	
DRES214108M001	E	0.85					-0.47	0.71	
DRES214108M001	U	0.04					-0.01	-0.04	
DRES314108M001	N	0.43							0.10
			-0.42						
DRES314108M001	E	0.15							0.12
			0.08						
DRES314108M001	U	1.81							-1.78
			0.33						
DRES414108M001	N	0.14							
				-0.01	-0.14				
DRES414108M001	E	0.78							
				-0.71	0.31				
DRES414108M001	U	2.28							
				-1.31	1.87				
DUB2 11901M002	N	0.15							
					0.15				
DUB2 11901M002	E	0.10							
					0.10				
DUB2 11901M002	U	0.43							
					0.43				
DUBR 11901M001	N	2.43				1.12	-2.69	-2.14	
			2.18						
DUBR 11901M001	E	2.36				1.00	-2.37	-2.33	
			2.18						
DUBR 11901M001	U	3.00				0.66	2.47	-3.71	
			2.60						
FOCA 00000M000	N	0.07							
					0.07				
FOCA 00000M000	E	0.07							
					0.07				
FOCA 00000M000	U	0.23							
					0.23				
GABR 00000M000	N	0.74					0.58	-0.12	0.86
GABR 00000M000	E	3.37					-1.16	2.55	-3.85
GABR 00000M000	U	3.00					0.61	-1.26	4.01
GANP211515M001	N	0.92							
			0.89	0.41	-0.87				
GANP211515M001	E	0.23							
			0.10	-0.30	0.03				
GANP211515M001	U	0.79							
			0.74	0.55	-0.64				
GLSV112356M001	N	0.93			0.45	0.86	-1.13	-0.95	0.56
GLSV112356M001	E	1.24			-0.96	1.35	-1.24	0.26	1.34
GLSV112356M001	U	2.09			1.69	-1.90	0.11	-2.49	-2.18
GLSV212356M001	N	1.42							
			1.96	-0.32	-0.30				
GLSV212356M001	E	0.89							
			0.53	-0.90	0.69				
GLSV212356M001	U	0.95							
			-0.98	0.34	-0.86				
GMIL 00000S001	N	0.07							
				-0.03	0.06				
GMIL 00000S001	E	0.08							
				-0.04	0.07				
GMIL 00000S001	U	0.30							
				-0.28	0.10				
GOPE111502M002	N	0.27	-0.24	-0.08	0.29				
GOPE111502M002	E	1.76	-1.20	-1.12	1.87				
GOPE111502M002	U	1.35	0.46	-1.53	1.03				
GOPE411502M002	N	0.79				0.90	-0.65	-0.08	
GOPE411502M002	E	1.11				1.41	-0.68	0.06	
GOPE411502M002	U	5.37				-7.18	0.67	2.39	

GOPE511502M002	N	0.19							-0.15
			-0.11						
GOPE511502M002	E	0.37							0.28
			-0.23						
GOPE511502M002	U	1.60							-1.13
			1.13						
GOPE611502M002	N	0.27							
				-0.24	0.11				
GOPE611502M002	E	0.32							
				0.11	-0.30				
GOPE611502M002	U	1.86							
				-1.02	1.55				
GRAZ111001M002	N	0.76		-0.48	0.60				
GRAZ111001M002	E	0.21		-0.21	0.03				
GRAZ111001M002	U	1.72		0.72	-1.57				
GRAZ211001M002	N	0.39				-0.21	0.32		
GRAZ211001M002	E	0.24				-0.14	0.19		
GRAZ211001M002	U	1.42				0.99	-1.02		
GRAZ311001M002	N	0.12						0.12	
GRAZ311001M002	E	0.07						0.07	
GRAZ311001M002	U	0.03						-0.03	
GRAZ411001M002	N	0.32							-0.27
			0.17						
GRAZ411001M002	E	0.29							-0.14
			0.25						
GRAZ411001M002	U	0.95							-0.95
			0.07						
GRAZ511001M002	N	0.69							
				-0.59	0.35				
GRAZ511001M002	E	0.12							
				0.03	-0.11				
GRAZ511001M002	U	1.68							
				-1.12	1.25				
GRDC 00000M000	N	0.27			-0.27				
GRDC 00000M000	E	0.19			-0.19				
GRDC 00000M000	U	0.58			-0.58				
GRMS 11028M001A	N	1.18	1.00	-0.62					
GRMS 11028M001A	E	1.74	-1.57	0.75					
GRMS 11028M001A	U	1.95	-1.26	1.49					
GRMS 11028M001B	N	1.16					-0.33	1.30	-0.94
GRMS 11028M001B	E	0.22					0.05	0.26	-0.15
GRMS 11028M001B	U	3.55					-1.40	-3.31	3.51
GRYB 00000M000A	N	0.56	0.56						
GRYB 00000M000A	E	0.02	0.02						
GRYB 00000M000A	U	3.34	3.34						
GRYB 00000M000B	N	3.23		-2.24	2.33				
GRYB 00000M000B	E	1.27		-0.82	0.97				
GRYB 00000M000B	U	3.02		-2.74	1.27				
GRYB 00000M000C	N	2.76				-2.01	-1.30	3.48	-2.37
			2.64						
GRYB 00000M000C	E	0.51				0.37	-0.05	0.58	-0.46
			-0.60						
GRYB 00000M000C	U	2.62				3.44	-1.65	-0.85	-3.49
			0.08						

GSR1214501M001	N	0.02				0.02			
GSR1214501M001	E	0.00				-0.00			
GSR1214501M001	U	0.69				0.69			
GSR1314501M001	N	0.44					0.58	-0.15	-0.16
GSR1314501M001	E	1.59					-1.37	1.02	1.46
GSR1314501M001	U	2.18					1.17	-2.09	-1.92
GSR1414501M001	N	0.64	-0.62	-0.45	0.47				
GSR1414501M001	E	0.47	-0.40	-0.19	0.50				
GSR1414501M001	U	1.43	0.31	1.63	-1.17				
HARM 00000M000	N	1.19	-1.44	0.91			-1.15	1.22	-0.07
HARM 00000M000	E	1.99	0.78	0.76			-3.46	0.71	1.47
HARM 00000M000	U	2.20	1.20	2.32			-2.78	2.12	0.55
HFLK 11006S003A	N	2.45	2.34	-0.72					
HFLK 11006S003A	E	0.74	0.59	-0.45					
HFLK 11006S003A	U	7.16	-7.13	-0.73					
HFLK 11006S003B	N	1.68			-1.95	1.66		0.05	-1.40
HFLK 11006S003B	E	1.24			-1.56	0.76		0.98	-0.80
HFLK 11006S003B	U	9.67			-3.38	-1.17		9.35	13.42
HFLK 11006S003C	N	1.97	-0.84	1.78					
HFLK 11006S003C	E	0.25	-0.07	-0.24					
HFLK 11006S003C	U	17.45	-12.93	-11.72					
HOHE 00000M000A	N	0.70	0.90	0.40	-0.70		0.15		
HOHE 00000M000A	E	1.61	-2.19	-0.63	1.57		-0.30		
HOHE 00000M000A	U	3.10	0.38	-1.16	-4.70		2.31		
HOHE 00000M000B	N	0.16						-0.16	
HOHE 00000M000B	E	0.13						0.13	
HOHE 00000M000B	U	1.84						-1.84	
HOHE 00000M000C	N	0.09							0.09
HOHE 00000M000C	E	0.37							0.37
HOHE 00000M000C	U	1.84							-1.84
IGEO115101M001	N	0.02			0.02				
IGEO115101M001	E	0.00			-0.00				
IGEO115101M001	U	0.44			-0.44				
JOZE112204M001	N	0.56	-1.07	0.17	-0.27	0.06	0.13		
JOZE112204M001	E	0.46	-0.20	0.55	-0.65	0.17	0.24		
JOZE112204M001	U	3.64	-4.79	-3.11	3.57	2.72	0.63		
JOZE212204M001	N	1.03	1.47	-0.77	-0.80			0.15	0.94
JOZE212204M001	E	0.95	0.54	0.39	-1.69			0.19	0.50
JOZE212204M001	U	4.92	4.30	-1.18	-8.15			2.98	1.36
KABA 00000M000	N	0.12						0.12	

KABA 00000M000	E	0.03						0.03	
KABA 00000M000	U	0.21						-0.21	
KAME 00000M000	N	0.44			-0.48		0.21	0.17	0.36
			-0.59						
KAME 00000M000	E	0.75			-0.53		1.28	0.27	-0.06
			-0.50						
KAME 00000M000	U	3.51			0.24		3.64	4.14	-4.30
			0.65						
KIRS 00000M000	N	1.11	1.23	-0.87	0.44				
KIRS 00000M000	E	0.79	0.88	-0.51	0.47				
KIRS 00000M000	U	0.47	-0.61	0.14	0.24				
KNJA 12113M001	N	0.08							
					0.08				
KNJA 12113M001	E	0.06							
					0.06				
KNJA 12113M001	U	0.37							
					0.37				
KONJ 00000M000	N	0.05							
					0.05				
KONJ 00000M000	E	0.07							
					0.07				
KONJ 00000M000	U	0.23							
					0.23				
KOSG113504M003	N	0.63	-0.70	0.22	0.44	0.68			
KOSG113504M003	E	0.58	-0.16	-0.72	0.42	0.53			
KOSG113504M003	U	0.78	0.26	-0.78	0.67	0.84			
KOSG213504M003	N	1.71					-0.07	0.41	2.24
			-1.88						
KOSG213504M003	E	0.62					-0.35	-0.27	0.78
			0.59						
KOSG213504M003	U	3.73					-0.27	-3.20	-4.65
			3.14						
KOSG513504M003	N	0.21							
					-0.21				
KOSG513504M003	E	0.11							
					0.11				
KOSG513504M003	U	0.70							
					0.70				
KRA1112218M002	N	0.11							
					-0.11				
KRA1112218M002	E	0.24							
					-0.24				
KRA1112218M002	U	0.69							
					0.69				
KRAW112218M001	N	1.78					0.57	0.14	1.98
			0.78	0.49	-3.28				
KRAW112218M001	E	1.35					0.49	1.06	1.20
			-0.70	-0.49	-2.37				
KRAW112218M001	U	3.96					-2.49	-0.25	-1.85
			-2.18	-2.88	7.47				
KUDB 00000M000	N	0.35						0.28	0.21
KUDB 00000M000	E	0.08						0.00	0.08
KUDB 00000M000	U	0.22						-0.12	-0.19
KUNZ111524M001	N	1.55							-0.16
			-1.79		1.25				
KUNZ111524M001	E	0.46							-0.34
			-0.14		0.54				
KUNZ111524M001	U	2.66							-3.28
			1.81		0.34				
LAMA112209M001	N	0.77	-0.87	0.47	-0.45				
LAMA112209M001	E	0.50	0.36	0.59	0.13				
LAMA112209M001	U	3.12	0.56	4.38	0.13				
LAMA312209M001	N	0.40				0.02	0.40	-0.39	-0.41

LAMA312209M001	E	0.53				-0.17	-0.21	0.11	0.87
LAMA312209M001	U	0.92				-0.99	0.24	0.25	-1.21
LAMA412209M001	N	0.36	0.35	0.26	-0.27				
LAMA412209M001	E	0.43	-0.18	-0.54	0.21				
LAMA412209M001	U	1.16	-1.23	-0.38	1.01				
LEOT 00000M000	N	0.12						-0.12	
LEOT 00000M000	E	0.02						0.02	
LEOT 00000M000	U	0.66						-0.66	
LESK 00000S001	N	0.46		0.15	-0.18			0.08	0.75
LESK 00000S001	E	0.39		0.06	0.14			0.13	-0.65
LESK 00000S001	U	1.47		-1.81	1.67			0.64	0.21
LIE1 00000S001	N	0.37	0.00	-0.37					
LIE1 00000S001	E	1.18	0.07	1.17					
LIE1 00000S001	U	4.28	-0.05	4.28					
LJUB 00000M000A	N	2.56		1.40	-3.22	0.90			
LJUB 00000M000A	E	0.45		-0.18	-0.57	0.19			
LJUB 00000M000A	U	2.46		-1.18	3.14	-0.94			
LJUB 00000M000B	N	0.03					-0.03		
LJUB 00000M000B	E	0.09					0.09		
LJUB 00000M000B	U	0.55					0.55		
LJUB 00000M000C	N	0.59						-0.11	0.58
LJUB 00000M000C	E	0.39						0.27	-0.28
LJUB 00000M000C	U	3.62						-3.17	1.76
LOMS 00000M000A	N	1.46	1.86					-0.91	-0.03
LOMS 00000M000A	E	0.62	-0.06					-0.47	0.74
LOMS 00000M000A	U	1.22	0.57					0.97	-1.31
LOMS 00000M000B	N	1.48			1.48				
LOMS 00000M000B	E	0.07			0.07				
LOMS 00000M000B	U	9.34			-9.34				
LOVE 00000S001	N	0.76	-0.85	0.63	-0.14				
LOVE 00000S001	E	0.34	0.35	-0.25	0.21				
LOVE 00000S001	U	0.73	0.26	-0.83	0.56				
LOZN 00000M000A	N	1.75							-0.96
LOZN 00000M000A	E	1.75	1.47						0.98
LOZN 00000M000A	U	1.21	-1.46						-0.59
LOZN 00000M000B	N	0.57	1.05						
LOZN 00000M000B	E	1.06		0.25	-0.51				
LOZN 00000M000B	U	0.08		-0.62	0.86				
LYSA 11522M002	N	1.33		-0.08	-0.03				
LYSA 11522M002	E	0.48	-1.28	2.08					
					1.24	-0.77	-0.20	-1.55	-0.11
					0.36	-0.33	0.50	-0.20	-0.09

			0.89	-0.24					
LYSA 11522M002	U	3.12			-5.02	2.38	3.75	-0.55	-0.16
			1.63	-3.22					
LYSH 11522M001	N	0.64							0.53
			0.50	-0.53					
LYSH 11522M001	E	0.32							0.41
			0.03	-0.18					
LYSH 11522M001	U	1.33							1.59
			0.89	-0.46					
MALJ 00000M000A	N	2.68			-1.37	-0.22	0.59	3.26	-3.98
MALJ 00000M000A	E	2.42			1.51	-0.35	-0.93	-2.09	3.97
MALJ 00000M000A	U	1.73			1.58	-0.14	-1.73	0.95	-2.35
MALJ 00000M000B	N	0.26							
			-0.26						
MALJ 00000M000B	E	0.03							
			0.03						
MALJ 00000M000B	U	1.30							
			1.30						
MATE312734M008	N	0.38		-0.21	0.32				
MATE312734M008	E	1.66		0.41	-1.61				
MATE312734M008	U	7.56		-1.06	7.49				
MATE412734M008	N	0.82				0.97	-0.38	0.00	-0.96
MATE412734M008	E	0.85				-0.48	0.49	0.90	-0.93
MATE412734M008	U	1.72				0.04	1.14	0.32	-2.73
MATE512734M008	N	1.29							
			-0.51	-1.35	1.12				
MATE512734M008	E	1.10							
			1.22	-0.96	0.14				
MATE512734M008	U	1.63							
			-1.30	1.84	0.46				
MEDI 12711M003	N	2.21			-2.71	2.74	1.20	-2.63	
			-0.74		0.76				
MEDI 12711M003	E	2.04			3.02	-2.09	-1.63	2.04	
			-0.68		0.24				
MEDI 12711M003	U	4.72			8.45	-5.36	2.28	-0.04	
			2.17		-1.15				
METS110503S011	N	0.85	-0.75	-0.61	1.09	-0.06	-0.60	0.47	1.33
			0.77						
METS110503S011	E	1.06	-1.37	-0.23	1.59	-0.65	-0.40	0.73	1.27
			0.85						
METS110503S011	U	3.08	-0.31	3.84	5.98	0.26	-2.85	-1.50	-2.03
			1.05						
METS210503S011	N	0.14							
				-0.14					
METS210503S011	E	0.16							
				-0.16					
METS210503S011	U	0.84							
				0.84					
METS310503S011	N	0.23							
					0.23				
METS310503S011	E	0.55							
					-0.55				
METS310503S011	U	0.30							
					0.30				
MIKL112335M001	N	2.16					1.58	1.00	1.40
			0.82	-0.18	-4.14				
MIKL112335M001	E	0.97					-0.08	-1.21	-0.57
			-0.68	0.24	1.55				
MIKL112335M001	U	1.32					0.01	-1.23	0.07
			0.92	2.43	0.65				
MONT 00000S001A	N	0.23							
			-0.18		0.15				
MONT 00000S001A	E	0.09							
			-0.08		0.04				
MONT 00000S001A	U	2.60							
			-2.48		0.77				
MONT 00000S001B	N	0.12							
				-0.12					
MONT 00000S001B	E	0.14							
				0.14					

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MONT 00000S001B  U    0.06
                                  0.06

MOP2111507M002   N    1.27
                           -1.05  -1.01   1.05
MOP2111507M002   E    0.77
                            0.16  -0.97   0.48
MOP2111507M002   U    1.84
                            0.23   2.20  -1.37

MOPI 11507M001A  N    0.61      0.60  -0.11

MOPI 11507M001A  E    0.32      0.31  -0.09

MOPI 11507M001A  U    1.65     -1.65   0.11


MOPI 11507M001B  N    0.76                    0.25   0.26   0.07  -1.66   0.36
                            0.53                0.38
MOPI 11507M001B  E    0.55                    0.50  -0.61   0.71  -0.58  -0.52
                           -0.20                0.23
MOPI 11507M001B  U    4.15                    1.91  -0.49  -0.73  -3.65  -1.19
                            9.06               -1.46

MOST 00000M000   N    0.06
                                         0.06
MOST 00000M000   E    0.08
                                         0.08
MOST 00000M000   U    0.26
                                         0.26

MRZL 00000M000   N    3.06                                  -1.41   2.77   2.79
                           -3.26
MRZL 00000M000   E    2.80                                   0.62  -0.19  -4.13
                            2.44
MRZL 00000M000   U    2.55                                  -2.07   3.00  -2.49
                            0.08

NEVE 00000M000   N    0.07
                                         0.07
NEVE 00000M000   E    0.08
                                         0.08
NEVE 00000M000   U    0.28
                                         0.28

NOVI 00000M000   N    0.00
                                         0.00
NOVI 00000M000   E    0.05
                                         0.05
NOVI 00000M000   U    0.19
                                         0.19

NPAZ 12110M001   N    0.09
                                         0.09
NPAZ 12110M001   E    0.08
                                         0.08
NPAZ 12110M001   U    0.19
                                         0.19

NWSC 12231M001   N    0.49
                                        -0.49
NWSC 12231M001   E    0.14
                                        -0.14
NWSC 12231M001   U    0.11
                                         0.11

OLOV 00000M000   N    0.05
                                         0.05
OLOV 00000M000   E    0.05
                                         0.05
OLOV 00000M000   U    0.18
                                         0.18

ONSA110402M004   N    0.31     -0.06   0.31

ONSA110402M004   E    0.56     -0.39   0.39

ONSA110402M004   U    1.19     -0.43  -1.11


ONSA210402M004   N    0.45                    0.27  -0.86          -0.23   0.14
                           -0.17  -0.12        0.54
ONSA210402M004   E    0.63                    0.88  -0.59           0.11  -0.65
                            0.68  -0.52        0.30
ONSA210402M004   U    2.89                    0.13  -0.12          -4.34  -2.20
                           -1.78   1.33        4.63

ORAD 00000M001   N    1.14                                                 -0.67
                            1.46               -0.04
ORAD 00000M001   E    0.15                                                 -0.18
                            0.10               -0.02
ORAD 00000M001   U    2.51                                                  1.35
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			-3.25		0.44				
ORID115601M001	N	0.15				-0.15			
ORID115601M001	E	0.27				-0.27			
ORID115601M001	U	0.53				-0.53			
ORID215601M001	N	0.90					-0.43	1.10	-0.47
ORID215601M001	E	0.69					0.31	-0.19	0.90
ORID215601M001	U	5.20					-1.63	2.63	-6.67
ORID415601M001	N	0.80							
			-1.03	-0.07	0.47				
ORID415601M001	E	1.02							
			-0.94	-0.21	1.07				
ORID415601M001	U	1.76							
			-1.39	1.98	-0.56				
OSJE111902M001	N	0.06				0.03	0.06		
OSJE111902M001	E	0.50				0.34	-0.37		
OSJE111902M001	U	1.04				-1.03	-0.14		
OSJE211902M001	N	0.78							
			-0.77	0.12					
OSJE211902M001	E	0.29							
			-0.25	0.15					
OSJE211902M001	U	3.54							
			-3.01	1.87					
PADO 12750S001	N	1.27					0.18	-1.35	0.27
			1.78	0.87	-1.49				
PADO 12750S001	E	0.75					0.06	-0.65	1.50
			0.25	-0.03	-0.28				
PADO 12750S001	U	1.66					-2.42	-0.11	-0.70
			2.07	1.48	-0.97				
PART 00000M000A	N	2.42			-1.53		3.01	-2.22	-1.12
PART 00000M000A	E	0.69			0.24		-0.35	0.67	-0.91
PART 00000M000A	U	4.55			1.52		-2.88	-0.56	7.16
PART 00000M000B	N	0.08							
			0.08						
PART 00000M000B	E	0.08							
			0.08						
PART 00000M000B	U	0.66							
			-0.66						
PAT2 11029M002	N	0.07							
					-0.07				
PAT2 11029M002	E	0.06							
					-0.06				
PAT2 11029M002	U	0.06							
					0.06				
PEN2 11206M007	N	0.02							
					-0.02				
PEN2 11206M007	E	0.06							
					-0.06				
PEN2 11206M007	U	0.09							
					-0.09				
PENC111206M006	N	0.70	-0.08	0.75	-0.94	-0.12			
PENC111206M006	E	0.79	0.81	0.65	-0.87	-0.11			
PENC111206M006	U	2.99	-2.84	-1.21	4.15	-0.34			
PENC211206M006	N	0.54					0.18	0.30	-0.69
PENC211206M006	E	1.15					0.48	0.17	-1.54
PENC211206M006	U	2.50					-1.64	-0.47	3.10
PENC311206M006	N	0.32							
			0.30	0.10	-0.32				
PENC311206M006	E	0.10							
			-0.10	-0.09	0.05				
PENC311206M006	U	1.54							
			2.05	-0.59	-0.44				

PLND 12111M001	N	0.09			0.09			
PLND 12111M001	E	0.02			-0.02			
PLND 12111M001	U	0.03			0.03			
POL1 11530M001A	N	1.95			-2.15	1.26	1.17	
POL1 11530M001A	E	4.98			5.73	-3.77	-1.59	
POL1 11530M001A	U	6.37			-6.42	-0.38	6.30	
POL1 11530M001B	N	0.68					0.74	0.43
POL1 11530M001B	E	2.91	-0.63	-0.51			-2.62	-1.28
POL1 11530M001B	U	6.44	3.11	2.68			6.08	-2.48
			-8.86	-1.63				
PONI 00000M000	N	0.07					-0.07	
PONI 00000M000	E	0.04					0.04	
PONI 00000M000	U	0.56					-0.56	
PORE 11907M001	N	0.01			-0.01			
PORE 11907M001	E	0.03			0.03			
PORE 11907M001	U	0.02			0.02			
POSU 00000M000	N	0.05			0.05			
POSU 00000M000	E	0.08			0.08			
POSU 00000M000	U	0.26			0.26			
POTS114106M003	N	0.77	-0.50	-1.14	0.98	-0.60	0.59	0.45	0.37
POTS114106M003	E	0.64	0.81	0.56	-0.57	-0.70	0.42	0.50	0.53
POTS114106M003	U	2.62	-1.52	3.98	1.81	-0.31	-1.94	3.10	-2.53
POTS214106M003	N	0.15	-0.15						
POTS214106M003	E	0.02	-0.02						
POTS214106M003	U	1.06	1.06						
POTS314106M003	N	0.08		-0.07	-0.04				
POTS314106M003	E	0.46		-0.46	-0.01				
POTS314106M003	U	2.33		-1.70	1.58				
POZE 11908M001	N	0.07			0.07				
POZE 11908M001	E	0.03			0.03				
POZE 11908M001	U	0.17			0.17				
PRIJ 00000S001	N	0.48							0.35
PRIJ 00000S001	E	0.79	-0.75	0.08	-0.04				0.24
PRIJ 00000S001	U	2.35	0.32	-0.97	0.87				-2.26
			2.87	1.25	-1.28				
RISO 00000S001A	N	0.03						0.03	
RISO 00000S001A	E	0.04						0.04	
RISO 00000S001A	U	0.00						-0.00	
RISO 00000S001B	N	0.04			-0.04				
RISO 00000S001B	E	0.13			-0.13				
RISO 00000S001B	U	0.05			0.05				

ROVI 12769M001	N	0.90						-0.64	
			1.14	0.61	-0.60				
ROVI 12769M001	E	0.23						0.13	
			-0.37	0.05	-0.03				
ROVI 12769M001	U	2.22						-1.99	
			0.16	3.08	-1.11				
ROZH 00000S001A	N	0.55						0.70	-0.65
			-0.03	-0.04					
ROZH 00000S001A	E	0.61						0.12	-0.38
			-0.78	0.60					
ROZH 00000S001A	U	1.62						1.83	-1.15
			0.96	-1.52					
ROZH 00000S001B	N	0.18							
					0.18				
ROZH 00000S001B	E	0.04							
					0.04				
ROZH 00000S001B	U	0.70							
					0.70				
SABA 12112M001	N	0.07							
					0.07				
SABA 12112M001	E	0.01							
					0.01				
SABA 12112M001	U	0.03							
					0.03				
SACZ 00000M000	N	1.51						0.97	-1.16
SACZ 00000M000	E	0.07						0.06	-0.04
SACZ 00000M000	U	4.57						-2.78	3.63
SANS 00000M000	N	0.01							
					0.01				
SANS 00000M000	E	0.06							
					0.06				
SANS 00000M000	U	0.18							
					0.18				
SBG2 11031M002A	N	4.22			1.76				-3.83
SBG2 11031M002A	E	8.22			-2.77				7.73
SBG2 11031M002A	U	2.62			0.28				-2.61
SBG2 11031M002B	N	2.10				1.90	0.29	-2.28	
SBG2 11031M002B	E	4.34				-2.12	-1.58	5.54	
SBG2 11031M002B	U	1.59				-0.85	0.59	1.99	
SBG2111031M002	N	0.83							
			0.93	-0.06	-0.70				
SBG2111031M002	E	1.21							
			1.41	-0.02	-0.97				
SBG2111031M002	U	0.86							
			-0.79	0.15	0.92				
SEKO 00000M000	N	0.05							
					0.05				
SEKO 00000M000	E	0.05							
					0.05				
SEKO 00000M000	U	0.16							
					0.16				
SHAZ 00000M000	N	0.35						-0.07	-0.34
SHAZ 00000M000	E	0.27						-0.05	-0.27
SHAZ 00000M000	U	0.23						0.23	0.03
SHUM 00000S001	N	0.37							
			-0.29		0.23				
SHUM 00000S001	E	0.12							
			0.12		-0.01				
SHUM 00000S001	U	0.43							
			0.28		-0.32				
SIB1 00000M002A	N	0.00							
			-0.00						
SIB1 00000M002A	E	0.24							
			0.24						
SIB1 00000M002A	U	1.71							
			-1.71						

SIB1 00000M002B	N	0.01			-0.01				
SIB1 00000M002B	E	0.01			-0.01				
SIB1 00000M002B	U	0.67			0.67				
SIBI 00000M001	N	1.68					-0.09	-0.19	2.37
SIBI 00000M001	E	0.91					0.49	-1.04	0.56
SIBI 00000M001	U	2.56					1.89	-2.61	-1.65
SKPL 00000M000A	N	0.25	-0.25						
SKPL 00000M000A	E	0.28	0.28						
SKPL 00000M000A	U	3.72	3.72						
SKPL 00000M000B	N	2.40		3.47	-1.28	0.73	-2.67		1.34
SKPL 00000M000B	E	3.29		4.52	-3.89	-1.28	1.27		2.11
SKPL 00000M000B	U	4.09		-6.02	-2.07	-2.50	4.05		1.91
SNEZ 00000M000	N	1.44					0.47	-1.77	0.90
SNEZ 00000M000	E	0.52					0.19	-0.50	0.50
SNEZ 00000M000	U	1.29					-0.45	-1.75	0.27
SNIE 00000M000	N	1.63	-1.12	-2.21	2.33	0.61	-1.12		-0.30
SNIE 00000M000	E	0.82	0.57	0.61	0.25	-1.32	0.77		0.54
SNIE 00000M000	U	2.77	5.24	-1.65	-0.36	2.27	-1.65		0.35
SOFI111101M002	N	0.74	-0.27	0.42	0.41	-0.62	-0.78	1.08	-0.08
SOFI111101M002	E	1.62	-1.13 1.88	1.69	-1.32	1.30	1.13	-1.34	-1.05
SOFI111101M002	U	3.64	-2.07 -3.73 0.72	3.59	1.14	3.44	-0.32	-1.89	-6.97
SOFI211101M002	N	0.19		-0.19					
SOFI211101M002	E	0.14		0.14					
SOFI211101M002	U	0.32		0.32					
SOKO 00000M000	N	0.06			0.06				
SOKO 00000M000	E	0.06			0.06				
SOKO 00000M000	U	0.19			0.19				
SPRN111227M001	N	0.17	-0.17						
SPRN111227M001	E	0.12	0.12						
SPRN111227M001	U	0.85	0.85						
SPRN211227M001	N	0.47		0.35	-0.31				
SPRN211227M001	E	1.19		0.86	-0.82				
SPRN211227M001	U	1.37		-1.15	0.75				
SREB 00000M000	N	0.04			0.04				
SREB 00000M000	E	0.04			0.04				
SREB 00000M000	U	0.14			0.14				
SRJV 11801S001	N	0.10			-0.10				
SRJV 11801S001	E	0.51			-0.51				
SRJV 11801S001	U	1.52			-1.52				
SRJV211801S001	N	0.90				0.56	-0.11	0.15	-1.75

			-0.71	0.37					
SRJV211801S001	E	0.69				0.64	0.06	-0.19	0.38
			-0.93	-0.95					
SRJV211801S001	U	0.58				-0.98	-0.36	-0.23	0.73
			-0.04	0.09					
SRJV311801S001	N	0.13							
					0.13				
SRJV311801S001	E	0.06							
					0.06				
SRJV311801S001	U	0.21							
					0.21				
STAR 00000S001	N	0.27							
			-0.35	-0.02	0.16				
STAR 00000S001	E	0.67							
			-0.45	0.81	-0.16				
STAR 00000S001	U	1.31							
			-1.38	1.22	-0.15				
STHO 00000M000A	N	1.01	-0.93	0.40					
STHO 00000M000A	E	0.35	0.34	-0.06					
STHO 00000M000A	U	2.73	-1.94	1.92					
STHO 00000M000B	N	0.28			-0.36	0.10	-0.10		
STHO 00000M000B	E	0.78			0.39	-0.83	0.62		
STHO 00000M000B	U	4.46			-5.52	2.96	0.73		
STHO 00000M000C	N	0.00						-0.00	
STHO 00000M000C	E	0.02						-0.02	
STHO 00000M000C	U	0.66						-0.66	
STHO 00000M000D	N	0.12							0.12
STHO 00000M000D	E	0.39							-0.39
STHO 00000M000D	U	3.58							-3.58
STOL 00000M000	N	0.04						0.04	
STOL 00000M000	E	0.08						0.08	
STOL 00000M000	U	0.12						-0.12	
SUB2 00000S001	N	1.18							
			-1.10	0.40					
SUB2 00000S001	E	1.24							
			-1.13	0.51					
SUB2 00000S001	U	3.70							
			3.64	-0.61					
SUBO 00000M000	N	0.35						0.25	-0.24
SUBO 00000M000	E	0.41						0.30	-0.28
SUBO 00000M000	U	1.18						-0.25	-1.15
SUCE 00000M001A	N	1.22					-0.47	1.53	0.20
			-1.36						
SUCE 00000M001A	E	2.91					-1.73	2.63	1.53
			-3.63						
SUCE 00000M001A	U	2.28					2.29	-2.94	-0.49
			1.22						
SUCE 00000M001B	N	0.16							
					0.16				
SUCE 00000M001B	E	0.12							
					-0.12				
SUCE 00000M001B	U	0.39							
					0.39				
SULP 00000M000A	N	0.05		0.05					
SULP 00000M000A	E	0.07		-0.07					
SULP 00000M000A	U	5.50		-5.50					
SULP 00000M000B	N	5.34			5.20	-1.19			

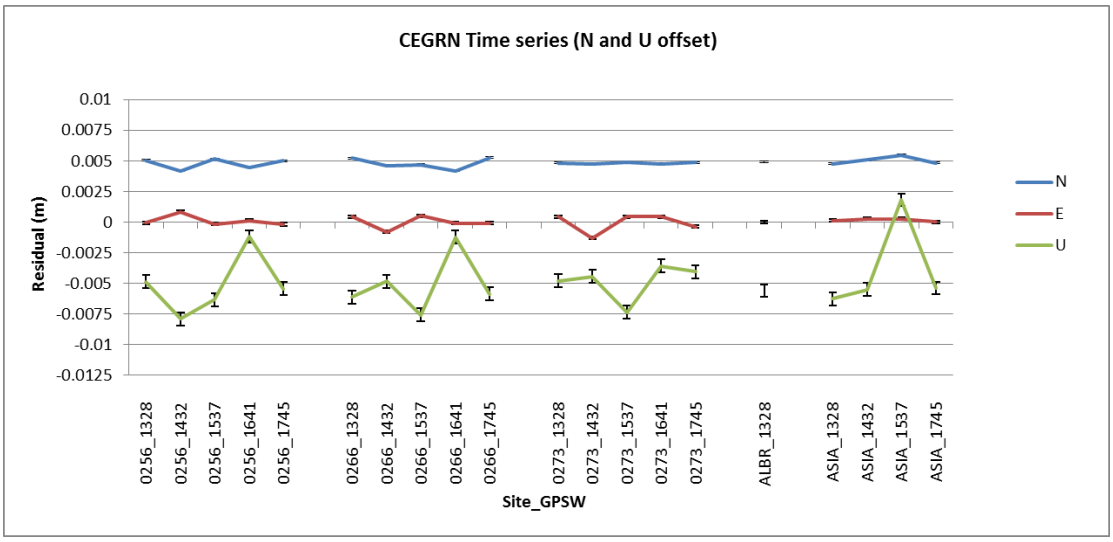
SULP 00000M000B	E	3.81			-3.65	1.10			
SULP 00000M000B	U	4.99			-4.61	-1.91			
SULP212366M001	N	0.39					0.50	-0.02	0.16
			-0.15	-0.07	-0.68				
SULP212366M001	E	1.07					0.15	0.53	0.30
			1.15	-0.20	-2.00				
SULP212366M001	U	2.44					1.54	-2.96	2.54
			0.42	3.47	0.23				
SUME 11215M001A	N	1.28						0.84	-0.97
SUME 11215M001A	E	1.09						0.63	-0.89
SUME 11215M001A	U	2.90						1.60	-2.42
SUME 11215M001B	N	0.66							
			-0.63		0.19				
SUME 11215M001B	E	0.44							
			-0.40		0.17				
SUME 11215M001B	U	1.73							
			-1.64		0.55				
TARP 00000M000A	N	0.28			-0.27	-0.05			
TARP 00000M000A	E	1.28			1.06	-0.72			
TARP 00000M000A	U	3.43			1.20	-3.21			
TARP 00000M000B	N	1.42					1.05	-2.06	0.57
			0.58						
TARP 00000M000B	E	0.61					-0.66	0.40	0.65
			-0.28						
TARP 00000M000B	U	1.48					0.56	0.49	-1.90
			1.55						
TESL 00000M000	N	0.03							
					0.03				
TESL 00000M000	E	0.05							
					0.05				
TESL 00000M000	U	0.17							
					0.17				
TIMI 00000S001	N	1.07					0.68	-1.04	0.87
TIMI 00000S001	E	0.79					-0.24	0.71	-0.83
TIMI 00000S001	U	3.65					1.18	-3.93	3.14
TREB 00000M000	N	0.09							
					0.09				
TREB 00000M000	E	0.09							
					0.09				
TREB 00000M000	U	0.33							
					0.33				
TRF2 11047M002	N	2.60						-1.76	-1.91
TRF2 11047M002	E	1.33						-0.85	-1.02
TRF2 11047M002	U	35.21						21.53	27.86
TRF2111047M002	N	1.01							
			1.33	-0.15	0.51				
TRF2111047M002	E	0.97							
			0.03	1.36	-0.19				
TRF2111047M002	U	9.98							
			-9.99	-6.48	-7.59				
TUBO111503M001	N	0.03					0.01	0.02	
TUBO111503M001	E	0.57					0.22	-0.53	
TUBO111503M001	U	1.03					-0.19	1.01	
TUBO311503M001	N	0.21							0.26
			-0.09	-0.09					
TUBO311503M001	E	0.64							0.34
			-0.77	0.33					
TUBO311503M001	U	1.41							0.93
			-1.70	-0.48					
TUBO411503M001	N	0.02							
					-0.02				
TUBO411503M001	E	0.08							

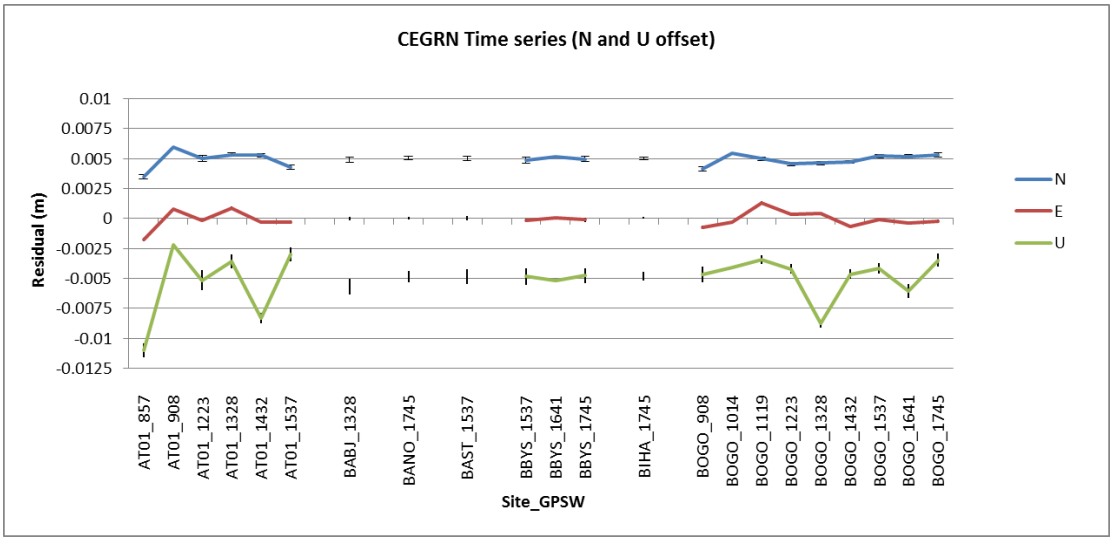
					-0.08				
TUBO411503M001	U	0.27							
					0.27				
TURI 00000M000	N	0.02						-0.02	
TURI 00000M000	E	0.01						0.01	
TURI 00000M000	U	0.16						-0.16	
UNPG312752M001	N	0.22				0.22			
UNPG312752M001	E	0.19				-0.19			
UNPG312752M001	U	2.29				2.29			
UNPG412752M001	N	1.25					0.38	-1.19	
UNPG412752M001	E	3.54					1.96	-2.95	
UNPG412752M001	U	4.50					0.65	-4.45	
UNPG512752M001	N	1.74							-2.03
			-1.52	-0.37	1.57				
UNPG512752M001	E	0.93							0.69
			1.26	-0.67	-0.26				
UNPG512752M001	U	2.45							-2.05
			0.58	-1.94	3.13				
UPAD 12750M002A	N	0.83	-0.73	0.39					
UPAD 12750M002A	E	2.01	1.72	-1.04					
UPAD 12750M002A	U	2.72	1.84	-2.00					
UPAD 12750M002B	N	2.97			-2.79	1.02			
UPAD 12750M002B	E	1.01			-1.01	0.00			
UPAD 12750M002B	U	3.30			3.18	0.91			
USDL112229M001	N	0.44							
			0.19	0.48	-0.35				
USDL112229M001	E	0.49							
			-0.64	-0.22	0.18				
USDL112229M001	U	0.77							
			-0.70	-0.29	0.77				
UZHD 00000M000A	N	2.34		-2.96	1.91		1.64	-1.14	
UZHD 00000M000A	E	0.52		-0.71	0.38		-0.04	0.42	
UZHD 00000M000A	U	5.58		-6.65	-4.90		1.73	4.71	
UZHD 00000M000B	N	0.00							-0.00
UZHD 00000M000B	E	0.15							-0.15
UZHD 00000M000B	U	0.17							0.17
UZHL112301M001	N	1.12					0.67	-1.27	-0.12
			1.31						
UZHL112301M001	E	0.70					-0.21	-0.54	0.62
			0.87						
UZHL112301M001	U	1.15					0.59	0.28	0.79
			-1.71						
VARN 00000S001A	N	0.39						0.39	
VARN 00000S001A	E	0.17						-0.17	
VARN 00000S001A	U	3.11						3.11	
VARN 00000S001B	N	0.07							
				-0.07					
VARN 00000S001B	E	0.20							
				0.20					
VARN 00000S001B	U	2.56							
				-2.56					
VARN 00000S001C	N	0.05							
					0.05				
VARN 00000S001C	E	0.15							
					0.15				

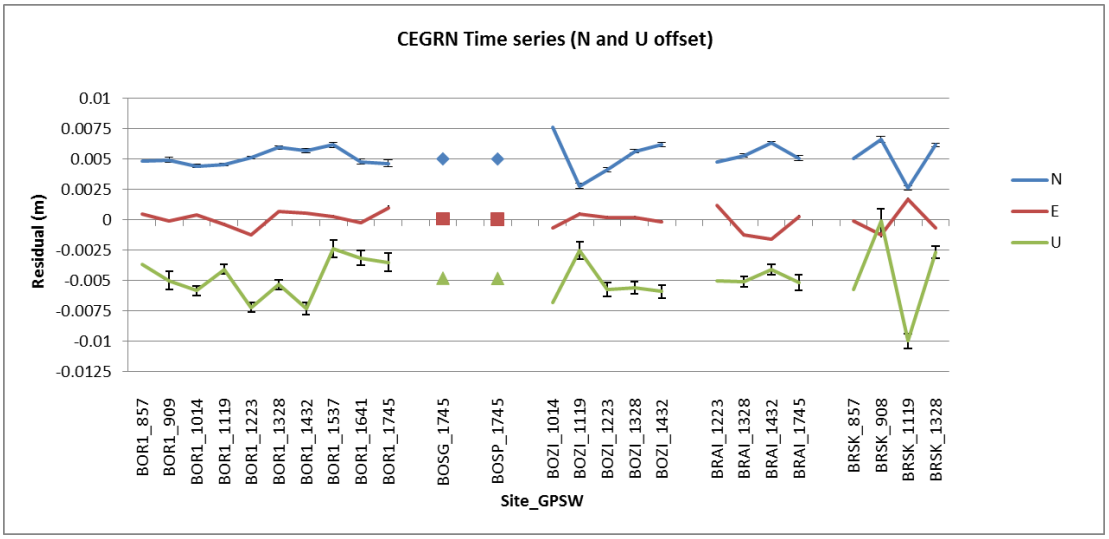
VARN 00000S001C	U	1.46			1.46				
VELI 00000M000	N	0.01			-0.01				
VELI 00000M000	E	0.06			0.06				
VELI 00000M000	U	0.17			0.17				
VLAS 00000M000	N	0.03						-0.03	
VLAS 00000M000	E	0.03						0.03	
VLAS 00000M000	U	0.49						-0.49	
WROC112217M001	N	0.01			-0.01				
WROC112217M001	E	0.28			0.28				
WROC112217M001	U	0.57			0.57				
WROC212217M001	N	0.82				0.09	0.94	-0.69	
WROC212217M001	E	0.65				0.23	-0.75	0.49	
WROC212217M001	U	3.05				-1.40	-1.48	3.80	
WROC412217M001	N	0.75							-0.02
			-0.96	-0.53	0.70				
WROC412217M001	E	0.92							0.17
			1.00	0.37	-1.18				
WROC412217M001	U	3.61							2.28
			4.64	-0.10	-3.52				
WTZR114201M010	N	0.62	0.22	0.10	0.14	-0.05	-0.00	-0.85	0.13
			1.36						
WTZR114201M010	E	0.68	0.08	0.55	0.20	-0.67	0.38	0.85	-1.24
			-0.09						
WTZR114201M010	U	2.75	2.15	3.32	1.28	1.27	0.25	-0.64	0.52
			-5.77						
WTZR214201M010	N	0.32							
				-0.31	0.09				
WTZR214201M010	E	0.52							
				0.26	-0.45				
WTZR214201M010	U	1.24							
				1.06	-0.65				
ZADA 11905M001	N	0.03							
					0.03				
ZADA 11905M001	E	0.05							
					0.05				
ZADA 11905M001	U	0.10							
					0.10				
ZAVI 00000M000	N	0.04							
					0.04				
ZAVI 00000M000	E	0.05							
					0.05				
ZAVI 00000M000	U	0.17							
					0.17				
ZENI 00000M000	N	0.04							
					0.04				
ZENI 00000M000	E	0.06							
					0.06				
ZENI 00000M000	U	0.19							
					0.19				
ZIMM114001M004	N	1.37	1.28	-0.50					
ZIMM114001M004	E	0.99	-0.99	-0.04					
ZIMM114001M004	U	2.97	1.98	-2.21					
ZIMM214001M004	N	0.76			0.84	-0.19	-0.23	-1.23	1.00
			-0.16	0.57	0.58				
ZIMM214001M004	E	0.44			0.34	0.19	0.17	-0.17	0.47
			0.57	-0.63	-0.47				
ZIMM214001M004	U	2.77			-3.38	0.20	1.43	0.49	-2.49
			4.71	2.17	-2.59				

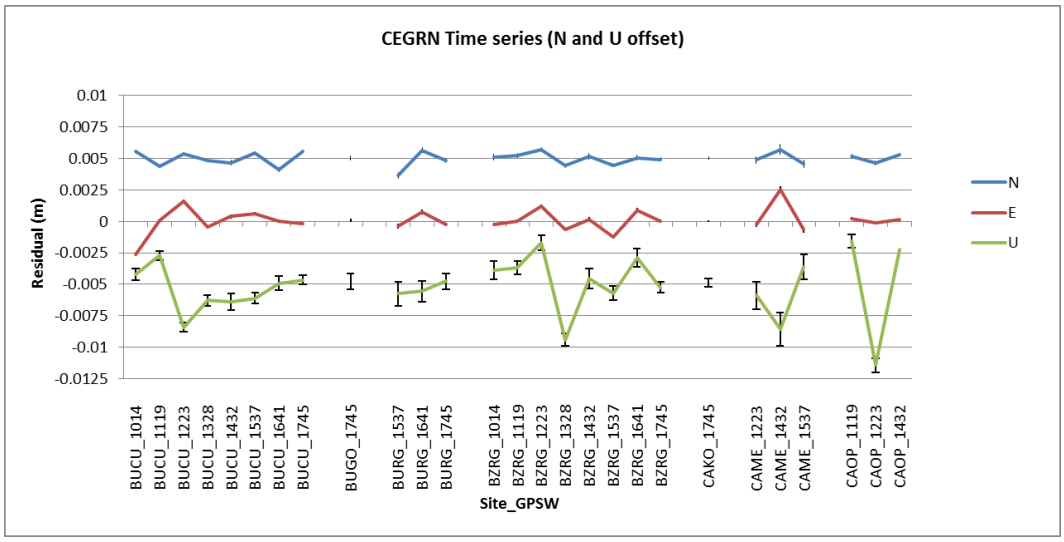
Time Series' Residuals.

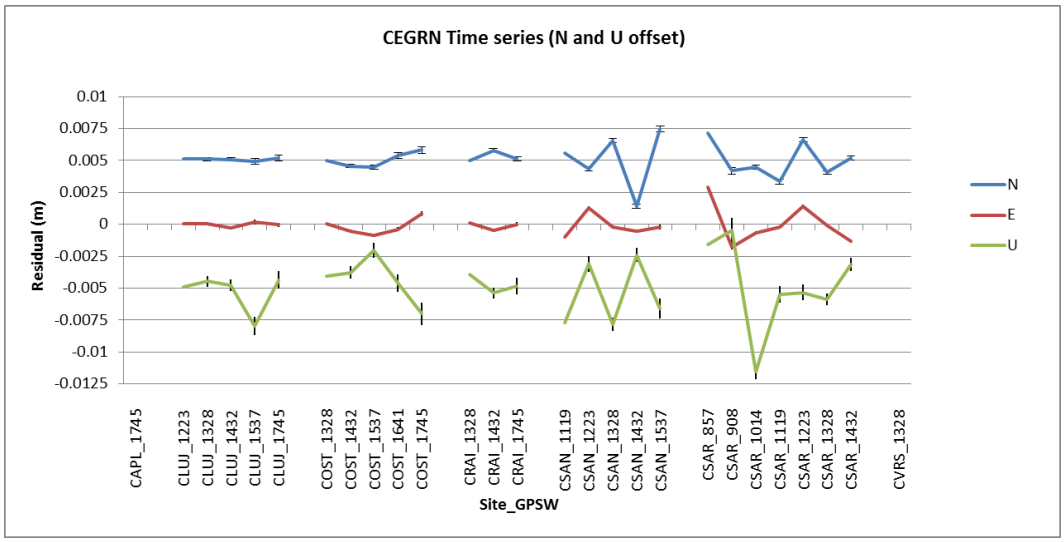
In this section the graphical time series' residuals, including the 1 sigma error bar, are shown. The numeric values are also provided in an additional appendix. In the next graphics, the N component has a +5 mm offset and the U component an offset of -5 mm.








CEGRN Time series (N and U offset)
Residual (m)
0.01
0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
N
E
U
BUCU_1014
BUCU_1119
BUCU_1223
BUCU_1328
BUCU_1432
BUCU_1537
BUCU_1641
BUCU_1745
BUGO_1745
BURG_1537
BURG_1641
BURG_1745
BZRG_1014
BZRG_1119
BZRG_1223
BZRG_1328
BZRG_1432
BZRG_1537
BZRG_1641
BZRG_1745
CAKO_1745
CAME_1223
CAME_1432
CAME_1537
CAOP_1119
CAOP_1223
CAOP_1432
Site_GPSW


CEGRN Time series (N and U offset)
Residual (m)
0.01
0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
N
E
U
CAPL_1745
CLUJ_1223
CLUJ_1328
CLUJ_1432
CLUJ_1537
CLUJ_1745
COST_1328
COST_1432
COST_1537
COST_1641
COST_1745
CRAI_1328
CRAI_1432
CRAI_1745
CSAN_1119
CSAN_1223
CSAN_1328
CSAN_1432
CSAN_1537
CSAR_857
CSAR_908
CSAR_1014
CSAR_1119
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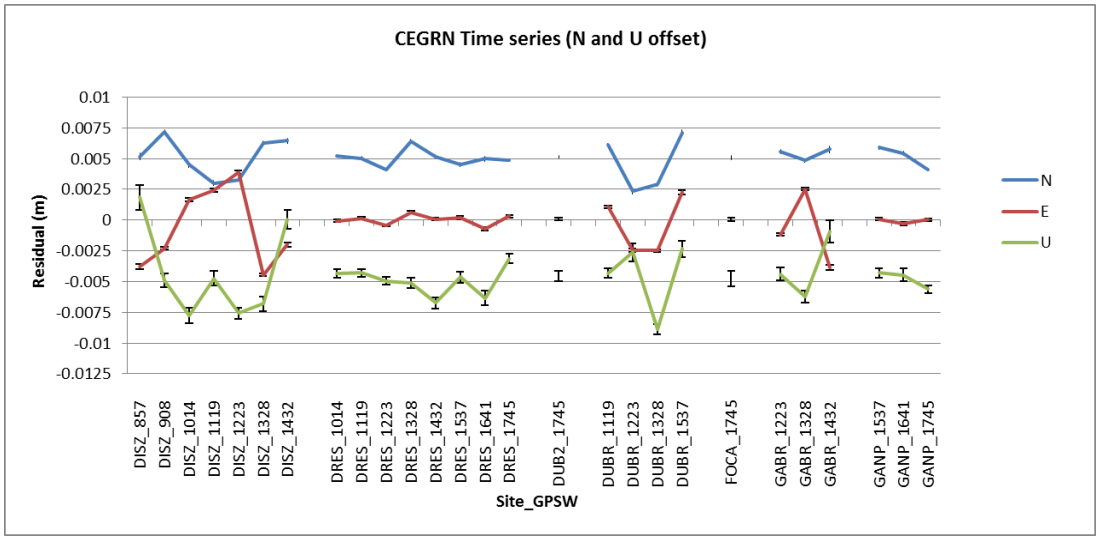
CVRS_1328
Site_GPSW


CEGRN Time series (N and U offset)
Residual (m)
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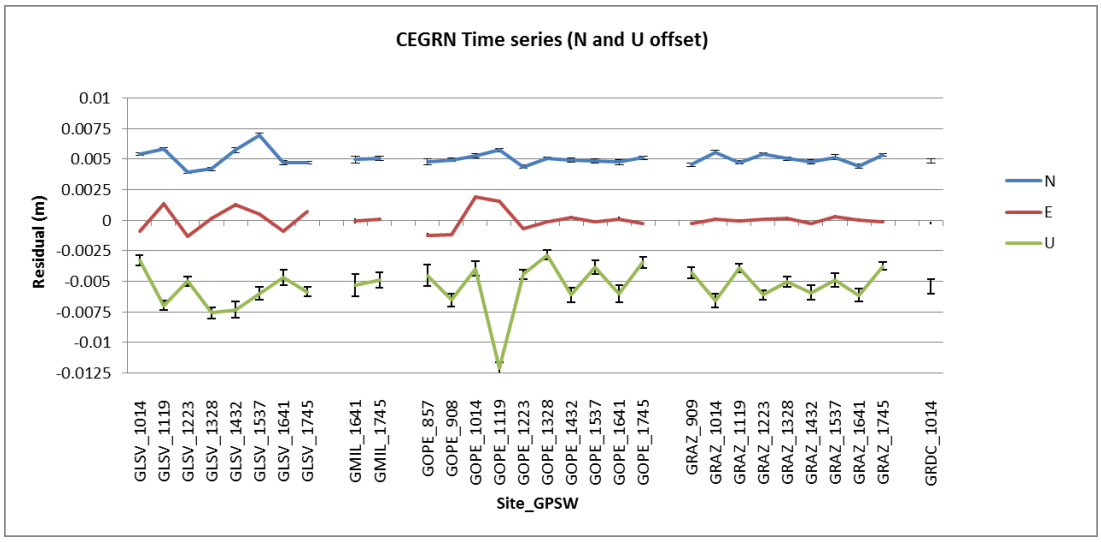
0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
N
E
U
DISZ_857
DISZ_908
DISZ_1014
DISZ_1119
DISZ_1223
DISZ_1328
DISZ_1432
DRES_1014
DRES_1119
DRES_1223
DRES_1328
DRES_1432
DRES_1537
DRES_1641
DRES_1745
DUB2_1745
DUBR_1119
DUBR_1223
DUBR_1328
DUBR_1537
FOCA_1745
GABR_1223
GABR_1328
GABR_1432
GANP_1537
GANP_1641
GANP_1745
Site_GPSW


CEGRN Time series (N and U offset)
Residual (m)
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0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
N
E
U
GLSV_1014
GLSV_1119
GLSV_1223
GLSV_1328
GLSV_1432
GLSV_1537
GLSV_1641
GLSV_1745
GMIL_1641
GMIL_1745
GOPE_857
GOPE_908
GOPE_1014
GOPE_1119
GOPE_1223
GOPE_1328
GOPE_1432
GOPE_1537
GOPE_1641
GOPE_1745
GRAZ_909
GRAZ_1014
GRAZ_1119
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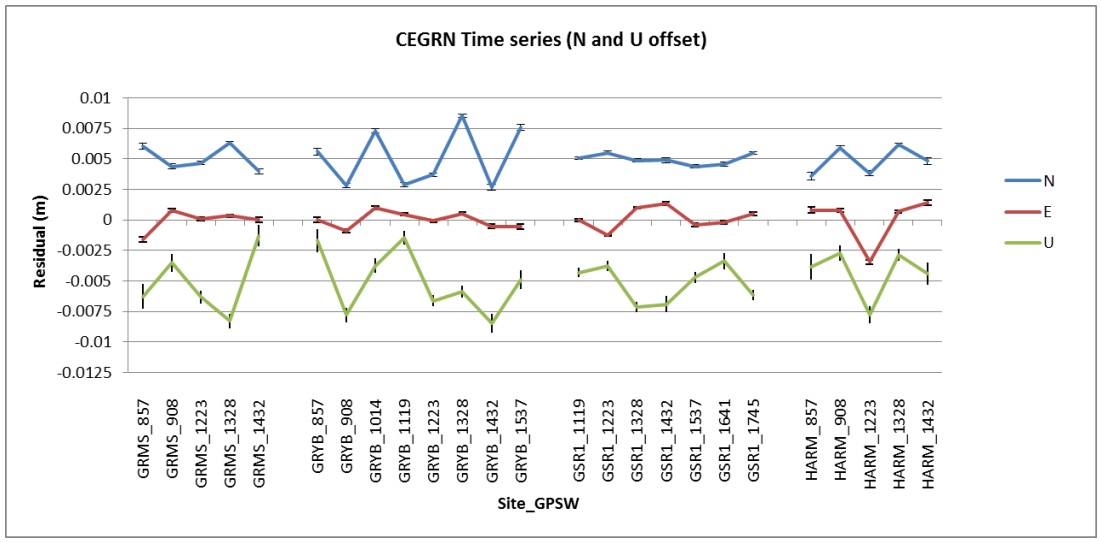
Site_GPSW


CEGRN Time series (N and U offset)
Residual (m)
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0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
N
E
U
GRMS_857
GRMS_908
GRMS_1223
GRMS_1328
GRMS_1432
GRYB_857
GRYB_908
GRYB_1014
GRYB_1119
GRYB_1223
GRYB_1328
GRYB_1432
GRYB_1537
GSR1_1119
GSR1_1223
GSR1_1328
GSR1_1432
GSR1_1537
GSR1_1641
GSR1_1745
HARM_857
HARM_908
HARM_1223
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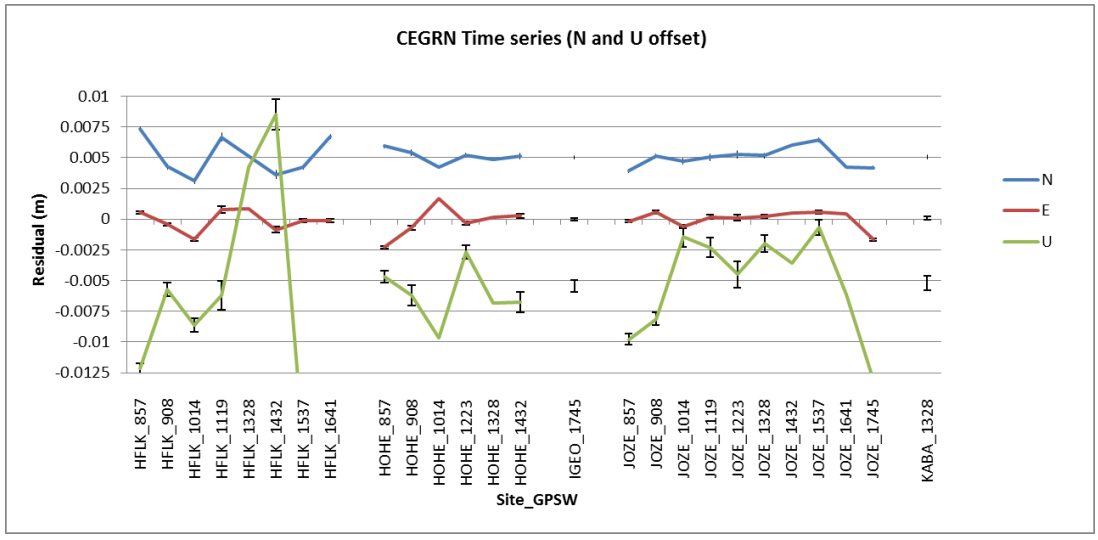
HARM_1432
Site_GPSW


CEGRN Time series (N and U offset)
Residual (m)
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0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
N
E
U
HFLK_857
HFLK_908
HFLK_1014
HFLK_1119
HFLK_1328
HFLK_1432
HFLK_1537
HFLK_1641
HOHE_857
HOHE_908
HOHE_1014
HOHE_1223
HOHE_1328
HOHE_1432
IGEO_1745
JOZE_857
JOZE_908
JOZE_1014
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JOZE_1537
JOZE_1641
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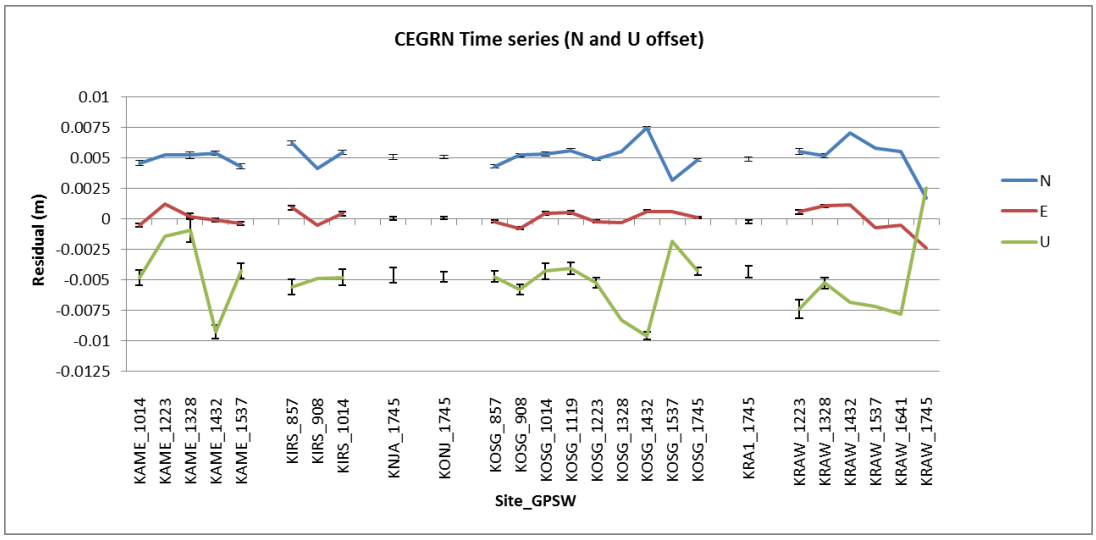
KABA_1328
Site_GPSW


CEGRN Time series (N and U offset)
Residual (m)
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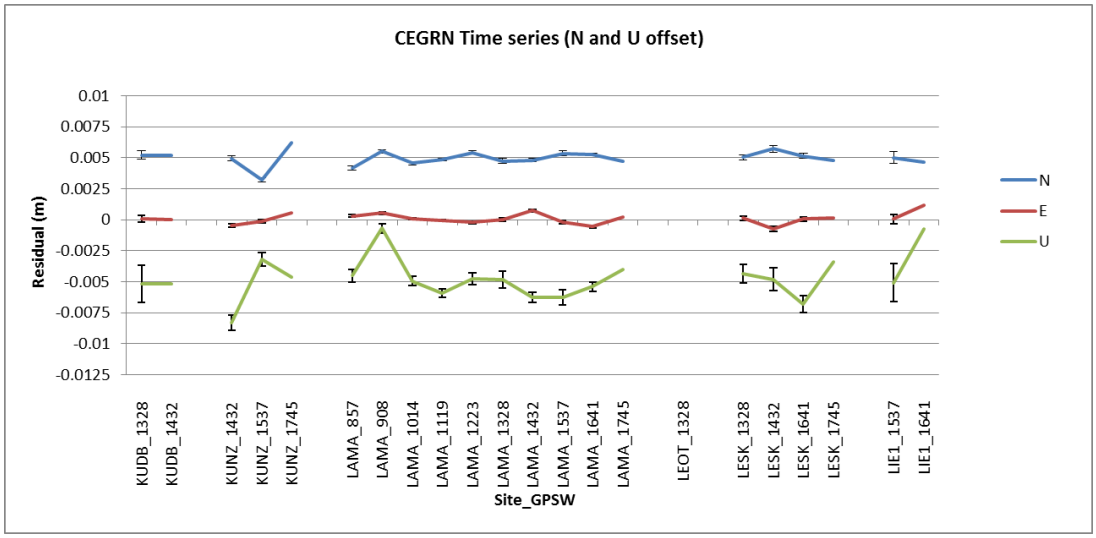
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
KAME_1014
KAME_1223
KAME_1328
KAME_1432
KAME_1537
KIRS_857
KIRS_908
KIRS_1014
KNJA_1745
KONJ_1745
KOSG_857
KOSG_908
KOSG_1014
KOSG_1119
KOSG_1223
KOSG_1328
KOSG_1432
KOSG_1537
KOSG_1745
KRA1_1745
KRAW_1223
KRAW_1328
KRAW_1432
KRAW_1537
KRAW_1641
KRAW_1745
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
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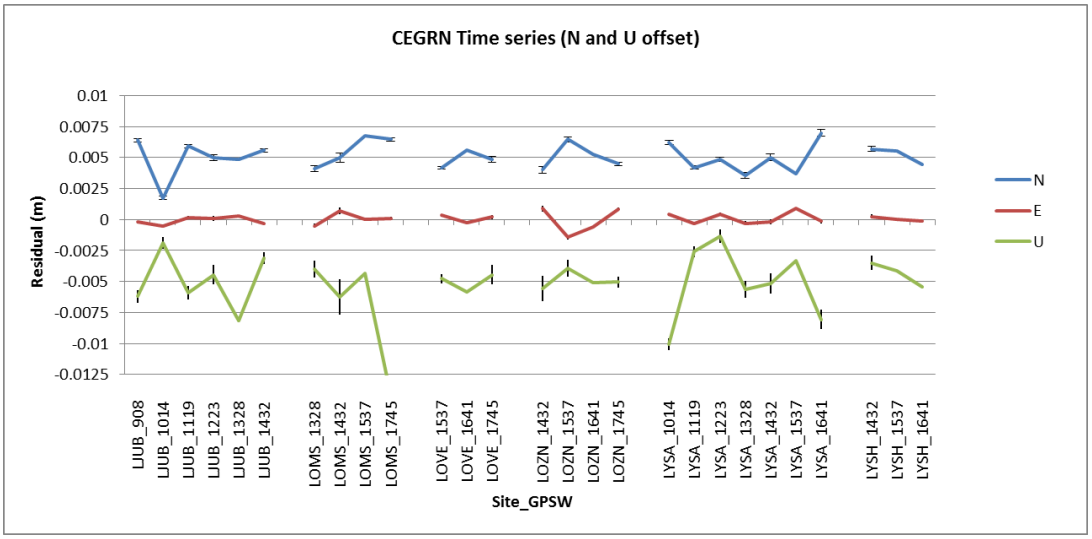
0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
KUDB_1328
KUDB_1432
KUNZ_1432
KUNZ_1537
KUNZ_1745
LAMA_857
LAMA_908
LAMA_1014
LAMA_1119
LAMA_1223
LAMA_1328
LAMA_1432
LAMA_1537
LAMA_1641
LAMA_1745
LEOT_1328
LESK_1328
LESK_1432
LESK_1641
LESK_1745
LIE1_1537
LIE1_1641
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
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0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
LJUB_908
LJUB_1014
LJUB_1119
LJUB_1223
LJUB_1328
LJUB_1432
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LOMS_1432
LOMS_1537
LOMS_1745
LOVE_1537
LOVE_1641
LOVE_1745
LOZN_1432
LOZN_1537
LOZN_1641
LOZN_1745
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LYSA_1328
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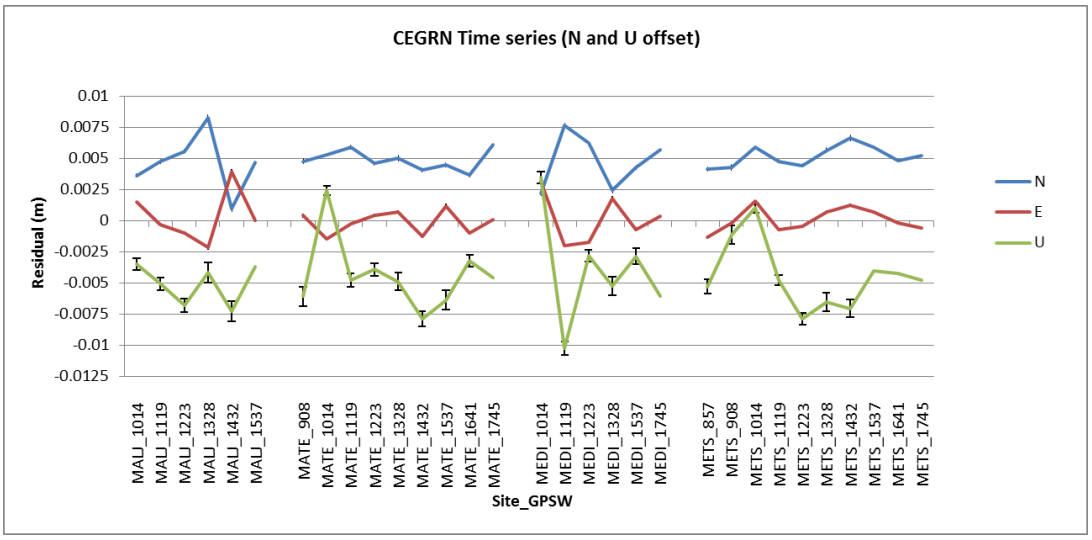
LYSH_1432
LYSH_1537
LYSH_1641
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
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0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
MALJ_1014
MALJ_1119
MALJ_1223
MALJ_1328
MALJ_1432
MALJ_1537
MATE_908
MATE_1014
MATE_1119
MATE_1223
MATE_1328
MATE_1432
MATE_1537
MATE_1641
MATE_1745
MEDI_1014
MEDI_1119
MEDI_1223
MEDI_1328
MEDI_1537
MEDI_1745
METS_857
METS_908
METS_1014
METS_1119
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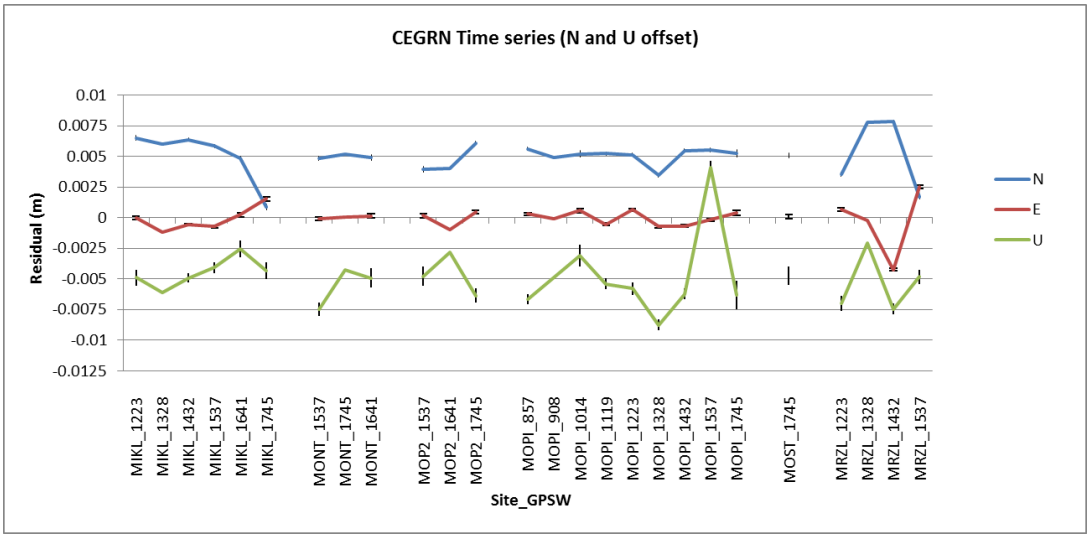
METS_1432
METS_1537
METS_1641
METS_1745
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
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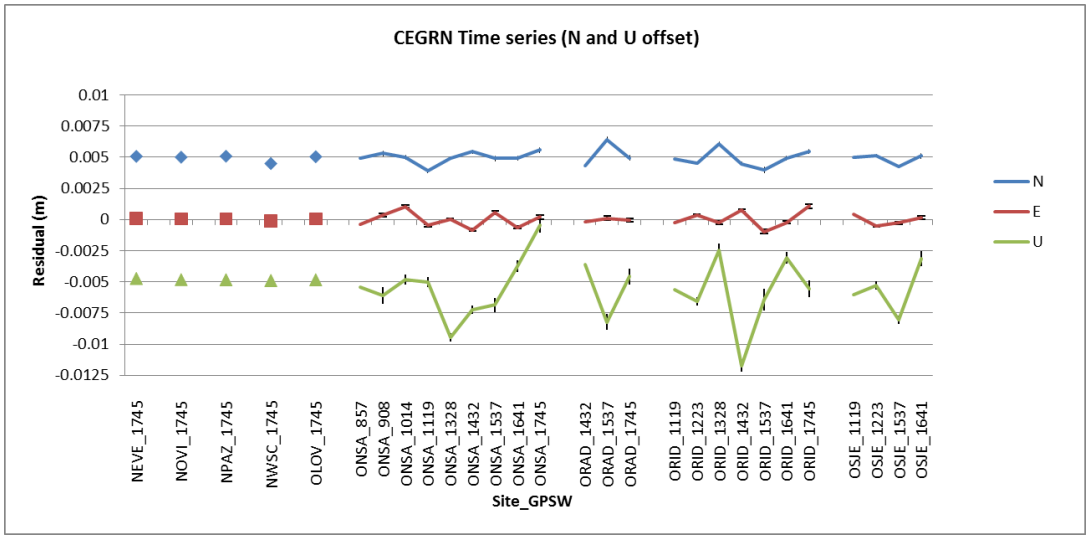
0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
MIKL_1223
MIKL_1328
MIKL_1432
MIKL_1537
MIKL_1641
MIKL_1745
MONT_1537
MONT_1745
MONT_1641
MOP2_1537
MOP2_1641
MOP2_1745
MOPI_857
MOPI_908
MOPI_1014
MOPI_1119
MOPI_1223
MOPI_1328
MOPI_1432
MOPI_1537
MOPI_1745
MOST_1745
MRZL_1223
MRZL_1328
MRZL_1432
MRZL_1537
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
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0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
NEVE_1745
NOVI_1745
NPAZ_1745
NWSC_1745
OLOV_1745
ONSA_857
ONSA_908
ONSA_1014
ONSA_1119
ONSA_1328
ONSA_1432
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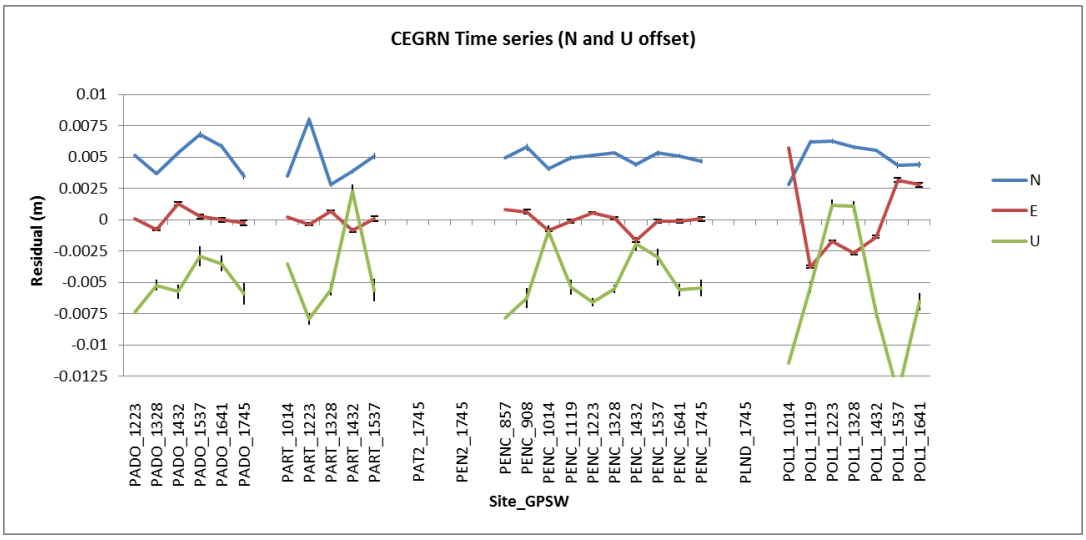
ONSA_1641
ONSA_1745
ORAD_1432
ORAD_1537
ORAD_1745
ORID_1119
ORID_1223
ORID_1328
ORID_1432
ORID_1537
ORID_1641
ORID_1745
OSJE_1119
OSJE_1223
OSJE_1537
OSJE_1641
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
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0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
N
E
U
PADO_1223
PADO_1328
PADO_1432
PADO_1537
PADO_1641
PADO_1745
PART_1014
PART_1223
PART_1328
PART_1432
PART_1537
PAT2_1745
PEN2_1745
PENC_857
PENC_908
PENC_1014
PENC_1119
PENC_1223
PENC_1328
PENC_1432
PENC_1537
PENC_1641
PENC_1745
PLND_1745
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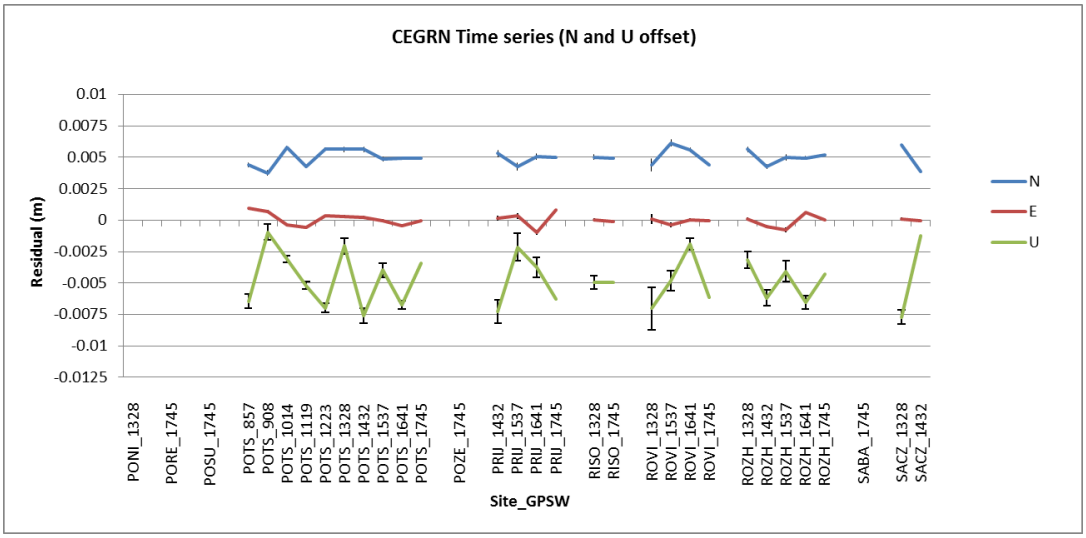
POL1_1119
POL1_1223
POL1_1328
POL1_1432
POL1_1537
POL1_1641
Site_GPSW


CEGRN Time series (N and U offset)
Residual (m)
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0.0075
0.005
0.0025
0
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-0.005
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-0.01
-0.0125
N
E
U
PONI_1328
PORE_1745
POSU_1745
POTS_857
POTS_908
POTS_1014
POTS_1119
POTS_1223
POTS_1328
POTS_1432
POTS_1537
POTS_1641
POTS_1745
POZE_1745
PRIJ_1432
PRIJ_1537
PRIJ_1641
PRIJ_1745
RISO_1328
RISO_1745
ROVI_1328
ROVI_1537
ROVI_1641
ROVI_1745
ROZH_1328
ROZH_1432
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ROZH_1641
ROZH_1745
SABA_1745
SACZ_1328
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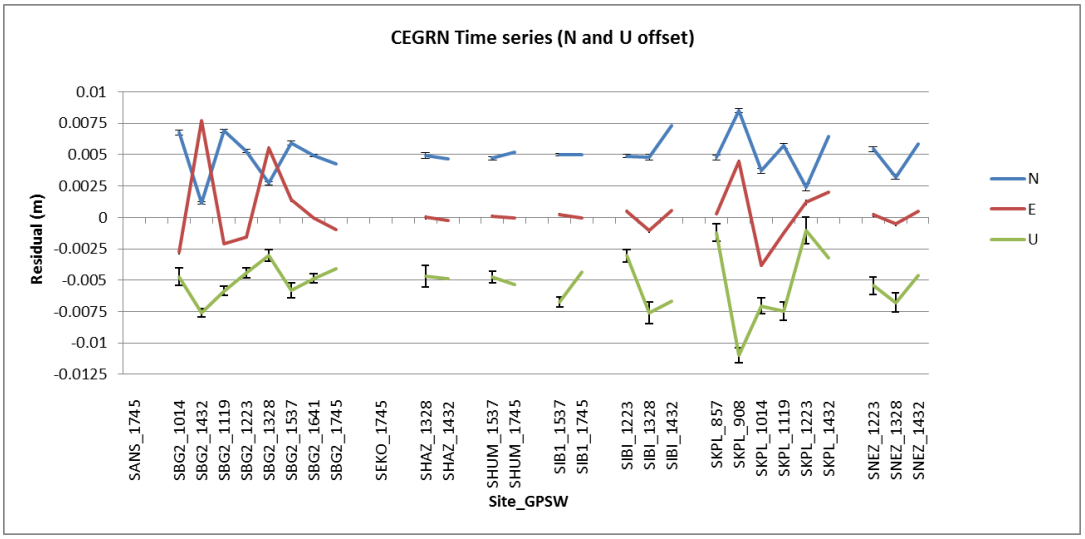
Site_GPSW


CEGRN Time series (N and U offset)
Residual (m)
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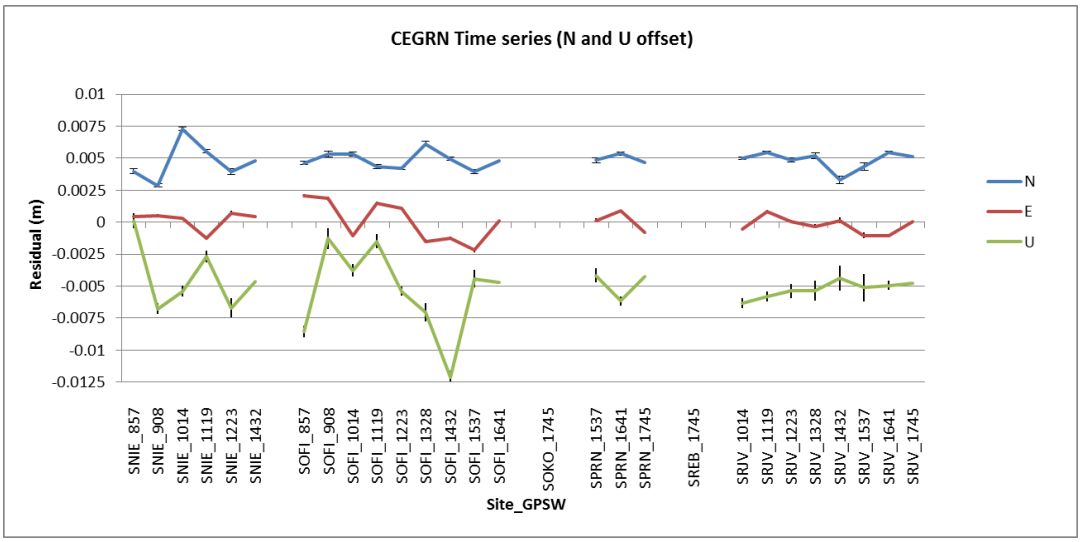
0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
N
E
U
SANS_1745
SBG2_1014
SBG2_1432
SBG2_1119
SBG2_1223
SBG2_1328
SBG2_1537
SBG2_1641
SBG2_1745
SEKO_1745
SHAZ_1328
SHAZ_1432
SHUM_1537
SHUM_1745
SIB1_1537
SIB1_1745
SIBI_1223
SIBI_1328
SIBI_1432
SKPL_857
SKPL_908
SKPL_1014
SKPL_1119
SKPL_1223
SKPL_1432
SNEZ_1223
SNEZ_1328
SNEZ_1432
Site_GPSW


CEGRN Time series (N and U offset)
Residual (m)
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0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
SNIE_857
SNIE_908
SNIE_1014
SNIE_1119
SNIE_1223
SNIE_1432
SOFI_857
SOFI_908
SOFI_1014
SOFI_1119
SOFI_1223
SOFI_1328
SOFI_1432
SOFI_1537
SOFI_1641
SOKO_1745
SPRN_1537
SPRN_1641
SPRN_1745
SREB_1745
SRUV_1014
SRUV_1119
SRUV_1223
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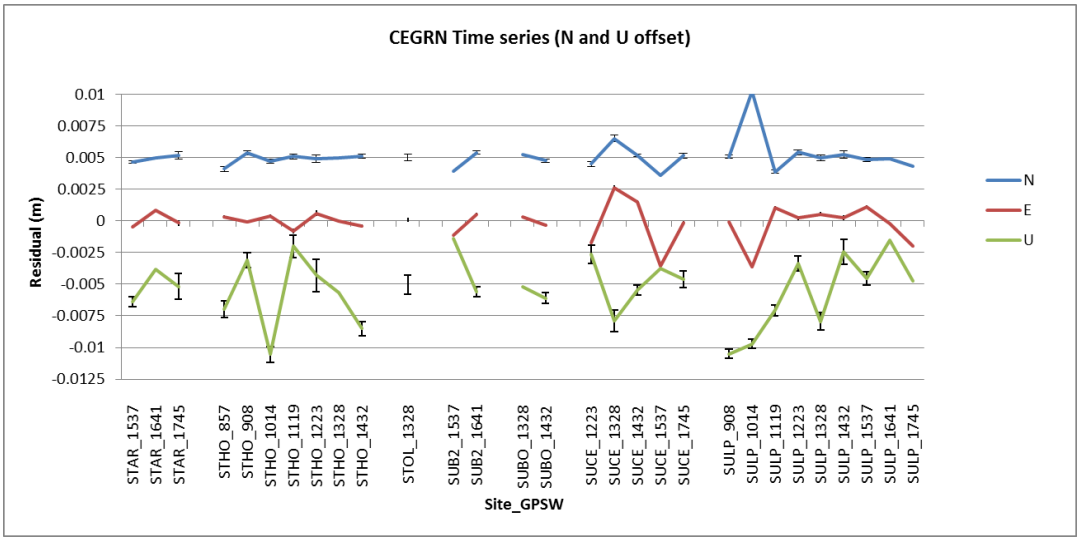
SRUV_1432
SRUV_1537
SRUV_1641
SRUV_1745
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
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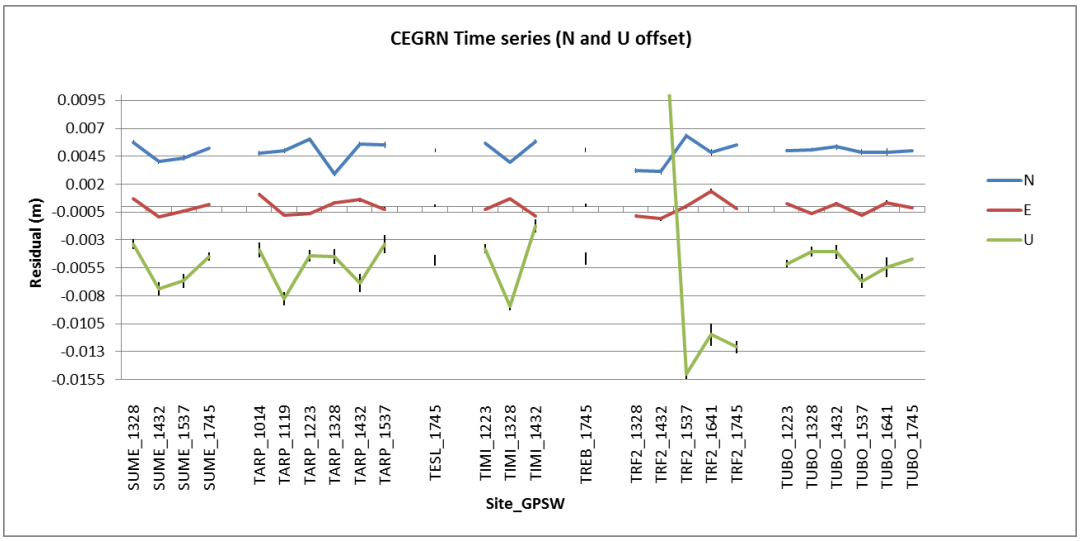
0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
STAR_1537
STAR_1641
STAR_1745
STHO_857
STHO_908
STHO_1014
STHO_1119
STHO_1223
STHO_1328
STHO_1432
STOL_1328
SUB2_1537
SUB2_1641
SUBO_1328
SUBO_1432
SUCE_1223
SUCE_1328
SUCE_1432
SUCE_1537
SUCE_1745
SULP_908
SULP_1014
SULP_1119
SULP_1223
SULP_1328
SULP_1432
SULP_1537
SULP_1641
SULP_1745
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
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0.007
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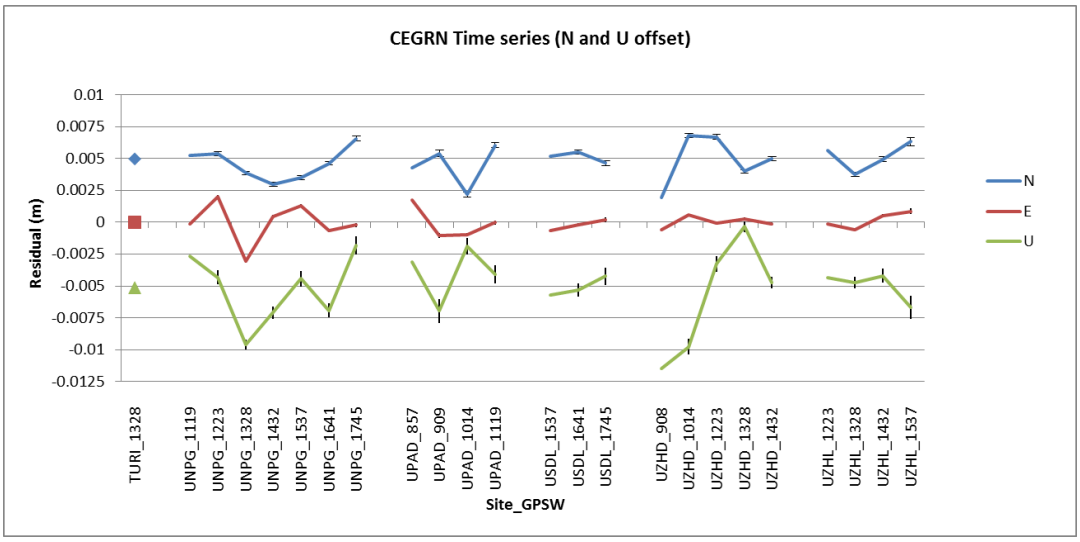
0.002
-0.0005
-0.003
-0.0055
-0.008
-0.0105
-0.013
-0.0155
SUME_1328
SUME_1432
SUME_1537
SUME_1745
TARP_1014
TARP_1119
TARP_1223
TARP_1328
TARP_1432
TARP_1537
TESL_1745
TIMI_1223
TIMI_1328
TIMI_1432
TREB_1745
TRF2_1328
TRF2_1432
TRF2_1537
TRF2_1641
TRF2_1745
TUBO_1223
TUBO_1328
TUBO_1432
TUBO_1537
TUBO_1641
TUBO_1745
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
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0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
TURI_1328
UNPG_1119
UNPG_1223
UNPG_1328
UNPG_1432
UNPG_1537
UNPG_1641
UNPG_1745
UPAD_857
UPAD_909
UPAD_1014
UPAD_1119
USDL_1537
USDL_1641
USDL_1745
UZHD_908
UZHD_1014
UZHD_1223
UZHD_1328
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UZHL_1328
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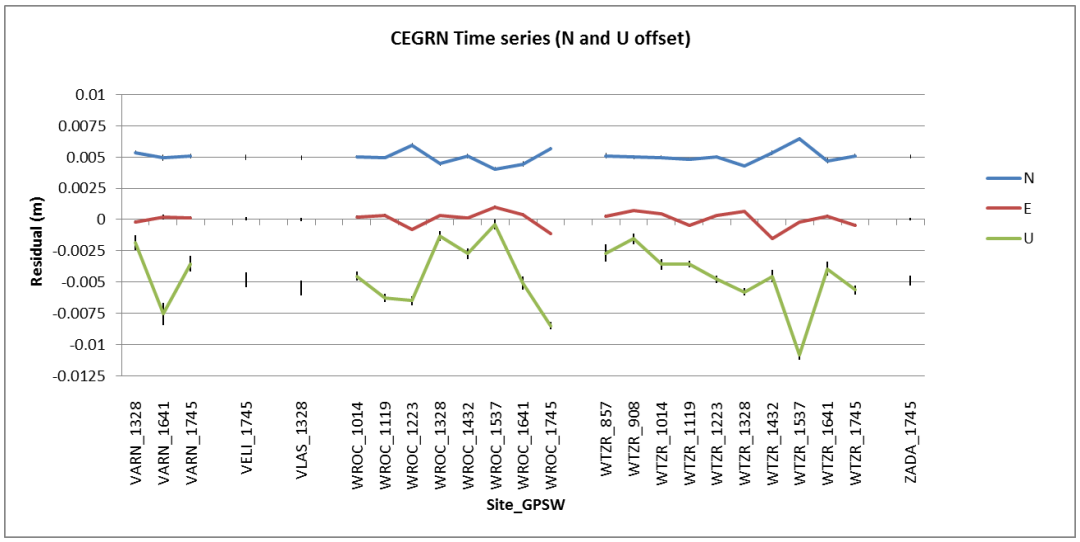
UZHL_1537
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
0.01
0.0075
0.005
0.0025
0
-0.0025
-0.005
-0.0075
-0.01
-0.0125
VARN_1328
VARN_1641
VARN_1745
VELI_1745
VLAS_1328
WROC_1014
WROC_1119
WROC_1223
WROC_1328
WROC_1432
WROC_1537
WROC_1641
WROC_1745
WTZR_857
WTZR_908
WTZR_1014
WTZR_1119
WTZR_1223
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WTZR_1537
WTZR_1641
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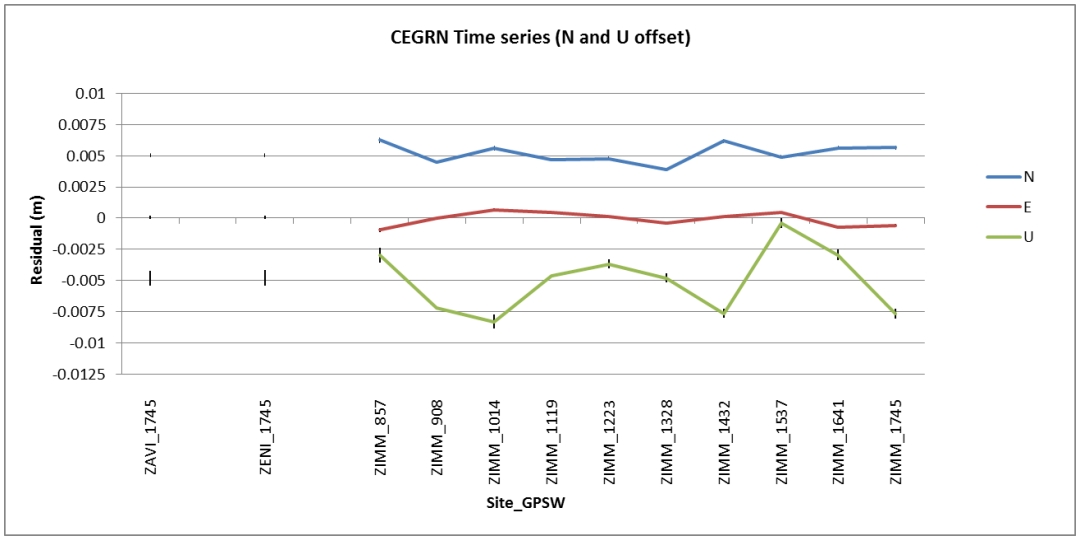
ZADA_1745
Site_GPSW
N
E
U


CEGRN Time series (N and U offset)
Residual (m)
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0.005
0.0025
0
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-0.005
-0.0075
-0.01
-0.0125
ZAVI_1745
ZENI_1745
ZIMM_857
ZIMM_908
ZIMM_1014
ZIMM_1119
ZIMM_1223
ZIMM_1328
ZIMM_1432
ZIMM_1537
ZIMM_1641
ZIMM_1745
Site_GPSW
N
E
U

Appendix B: Coordinates and velocities of CEGRN sites

MC ADJUSTED COORDINATES

REFERENCE EPOCH: 2005.0, IGb08 Cartesian Coordinates:

ID	X (m)	Y (m)	Z (m)	NOTES
0256 00000M001	4177482.66865	856761.32165	4727789.99992	
0266 00000M001A	4136271.03340	891364.68770	4757159.58115	
0266 00000M001B	4136271.04099	891364.69170	4757159.58902	
0273 00000M001A	4201228.52720	778201.27663	4720500.29541	
0273 00000M001B	4201228.53895	778201.27992	4720500.30660	
ALBR 00000M000	4438211.22997	1430441.48150	4337534.64035	
ASIA 12714M001	4360032.63852	889072.03779	4555699.67489	
ASIA 12714M002	4360033.24906	889071.30600	4555699.30071	
AT01 11027M002A	4066170.48945	1135173.38666	4765612.02278	
AT01 11027M002B	4066170.48534	1135173.38732	4765612.02314	
BABJ 00000M000	4423843.94701	1451371.57396	4346275.77592	
BANO 00000M000	4327532.00532	1450421.45224	4440879.61909	
BAST 00000M000	4009540.34419	1372912.49010	4751353.12090	
BIHA 00000M000	4359670.05286	1239326.85070	4472903.45411	
BOSG 00000M000	4396803.45045	1290979.88554	4422903.38958	
BOSP 00000M000	4368407.29119	1283125.71002	4452742.19660	
BOZI 00000M000A	4295601.94962	1030102.32303	4587369.82944	
BOZI 00000M000B	4295601.93497	1030102.31712	4587369.83156	
BRAI 00000M001	3971207.26638	2109151.83464	4508382.49170	
BRSK 00000M000	4307965.75109	1200393.43030	4532778.93643	
BUGO 00000M000	4380950.35178	1376214.79678	4412589.87907	
BURG 00000S001	4178676.31186	2173223.36297	4286432.13775	
CAKO 11906M001	4227250.45298	1247280.85316	4595193.54931	EPN_B CLASS
CAME 12754M001	4542009.13043	1058964.24870	4336932.96913	EPN REMOVED (FORMER EPN)
CAOP 00000M000	4284777.45400	1220139.98942	4549236.69278	
CAPL 00000M000	4442611.56989	1418084.27259	4336706.48450	
CLUJ 00000M000A	4011942.78229	1751652.32907	4623698.46641	
CLUJ 00000M000B	4011942.77567	1751652.32547	4623698.45451	
CLUJ 00000M000C	4011942.75607	1751652.31791	4623698.45800	
CLUJ 00000M000D	4011942.73353	1751652.30731	4623698.46855	
CRAI 00000M001	4181965.08376	1841376.77931	4435131.59379	
CSAN 00000M000	4128720.33814	1557707.57787	4589954.45109	
CSAR 00000M000	4224902.44891	1390480.46824	4556477.80487	
CVRS 00000M000	4412162.76204	1396633.56594	4377529.05101	
DISZ 00000M000A	4165317.28412	1312628.94904	4633092.98441	
DISZ 00000M000B	4165317.28052	1312628.96475	4633092.97124	
DUB2 11901M002	4465932.55450	1460581.90766	4299308.78034	EPN_B CLASS
DUBR 11901M001	4465940.06039	1460594.46565	4299291.41508	EPN REMOVED (FORMER EPN)
FOCA 00000M000	4387126.00969	1491238.74797	4368889.07235	
GABR 00000M000	4227589.70345	1996278.47341	4324909.71794	
GMIL 00000S001	4304059.55037	1605810.93477	4410324.54600	
GRDC 00000M000	4294619.69787	1435277.42323	4477172.78564	
GRMS 11028M001A	4247623.10268	1009824.20456	4637247.53555	
GRMS 11028M001B	4247623.09873	1009824.19878	4637247.53365	
GRYB 00000M000A	3866099.42969	1479953.01091	4836445.93729	
GRYB 00000M000B	3866099.41557	1479953.00720	4836445.92129	
GRYB 00000M000C	3866099.42294	1479953.00896	4836445.92956	
HARM 00000M000	4280049.80148	2073328.47214	4236244.91237	
HFLK 11006S003A	4248505.02279	855575.73823	4667172.26803	
HFLK 11006S003B	4248505.04464	855575.74219	4667172.28613	
HFLK 11006S003C	4248504.94478	855575.71899	4667172.16829	REFERS TO HFL2. OFFSET IN HEIGHT
HOHE 00000M000A	4213687.08463	820423.08227	4702784.36999	
HOHE 00000M000B	4213687.05131	820423.08675	4702784.31953	
HOHE 00000M000C	4213687.03852	820423.08724	4702784.30297	
KABA 00000M000	4336556.91963	1342748.48078	4466240.26884	
KAME 00000M000	3892519.84460	1572235.40759	4785955.74118	
KIRS 00000M000	3879830.58296	987963.46520	4948713.49120	
KNJA 12113M001	4284174.60349	1753166.52634	4373521.96389	
KONJ 00000M000	4396987.60552	1425420.25414	4380673.43709	
KOSG513504M003	3899225.11760	396731.96911	5015078.46189	EPN_A CLASS SITE, NOT USED AS REF.: 12 mm SHIFT RELATIVE TO C1725 SOLUTION
KUDB 00000M000	4341734.19497	1234191.79059	4491994.09983	
LEOT 00000M000	4453620.09820	1477181.62236	4307440.56464	
LESK 00000S001	4333721.28824	1746352.81796	4327504.92250	
LIE1 00000S001	3918778.86283	1401454.48503	4817956.87870	
LJUB 00000M000A	4293737.81046	1110067.96569	4569047.79643	
LJUB 00000M000B	4293737.82689	1110067.96434	4569047.81018	
LJUB 00000M000C	4293737.80139	1110067.96920	4569047.78413	
LOMS 00000M000A	3920489.35811	1443472.48354	4806794.86519	
LOMS 00000M000B	3920489.34656	1443472.48188	4806794.85878	
LOVE 00000S001	4234958.48257	1948618.88378	4338767.27402	

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LOZN 00000M000A   4300140.28757  1499531.61394  4450807.33231
LOZN 00000M000B   4300140.26335  1499531.64359  4450807.36957
LYSA 11522M002    3934200.10736  1312340.68314  4831220.60382
LYSH 11522M001    3934178.15852  1312357.34466  4831238.03523
MALJ 00000M000A   4351694.43296  1056274.95648  4526994.80163
MALJ 00000M000B   4351694.44157  1056274.94583  4526994.81016
MEDI 12711M003    4461400.74175   919593.57965  4449504.76916    EPN_B CLASS
METS210503S011    2892570.77710  1311843.43814  5512634.11767    EPN_A CLASS SITE, NOT USED AS
REF.: 11 mm SHIFT RELATIVE TO C1725 SOLUTION
METS310503S011    2892570.77654  1311843.43990  5512634.11799    EPN_A CLASS SITE, NOT USED AS
REF.: 12 mm SHIFT RELATIVE TO C1725 SOLUTION
MONT 00000S001A   4264436.49553  1829947.42579  4361299.16710
MONT 00000S001B   4264436.47288  1829947.41559  4361299.14400
MOPI 11507M001A   4053737.87155  1260571.60616  4744940.84545    EPN_B CLASS
MOPI 11507M001B   4053737.88090  1260571.60414  4744940.86085    EPN_B CLASS
MOST 00000M000    4423298.69373  1420487.33858  4355574.77356
MRZL 00000M000    4271062.04263  1153198.95459  4580640.36592
NEVE 00000M000    4422702.95886  1446503.88988  4348879.46655
NOVI 00000M000    4330738.97157  1272718.57264  4491308.11101
NPAZ 12110M001    4365990.90041  1634053.28557  4339210.71315
NWSC 12231M001    3873461.41957  1462888.35607  4835656.19905
OLOV 00000M000    4346963.79005  1461225.59529  4418746.29437
ORAD 00000M001    4037694.60581  1626553.21825  4646396.39439
PADO 12750S001    4388882.03042   924567.46388  4519588.73598    EPN_B CLASS
PART 00000M000A   4009009.71240  1329010.38040  4763660.66308
PART 00000M000B   4009009.71779  1329010.37745  4763660.64579
PAT2 11029M002    4255735.85391   862759.88330  4659191.34557    EPN_B CLASS
PEN2 11206M007    4052431.76890  1417705.74307  4701420.05451
PLND 12111M001    4197325.15684  1621400.35848  4505445.61770
POL1 11530M001A   3914079.52240  1146206.91125  4888342.90745
POL1 11530M001B   3914079.52081  1146206.91532  4888342.90555
PONI 00000M000    4417564.07808  1481493.96123  4342712.25146
PORE 11907M001    4373761.74840  1057723.95473  4505121.53114
POSU 00000M000    4426155.56851  1380987.38935  4366168.61642
POZE 11908M001    4279472.81181  1363734.91941  4513578.05983
PRIJ 00000S001    4372826.14584  1560748.76263  4359082.31914
RISO 00000S001A   3988763.08808  1452191.23644  4744815.06805
RISO 00000S001B   3988763.09193  1452191.23342  4744815.08197
ROVI 12769M001    4415779.58231   921117.66611  4494190.03860
ROZH 00000S001A   4332981.01525  1996660.60313  4221598.79898
ROZH 00000S001B   4332981.03148  1996660.61496  4221598.81960
SABA 12112M001    4271111.56579  1529000.56897  4468514.66379
SACZ 00000M000    3873461.42350  1462888.35972  4835656.21180
SANS 00000M000    4345531.46977  1301042.93408  4469058.04668
SBG2 11031M002A   4180931.03952   973735.46039  4703203.62046    BEFORE SBG2 BECAME EPN_A SITE
(2008-11-05)
SBG2 11031M002B   4180931.04972   973735.45895  4703203.62948    BEFORE SBG2 BECAME EPN_A SITE
(2008-11-05)
SEKO 00000M000    4327387.93514  1477769.27924  4432061.93330
SHAZ 00000M000    3631977.99148  1609614.48661  4973373.06114
SHUM 00000S001    4146705.63437  2106421.66163  4350214.19757
SIB1 00000M002A   4066199.73287  1822825.09095  4548717.26602
SIB1 00000M002B   4066199.74446  1822825.09349  4548717.28049
SIBI 00000M001    4066195.38789  1822836.88462  4548706.60998
SKPL 00000M000A   3920102.63291  1444751.35810  4805588.19482
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SNIE 00000M000    3894102.91287  1097525.28772  4916316.91983
SOKO 00000M000    4355955.85141  1482211.96365  4403488.36799
SREB 00000M000    4306548.20527  1439983.55425  4464241.11496
SRJV 11801S001    4370292.97971  1454980.12995  4397965.32882  EPN_B CLASS
STAR 00000S001    4252380.64011  2039954.70514  4279715.06819
STHO 00000M000A   4012396.51569  1423350.15648  4733810.17330
STHO 00000M000B   4012396.50873  1423350.15335  4733810.16078
STHO 00000M000C   4012396.50000  1423350.16077  4733810.13849
STHO 00000M000D   4012396.49341  1423350.14605  4733810.13389
STOL 00000M000    4310167.41685  1475222.73351  4450349.41878
SUB2 00000S001    4172026.95062  1491099.67789  4573052.26563
SUBO 00000M000    4172052.81838  1490736.83761  4573131.69704
SUCE 00000M001A   3862362.88270  1903614.08986  4690000.26101
SUCE 00000M001B   3862362.90527  1903614.08167  4690000.26686
SULP 00000M000A   3765296.98847  1677559.20232  4851297.39584
SULP 00000M000B   3765296.98899  1677559.20816  4851297.40221
SUME 11215M001A   4163665.28063  1296184.50880  4639232.09677
SUME 11215M001B   4163665.27431  1296184.50542  4639232.09019
TARP 00000M000A   3939065.49877  1635574.86696  4726647.29602
TARP 00000M000B   3939065.50344  1635574.86876  4726647.30237
TESL 00000M000    4329888.87688  1394956.22033  4456055.48301
TIMI 00000S001    4156146.50770  1614561.73798  4545665.62664
TREB 00000M000    4455510.60556  1477207.43140  4304216.67438
```

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TRF2 11047M002    4119400.21743  1170248.75091  4712324.14612   BEFORE TRF2 BECAME EPN_A SITE
(2008-11-05). OFFSET IN HEIGHT
TURI 00000M000    4294619.61098  1435277.53659  4477172.83419
UPAD 12750M002A   4389531.13189   923253.78574  4519256.42687
UPAD 12750M002B   4389531.14210   923253.78728  4519256.44284
UZHD 00000M000A   3908590.40059  1615205.87975  4758733.25342
UZHD 00000M000B   3908590.39380  1615205.87798  4758733.24738
VARN 00000S001A   4114503.11455  2180607.41585  4343968.22507
VARN 00000S001B   4114503.10290  2180607.40776  4343968.21261
VARN 00000S001C   4114503.13725  2180607.43264  4343968.25689
VELI 00000M000    4333059.09961  1226606.17385  4501868.65576
VLAS 00000M000    4358723.93490  1388306.80287  4432548.69553
ZADA 11905M001    4425736.83822  1204734.75488  4417173.71473   EPN_B CLASS
ZAVI 00000M000    4334823.42595  1420642.93077  4443213.78114
ZENI 00000M000    4358370.43908  1408150.38218  4424415.78377
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MC ADJUSTED VELOCITIES

IGb08 Cartesian Velocities:

ID	VX (m/Y)	VY (m/Y)	VZ (m/Y)
0256 00000M001	-0.01497	0.01744	0.01172
0266 00000M001A	-0.01607	0.01720	0.01029
0266 00000M001B	-0.01607	0.01720	0.01029
0273 00000M001A	-0.01581	0.01769	0.01051
0273 00000M001B	-0.01581	0.01769	0.01051
ALBR 00000M000	-0.01489	0.01825	0.00921
ASIA 12714M001	-0.01524	0.01824	0.01185
ASIA 12714M002	-0.01524	0.01824	0.01185
AT01 11027M002A	-0.01574	0.01714	0.01070
AT01 11027M002B	-0.01574	0.01714	0.01070
BABJ 00000M000	-0.01497	0.01821	0.00916
BANO 00000M000	-0.01520	0.01800	0.00893
BAST 00000M000	-0.01569	0.01731	0.00824
BIHA 00000M000	-0.01461	0.01813	0.00921
BOSG 00000M000	-0.01465	0.01820	0.00925
BOSP 00000M000	-0.01465	0.01820	0.00925
BOZI 00000M000A	-0.01559	0.01768	0.01075
BOZI 00000M000B	-0.01559	0.01768	0.01075
BRAI 00000M001	-0.01924	0.01763	0.00594
BRSK 00000M000	-0.01881	0.01773	0.01061
BUGO 00000M000	-0.01489	0.01814	0.00913
BURG 00000S001	-0.01890	0.01707	0.01035
CAKO 11906M001	-0.01493	0.01784	0.00889
CAME 12754M001	-0.01622	0.02004	0.01498
CAOP 00000M000	-0.01502	0.02006	0.01487
CAPL 00000M000	-0.01484	0.01826	0.00924
CLUJ 00000M000A	-0.02570	0.01515	0.02353
CLUJ 00000M000B	-0.02570	0.01515	0.02353
CLUJ 00000M000C	-0.02570	0.01515	0.02353
CLUJ 00000M000D	-0.02570	0.01515	0.02353
CRAI 00000M001	-0.01726	0.01804	0.00881
CSAN 00000M000	-0.01818	0.01714	0.00970
CSAR 00000M000	-0.01702	0.01822	0.01080
CVRS 00000M000	-0.01487	0.01821	0.00918
DISZ 00000M000A	-0.01661	0.01653	0.01190
DISZ 00000M000B	-0.01661	0.01653	0.01190
DUB2 11901M002	-0.01925	0.01883	0.01367
DUBR 11901M001	-0.01925	0.01883	0.01367
FOCA 00000M000	-0.01515	0.01812	0.00903
GABR 00000M000	-0.01729	0.01954	0.00868
GMIL 00000S001	-0.01885	0.01941	0.00528
GRDC 00000M000	-0.00120	0.00097	0.00120
GRMS 11028M001A	-0.01482	0.01918	0.01244
GRMS 11028M001B	-0.01482	0.01918	0.01244
GRYB 00000M000A	-0.01850	0.01598	0.00956
GRYB 00000M000B	-0.01850	0.01598	0.00956
GRYB 00000M000C	-0.01850	0.01598	0.00956
HARM 00000M000	-0.01669	0.01955	0.00900
HFLK 11006S003A	-0.01727	0.01778	0.01041
HFLK 11006S003B	-0.01727	0.01778	0.01041
HFLK 11006S003C	-0.01727	0.01778	0.01041
HOHE 00000M000A	-0.01222	0.01630	0.01664
HOHE 00000M000B	-0.01222	0.01630	0.01664
HOHE 00000M000C	-0.01222	0.01630	0.01664
KABA 00000M000	-0.01492	0.01805	0.00906
KAME 00000M000	-0.01837	0.01645	0.00897
KIRS 00000M000	-0.01641	0.01693	0.01137
KNJA 12113M001	-0.01599	0.01780	0.00853
KONJ 00000M000	-0.01497	0.01816	0.00912
KOSG513504M003	-0.01460	0.01650	0.00970
KUDB 00000M000	-0.02174	0.01431	0.00828
LEOT 00000M000	-0.01496	0.01827	0.00920
LESK 00000S001	-0.01600	0.01917	0.01032
LIE1 00000S001	-0.01533	0.01734	0.00811
LJUB 00000M000A	-0.01572	0.01729	0.01423
LJUB 00000M000B	-0.01572	0.01729	0.01423
LJUB 00000M000C	-0.01572	0.01729	0.01423
LOMS 00000M000A	-0.01643	0.01658	0.01043
LOMS 00000M000B	-0.01643	0.01658	0.01043
LOVE 00000S001	-0.01785	0.01838	0.00900
LOZN 00000M000A	-0.01993	0.01810	0.00842
LOZN 00000M000B	-0.01993	0.01810	0.00842
LYSA 11522M002	-0.01706	0.01671	0.01131
LYSH 11522M001	-0.01706	0.01671	0.01131
MALJ 00000M000A	-0.01913	0.01797	0.01010

MALJ 00000M000B	-0.01913	0.01797	0.01010
MEDI 12711M003	-0.01788	0.01938	0.01154
METS210503S011	-0.01640	0.01440	0.01000
METS310503S011	-0.01640	0.01440	0.01000
MONT 00000S001A	-0.00617	0.02257	0.02045
MONT 00000S001B	-0.00617	0.02257	0.02045
MOPI 11507M001A	-0.01642	0.01747	0.01107
MOPI 11507M001B	-0.01642	0.01747	0.01107
MOST 00000M000	-0.01490	0.01822	0.00919
MRZL 00000M000	-0.01792	0.01950	0.00981
NEVE 00000M000	-0.01496	0.01821	0.00916
NOVI 00000M000	-0.01476	0.01806	0.00911
NPAZ 12110M001	-0.01553	0.01802	0.00884
NWSC 12231M001	-0.01844	0.01601	0.00960
OLOV 00000M000	-0.01518	0.01804	0.00896
ORAD 00000M001	-0.01659	0.01705	0.01149
PADO 12750S001	-0.01681	0.01795	0.01132
PART 00000M000A	-0.01840	0.01546	0.01146
PART 00000M000B	-0.01840	0.01546	0.01146
PAT2 11029M002	-0.01387	0.01799	0.00934
PEN2 11206M007	-0.01800	0.01740	0.00950
PLND 12111M001	-0.01589	0.01765	0.00845
POL1 11530M001A	-0.01633	0.01530	0.01034
POL1 11530M001B	-0.01633	0.01530	0.01034
PONI 00000M000	-0.01506	0.01819	0.00911
PORE 11907M001	-0.01411	0.01821	0.00943
POSU 00000M000	-0.01480	0.01824	0.00923
POZE 11908M001	-0.01510	0.01792	0.00890
PRIJ 00000S001	-0.01816	0.01773	0.01087
RISO 00000S001A	-0.01827	0.01610	0.00689
RISO 00000S001B	-0.01827	0.01610	0.00689
ROVI 12769M001	-0.01660	0.01772	0.01212
ROZH 00000S001A	-0.01579	0.01866	0.00954
ROZH 00000S001B	-0.01579	0.01866	0.00954
SABA 12112M001	-0.01551	0.01785	0.00872
SACZ 00000M000	-0.01844	0.01601	0.00960
SANS 00000M000	-0.01479	0.01809	0.00912
SBG2 11031M002A	-0.01690	0.01700	0.01150
SBG2 11031M002B	-0.01690	0.01700	0.01150
SEKO 00000M000	-0.01526	0.01799	0.00890
SHAZ 00000M000	-0.02047	0.01478	0.00800
SHUM 00000S001	-0.03534	0.01042	-0.00548
SIB1 00000M002A	-0.01786	0.01648	0.00948
SIB1 00000M002B	-0.01786	0.01648	0.00948
SIBI 00000M001	-0.01786	0.01648	0.00948
SKPL 00000M000A	-0.01643	0.01658	0.01043
SKPL 00000M000B	-0.01643	0.01658	0.01043
SNEZ 00000M000	-0.01673	0.01660	0.01239
SNIE 00000M000	-0.01555	0.01448	0.00991
SOKO 00000M000	-0.01521	0.01805	0.00897
SREB 00000M000	-0.01522	0.01796	0.00889
SRJV 11801S001	-0.01740	0.01870	0.01180
STAR 00000S001	-0.01893	0.01564	0.00935
STHO 00000M000A	-0.01822	0.01697	0.01026
STHO 00000M000B	-0.01822	0.01697	0.01026
STHO 00000M000C	-0.01822	0.01697	0.01026
STHO 00000M000D	-0.01822	0.01697	0.01026
STOL 00000M000	-0.01530	0.01796	0.00886
SUB2 00000S001	-0.01908	0.01717	0.00879
SUBO 00000M000	-0.01908	0.01717	0.00879
SUCE 00000M001A	-0.02058	0.01655	0.00849
SUCE 00000M001B	-0.02058	0.01655	0.00849
SULP 00000M000A	-0.01860	0.01540	0.00920
SULP 00000M000B	-0.01860	0.01540	0.00920
SUME 11215M001A	-0.01568	0.01830	0.01233
SUME 11215M001B	-0.01568	0.01830	0.01233
TARP 00000M000A	-0.01801	0.01659	0.00979
TARP 00000M000B	-0.01801	0.01659	0.00979
TESL 00000M000	-0.01506	0.01802	0.00899
TIMI 00000S001	-0.01859	0.01748	0.00793
TREB 00000M000	-0.01495	0.01827	0.00921
TRF2 11047M002	-0.01810	0.01710	0.00920
TURI 00000M000	-0.00120	0.00097	0.00120
UPAD 12750M002A	-0.01680	0.01795	0.01133
UPAD 12750M002B	-0.01680	0.01795	0.01133
UZHD 00000M000A	-0.01770	0.01640	0.00950
UZHD 00000M000B	-0.01770	0.01640	0.00950
VARN 00000S001A	-0.01779	0.01745	0.00968
VARN 00000S001B	-0.01779	0.01745	0.00968
VARN 00000S001C	-0.01779	0.01745	0.00968

VELI 00000M000	-0.01464	0.01808	0.00916
VLAS 00000M000	-0.01498	0.01809	0.00906
ZADA 11905M001	-0.01437	0.01829	0.00941
ZAVI 00000M000	-0.01511	0.01803	0.00898
ZENI 00000M000	-0.01502	0.01808	0.00904

Appendix C: Solution numbers for sites with discontinuities (includes EPN solution numbers and those in Sect. 4.j.2)

TYPE 001: RENAMING OF STATIONS

STATION NAME	FLG	FROM	TO	OLD STATION NAME	REMARK
AT01 11027M002A	001		1999 12 31 00 00 00	HUTB	ADDED BY JZ
AT01 11027M002B	001	1999 12 31 00 00 00		HUTB	ADDED BY JZ
AT01 11027M002A	001		1999 12 31 00 00 00	HUTB 000000	ADDED BY JZ
AT01 11027M002B	001	1999 12 31 00 00 00		HUTB 000000	ADDED BY JZ
AT01 11027M002A	001		1999 12 31 00 00 00	HUTB 00000M000	ADDED BY JZ
AT01 11027M002B	001	1999 12 31 00 00 00		HUTB 00000M000	ADDED BY JZ
AT01 11027M002B	001	2003 01 01 00 00 00	2009 12 31 00 00 00	AT01	DOMES NUMBER
AT01 11027M002B	001	2009 12 31 00 00 00		AT01	DOMES NUMBER
AT01 11027M002B	001	2003 01 01 00 00 00	2009 12 31 00 00 00	AT01 11027M002	DOMES NUMBER
AT01 11027M002B	001	2009 12 31 00 00 00		AT01 11027M002	DOMES NUMBER
AT01 11027M002	001			HUTB 000000	ADDED BY JZ
AT01 11027M002	001			HUTB 00000M000	ADDED BY JZ
HFLK 11006S003A	001	1990 01 01 00 00 00	1997 06 09 23 59 59	HFLK	ADDED BY JZ
HFLK 11006S003B	001	1997 06 10 00 00 00	2004 07 21 23 59 59	HFLK	ADDED BY JZ
HFLK 11006S003B	001	2004 07 22 00 00 00	2007 06 19 23 59 59	HFLK	ADDED BY JZ
HFLK 11006S003B	001	2007 06 20 00 00 00		HFLK	ADDED BY JZ
HFLK 11006S003A	001	1990 01 01 00 00 00	1997 06 09 23 59 59	HFLK 11006S003	ADDED BY JZ
HFLK 11006S003B	001	1997 06 10 00 00 00	2004 07 21 23 59 59	HFLK 11006S003	ADDED BY JZ
HFLK 11006S003B	001	2004 07 22 00 00 00	2007 06 19 23 59 59	HFLK 11006S003	ADDED BY JZ
HFLK 11006S003B	001	2007 06 20 00 00 00		HFLK 11006S003	ADDED BY JZ
HFLK 11006S003C	001			HFL2211006M003	ADDED BY JZ
LIVN 00000M000	001			LIVN	ADDED BY JZ
LIVN 00000M000	001			LIVN LIVN	ADDED BY JZ
LIVO 00000M000	001			LIVNO	ADDED BY JZ
SBG2 11031M002A	001		2001 01 01 00 00 00	SBGZ	DOMES NUMBER
SBG2 11031M002B	001	2001 01 01 00 00 00	2007 01 01 00 00 00	SBGZ	DOMES NUMBER
SBG2 11031M002A	001	2007 01 01 00 00 00	2008 11 05 00 00 00	SBGZ	DOMES NUMBER
SBG2111031M002	001	2008 11 05 00 00 00		SBGZ	DOMES NUMBER
SBG2 11031M002A	001		2001 01 01 00 00 00	SBGZ 11031S001	DOMES NUMBER
SBG2 11031M002B	001	2001 01 01 00 00 00	2007 01 01 00 00 00	SBGZ 11031S001	DOMES NUMBER
SBG2 11031M002A	001	2007 01 01 00 00 00	2008 11 05 00 00 00	SBGZ 11031S001	DOMES NUMBER
SBG2111031M002	001	2008 11 05 00 00 00		SBGZ 11031S001	DOMES NUMBER
SBG2 11031M002A	001		2001 01 01 00 00 00	SBG2 11031M002	DOMES NUMBER
SBG2 11031M002B	001	2001 01 01 00 00 00	2007 01 01 00 00 00	SBG2 11031M002	DOMES NUMBER
SBG2 11031M002A	001	2007 01 01 00 00 00	2008 11 05 00 00 00	SBG2 11031M002	DOMES NUMBER
SBG2111031M002	001	2008 11 05 00 00 00		SBG2 11031M002	DOMES NUMBER
TRF2 11047M002	001		2008 11 05 00 00 00	TRF2	DOMES NUMBER
TRF2111047M002	001	2008 11 05 00 00 00		TRF2	DOMES NUMBER
TRF2 11047M002	001		2008 11 05 00 00 00	TRF2 11047M002	Source: EPN_A_IGb_08.SSC
TRF2111047M002	001	2008 11 05 00 00 00		TRF2 11047M002	Source: EPN_A_IGb_08.SSC
TRF2 11047M002	001		2008 11 05 00 00 00	TRFB 11047M001	DOMES NUMBER
TRF2111047M002	001	2008 11 05 00 00 00		TRFB 11047M001	DOMES NUMBER
0256 00000M001	001			0256	ARTIFICIAL DOMES NUMBER
0256 00000M001	001			0256 00000S001	ARTIFICIAL DOMES NUMBER
0256 00000M001	001			0256 MUENCHEN	ADDED BY JZ
0266 00000M001A	001		2011 01 01 00 00 00	0266	ARTIFICIAL DOMES NUMBER
0266 00000M001B	001	2011 01 01 00 00 00		0266	ARTIFICIAL DOMES NUMBER
0266 00000M001A	001		2011 01 01 00 00 00	0266 00000M001	ARTIFICIAL DOMES NUMBER
0266 00000M001B	001	2011 01 01 00 00 00		0266 00000M001	ARTIFICIAL DOMES NUMBER
0266 00000M001A	001		2011 01 01 00 00 00	0266 00000S001	ARTIFICIAL DOMES NUMBER
0266 00000M001B	001	2011 01 01 00 00 00		0266 00000S001	ARTIFICIAL DOMES NUMBER
0266 00000M001A	001		2011 01 01 00 00 00	0266 LANDSHUT	ARTIFICIAL DOMES NUMBER
0266 00000M001B	001	2011 01 01 00 00 00		0266 LANDSHUT	ARTIFICIAL DOMES NUMBER
0273 00000M001A	001		2011 01 01 00 00 00	0273	ARTIFICIAL DOMES NUMBER
0273 00000M001B	001	2011 01 01 00 00 00		0273	ARTIFICIAL DOMES NUMBER
0273 00000M001A	001		2011 01 01 00 00 00	0273 00000M001	ARTIFICIAL DOMES NUMBER
0273 00000M001B	001	2011 01 01 00 00 00		0273 00000M001	ARTIFICIAL DOMES NUMBER
0273 00000M001A	001		2011 01 01 00 00 00	0273 00000S001	ARTIFICIAL DOMES NUMBER
0273 00000M001B	001	2011 01 01 00 00 00		0273 00000S001	ARTIFICIAL DOMES NUMBER

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0273 00000M001A       001                     2011 01 01 00 00 00  0273 MINDELHEI        ARTIFICIAL DOMES
NUMBER
0273 00000M001B       001  2011 01 01 00 00 00                     0273 MINDELHEI        ARTIFICIAL DOMES
NUMBER
ALBR 00000M000        001  2005-06-20 00:00:00  2005-06-25 23:59:30  ALBR ALBR             ADDED BY JZ
ALBR 00000M000        001  2005-06-20 00:00:00  2005-06-25 23:59:30  ALBR                  ADDED BY JZ
ASIA 12714M001        001  1990 01 01 00 00 00  2005 12 31 00 00 00  ASIA                  DOMES NUMBER
ASIA 12714M002        001  2006 01 01 00 00 00                       ASIA                  DOMES NUMBER
ASIA 12714M002        001  2006 01 01 00 00 00                       ASIA 12714M001        DOMES NUMBER
BABJ 00000M000        001                                            BABJ                  ADDED BY JZ
BABJ 00000M000        001                                            BABJ BABJ             ADDED BY JZ
BANO 00000M000        001                                            BANO BANO             ADDED BY JZ
BANO 00000M000        001                                            BANO ICI              ADDED BY JZ
BANO 00000M000        001                                            BANOVICI              ADDED BY JZ
BASO 00000M000        001                     1997 01 01 00 00 00  BASO                  DOMES NUMBER
BASO 00000M000        001  1997 01 01 00 00 00  1999 01 01 00 00 00  BASO                  DOMES NUMBER
BASO 00000M000        001  1999 01 01 00 00 00                       BASO                  DOMES NUMBER
BASO 00000M000        001                     1997 01 01 00 00 00  BASO BASOVIZZA        DOMES NUMBER
BASO 00000M000        001  1997 01 01 00 00 00  1997 01 01 00 00 00  BASO BASOVIZZA        DOMES NUMBER
BASO 00000M000        001  1997 01 01 00 00 00                       BASO BASOVIZZA        DOMES NUMBER
BASO 00000M000        001                     1997 01 01 00 00 00  BASO 00000M000        DOMES NUMBER
BASO 00000M000        001  1997 01 01 00 00 00  1997 01 01 00 00 00  BASO 00000M000        DOMES NUMBER
BASO 00000M000        001  1997 01 01 00 00 00                       BASO 00000M000        DOMES NUMBER
BAST 00000M000        001                                            BAST                  ADDED BY JZ
BIHA 00000M000        001                                            BIHA                  ADDED BY JZ
BIHA 00000M000        001                                            BIHAC                 ADDED BY JZ
BIHA 00000M000        001                                            BIHA BIHA             ADDED BY JZ
BJEL 00000M000        001                                            BJEL                  ADDED BY JZ
BJEL 00000M000        001                                            BJEL BJEL             ADDED BY JZ
BOZI 00000M000A       001                     2001 06 20 00 00 00  BOZI                  ADDED BY JZ
BOZI 00000M000A       001  2001 06 20 00 00 00  2003 06 16 00 00 00  BOZI                  ADDED BY JZ
BOZI 00000M000B       001  2003 06 16 00 00 00                       BOZI                  ADDED BY JZ
BOZI 00000M000A       001                     2001 06 20 00 00 00  BOZI 0                ADDED BY JZ
BOZI 00000M000A       001  2001 06 20 00 00 00  2003 06 16 00 00 00  BOZI 0                ADDED BY JZ
BOZI 00000M000B       001  2003 06 16 00 00 00                       BOZI 0                ADDED BY JZ
BOZI 00000M000A       001                     2001 06 20 00 00 00  BOZI BOZI             ADDED BY JZ
BOZI 00000M000A       001  2001 06 20 00 00 00  2003 06 16 00 00 00  BOZI BOZI             ADDED BY JZ
BOZI 00000M000B       001  2003 06 16 00 00 00                       BOZI BOZI             ADDED BY JZ
BOZI 00000M000A       001                     2001 06 20 00 00 00  BOZI KOST             ADDED BY JZ
BOZI 00000M000A       001  2001 06 20 00 00 00  2003 06 16 00 00 00  BOZI KOST             ADDED BY JZ
BOZI 00000M000B       001  2003 06 16 00 00 00                       BOZI KOST             ADDED BY JZ
BRAI 00000M001        001                     2009 06 23 23 59 59  BRAI                  FILE NAME EXPANDED
BRAI 00000M001        001  2009 06 24 00 00 00  2011 06 21 23 59 59  BRAI                  FILE NAME EXPANDED
BRAI 00000M001        001  2011 06 22 00 00 00                       BRAI                  FILE NAME EXPANDED
BRSK 00000M000        001                     1999 01 01 00 00 00  BRSK                  ADDED BY JZ.
BRSK 00000M000        001  1999 01 01 00 00 00  2005 01 01 01 00 00  BRSK                  ADDED BY JZ.
BRSK 00000M000        001  2005 01 01 01 00 00                       BRSK                  ADDED BY JZ.
BRSK 00000M000        001                     1999 01 01 00 00 00  BRSK 0                ADDED BY JZ.
BRSK 00000M000        001  1999 01 01 00 00 00  2005 01 01 01 00 00  BRSK 0                ADDED BY JZ.
BRSK 00000M000        001  2005 01 01 01 00 00                       BRSK 0                ADDED BY JZ.
BRSK 00000M000        001                     1999 01 01 00 00 00  BRSK 1                ADDED BY JZ.
BRSK 00000M000        001  1999 01 01 00 00 00  2005 01 01 01 00 00  BRSK 1                ADDED BY JZ.
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BRSK 00000M000        001  1999 01 01 00 00 00  2005 01 01 01 00 00  BRSK 0384             ADDED BY JZ.
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BRSK 00000M000        001  2005 01 01 01 00 00                       BRSK BRSK             ADDED BY JZ.
BUCA 00000M000A       001                     1997 01 01 00 00 00  BUCA                  ADDED BY JZ
BUCA 00000M000B       001  1997 01 01 00 00 00  1999 01 01 00 00 00  BUCA                  ADDED BY JZ
BUCA 00000M000C       001  1999 01 01 00 00 00  2005 01 01 00 00 00  BUCA                  ADDED BY JZ
BUCA 00000M000D       001  2005 01 01 00 00 00                       BUCA                  ADDED BY JZ
BUCA 00000M000A       001                     1997 01 01 00 00 00  BUCA 0                ADDED BY JZ
BUCA 00000M000B       001  1997 01 01 00 00 00  1999 01 01 00 00 00  BUCA 0                ADDED BY JZ
BUCA 00000M000C       001  1999 01 01 00 00 00  2005 01 01 00 00 00  BUCA 0                ADDED BY JZ
BUCA 00000M000D       001  2005 01 01 00 00 00                       BUCA 0                ADDED BY JZ
BUCA 00000M000A       001                     1997 01 01 00 00 00  BUCA BUCA             ADDED BY JZ
BUCA 00000M000B       001  1997 01 01 00 00 00  1999 01 01 00 00 00  BUCA BUCA             ADDED BY JZ
BUCA 00000M000C       001  1999 01 01 00 00 00  2005 01 01 00 00 00  BUCA BUCA             ADDED BY JZ
BUCA 00000M000D       001  2005 01 01 00 00 00                       BUCA BUCA             ADDED BY JZ
BUCU111401M001        001                     2008 10 25 23 59 59  BUCU 11401M001*       Source:
EPN_A_IGb_08.SSC
BUCU211401M001        001  2008 11 02 00 00 00                       BUCU 11401M001*       Source:
EPN_A_IGb_08.SSC
BUGO 00000M000        001                                            BUGO                  ADDED BY JZ
BUGO 00000M000        001                                            BUGO BUGO             ADDED BY JZ
BUGO 00000M000        001                                            BUGO BUCA             ADDED BY JZ
BUGO 00000M000        001                                            BUGO NO               ADDED BY JZ
BUGO 00000M000        001                                            BUGOJNO               ADDED BY JZ
BURG 00000S001        001  1992 01 01 00 00 00  2099 12 31 00 00 00  BURG                  FILE NAME EXPANDED
BZRG112751M001        001                     2000 12 02 23 59 59  BZRG 12751M001*       Source:
EPN_A_IGb_08.SS
BZRG212751M001        001  2000 12 03 00 00 00  2001 06 30 23 59 59  BZRG 12751M001*       Source:
EPN_A_IGb_08.SSC
BZRG412751M001        001  2002 07 14 00 00 00  2007 12 08 23 59 59  BZRG 12751M001*       Source:
EPN_A_IGb_08.SSC
BZRG512751M001        001  2007 12 16 00 00 00  2012 02 12 00 00 00  BZRG 12751M001*       Source:
EPN_A_IGb_08.SSC
BZRG612751M001        001  2012 02 19 00 00 00                       BZRG 12751M001*       Source:
EPN_A_IGb_08.SSC
CAME 12754M001        001  1990 01 01 00 00 00  2099 12 31 00 00 00  CAME                  DOMES NUMBER
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CAOP 00000M000        001                         2003 01 01 00 00 00  CAOP 1038             ADDED BY JZ
CAOP 00000M000        001  2003 01 01 00 00 00                         CAOP 1038             ADDED BY JZ
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CAOP 00000M000        001  2003 01 01 00 00 00                         CAOP GZAO             ADDED BY JZ
CAOP 00000M000        001                         2003 01 01 00 00 00  CAOP                 ADDED BY JZ
CAOP 00000M000        001  2003 01 01 00 00 00                         CAOP                  ADDED BY JZ
CAPL 00000M000        001                                              CAPL                  ADDED BY JZ
CAPL 00000M000        001                                              CAPL CAPL             ADDED BY JZ
CAPL 00000M000        001                                              CAPL INA              ADDED BY JZ
CAPL 00000M000        001                                              CAPLJINA              ADDED BY JZ
CLUJ 00000M000A       001                         2005 01 01 00 00 00  CLUJ                  ADDED BY JZ
CLUJ 00000M000B       001  2005 01 01 00 00 00    2007 01 01 00 00 00  CLUJ                  ADDED BY JZ
CLUJ 00000M000C       001  2007 01 01 00 00 00    2009 01 01 00 00 00  CLUJ                  ADDED BY JZ
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CLUJ 00000M000A       001                         2005 01 01 00 00 00  CLUJ 00000M001       ADDED BY JZ
CLUJ 00000M000B       001  2005 01 01 00 00 00    2007 01 01 00 00 00  CLUJ 00000M001       ADDED BY JZ
CLUJ 00000M000C       001  2007 01 01 00 00 00    2009 01 01 00 00 00  CLUJ 00000M001       ADDED BY JZ
CLUJ 00000M000D       001  2009 01 01 00 00 00                         CLUJ 00000M001       ADDED BY JZ
COST111407M001        001  1990 01 01 00 00 00    2099 12 31 00 00 00  CONT                  DOMES NUMBER, S1 by
JZ.
COST111407M001        001  1990 01 01 00 00 00    2099 12 31 00 00 00  COST                  DOMES NUMBER, S1 by
JZ.
COST111407M001        001                                              COST 11407M001        Source:
EPN_A_IGb_08.SSC
CRAI 00000M001        001  1992 01 01 00 00 00    2099 12 31 00 00 00  CRAI                  FILE NAME EXPANDED
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CSAN 00000M000        001                                              CSAN CSAN             ADDED BY JZ
CSAN 00000M000        001                                              CSAN 3576             ADDED BY JZ
CSAR 00000M000        001                                              CSAR                  ADDED BY JZ
CSAR 00000M000        001                                              CSAR 0                ADDED BY JZ
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CVRS 00000M000        001                                              CVRS CVRSNICA         ADDED BY JZ
CVRS 00000M000        001                                              CVRS                  ADDED BY JZ
DISZ 00000M000A       001                         1997 06 05 00 00 00  DISZ                  ADDED BY JZ
DISZ 00000M000A       001  1997 06 05 00 00 00    2003 06 18 00 00 00  DISZ                  ADDED BY JZ
DISZ 00000M000B       001  2003 06 18 00 00 00                         DISZ                  ADDED BY JZ
DISZ 00000M000A       001                         1997 06 05 00 00 00  DISZA                 ADDED BY JZ
DISZ 00000M000A       001  1997 06 05 00 00 00    2003 06 18 00 00 00  DISZA                 ADDED BY JZ
DISZ 00000M000B       001  2003 06 18 00 00 00                         DISZA                 ADDED BY JZ
DISZ 00000M000A       001                         1997 06 05 00 00 00  DISZB                 ADDED BY JZ
DISZ 00000M000A       001  1997 06 05 00 00 00    2003 06 18 00 00 00  DISZB                 ADDED BY JZ
DISZ 00000M000B       001  2003 06 18 00 00 00                         DISZB                 ADDED BY JZ
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DISZ 00000M000B       001  2003 06 18 00 00 00                         DISZC                 ADDED BY JZ
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DISZ 00000M000B       001  2003 06 18 00 00 00                         DISZ 0                ADDED BY JZ
DISZ 00000M000A       001                         1997 06 05 00 00 00  DISZ DISZ             ADDED BY JZ
DISZ 00000M000A       001  1997 06 05 00 00 00    2003 06 18 00 00 00  DISZ DISZ             ADDED BY JZ
DISZ 00000M000B       001  2003 06 18 00 00 00                         DISZ DISZ             ADDED BY JZ
DRES 14108M001        001  1990 01 01 00 00 00    2099 12 31 00 00 00  DRES                  DOMES NUMBER
DRES 14108M001        001  1990 01 01 00 00 00    2099 12 31 00 00 00  DRESDEN               DOMES NUMBER
DRES114108M001        001                         2003 01 18 23 59 59  DRES 14108M001*       Source:
EPN_A_IGb_08.SSC
DRES214108M001        001  2003 01 19 00 00 00    2006 06 11 00 00 00  DRES 14108M001*       Source:
EPN_A_IGb_08.SSC
DRES314108M001        001  2006 06 11 00 00 00    2010 09 25 23 59 59  DRES 14108M001*       Source:
EPN_A_IGb_08.SSC
DRES414108M001        001  2010 09 26 00 00 00                         DRES 14108M001*       Source:
EPN_A_IGb_08.SSC
DUBR 11901M001        001  1990 01 01 00 00 00    2099 12 31 00 00 00  DUBR                  DOMES NUMBER
FATA 12773M001        001  1990 01 01 00 00 00    2099 12 31 00 00 00  FATA                  DOMES NUMBER
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FOCA 00000M000        001                                              FOCA FOCA             ADDED BY JZ
FUN3 00000M000A       001                         2001 01 01 00 00 00  FUN3                  ADDED BY JZ
FUN3 00000M000B       001  2001 01 01 00 00 00    2003 01 01 00 00 00  FUN3                  ADDED BY JZ
FUN3 00000M000C       001  2003 01 01 00 00 00    2005 01 01 00 00 00  FUN3                  ADDED BY JZ
FUN3 00000M000C       001  2005 01 01 00 00 00    2007 01 01 00 00 00  FUN3                  ADDED BY JZ
FUN3 00000M000D       001  2007 01 01 00 00 00                         FUN3                  ADDED BY JZ
FUN3 00000M000A       001                         2001 01 01 00 00 00  FUN3 FUN3             ADDED BY JZ
FUN3 00000M000B       001  2001 01 01 00 00 00    2003 01 01 00 00 00  FUN3 FUN3             ADDED BY JZ
FUN3 00000M000C       001  2003 01 01 00 00 00    2005 01 01 00 00 00  FUN3 FUN3             ADDED BY JZ
FUN3 00000M000C       001  2005 01 01 00 00 00    2007 01 01 00 00 00  FUN3 FUN3             ADDED BY JZ
FUN3 00000M000D       001  2007 01 01 00 00 00                         FUN3 FUN3             ADDED BY JZ
FUN3 00000M000D       001                                              FUN3 FUN31691         ADDED BY JZ
FUN3 00000M000D       001                                              FUN3 FUN31701         ADDED BY JZ
FUN3 00000M000D       001                                              FUN3 FUN31711         ADDED BY JZ
FUN3 00000M000D       001                                              FUN3 FUN31721         ADDED BY JZ
FUN3 00000M000D       001                                              FUN3 FUN31731         ADDED BY JZ
FUN3 00000M000D       001                                              FUN3 FUN31741         ADDED BY JZ
FUND 00000M000A       001                         1997 01 01 00 00 00  FUN2                  IDENT?
FUND 00000M000B       001  1997 01 01 00 00 00                         FUN2                  IDENT?
FUND 00000M000A       001                         1997 01 01 00 00 00  FUND                  IDENT?
FUND 00000M000B       001  1997 01 01 00 00 00                         FUND                  IDENT?
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GABR 00000M000        001                                              GABR 0006             ADDED BY JZ
GABR 00000M000        001                                              GABR 3579             ADDED BY JZ
GABR 00000M000        001                                              GABR                  ADDED BY JZ
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GANP111515M001        001                     2006 08 20 00 00 00  GANP 11515M001*       Source:
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GANP211515M001        001  2006 08 27 00 00 00                     GANP 11515M001*       Source:
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GIL2 00000M000        001                                          GIL2 0                ADDED BY JZ
GIL2 00000M000        001                                          GIL2                  ADDED BY JZ
GILA 00000M000        001                                          GILA                  ADDED BY JZ
GMIL 00000S001        001                                          GMIL                  ADDED BY JZ
GMIL 00000S001        001                                          GMIL GMIL             ADDED BY JZ
GLSV112356M001        001                     2007 11 08 23 59 59  GLSV 12356M001*       Source:
EPN_A_IGb_08.SSC
GLSV212356M001        001  2007 11 21 00 00 00                     GLSV 12356M001*       Source:
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GOPE211502M002        001  1999 11 07 00 00 00  2000 07 29 23 59 59  GOPE 11502M002*       Source:
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GOPE311502M002        001  2000 07 30 00 00 00  2000 10 07 23 59 59  GOPE 11502M002*       Source:
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GOPE411502M002        001  2000 10 08 00 00 00  2006 07 09 00 00 00  GOPE 11502M002*       Source:
EPN_A_IGb_08.SSC
GOPE511502M002        001  2006 07 16 00 00 00  2009 12 12 23 59 59  GOPE 11502M002*       Source:
EPN_A_IGb_08.SSC
GOPE611502M002        001  2009 12 20 00 00 00                     GOPE 11502M002*       Source:
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GRAZ111001M002        001                     2001 04 29 23 59 59  GRAZ 11001M002*       Source:
EPN_A_IGb_08.SSC
GRAZ211001M002        001  2001 05 07 00 00 00  2005 03 27 00 00 00  GRAZ 11001M002*       Source:
EPN_A_IGb_08.SSC
GRAZ311001M002        001  2005 03 27 00 00 00  2005 11 06 00 00 00  GRAZ 11001M002*       Source:
EPN_A_IGb_08.SSC
GRAZ411001M002        001  2005 11 06 00 00 00  2010 05 22 23 59 59  GRAZ 11001M002*       Source:
EPN_A_IGb_08.SSC
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GRDC 00000M000        001                                          GRDC 0                ADDED BY JZ
GRMS 11028M001A       001                     1997 12 31 00 00 00  GRMS                  DOMES NUMBER
GRMS 11028M001B       001  1998 01 01 00 00 00                     GRMS                  DOMES NUMBER
GRMS 11028M001B       001  1998 01 01 00 00 00  2099 12 31 00 00 00  GRMT                  RENAMING OLD
GRMS 11028M001A       001                     2099 12 31 00 00 00  GRMT 11028M001        RENAMING OLD
GRMS 11028M001B       001  1998 01 01 00 00 00                     GRMT 11028M001        DOMES NUMBER
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GRMS 11028M001B       001  1998 01 01 00 00 00                     GRMS 11028M001        DOMES NUMBER
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GRMS 11028S001B       001  2005 01 01 00 00 00  2009 01 01 00 00 00  GRMS                  NEW SITE
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GRMS 11028S001A       001  1998 01 01 00 00 00  2005 01 01 00 00 00  GRMS 11028S001        NEW SITE
GRMS 11028S001B       001  2005 01 01 00 00 00  2009 01 01 00 00 00  GRMS 11028S001        NEW SITE
GRMS 11028S001C       001  2009 01 01 00 00 00                     GRMS 11028S001        NEW SITE
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GRYB 00000M000B       001  1997 01 01 00 00 00  2001 01 01 00 00 00  GRYB 00000M001        ADDED BY JZ
GRYB 00000M000C       001  2001 01 01 00 00 00                     GRYB 00000M001        ADDED BY JZ
GRYB 00000M000A       001                     1997 01 01 00 00 00  GRYB                  ADDED BY JZ
GRYB 00000M000B       001  1997 01 01 00 00 00  2001 01 01 00 00 00  GRYB                  ADDED BY JZ
GRYB 00000M000C       001  2001 01 01 00 00 00                     GRYB                  ADDED BY JZ
GSR1114501M001        001                     2001 04 21 23 59 59  GSR1 14501M001*       Source:
EPN_A_IGb_08.SSC
GSR1214501M001        001  2001 04 22 00 00 00  2001 12 20 23 59 59  GSR1 14501M001*       Source:
EPN_A_IGb_08.SSC
GSR1314501M001        001  2001 12 23 00 00 00  2008 09 13 23 59 59  GSR1 14501M001*       Source:
EPN_A_IGb_08.SSC
GSR1414501M001        001  2008 09 21 00 00 00                     GSR1 14501M001*       Source:
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HARM 00000M000        001                                          HARM                  ADDED BY JZ
HARM 00000M000        001                                          HARM 0004             ADDED BY JZ
HARM 00000M000        001                                          HARM 0552             ADDED BY JZ
HARM 00000M000        001                                          HARM HARM             ADDED BY JZ
HOHE 00000M000A       001                     2005 01 01 00 00 00  HOHE                  ADDED BY JZ
HOHE 00000M000B       001  2005 01 01 00 00 00  2007 01 01 00 00 00  HOHE                  ADDED BY JZ
HOHE 00000M000C       001  2007 01 01 00 00 00                     HOHE                  ADDED BY JZ
HOHE 00000M000A       001                     2005 01 01 00 00 00  HOHE 0                ADDED BY JZ
HOHE 00000M000B       001  2005 01 01 00 00 00  2007 01 01 00 00 00  HOHE 0                ADDED BY JZ
HOHE 00000M000C       001  2007 01 01 00 00 00                     HOHE 0                ADDED BY JZ
HOHE 00000M000A       001                     2005 01 01 00 00 00  HOHE 8132 VLBI        ADDED BY JZ
HOHE 00000M000B       001  2005 01 01 00 00 00  2007 01 01 00 00 00  HOHE 8132 VLBI        ADDED BY JZ
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HOHE 00000M000A       001                     2005 01 01 00 00 00  HOHE HOHE             ADDED BY JZ
HOHE 00000M000B       001  2005 01 01 00 00 00  2007 01 01 00 00 00  HOHE HOHE             ADDED BY JZ
HOHE 00000M000C       001  2007 01 01 00 00 00                     HOHE HOHE             ADDED BY JZ
HVAR 00000M000A       001                     1999 01 01 00 00 00  HVAR                  ADDED BY JZ
HVAR 00000M000B       001  1999 01 01 00 00 00  2005 01 01 00 00 00  HVAR                  ADDED BY JZ
HVAR 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00  HVAR                  ADDED BY JZ
HVAR 00000M000D       001  2007 01 01 00 00 00                     HVAR                  ADDED BY JZ
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HVAR 00000M000B       001  1999 01 01 00 00 00  2005 01 01 00 00 00  HVAR 0                ADDED BY JZ
HVAR 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00  HVAR 0                ADDED BY JZ
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HVAR 00000M000B       001  1999 01 01 00 00 00  2005 01 01 00 00 00  HVAR 1680             ADDED BY JZ
HVAR 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00  HVAR 1680             ADDED BY JZ
HVAR 00000M000D       001  2007 01 01 00 00 00                     HVAR 1680             ADDED BY JZ
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HVAR 00000M000A       001                        1999 01 01 00 00 00  HVAR HVAR            ADDED BY JZ
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HVAR 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00  HVAR HVAR            ADDED BY JZ
HVAR 00000M000D       001  2007 01 01 00 00 00                       HVAR HVAR            ADDED BY JZ
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IAS3 00000M000B       001  1998 01 01 00 00 00                       IAS3 0               ADDED BY JZ
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IAS7 00000M000        001                                            IAS7                 ADDED BY JZ
IGEO 15101M001        001  1992 01 01 00 00 00  2099 12 31 00 00 00  IGEO                 FILE NAME EXPANDED
IGEO115101M001        001                                            IGEO 15101M001*      Source:
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IVAN 00000M000A       001                        2005 06 21 23 59 59  IVAN                 ADDED BY JZ
IVAN 00000M000B       001  2005 06 22 00 00 00                       IVAN                 ADDED BY JZ
IVAN 00000M000A       001                        2005 06 21 23 59 59  IVAN IVAN            ADDED BY JZ
IVAN 00000M000B       001  2005 06 22 00 00 00                       IVAN IVAN            ADDED BY JZ
IVAN 00000M000A       001                        2005 06 21 23 59 59  IVAN IVANA           ADDED BY JZ
IVAN 00000M000B       001  2005 06 22 00 00 00                       IVAN IVANA           ADDED BY JZ
IVAN 00000M000A       001                        2005 06 21 23 59 59  IVAN IVANB           ADDED BY JZ
IVAN 00000M000B       001  2005 06 22 00 00 00                       IVAN IVANB           ADDED BY JZ
JOZE112204M001        001                        2004 12 04 23 59 59  JOZE 12204M001*      Source:
EPN_A_IGb_08.SSC
JOZE212204M001        001  2004 12 05 00 00 00                       JOZE 12204M001*      Source:
EPN_A_IGb_08.SSC
KABA 00000M000        001                                            KABA                 ADDED BY JZ
KABA 00000M000        001                                            KABA T243            ADDED BY JZ
KAME 00000M000        001                                            KAME                 ADDED BY JZ
KAME 00000M000        001                                            KAME KAME            ADDED BY JZ
KAVA 00000M000        001                                            KAVA                 ADDED BY JZ
KAVA 00000M000        001                                            KAVA KAVA            ADDED BY JZ
KAVA 00000M000        001  2003-06-17 00:00:00  2003-06-22 00:00:00  KAVA KAVA168         ADDED BY JZ
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KAVA 00000M000        001  2003-06-17 00:00:00  2003-06-22 00:00:00  KAVA KAVA1711        ADDED BY JZ
KIRS 00000M000        001                                            KIRS 7361            ADDED BY JZ
KIRS 00000M000        001                                            KIRS 7631 VLBI       ADDED BY JZ
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KONJ 00000M000        001                                            KONJ                 ADDED BY JZ
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KONJ 00000M000        001                                            KONJIC               ADDED BY JZ
KONJ 00000M000        001                                            KONJ C               ADDED BY JZ
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KOSG213504M003        001  2003 03 16 00 00 00  2011 08 31 23 59 59  KOSG 13504M003*      Source:
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KOSG313504M003        001  2011 08 21 00 00 00  2011 09 17 23 59 59  KOSG 13504M003*      Source:
EPN_A_IGb_08.SSC
KOSG413504M003        001  2011 09 18 00 00 00  2012 10 27 23 59 59  KOSG 13504M003*      Source:
EPN_A_IGb_08.SSC
KOSG513504M003        001  2012 10 28 00 00 00                       KOSG 13504M003*      Source:
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KRA1112218M002        001                                            KRA1 12218M002       ADDED BY JZ
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KUNZ111524M001        001                                            KUNZ 11524M001*      Source:
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LAMA112209M001        001                        2000 03 18 23 59 59  LAMA 12209M001*      Source:
EPN_A_IGb_08.SSC
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EPN_A_IGb_08.SSC
LAMA412209M001        001  2007 11 18 00 00 00                       LAMA 12209M001*      Source:
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LEND 00000M000A       001                        2001 01 01 00 00 00  LEND 0               ADDED BY JZ
LEND 00000M000B       001  2001 01 01 00 00 00                       LEND 0               ADDED BY JZ
LEND 00000M000A       001                        2001 01 01 00 00 00  LEND LEND           ADDED BY JZ
LEND 00000M000B       001  2001 01 01 00 00 00                       LEND LEND           ADDED BY JZ
LEOT 00000M000        001                                            LEOT                 ADDED BY JZ
LEOT 00000M000        001                                            LEOT 0318            ADDED BY JZ
LESK 00000S001        001  1990 01 01 00 00 00  2099 12 31 00 00 00  A027                 IDENT
LESK 00000S001        001  1990 01 01 00 00 00  2099 12 31 00 00 00  LESK                 IDENT
LESK 00000S001        001  1990 01 01 00 00 00  2099 12 31 00 00 00  LESK AGROS27         ADDED BY JZ
LESK 00000S001        001  1990 01 01 00 00 00  2099 12 31 00 00 00  LESK LESK            ADDED BY JZ
LIE1 00000S001        001  1990 01 01 00 00 00  2099 12 31 00 00 00  LIE1                 IDENT
LIE1 00000S001        001  1990 01 01 00 00 00  2099 12 31 00 00 00  LIE1 2624TS-77        IDENT
LJIG 00000M000A       001  1990 01 01 00 00 00  2007 01 01 00 00 00  A015                 IDENT
LJIG 00000M000B       001  2007 01 01 00 00 00  2009 01 01 00 00 00  A015                 IDENT
LJIG 00000M000C       001  2009 01 01 00 00 00                       A015                 IDENT
LJIG 00000M000A       001  1990 01 01 00 00 00  2007 01 01 00 00 00  LJIG                 IDENT
LJIG 00000M000B       001  2007 01 01 00 00 00  2009 01 01 00 00 00  LJIG                 IDENT
LJIG 00000M000C       001  2009 01 01 00 00 00                       LJIG                 IDENT
LJIG 00000M000A       001  1990 01 01 00 00 00  2007 01 01 00 00 00  LJIG AGROS15         IDENT
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LJIG 00000M000B       001  2007 01 01 00 00 00  2009 01 01 00 00 00  LJIG AGROS15          IDENT
LJIG 00000M000C       001  2009 01 01 00 00 00                       LJIG AGROS15          IDENT
LJUB 00000M000A       001  1990 01 01 00 00 00  2003 01 01 00 00 00  LJUB                  IDENT
LJUB 00000M000B       001  2003 01 01 00 00 00  2005 01 01 00 00 00  LJUB                  IDENT
LJUB 00000M000C       001  2005 01 01 00 00 00                       LJUB                  IDENT
LJUB 00000M000A       001  1990 01 01 00 00 00  2003 01 01 00 00 00  LJUB 0                IDENT
LJUB 00000M000B       001  2003 01 01 00 00 00  2005 01 01 00 00 00  LJUB 0                IDENT
LJUB 00000M000C       001  2005 01 01 00 00 00                       LJUB 0                IDENT
LJUB 00000M000A       001  1990 01 01 00 00 00  2003 01 01 00 00 00  LJUB FGG3             IDENT
LJUB 00000M000B       001  2003 01 01 00 00 00  2005 01 01 00 00 00  LJUB FGG3             IDENT
LJUB 00000M000C       001  2005 01 01 00 00 00                       LJUB FGG3             IDENT
LJUB 00000M000A       001  1990 01 01 00 00 00  2003 01 01 00 00 00  LJUB LJUB             IDENT
LJUB 00000M000B       001  2003 01 01 00 00 00  2005 01 01 00 00 00  LJUB LJUB             IDENT
LJUB 00000M000C       001  2005 01 01 00 00 00                       LJUB LJUB             IDENT
LOMS 00000M000A       001                       2013 01 01 00 00 00  LOMS                  ADDED BY JZ
LOMS 00000M000B       001  2013 01 01 00 00 00                       LOMS                  ADDED BY JZ
LOMS 00000M000A       001                       2013 01 01 00 00 00  LOMS 00000S001       ADDED BY JZ
LOMS 00000M000B       001  2013 01 01 00 00 00                       LOMS 00000S001       ADDED BY JZ
LOVE 00000S001        001  1992 01 01 00 00 00  2099 12 31 00 00 00  LOVE                  FILE NAME EXPANDED
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LOZN 00000M000A       001  2009 06 24 00 00 00  2011 06 21 23 59 59  LOZN                  ADDED BY JZ
LOZN 00000M000B       001  2011 06 22 00 00 00                       LOZN                  ADDED BY JZ
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LOZN 00000M000A       001  2009 06 24 00 00 00  2011 06 21 23 59 59  LOZN 00000M000        ADDED BY JZ
LOZN 00000M000B       001  2011 06 22 00 00 00                       LOZN 00000M000        ADDED BY JZ
LOZN 00000M000A       001  1992 01 01 00 00 00  2009 06 23 23 59 59  LOZN AGROS08          ADDED BY JZ
LOZN 00000M000A       001  2009 06 24 00 00 00  2011 06 21 23 59 59  LOZN AGROS08          ADDED BY JZ
LOZN 00000M000B       001  2011 06 22 00 00 00                       LOZN AGROS08          ADDED BY JZ
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LOZN 00000M000A       001  2009 06 24 00 00 00  2011 06 21 23 59 59  LOZN LOZN             ADDED BY JZ
LOZN 00000M000B       001  2011 06 22 00 00 00                       LOZN LOZN             ADDED BY JZ
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LOZN 00000M000A       001  2009 06 24 00 00 00  2011 06 21 23 59 59  LOZN LOZNB            ADDED BY JZ
LOZN 00000M000B       001  2011 06 22 00 00 00                       LOZN LOZNB            ADDED BY JZ
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LOZN 00000M000A       001  2009 06 24 00 00 00  2011 06 21 23 59 59  LOZN LOZNC            ADDED BY JZ
LOZN 00000M000B       001  2011 06 22 00 00 00                       LOZN LOZNC            ADDED BY JZ
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LVIV 00000M000B       001  1997 01 01 00 00 00  1999 01 01 00 00 00  LVIV                  ADDED BY JZ
LVIV 00000M000C       001  1999 01 01 00 00 00  2001 01 01 00 00 00  LVIV                  ADDED BY JZ
LVIV 00000M000D       001  2001 01 01 00 00 00  2003 01 01 00 00 00  LVIV                  ADDED BY JZ
LVIV 00000M000E       001  2003 01 01 00 00 00  2005 01 01 00 00 00  LVIV                  ADDED BY JZ
LVIV 00000M000F       001  2005 01 01 00 00 00                       LVIV                  ADDED BY JZ
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LVIV 00000M000B       001  1997 01 01 00 00 00  1999 01 01 00 00 00  LVIV 1500            ADDED BY JZ
LVIV 00000M000C       001  1999 01 01 00 00 00  2001 01 01 00 00 00  LVIV 1500            ADDED BY JZ
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LVIV 00000M000F       001  2005 01 01 00 00 00                       LVIV 1500            ADDED BY JZ
LVIV 00000M000A       001                       1997 01 01 00 00 00  LVIV 1262603         ADDED BY JZ
LVIV 00000M000B       001  1997 01 01 00 00 00  1999 01 01 00 00 00  LVIV 1262603         ADDED BY JZ
LVIV 00000M000C       001  1999 01 01 00 00 00  2001 01 01 00 00 00  LVIV 1262603         ADDED BY JZ
LVIV 00000M000D       001  2001 01 01 00 00 00  2003 01 01 00 00 00  LVIV 1262603         ADDED BY JZ
LVIV 00000M000E       001  2003 01 01 00 00 00  2005 01 01 00 00 00  LVIV 1262603         ADDED BY JZ
LVIV 00000M000F       001  2005 01 01 00 00 00                       LVIV 1262603         ADDED BY JZ
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LVIV 00000M000B       001  1997 01 01 00 00 00  1999 01 01 00 00 00  LVIV LVIV            ADDED BY JZ
LVIV 00000M000C       001  1999 01 01 00 00 00  2001 01 01 00 00 00  LVIV LVIV            ADDED BY JZ
LVIV 00000M000D       001  2001 01 01 00 00 00  2003 01 01 00 00 00  LVIV LVIV            ADDED BY JZ
LVIV 00000M000E       001  2003 01 01 00 00 00  2005 01 01 00 00 00  LVIV LVIV            ADDED BY JZ
LVIV 00000M000F       001  2005 01 01 00 00 00                       LVIV LVIV            ADDED BY JZ
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LYSH 11522M001        001                                           LYSH                  DOMES NUMBER
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MAC3 00000M000        001                                           MAC3 MAC3             ADDED BY JZ
MAC5 00000M000        001                                           MAC5                  ADDED BY JZ
MACI 00000M000A       001                       2000 12 31 23 59 59  MACI                  ADDED BY JZ
MACI 00000M000B       001  2001 01 01 00 00 00                       MACI                  ADDED BY JZ
MACI 00000M000A       001                       2000 12 31 23 59 59  MACI 0                ADDED BY JZ
MACI 00000M000B       001  2001 01 01 00 00 00                       MACI 0                ADDED BY JZ
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MALJ 00000M000B       001  2009 01 01 00 00 00                       MALJ                  ADDED BY JZ
MALJ 00000M000A       001                       2009 01 01 00 00 00  MALJ 0                ADDED BY JZ
MALJ 00000M000B       001  2009 01 01 00 00 00                       MALJ 0                ADDED BY JZ
MALJ 00000M000A       001                       2009 01 01 00 00 00  MALJ MALI            ADDED BY JZ
MALJ 00000M000B       001  2009 01 01 00 00 00                       MALJ MALI            ADDED BY JZ
MALJ 00000M000A       001                       2009 01 01 00 00 00  MALJ MALJ            ADDED BY JZ
MALJ 00000M000B       001  2009 01 01 00 00 00                       MALJ MALJ            ADDED BY JZ
MATE 12734M008        001  1990 01 01 00 00 00  2099 12 31 00 00 00  MATE                  DOMES NUMBER
MATE 12734M008        001  1990 01 01 00 00 00  2099 12 31 00 00 00  MATERA                DOMES NUMBER
MATE312734M008        001  1996 07 14 00 00 00  1999 06 19 23 59 59  MATE 12734M008*       Source:
EPN_A_IGb_08.SSC
MATE412734M008        001  1999 06 20 00 00 00  2008 11 29 23 59 59  MATE 12734M008*       Source:
EPN_A_IGb_08.SSC
MATE512734M008        001  2008 11 30 00 00 00                       MATE 12734M008*       Source:
EPN_A_IGb_08.SSC
MEDI 12711M003        001  1990 01 01 00 00 00  2099 12 31 00 00 00  MEDI                  DOMES NUMBER
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METS110503S011        001                     2010 07 09 23 59 59  METS 10503S011*       Source:
EPN_A_IGb_08.SSC
METS210503S011        001  2010 08 20 00 00 00  2012 03 31 23 59 59  METS 10503S011*       Source:
EPN_A_IGb_08.SSC
METS310503S011        001  2012 04 01 00 00 00                       METS 10503S011*       Source:
EPN_A_IGb_08.SSC
MIKL112335M001        001                                            MIKL 12335M001*       Source:
EPN_A_IGb_08.SSC
MONT 00000S001A       001                     2011 01 01 00 00 00  MONT                  FILE NAME EXPANDED
MONT 00000S001B       001  2011 01 01 00 00 00  2013 01 01 00 00 00  MONT                  FILE NAME EXPANDED
MONT 00000S001A       001  2013 01 01 00 00 00                       MONT                  FILE NAME EXPANDED
MONT 00000S001A       001                     2011 01 01 00 00 00  MONT 00000S001       FILE NAME EXPANDED
MONT 00000S001B       001  2011 01 01 00 00 00  2013 01 01 00 00 00  MONT 00000S001       FILE NAME EXPANDED
MONT 00000S001A       001  2013 01 01 00 00 00                       MONT 00000S001       FILE NAME EXPANDED
MOPI 11507M001A       001                     1999 01 01 00 00 00  MOPI 11507M001       DOMES NUMBER
MOPI 11507M001B       001  1999 01 01 00 00 00  2009 01 01 00 00 00  MOPI 11507M001       DOMES NUMBER
MOPI 11507M001B       001  2009 01 01 00 00 00                       MOPI 11507M001       DOMES NUMBER
MOPI 11507M001A       001                     1999 01 01 00 00 00  MOPI                  DOMES NUMBER
MOPI 11507M001B       001  1999 01 01 00 00 00  2009 01 01 00 00 00  MOPI                  DOMES NUMBER
MOPI 11507M001B       001  2009 01 01 00 00 00                       MOPI                  DOMES NUMBER
MOP2111507M002        001                                            MOP2 11507M002*       Source:
EPN_A_IGb_08.SSC
MOST 00000M000        001                                            MOST MOST             ADDED BY JZ
MOST 00000M000        001                                            MOSTAR                ADDED BY JZ
MOST 00000M000        001                                            MOST R                ADDED BY JZ
MRZL 00000M000        001                                            MRZL                  ADDED BY JZ
MRZL 00000M000        001                                            MRZL MRZL             ADDED BY JZ
NEVE 00000M000        001                                            NEVE                  ADDED BY JZ
NEVE 00000M000        001                                            NEVE NEVE             ADDED BY JZ
NEVE 00000M000        001                                            NEVESINJE             ADDED BY JZ
NEVE 00000M000        001                                            NEVE INJE             ADDED BY JZ
NOVI 00000M000        001                                            NOVI                  ADDED BY JZ
NOVI 00000M000        001                                            NOVI NOVI             ADDED BY JZ
NOVI 00000M000        001                                            NOVI GRAD             ADDED BY JZ
NWSC 12231M001        001  1990 01 01 00 00 00  2099 12 31 00 00 00  NWSC                  DOMES NUMBER
OLOV 00000M000        001                                            OLOV                  ADDED BY JZ
OLOV 00000M000        001                                            OLOV OLOV             ADDED BY JZ
OLOV 00000M000        001                                            OLOVO                 ADDED BY JZ
ONSA 10402M004        001  1990 01 01 00 00 00  2099 12 31 00 00 00  ONSA                  DOMES NUMBER
ONSA 10402M004        001  1990 01 01 00 00 00  2099 12 31 00 00 00  ONSALA 301            DOMES NUMBER
ONSA110402M004        001                     1999 01 30 23 59 59  ONSA 10402M004*       Source:
EPN_A_IGb_08.SSC
ONSA210402M004        001  1999 01 31 00 00 00                       ONSA 10402M004*       Source:
EPN_A_IGb_08.SSC
ORAD 00000M001        001  1992 01 01 00 00 00  2099 12 31 00 00 00  ORAD                  FILE NAME EXPANDED
ORID115601M001        001                     2002 12 14 23 59 59  ORID 15601M001*       Source:
EPN_A_IGb_08.SSC
ORID215601M001        001  2002 12 15 00 00 00  2007 10 20 23 59 59  ORID 15601M001*       Source:
EPN_A_IGb_08.SSC
ORID315601M001        001  2007 11 18 00 00 00  2008 11 08 23 59 59  ORID 15601M001*       Source:
EPN_A_IGb_08.SSC
ORID415601M001        001  2008 11 09 00 00 00                       ORID 15601M001*       Source:
EPN_A_IGb_08.SSC
OSIJ 00000M000        001                                            OSIJ                  ADDED BY JZ
OSIJ 00000M000        001                                            OSIJ 0                ADDED BY JZ
OSJC 00000M000        001                                            OSJC                  ADDED BY JZ
OSJC 00000M000        001                                            OSJC OSJ1             ADDED BY JZ
OSJE111902M001        001                     2005 10 02 00 00 00  OSJE 11902M001*       Source:
EPN_A_IGb_08.SSC
OSJE211902M001        001  2007 07 06 00 00 00                       OSJE 11902M001*       Source:
EPN_A_IGb_08.SSC
PADO 12750S001        001  1990 01 01 00 00 00  2099 12 31 00 00 00  PADO                  DOMES NUMBER
PAR1 00000S001A       001                     2011 01 01 00 00 00  PAR1                  ADDED BY JZ
PAR1 00000S001B       001  2011 01 01 00 00 00                       PAR1                  ADDED BY JZ
PAR1 00000S001A       001                     2011 01 01 00 00 00  PAR1 3542PE-75        ADDED BY JZ
PAR1 00000S001B       001  2011 01 01 00 00 00                       PAR1 3542PE-75        ADDED BY JZ
PAR1 00000S001A       001                     2011 01 01 00 00 00  PAR1 00000S001       ADDED BY JZ
PAR1 00000S001B       001  2011 01 01 00 00 00                       PAR1 3542PE-75        ADDED BY JZ
PART 00000M000A       001  1990 01 01 00 00 00  2001 06 20 00 00 00  PART                  ADDED BY JZ
PART 00000M000A       001  2001 06 20 00 00 00  2009 06 24 00 00 00  PART                  ADDED BY JZ
PART 00000M000B       001  2009 06 24 00 00 00                       PART                  ADDED BY JZ
PART 00000M000A       001  1990 01 01 00 00 00  2001 06 20 00 00 00  PART PART             ADDED BY JZ
PART 00000M000A       001  2001 06 20 00 00 00  2009 06 24 00 00 00  PART PART             ADDED BY JZ
PART 00000M000B       001  2009 06 24 00 00 00                       PART PART             ADDED BY JZ
PAT2 11029M002        001  1992 01 01 00 00 00  2099 12 31 00 00 00  PAT2                  DOMES NUMBER
PATK 11029S001        001  1992 01 01 00 00 00  2099 12 31 00 00 00  PATK                  DOMES NUMBER
PENC111206M006        001                     2003 05 24 23 59 59  PENC 11206M006*       Source:
EPN_A_IGb_08.SSC
PENC211206M006        001  2003 05 25 00 00 00  2007 06 23 23 59 59  PENC 11206M006*       Source:
EPN_A_IGb_08.SSC
PENC311206M006        001  2007 07 15 00 00 00                       PENC 11206M006*       Source:
EPN_A_IGb_08.SSC
POL1 11530M001A       001                     2005 01 01 00 00 00  POL1                  DOMES NUMBER
POL1 11530M001B       001  2005 01 01 00 00 00  2013 01 01 00 00 00  POL1                  DOMES NUMBER
POL1 11530M001C       001  2013 01 01 00 00 00                       POL1                  DOMES NUMBER
POL1 11530M001A       001                     2005 01 01 00 00 00  POL1 11530M001       DOMES NUMBER
POL1 11530M001B       001  2005 01 01 00 00 00  2013 01 01 00 00 00  POL1 11530M001       DOMES NUMBER
POL1 11530M001C       001  2013 01 01 00 00 00                       POL1 11530M001       DOMES NUMBER
POLO 00000M000        001                                            POL2                  DOMES NUMBER
POLO 00000M000        001                                            POLO                  ADDED BY JZ
PONI 00000M000        001                                            PONI                  ADDED BY JZ
PONI 00000M000        001                                            PONI 1074             ADDED BY JZ
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POSU 00000M000        001                                                  POSU POSU             ADDED BY JZ
POSU 00000M000        001                                                  POSU JE               ADDED BY JZ
POSU 00000M000        001                                                  POSUSJE               ADDED BY JZ
POTS114106M003        001                        2009 04 11 23 59 59  POTS 14106M003*       Source:
EPN_A_IGb_08.SSC
POTS214106M003        001  2009 04 12 00 00 00   2011 02 19 23 59 59  POTS 14106M003*       Source:
EPN_A_IGb_08.SSC
POTS314106M003        001  2011 02 20 00 00 00                        POTS 14106M003*       Source:
EPN_A_IGb_08.SSC
PRIJ 00000S001        001  1990 01 01 00 00 00   2099 12 31 00 00 00  PRIJ                  ADDED BY JZ
PRIJ 00000S001        001  1990 01 01 00 00 00   2099 12 31 00 00 00  PRIJ AGROS24          ADDED BY JZ
PRIJ 00000S001        001  1990 01 01 00 00 00   2099 12 31 00 00 00  PRIJ PRIJ             ADDED BY JZ
PUGS 00000S001        001  1990 01 01 00 00 00   2099 12 31 00 00 00  PUGS                  DOMES NUMBER
PULA 11903S001        001  1990 01 01 00 00 00   2099 12 31 00 00 00  PULA                  DOMES NUMBER
RISO 00000S001A       001                        2007 06 19 23 59 59  RISO                  ADDED BY JZ
RISO 00000S001B       001  2007 06 20 00 00 00   2008 09 11 23 59 59  RISO                  ADDED BY JZ
RISO 00000S001B       001  2008 09 12 00 00 00   2013 06 18 23 59 59  RISO                  ADDED BY JZ
RISO 00000S001B       001  2013 06 19 00 00 00                        RISO                  ADDED BY JZ
RISO 00000S001A       001                        2007 06 19 23 59 59  RISO 00000S001        ADDED BY JZ
RISO 00000S001B       001  2007 06 20 00 00 00   2008 09 11 23 59 59  RISO 00000S001        ADDED BY JZ
RISO 00000S001B       001  2008 09 12 00 00 00   2013 06 18 23 59 59  RISO 00000S001        ADDED BY JZ
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ROZH 00000S001B       001  2013 01 01 00 00 00                        ROZH 0104             FILE NAME EXPANDED
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ROZH 00000S001B       001  2013 01 01 00 00 00                        ROZH 00000S001       FILE NAME EXPANDED
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SACZ 00000M000        001                                             SACZ SACZ             ADDED BY JZ
SANS 00000M000        001                                             SANS SANM             ADDED BY JZ
SANS 00000M000        001                                             SANSKI MOST           ADDED BY JZ
SANS 00000M000        001                                             SANS I MOST           ADDED BY JZ
SEKO 00000M000        001                                             SEKO SEKO             ADDED BY JZ
SEKO 00000M000        001                                             SEKOVICI              ADDED BY JZ
SEKO 00000M000        001                                             SEKO ICI              ADDED BY JZ
SHAZ 00000M000        001  1990 01 01 00 00 00   2099 12 31 00 00 00  SHAZ SHAZ             ADDED BY JZ
SHAZ 00000M000        001  1990 01 01 00 00 00   2099 12 31 00 00 00  SHAZ BASE             ADDED BY JZ
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SKPL 00000M000B       001  1997 01 01 00 00 00                        SKPL                  FILE NAME EXPANDED
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SNEC 11519M001B       001  2005 01 01 00 00 00                        SNEK SNE2             DOMES NUMBER
SNEC 11519M001A       001  1990 01 01 00 00 00   2004 12 31 00 00 00  SNEC 11519M001        DOMES NUMBER
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SNEZ 00000M000        001                                             SNEZ                  ADDED BY JZ
SNIE 00000M000        001  1990 01 01 00 00 00   2004 12 31 00 00 00  SNIE                  ADDED BY JZ
SNIE 00000M000        001  2005 01 01 00 00 00                        SNIE                  ADDED BY JZ
SNZZ 00000M000A       001                        2007 01 01 00 00 00  SNZZ                  ADDED BY JZ
SNZZ 00000M000B       001  2007 01 01 00 00 00                        SNZZ                  ADDED BY JZ
SNZZ 00000M000A       001                        2007 01 01 00 00 00  SNZZ SNZZ             ADDED BY JZ
SNZZ 00000M000B       001  2007 01 01 00 00 00                        SNZZ SNZZ             ADDED BY JZ
SOFI111101M002        001                        2010 04 03 23 59 59  SOFI                  Source:
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SOFI211101M002        001  2010 04 30 00 00 00                        SOFI                  Source:
EPN_A_IGb_08.SSC
SOFI111101M002        001                        2010 04 03 23 59 59  SOFI 11101M002*       Source:
EPN_A_IGb_08.SSC
SOFI211101M002        001  2010 04 30 00 00 00                        SOFI 11101M002*       Source:
EPN_A_IGb_08.SSC
SOKO 00000M000        001                                             SOKO SOKO             ADDED BY JZ
SOKO 00000M000        001                                             SOKOLAC               ADDED BY JZ
SOKO 00000M000        001                                             SOKO AC               ADDED BY JZ
SREB 00000M000        001                                             SREB SREB             ADDED BY JZ
SREB 00000M000        001                                             SREBRENIK             ADDED BY JZ
SREB 00000M000        001                                             SREB ENIK             ADDED BY JZ
SPRN 11227M001        001  2007 07 08 00 00 00   2099 12 31 00 00 00  SPRN 00000S001        OFFICIAL DOMES
NUMBER
SPRN 11227M001        001  1992 01 01 00 00 00   2099 12 31 00 00 00  SPRN                  DOMES NUMBER
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SPRN111227M001        001                     2011 05 14 23 59 59  SPRN 11227M001*       Source:
EPN_A_IGb_08.SSC
SPRN211227M001        001  2011 05 22 00 00 00                     SPRN 11227M001*       Source:
EPN_A_IGb_08.SSC
SRJV111801S001        001  2000 04 16 00 00 00  2000 09 23 23 59 59  SRJV                  Source:
EPN_A_IGb_08.SSC
SRJV211801S001        001  2000 09 24 00 00 00  2011 10 02 00 00 00  SRJV                   Source:
EPN_A_IGb_08.SSC
SRJV311801S001        001  2011 10 09 00 00 00                     SRJV                   Source:
EPN_A_IGb_08.SSC
SRJV111801S001        001  2000 04 16 00 00 00  2000 09 23 23 59 59  SRJV 11801S001        Source:
EPN_A_IGb_08.SSC
SRJV211801S001        001  2000 09 24 00 00 00  2011 10 02 00 00 00  SRJV 11801S001        Source:
EPN_A_IGb_08.SSC
SRJV311801S001        001  2011 10 09 00 00 00                     SRJV 11801S001        Source:
EPN_A_IGb_08.SSC
STAR 00000S001        001  1992 01 01 00 00 00  2099 12 31 00 00 00  STAR                  FILE NAME EXPANDED
STHO 00000M000A       001                       1999 01 01 00 00 00  STHO                  ADDED BY JZ
STHO 00000M000B       001  1999 01 01 00 00 00  2005 01 01 00 00 00  STHO                  ADDED BY JZ
STHO 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00  STHO                  ADDED BY JZ
STHO 00000M000D       001  2007 01 01 00 00 00                       STHO                  ADDED BY JZ
STHO 00000M000A       001                       1999 01 01 00 00 00  STHO 000              ADDED BY JZ
STHO 00000M000B       001  1999 01 01 00 00 00  2005 01 01 00 00 00  STHO 000              ADDED BY JZ
STHO 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00  STHO 000              ADDED BY JZ
STHO 00000M000D       001  2007 01 01 00 00 00                       STHO 000              ADDED BY JZ
STHO 00000M000A       001                       1999 01 01 00 00 00  STHO STHO             ADDED BY JZ
STHO 00000M000B       001  1999 01 01 00 00 00  2005 01 01 00 00 00  STHO STHO             ADDED BY JZ
STHO 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00  STHO STHO             ADDED BY JZ
STHO 00000M000D       001  2007 01 01 00 00 00                       STHO STHO             ADDED BY JZ
STOL 00000M000        001                                           STOL                  ADDED BY JZ
SUBO 00000M000        001                                           SUBO                  ADDED BY JZ
SUBO 00000M000        001                                           SUBO AGROS01          ADDED BY JZ
SUBO 00000M000        001                                           SUBO AGROS01A         ADDED BY JZ
SUBO 00000M000        001                                           SUBO AGROS01B         ADDED BY JZ
SUB2 00000S001        001                                           SUB2                  ADDED BY JZ
SUB2 00000S001        001                                           SUB2 00000S001        ADDED BY JZ
SUB2 00000S001        001                                           SUB2 SUB2             ADDED BY JZ
SUCE 00000M001A       001                       2011 01 01 00 00 00  SUCE                  FILE NAME EXPANDED
SUCE 00000M001B       001  2011 01 01 00 00 00                       SUCE                  FILE NAME EXPANDED
SUCE 00000M001A       001                       2011 01 01 00 00 00  SUCE 00000M001       FILE NAME EXPANDED
SUCE 00000M001B       001  2011 01 01 00 00 00                       SUCE 00000M001        FILE NAME EXPANDED
SULP212366M001        001  2001 10 14 00 00 00                       SULP 12366M001*       Source:
EPN_A_IGb_08.SSC
SULP212366M001        001  2001 10 14 00 00 00                       SULP 12366M001        Source:
EPN_A_IGb_08.SSC
SULP212366M001        001  2001 10 14 00 00 00                       SULP 12366M001A       Source:
EPN_A_IGb_08.SSC
SULP212366M001        001  2001 10 14 00 00 00                       SULP                  ADDED BY JZ
SULP212366M001        001  2001 10 14 00 00 00                       SULP SULP             ADDED BY JZ
SULP 00000M000A       001                       1999 01 01 00 00 00  SULP                  ADDED BY JZ
SULP 00000M000B       001  1999 01 01 00 00 00                       SULP                  ADDED BY JZ
SULP 00000M000A       001                       1999 01 01 00 00 00  SULP SULP             ADDED BY JZ
SULP 00000M000B       001  1999 01 01 00 00 00                       SULP SULP             ADDED BY JZ
SULP 00000M000A       001                       1999 01 01 00 00 00  SULP 00000M000A      ADDED BY JZ
SULP 00000M000B       001  1999 01 01 00 00 00                       SULP 00000M000A       ADDED BY JZ
SUME 11215M001A       001                       2009 01 01 00 00 00  SUME                  DOMES NUMBER
SUME 11215M001B       001  2009 01 01 00 00 00                       SUME                  DOMES NUMBER
SUME 11215M001A       001                       2009 01 01 00 00 00  SUME 11215M001        DOMES NUMBER
SUME 11215M001B       001  2009 01 01 00 00 00                       SUME 11215M001        DOMES NUMBER
TARP 00000M000A       001                       2003 01 01 00 00 00  TARP                  ADDED BY JZ
TARP 00000M000B       001  2003 01 01 00 00 00                       TARP                  ADDED BY JZ
TARP 00000M000        001                                           TARP TARP             ADDED BY JZ
TESL 00000M000        001                                           TESL TESL             ADDED BY JZ
TESL 00000M000        001                                           TESLIC                ADDED BY JZ
TESL 00000M000        001                                           TESL C                ADDED BY JZ
TIMI 00000S001        001  1992 01 01 00 00 00  2099 12 31 00 00 00  TIMI                  FILE NAME EXPANDED
TIM1 00000M002        001  1992 01 01 00 00 00  2099 12 31 00 00 00  TIM1                  FILE NAME EXPANDED
TIS3 00000M000A       001                       1999 01 01 00 00 00  TIS3                  FILE NAME EXPANDED
TIS3 00000M000B       001  1999 01 01 00 00 00  2003 01 01 00 00 00  TIS3                  FILE NAME EXPANDED
TIS3 00000M000C       001  2003 01 01 00 00 00  2005 01 01 00 00 00  TIS3                  FILE NAME EXPANDED
TIS3 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00  TIS3                  FILE NAME EXPANDED
TIS3 00000M000D       001  2007 01 01 00 00 00                       TIS3                  FILE NAME EXPANDED
TIS3 00000M000A       001                       1999 01 01 00 00 00  TIS3 0                FILE NAME EXPANDED
TIS3 00000M000B       001  1999 01 01 00 00 00  2003 01 01 00 00 00  TIS3 0                FILE NAME EXPANDED
TIS3 00000M000C       001  2003 01 01 00 00 00  2005 01 01 00 00 00  TIS3 0                FILE NAME EXPANDED
TIS3 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00  TIS3 0                FILE NAME EXPANDED
TIS3 00000M000D       001  2007 01 01 00 00 00                       TIS3 0                FILE NAME EXPANDED
TIS3 00000M000A       001                       1999 01 01 00 00 00  TIS3 TIS3             FILE NAME EXPANDED
TIS3 00000M000B       001  1999 01 01 00 00 00  2003 01 01 00 00 00  TIS3 TIS3             FILE NAME EXPANDED
TIS3 00000M000C       001  2003 01 01 00 00 00  2005 01 01 00 00 00  TIS3 TIS3             FILE NAME EXPANDED
TIS3 00000M000C       001  2005 01 01 00 00 00  2007 01 01 00 00 00  TIS3 TIS3             FILE NAME EXPANDED
TIS3 00000M000D       001  2007 01 01 00 00 00                       TIS3 TIS3             FILE NAME EXPANDED
TIS4 00000M000        001                                           TIS4                  ADDED BY JZ
TIS5 00000M000        001                                           TIS5                  ADDED BY JZ
TIS6 00000M000        001                                           TIS6                  ADDED BY JZ
TREB 00000M000        001                                           TREB TREB             ADDED BY JZ
TREB 00000M000        001                                           TREB NJE              ADDED BY JZ
TREB 00000M000        001                                           TREBINJE              ADDED BY JZ
TUBO111503M001        001                       2005 12 18 00 00 00  TUBO                  Source:
EPN_A_IGb_08.SSC
TUBO211503M001        001  2005 12 18 00 00 00  2006 06 25 00 00 00  TUBO                  Source:
EPN_A_IGb_08.SSC
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TUBO311503M001        001  2006 06 25 00 00 00  2011 12 10 23 59 59  TUBO                 Source:
EPN_A_IGb_08.SSC
TUBO411503M001        001  2011 12 25 00 00 00                       TUBO                 Source:
EPN_A_IGb_08.SSC
TUBO111503M001        001                       2005 12 18 00 00 00  TUBO 11503M001*      Source:
EPN_A_IGb_08.SSC
TUBO211503M001        001  2005 12 18 00 00 00  2006 06 25 00 00 00  TUBO 11503M001*      Source:
EPN_A_IGb_08.SSC
TUBO311503M001        001  2006 06 25 00 00 00  2011 12 10 23 59 59  TUBO 11503M001*      Source:
EPN_A_IGb_08.SSC
TUBO411503M001        001  2011 12 25 00 00 00                       TUBO 11503M001*      Source:
EPN_A_IGb_08.SSC
TURI 00000M000        001                                            TURI 0394            ADDED BY JZ
TURI 00000M000        001                                            TURI                 ADDED BY JZ
UNPG112752M001        001                       1998 11 28 23 59 59  UNPG 12752M001*      Source:
EPN_A_IGb_08.SSC
UNPG212752M001        001  1998 11 29 00 00 00  2000 02 19 23 59 59  UNPG 12752M001*      Source:
EPN_A_IGb_08.SSC
UNPG312752M001        001  2000 02 20 00 00 00  2002 05 18 23 59 59  UNPG 12752M001*      Source:
EPN_A_IGb_08.SSC
UNPG412752M001        001  2002 05 19 00 00 00  2006 04 16 00 00 00  UNPG 12752M001*      Source:
EPN_A_IGb_08.SSC
UNPG512752M001        001  2006 04 20 00 00 00                       UNPG 12752M001*      Source:
EPN_A_IGb_08.SSC
UPAD 12750M001        001  1990 01 01 00 00 00  1994 12 31 00 00 00  UPAD                 DOMES NUMBER
UPAD 12750M002A       001  1995 01 01 00 00 00  1999 01 01 00 00 00  UPAD                 DOMES NUMBER
UPAD 12750M002B       001  1999 01 01 00 00 00                       UPAD                 DOMES NUMBER
UPAD 12750M002A       001  1995 01 01 00 00 00  1999 01 01 00 00 00  UPAD 12750M002       DOMES NUMBER
UPAD 12750M002B       001  1999 01 01 00 00 00                       UPAD 12750M002       DOMES NUMBER
USDL112229M001        001                                            USDL 12229M001       Source:
EPN_A_IGb_08.SSC
UZHD 00000M000A       001                       2007 01 01 00 00 00  UZHD                 ADDED BY JZ
UZHD 00000M000B       001  2007 01 01 00 00 00                       UZHD                 ADDED BY JZ
UZHD 00000M000A       001                       2007 01 01 00 00 00  UZHD 12626141        ADDED BY JZ
UZHD 00000M000B       001  2007 01 01 00 00 00                       UZHD 12626141        ADDED BY JZ
UZHD 00000M000A       001                       2007 01 01 00 00 00  UZHD UZHD           ADDED BY JZ
UZHD 00000M000B       001  2007 01 01 00 00 00                       UZHD UZHD           ADDED BY JZ
UZHL 12301M001        001  1990 01 01 00 00 00  2099 12 31 00 00 00  UZHL                 DOMES NUMBER
UZHL112301M001        001                       2010 11 04 23 59 59  UZHL 12301M001*      Source:
EPN_A_IGb_08.SSC
UZHL212301M001        001  2010 12 26 00 00 00                       UZHL 12301M001*      Source:
EPN_A_IGb_08.SSC
VARN 00000S001A       001                       2011 01 01 00 00 00  VARN                 FILE NAME EXPANDED
VARN 00000S001B       001  2011 01 01 00 00 00  2013 01 01 00 00 00  VARN                 FILE NAME EXPANDED
VARN 00000S001C       001  2013 01 01 00 00 00                       VARN                 FILE NAME EXPANDED
VARN 00000S001A       001                       2011 01 01 00 00 00  VARN 00000S001      FILE NAME EXPANDED
VARN 00000S001B       001  2011 01 01 00 00 00  2013 01 01 00 00 00  VARN 00000S001      FILE NAME EXPANDED
VARN 00000S001C       001  2013 01 01 00 00 00                       VARN 00000S001      FILE NAME EXPANDED
VAT1 00000M000        001                       1997 01 01 00 00 00  VATR                 IDENT?
VAT1 00000M000        001  1997 01 01 00 00 00  1999 01 01 00 00 00  VATR                 IDENT?
VAT1 00000M000        001  1999 01 01 00 00 00                       VATR                 IDENT?
VAT1 00000M000        001                       1997 01 01 00 00 00  VAT1                 IDENT?
VAT1 00000M000        001  1997 01 01 00 00 00  1999 01 01 00 00 00  VAT1                 IDENT?
VAT1 00000M000        001  1999 01 01 00 00 00                       VAT1                 IDENT?
VAT1 00000M000        001                       1997 01 01 00 00 00  VAT1A                IDENT?
VAT1 00000M000        001  1997 01 01 00 00 00  1999 01 01 00 00 00  VAT1A                IDENT?
VAT1 00000M000        001  1999 01 01 00 00 00                       VAT1A                IDENT?
VAT1 00000M000        001                       1997 01 01 00 00 00  VAT1 0              IDENT?
VAT1 00000M000        001  1997 01 01 00 00 00  1999 01 01 00 00 00  VAT1 0              IDENT?
VAT1 00000M000        001  1999 01 01 00 00 00                       VAT1 0              IDENT?
VAT2 00000M000        001                                            VAT2                 ADDED BY JZ
VELI 00000M000        001                                            VELI VELK            ADDED BY JZ
VELI 00000M000        001                                            VELI A KLADUSA       ADDED BY JZ
VELI 00000M000        001                                            VELIKA KLADUSA       ADDED BY JZ
VLAS 00000M000        001                                            VLAS                 ADDED BY JZ
VLAS 00000M000        001                                            VLAS 0258            ADDED BY JZ
VRN1 00000M000A       001                       1999 01 01 00 00 00  VRAN                 IDENT?
VRN1 00000M000B       001  1999 01 01 00 00 00  2001 01 01 00 00 00  VRAN                 IDENT?
VRN1 00000M000C       001  2001 01 01 00 00 00  2003 01 01 00 00 00  VRAN                 IDENT?
VRN1 00000M000D       001  2003 01 01 00 00 00  2005 01 01 00 00 00  VRAN                 IDENT?
VRN1 00000M000E       001  2005 01 01 00 00 00                       VRAN                 IDENT?
VRN1 00000M000A       001                       1999 01 01 00 00 00  VRN1                 IDENT?
VRN1 00000M000B       001  1999 01 01 00 00 00  2001 01 01 00 00 00  VRN1                 IDENT?
VRN1 00000M000C       001  2001 01 01 00 00 00  2003 01 01 00 00 00  VRN1                 IDENT?
VRN1 00000M000D       001  2003 01 01 00 00 00  2005 01 01 00 00 00  VRN1                 IDENT?
VRN1 00000M000E       001  2005 01 01 00 00 00                       VRN1                 IDENT?
VRN1 00000M000A       001                       1999 01 01 00 00 00  VRN1 0              IDENT?
VRN1 00000M000B       001  1999 01 01 00 00 00  2001 01 01 00 00 00  VRN1 0              IDENT?
VRN1 00000M000C       001  2001 01 01 00 00 00  2003 01 01 00 00 00  VRN1 0              IDENT?
VRN1 00000M000D       001  2003 01 01 00 00 00  2005 01 01 00 00 00  VRN1 0              IDENT?
VRN1 00000M000E       001  2005 01 01 00 00 00                       VRN1 0              IDENT?
VRN1 00000M000A       001                       1999 01 01 00 00 00  VRN1 00             IDENT?
VRN1 00000M000B       001  1999 01 01 00 00 00  2001 01 01 00 00 00  VRN1 00             IDENT?
VRN1 00000M000C       001  2001 01 01 00 00 00  2003 01 01 00 00 00  VRN1 00             IDENT?
VRN1 00000M000D       001  2003 01 01 00 00 00  2005 01 01 00 00 00  VRN1 00             IDENT?
VRN1 00000M000E       001  2005 01 01 00 00 00                       VRN1 00             IDENT?
VRN1 00000M000A       001                       1999 01 01 00 00 00  VRN1 VRN1           IDENT?
VRN1 00000M000B       001  1999 01 01 00 00 00  2001 01 01 00 00 00  VRN1 VRN1           IDENT?
VRN1 00000M000C       001  2001 01 01 00 00 00  2003 01 01 00 00 00  VRN1 VRN1           IDENT?
VRN1 00000M000D       001  2003 01 01 00 00 00  2005 01 01 00 00 00  VRN1 VRN1           IDENT?
VRN1 00000M000E       001  2005 01 01 00 00 00                       VRN1 VRN1           IDENT?
VRN3 00000M000        001                                            VRN3                 ADDED BY JZ
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VRNA 00000M000        001  1999 06 14 00 00 00  1999 06 16 00 00 00  VRN1                 DOMES NUMBER
VRNA 00000M000        001                       1999 06 16 00 00 00  VRNA                 DOMES NUMBER
WETT 14201M009        001  1990 01 01 00 00 00  1995 12 31 00 00 00  WETT                 DOMES NUMBER
WROC112217M001        001                       1999 07 19 23 59 59  WROC 12217M001*      Source:
EPN_A_IGb_08.SSC
WROC212217M001        001  2000 05 25 00 00 00  2006 09 03 00 00 00  WROC 12217M001*      Source:
EPN_A_IGb_08.SSC
WROC312217M001        001  2006 09 03 00 00 00  2007 04 13 23 59 59  WROC 12217M001*      Source:
EPN_A_IGb_08.SSC
WROC412217M001        001  2007 04 21 00 00 00                       WROC 12217M001*      Source:
EPN_A_IGb_08.SSC
WTZR114201M010        001                       2010 06 26 23 59 59  WTZR                 Source:
EPN_A_IGb_08.SSC
WTZR214201M010        001  2010 06 27 00 00 00                       WTZR                 Source:
EPN_A_IGb_08.SSC
WTZR114201M010        001                       2010 06 26 23 59 59  WETTZELL-1202        Source:
EPN_A_IGb_08.SSC
WTZR214201M010        001  2010 06 27 00 00 00                       WETTZELL-1202        Source:
EPN_A_IGb_08.SSC
WTZR114201M010        001                       2010 06 26 23 59 59  WTZR 14201M010       Source:
EPN_A_IGb_08.SSC
WTZR214201M010        001  2010 06 27 00 00 00                       WTZR 14201M010       Source:
EPN_A_IGb_08.SSC
ZAVI 00000M000        001                                            ZAVI ZAVI            ADDED BY JZ
ZAVI 00000M000        001                                            ZAVIDOVICI           ADDED BY JZ
ZAVI 00000M000        001                                            ZAVI OVICI           ADDED BY JZ
ZENI 00000M000        001                                            ZENI ZENI            ADDED BY JZ
ZENI 00000M000        001                                            ZENI A               ADDED BY JZ
ZENI 00000M000        001                                            ZENICA               ADDED BY JZ
ZIMM 14001M004        001  1992 01 01 00 00 00  2099 12 31 00 00 00  ZIMM                 DOMES NUMBER
ZIMM114001M004        001                       1998 11 07 23 59 59  ZIMM 14001M004       Source:
EPN_A_IGb_08.SSC
ZIMM214001M004        001  1998 11 08 00 00 00                       ZIMM 14001M004       Source:
EPN_A_IGb_08.SSC
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