

ANALYSIS OF THE JUAN DE FUCA GPS SURVEY 1986

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July 1987



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PREFACE

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**ANALYSIS OF THE JUAN DE FUCA
GPS SURVEY 1986**

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PREFACE

This technical report is the final contract report prepared for the Pacific Geoscience Centre of the Geological Survey of Canada under the terms of contract DSS No. 23227-6-0342/01-SB (DSS File No. 10SB.23227-6-0342). The Scientific Authority for this contract was Dr. Herb Dragert. The Principal Investigator was Alfred Klesuberg.

Part of the work reported herein was funded by a Natural Sciences and Engineering Research Council of Canada (NSERC) operating grant. We wish to acknowledge the assistance we have received from R. Santerre and S.H. Quek. We also wish to thank W. Wells for word processing this report.

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1. INTRODUCTION

The Juan de Fuca Global Positioning System (GPS) survey campaign analysed in this report was conducted between 1 September and 9 September 1986 by the Pacific Geoscience Centre of the Geological Survey of Canada (GSC), and the United States Geological Survey. Texas Instruments TI 4100 receivers in P-code tracking mode were used, and the observation data were stored on digital data cassettes. The analysis of the GPS data contracted to the Geodetic Research Laboratory (GRL) of the University of New Brunswick (UNB) was to include:

- (a) decoding of raw data and transfer to ASCII files,
- (b) data preprocessing to eliminate gross errors and phase discontinuities (cycle slips),
- (c) least-squares adjustment of the dual frequency carrier phase observations to determine relative station coordinates both on a session-by-session basis and for the complete network. The adjustment was to incorporate environmental data recorded at the survey stations, and precise GPS satellite orbits to be provided by Energy, Mines and Resources Canada.

Since precise GPS satellite orbits could not be acquired in time, the data analysis described in this report is based on broadcast orbits obtained from the recorded GPS messages. The report summarizes the data flow and results at various stages of processing. A description of the adjustment model and the computer programs utilized can be found in Santerre [1987] and Vaníček et al. [1985].

2. DATA DESCRIPTION

The Juan de Fuca survey was conducted between 1 September 1986 (Day 244) and 9 September 1986 (Day 252). Figure 1 shows the 27 stations located on both sides of the Juan de Fuca Strait which were occupied on days 244 through 249 and day 251. On day 252, the station *PGC* was connected through GPS observations to the VLBI station in Penticton and to stations *Radar* and *OK* of the Port Alberni network in central Vancouver Island.

Table 1 depicts the observation schedule of the Juan de Fuca survey. The two-digit name abbreviations listed in column 2 are used throughout this report as station identifiers. The survey was done with Texas Instruments TI 4100 receivers operated with GESAR software. Dual frequency measurements were recorded every 30 seconds on day 244, and every 15 seconds on all other days. The length of each observation session was approximately 5 hours. The data recorded at *PGC* on days 245, 249, and 252 contained gaps of 17 minutes, 17.5 minutes, and 43.5 minutes respectively. All other data records were continuous.

Meteorological data (temperature, relative humidity, and air pressure) were available every half hour for all observation sessions. The missing relative humidity measurements for station *Worden*, day 246, were replaced by a standard value of 40% for the whole session.

Figure 2 shows the positions of the GPS satellites during the survey in terms of azimuth and elevation as seen from Vancouver Island. Measurements were taken to seven operational satellites. Approximate tracking times (UT) for the satellites show that the observation scenario called for several intermediate changes between the satellites. The broken lines in the satellite visibility plot indicate those times when a visible satellite was dropped in favour of another satellite providing a better observation geometry.

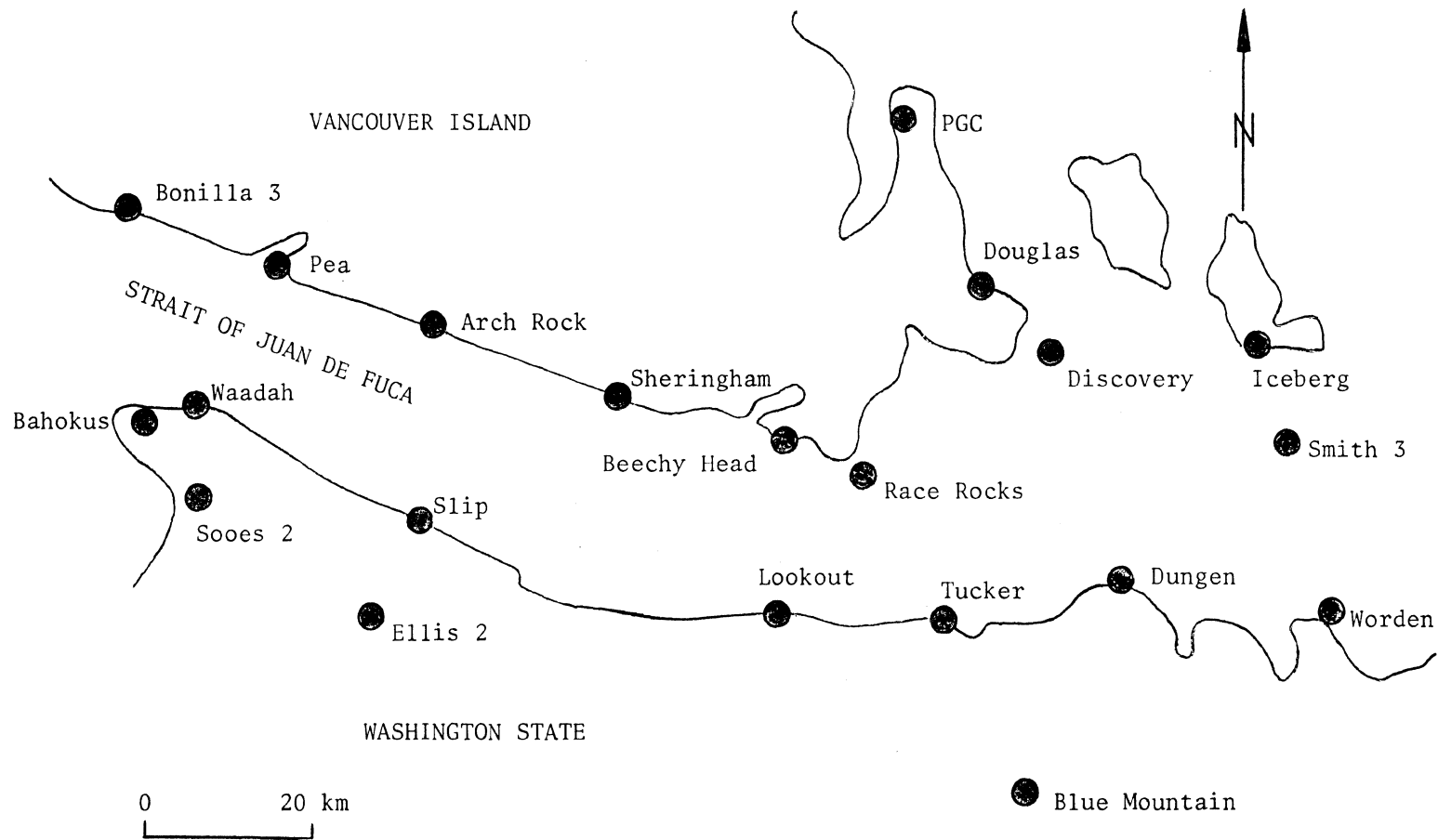


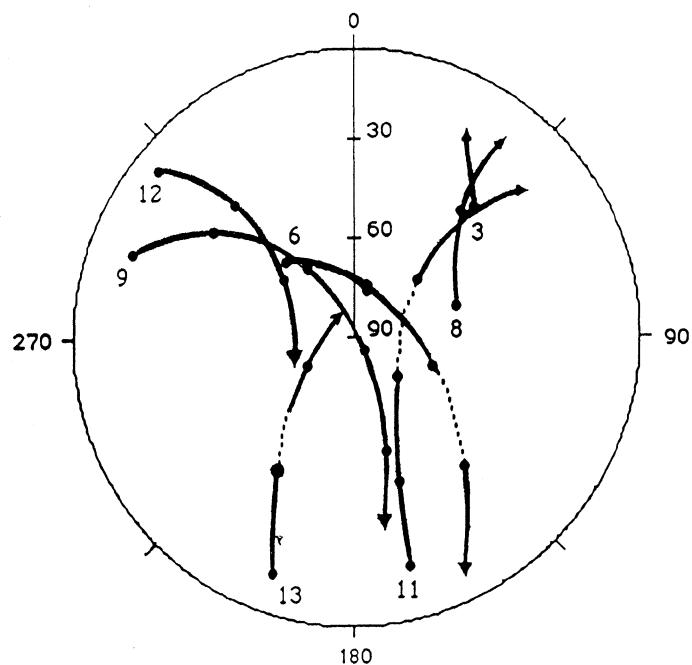
FIGURE 1: Juan de Fuca network.

TABLE 1: Observation schedule, Juan de Fuca survey.

Station name	Abbr.	Day 244	Day 245	Day 246	Day 247	Day 248	Day 249	Day 251	Day 252
PGC	PG		*B	*	*	*	*B	*	*B
Lookout	LO	*	*		*				
Blue Mountain	BM	*							
Slip	SL	*			*				
Tucker	TU		*						
Dungen	DU		*	*					
Discovery	DI		*	*					
Race Rocks	RR		*						
Douglas	DO		*	*					
Smith 3	SM			*					
Worden	WO			*					
Iceberg	IC			*					
Sooes 2	SO				*	*			
Sheringham	SH				*	*		*	
Beechy Head	BE			*	*				
Bahokus	BA				*				
Arch Rock	AR				*	*	*		
Ellis 2	EL					*			
Bonilla 3	BO					*	*		
Waadah	WA							*	
Radar Geod.	RA								*
OK	OK								*
Penticton	PN								*
Pea	PE						*		

B: Break in observation data

GPS Satellite Visibility Vancouver Island, Day 246, 1986



Satellites observed:

SV 3:	17:00 - 18:00
SV 6:	17:00 - 19:00
	20:00 - 21:00
SV 8:	18:00 - 20:00
SV 9:	17:00 - 21:45
SV 11:	17:00 - 19:00
	20:00 - 21:45
SV 12:	19:00 - 21:45
SV 13:	19:00 - 20:00
	20:30 - 21:45

FIGURE 2: GPS satellite visibility.

3. DATA PROCESSING DESCRIPTION

The GPS observation data on TI 4100 digital data cassettes were supplied to the GRL by the Surveys and Mapping Branch, Ottawa. For the majority of observation sessions, one cassette per receiver per day contained all the measurement records. The data analysis consisted of three major steps:

- reading, decoding, and archiving the original data;
- data preprocessing to eliminate data errors;
- least-squares adjustment.

Figure 3 depicts the data processing scheme. All words in capital letters are the names of computer programs used at various stages of processing.

The main burden of the task was carried out with the Apple Macintosh computer. After reading the data cassettes on a Memtec 5450XL cassette terminal using the program MEMTEC, Version 1.2, the binary data were archived on 3.5" disks and subsequently decoded with the Macintosh program M4MAT. The resulting ASCII ephemerides and observation files were again archived on floppy disk before being transmitted to the Hewlett Packard 1000 computer with the data transfer program KERMIT. This transfer to the HP 1000 was required mainly for data archiving on 9-track magnetic tapes.

On average, about 1.5 hours per data cassette was required for this part of the processing, amounting to 65 hours for the total Juan de Fuca data set. More than half of the time was spent for the cassette reading only.

The data preprocessing was done on the HP 1000 because some of the required software has not yet been transferred onto the Macintosh microcomputer. The final network adjustment required processing with the Macintosh because of limitations of the addressable memory in the HP 1000

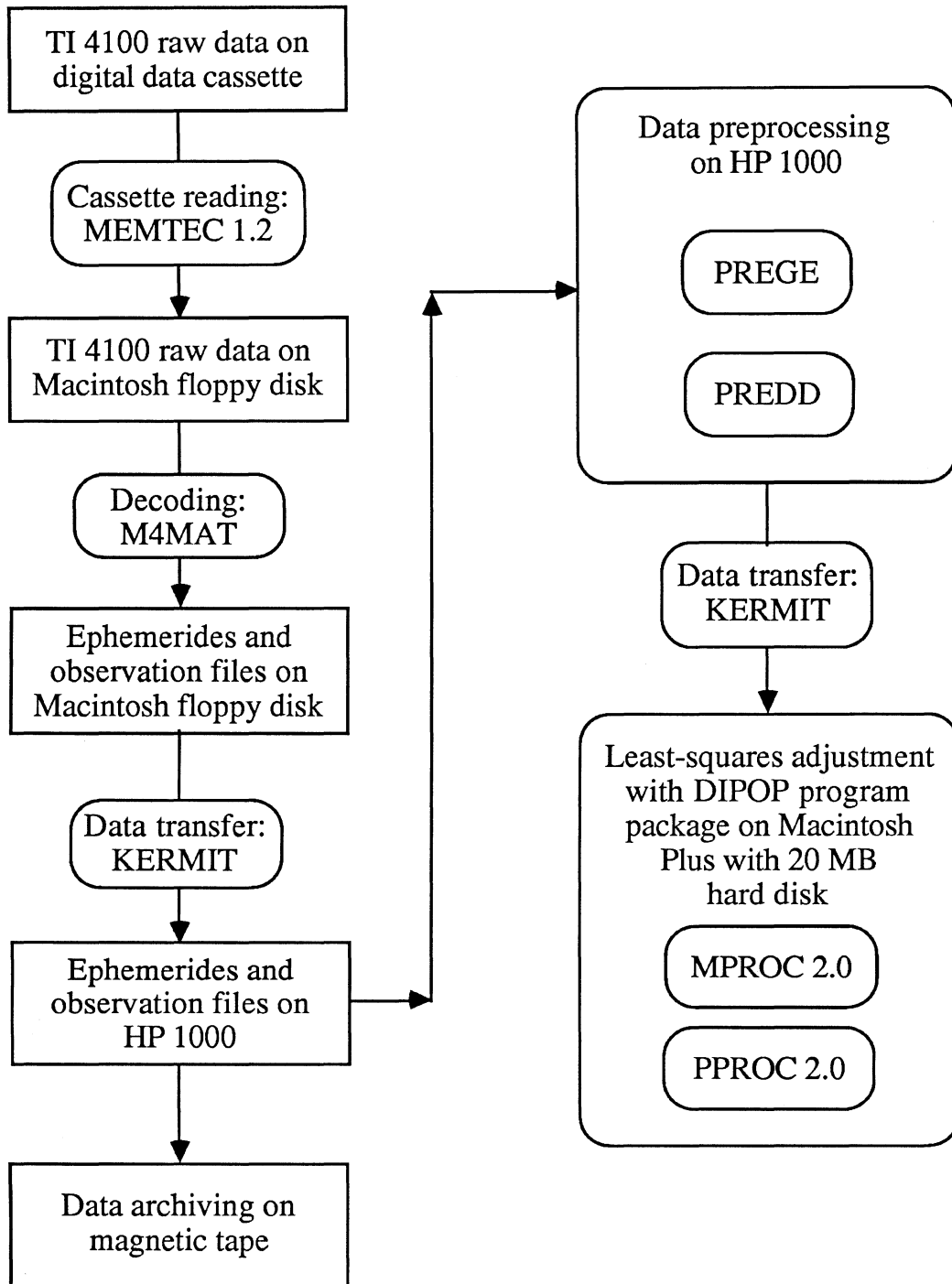


FIGURE 3: Data processing (schematic).

version of the GRL GPS adjustment program package DIPOP.

3.1 Preprocessing

The purpose of the data preprocessing is to prepare input files for the least-squares adjustment of carrier phase double differences in the main processing. It consists of:

- elimination of observations with wrong time tags;
- elimination of 'bad' observations;
- detection, determination, and correction of cycle slips;
- forming of carrier phase double differences;
- computation of satellite coordinates from ephemerides parameters.

The preprocessing software for the TI 4100 GESAR type of observations consists of two programs: PREGE (PREprocessing GEsar), and PREDD (PREprocessing Double Differences). These programs have been developed in a joint effort with the Geophysics Division of the Geological Survey of Canada.

The first program, PREGE, operates on one-way (i.e., one receiver, one satellite) dual frequency carrier phase observations. The time tags of all observations are checked for GESAR format compatibility. GESAR time tags for observation intervals of 15 and 30 seconds are of the type

$$T = n \cdot \Delta t - 0.92 \text{ s} ,$$

where T is the time tag, n is an integer number, and Δt is the observation interval. If the time tag is not compatible, the observations are rejected. Wrong time tags were found to appear only at the beginning of an observation session.

The second task performed by PREGGE is related to so-called half-cycle slips. After a cycle slip (of arbitrary size) has occurred, the TI 4100 sometimes settles for a short period of time on a wrong half-cycle, after phase lock is regained. The period of half-cycle phase lock was found to be less than 30 seconds. Carrier phase observations during that time are wrong by one-half of a cycle. These observations are detected and rejected to limit the cycle slip correction algorithm to integer numbers of cycles.

In the third task, cycle slips are detected and corrected. Cycle slip detection is accomplished by tracing the ionospheric delay difference between the carrier phase observations on L1 and L2. Sudden changes in the delay value are interpreted as being caused by cycle slips and the observation is flagged. To determine the integer number of cycles associated with the phase discontinuities encountered when scanning the whole data record, two linear combinations of the L1 and L2 carrier phases are approximated by Chebyshev polynomials. The first combination is the aforementioned ionospheric delay, and the second is the 86 cm 'wide-lane' combination of L1 and L2 carrier phases. Integer values for cycle slips in L1 and L2 signals are determined in the polynomial approximation by solving for changes in the zero-order coefficient for each encountered cycle slip. If a cycle slip is only weakly determined, it is still corrected. Therefore, the remaining cycle slips will be of the order of a few cycles only.

None of the Juan de Fuca observation files contained more than 40 cycle slips and none was completely free of cycle slips. Between 5 and 15 observations per observation file were eliminated because of the aforementioned half-cycle errors. About 80% of all cycles were exactly corrected in PREGGE; the remaining 20% were corrected as well as possible. For these, the final exact correction was left to the second preprocessor program, PREDD.

Program PREDD operates on carrier phase double differences, and its output is the input file for the main adjustment program. To start this part of the preprocessing for a network of n

simultaneously observing stations, a number of $(n-1)$ independent baselines has to be selected. The baselines chosen for the different days of the Juan de Fuca survey are indicated in Figures 4 through 11. The main selection criterion was the baseline length because, in general, the integer carrier phase ambiguities (see below) are easier to determine in short baselines. In PREDD, the two PREGE output files pertaining to the baseline being processed are read simultaneously and combined to form carrier phase double differences for both the L1 and the L2 signals. From these are subtracted nominal range double differences computed from satellite ephemerides parameters and approximate station coordinates. The resulting residual double differences are analysed to detect remaining cycle slips in a procedure similar to the one used in PREGE. The integer number of cycles is again determined through polynomial approximations and subsequently corrected in the carrier phase double differences. The 'clean' observations (carrier phase double differences) and the satellite coordinates are finally written to the output file.

On the HP 1000 computer, typical processing times for five hours of TI 4100 observations at 15 second intervals were 30 minutes per station per day for program PREGE and 45 minutes per baseline for program PREDD. More than half of this time was spent for read/write operations. For the 34 baselines of the Juan de Fuca survey, these preprocessing times add up to more than 45 hours.

3.2 Main Processing

The UNB GPS adjustment programs, MPROC and PPROC, and several utility programs on both the HP 1000 and the Macintosh computers were used in this part of the processing. The first step was a single frequency baseline by baseline least-squares adjustment for both the L1 and L2 carrier phases with the HP 1000 computer. Visual inspection of the plotted adjustment residuals verified the correct removal of all cycle slips. The integer values of the estimated carrier phase ambiguities were subtracted from the phase observations to enable a fixed ambiguity adjustment for

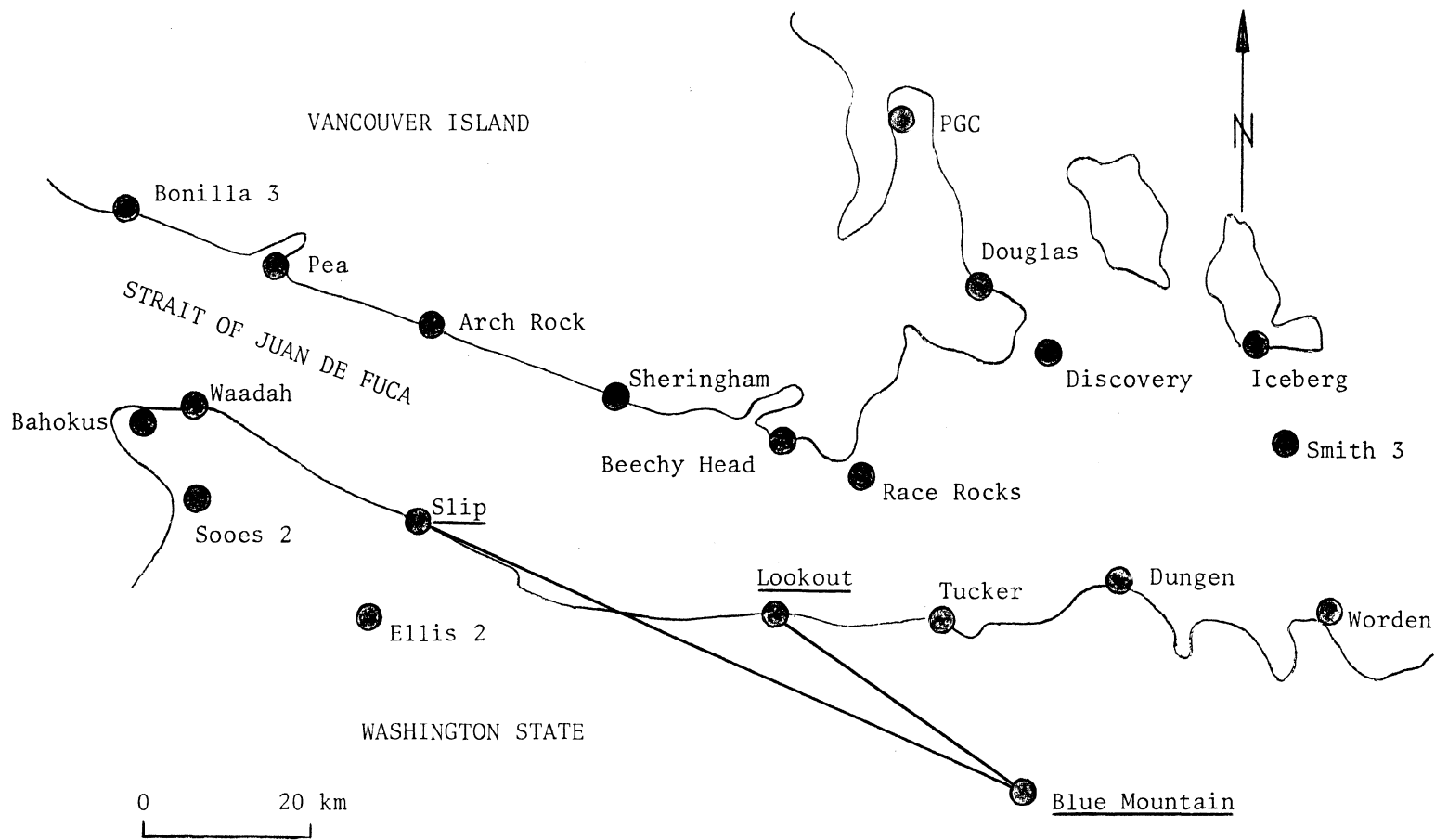


FIGURE 4: Baselines, day 244.

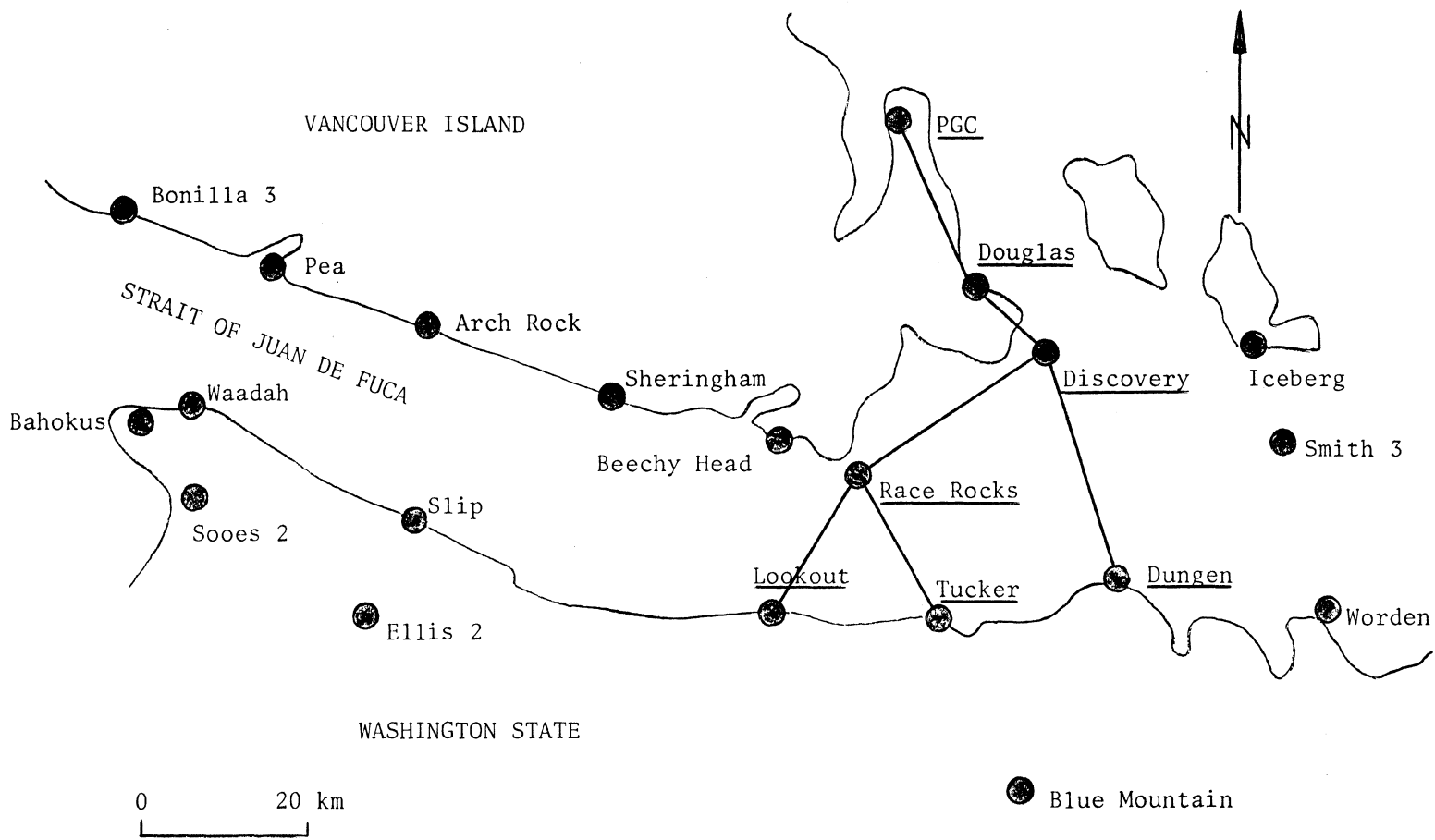


FIGURE 5: Baselines, day 245.

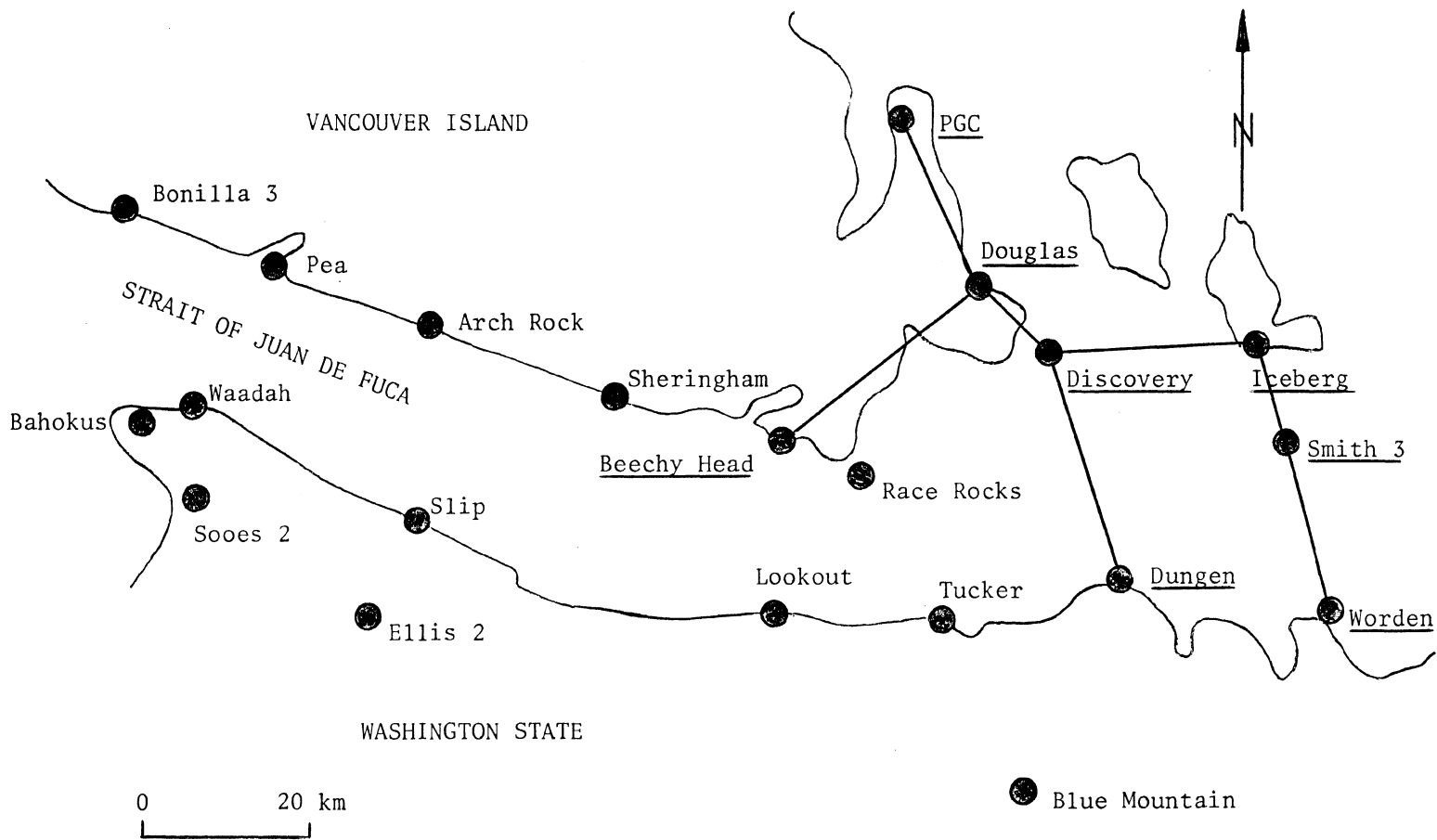


FIGURE 6: Baselines, day 246.

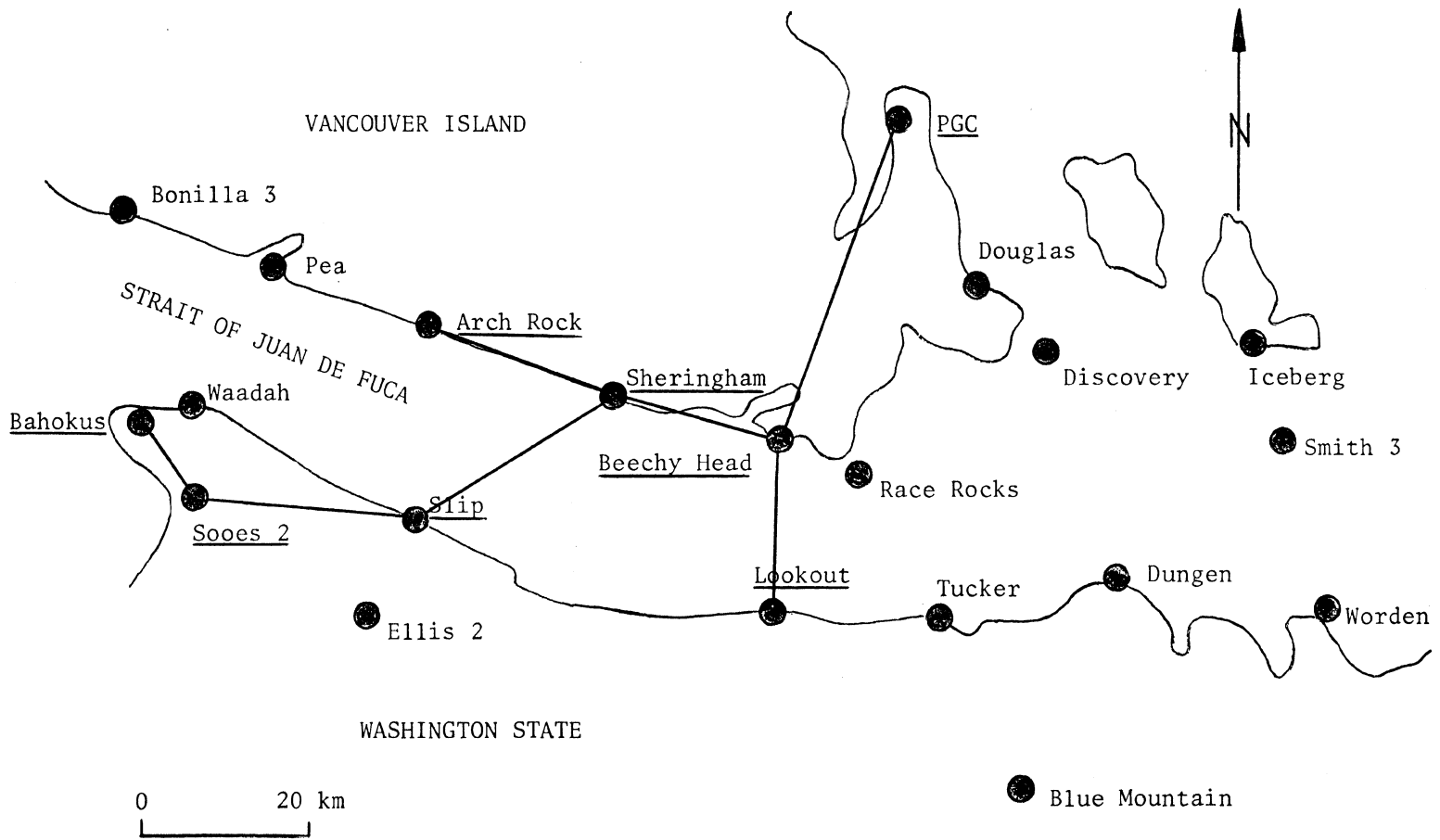


FIGURE 7: Baselines, day 247

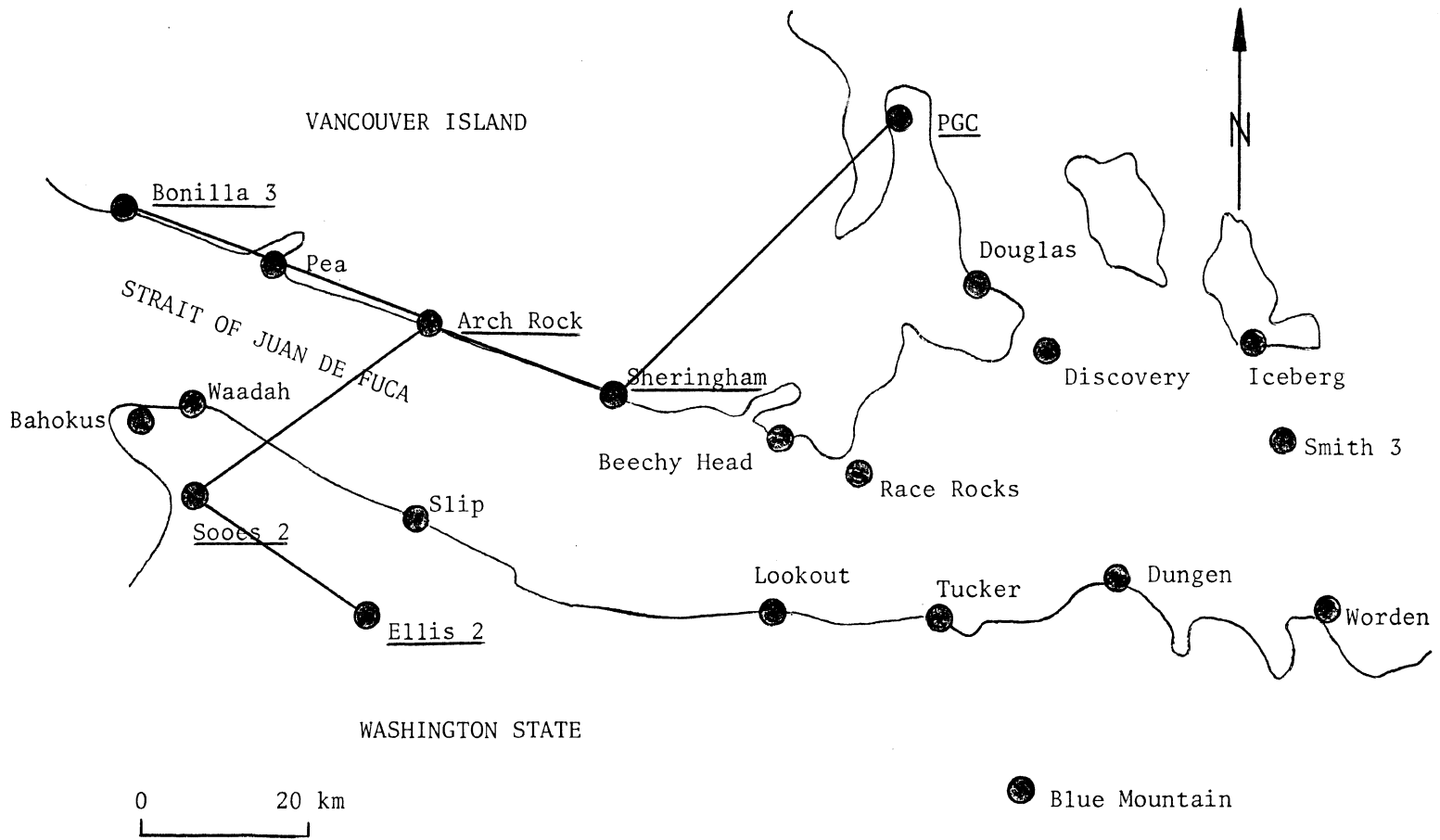


FIGURE 8: Baselines, day 248.

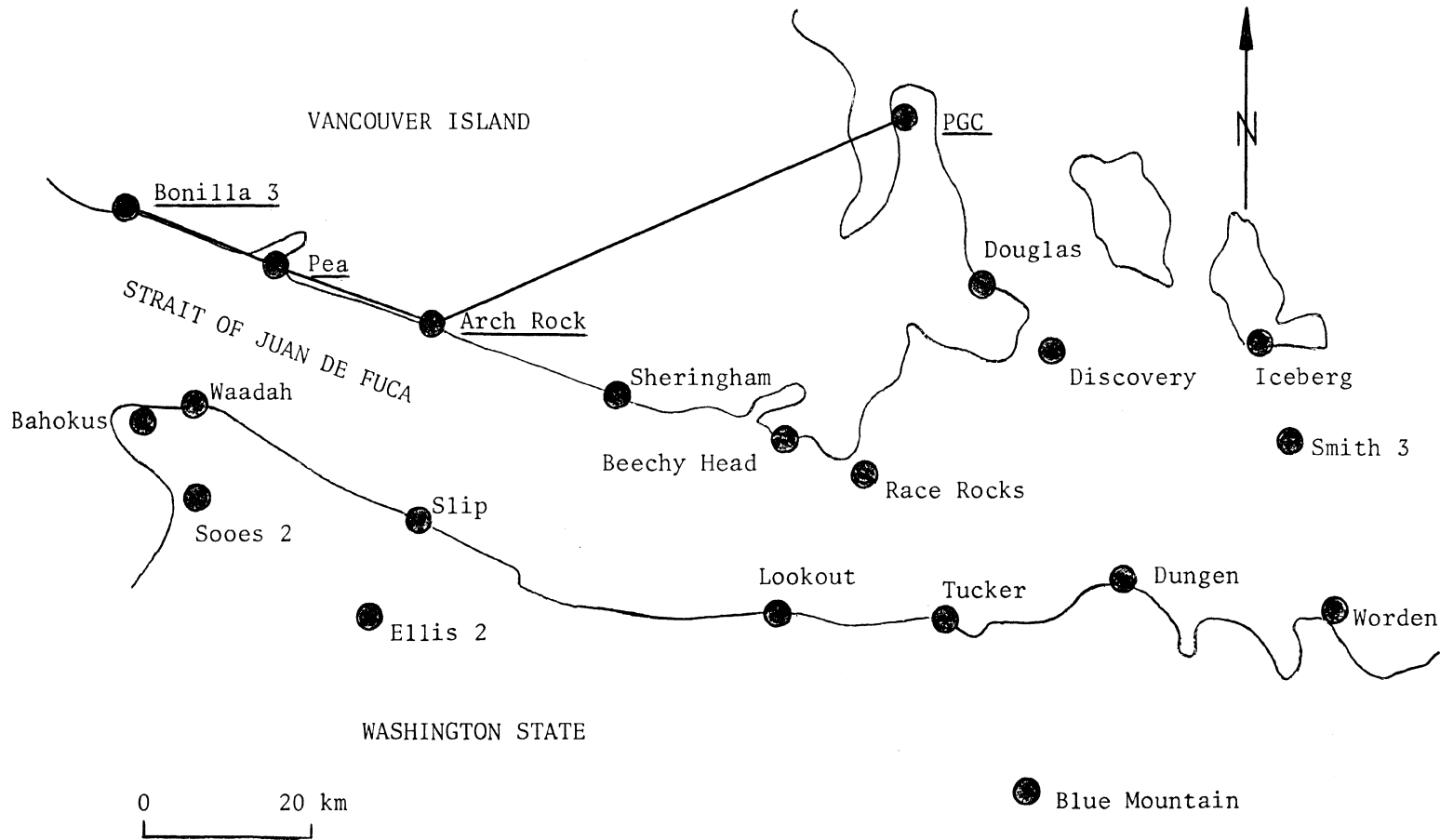


FIGURE 9: Baselines, day 249.

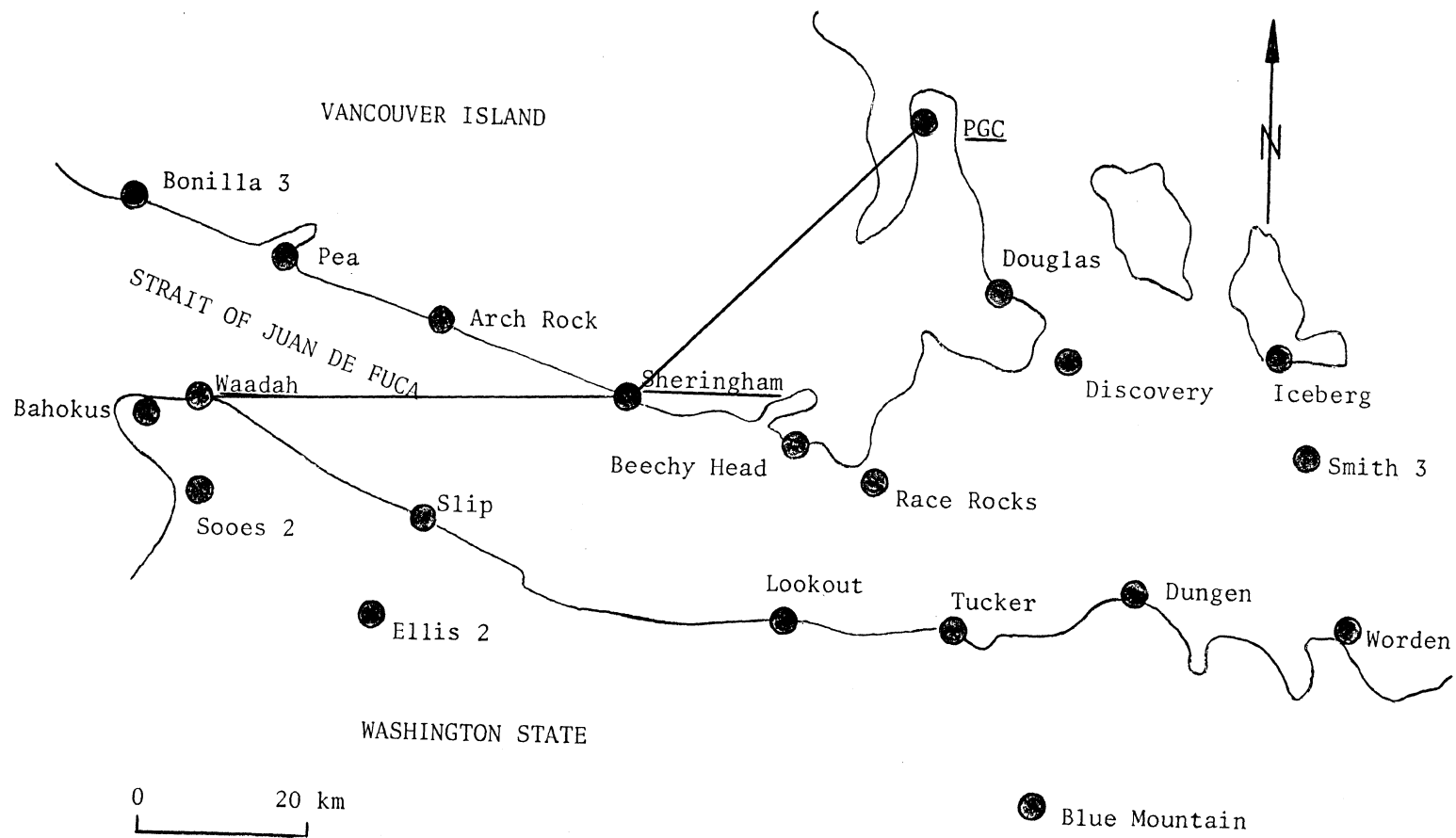


FIGURE 10: Baselines, day 251.

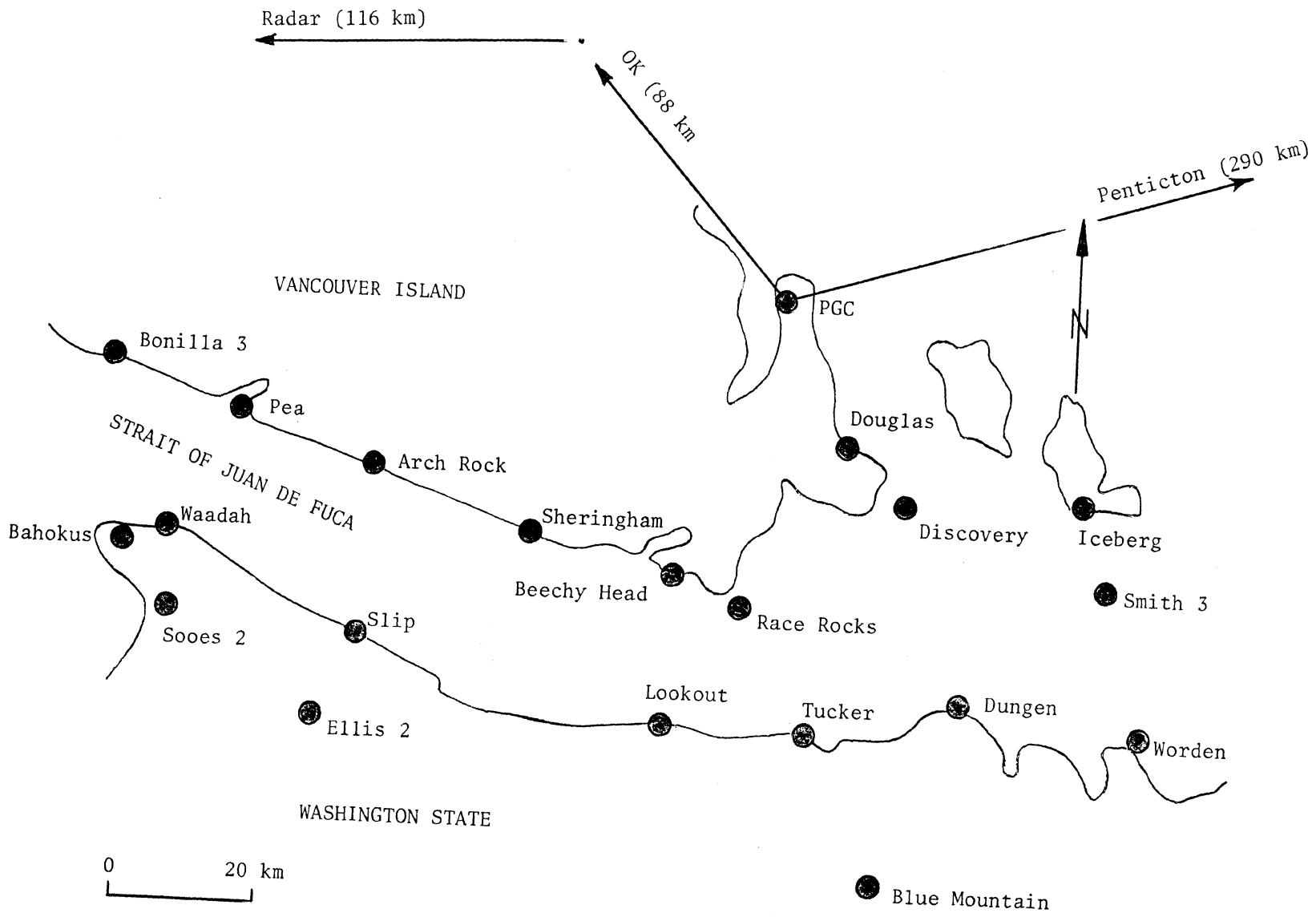


FIGURE 11: Baselines, day 252.

those baselines where the integer values of the ambiguities could be unambiguously determined. If all real number ambiguity estimates for the L1 and L2 observations of a particular baseline converged to within ± 0.25 of an integer number, these integer values were judged to be unambiguously determined. The unambiguous determination of the integer carrier phase ambiguities failed only for the observations of day 252 and one baseline of day 251 of the Juan de Fuca survey. A final L3 baseline adjustment served to determine the accuracy of the carrier phase observations from the r.m.s. of the residuals. The estimated L3 carrier phase double difference observation standard deviations varied between 13 mm (baseline IC-SM, day 246) and 30 mm (baseline SH-SL, day 247). The processing time, including residual plotting and the subtraction of the carrier phase ambiguities, took about one hour per baseline, amounting to 35 hours for the Juan de Fuca network.

Because of limitations in the addressable memory of the HP 1000 versions of the MPROC and PPROC programs, the adjustments for both the day-by-day network solutions and the complete Juan de Fuca network solution had to be done on the Macintosh computer. To facilitate fast data transfer between the HP 1000 and the Macintosh (program KERMIT) and to reduce the computer time for the adjustments, all observation files were decimated to retain only one observation epoch per minute. Test computations with both the decimated and the undecimated files showed differences between the respective baseline results of less than 4 mm for a 30 km baseline. Since this is below the presently achievable accuracy level of GPS baseline results, no accuracy loss is expected from this data decimation. The decimated input files contained about 700 double difference observations each and required a total storage capacity of 5 Megabytes.

L3 network adjustments were computed on the Macintosh computer separately for each day of the Juan de Fuca observation campaign. The observations of different baselines were weighted inversely proportionally to the observation standard deviations determined in the single baseline solutions. The results of these daily solutions are listed in Appendix A. For the adjustments

pertaining to days 245 through 252, the coordinates of station *PG* as given by Dragert [1987] were held fixed. For day 244, the coordinates of station *LO* were held fixed. On a Macintosh Plus equipped with a coprocessor, these least-squares adjustments took between 5 minutes and 20 minutes depending on the number of baselines observed.

Station *PG* was held fixed for the L3 network adjustment of the complete Juan de Fuca survey. Observation weights were again chosen in the aforementioned manner. The results of this solution are given in Appendix B. Total processing time was about 15 hours on a Macintosh Plus with a FAP-F Novy coprocessor.

In all adjustments, either baseline or network, an elevation cut-off angle of 20 degrees was used, i.e., all observations of satellites below this elevation angle were rejected. The analysis of adjustment residuals for different elevation cut-off angles showed significant improvements, if low elevation observations were eliminated. Most likely, this effect is due to the deficiencies in the tropospheric delay models at the accuracy level of GPS carrier phase observations (see below).

4. DISCUSSION OF RESULTS

The results of the overall network adjustment are summarized in Table 2. This table lists for each of the 24 stations the estimated ellipsoidal coordinates in the WGS 72 system and the estimated standard deviations for latitude, longitude, and height in units of millimetres. These standard deviations pertain to coordinates relative to the fixed station *PG* and should not be interpreted as a measure for absolute coordinate accuracy. It can be seen that the standard deviations for stations *WA*, *RA*, *OK*, and *PN* vary between 4 mm and 15 mm, and for all other stations the standard deviations are between 1 mm and 5 mm. The four stations with higher standard deviations are connected to *PG* through those baselines where the carrier phase ambiguities could not be fixed to integers. Carrier phase measurements with unfixed ambiguities provide less geometric strength in the adjustment resulting in larger accuracy measures for the adjustment unknowns. Since the estimated standard deviations are based on the observation residuals, they merely reflect how good was the agreement between the adjustment model and the observations. Any unmodelled errors which could be absorbed by some of the parameters of the adjustment will not be reflected in the standard deviations. Therefore, the standard deviations given in Table 2 most likely overestimate the relative coordinate accuracy.

The two unmodelled or insufficiently accurately modelled error sources affecting the results presented in this report are errors in the ephemerides parameters used to compute the coordinates of the GPS satellites and deficiencies in the computation of the tropospheric delay correction. Most discussions in the literature attribute errors at the 1 ppm level to the GPS satellite orbits given by the broadcast ephemerides. Resulting baseline errors can be of the same order of magnitude, 1 ppm. In general, baseline errors resulting from orbital inaccuracies have no preferred direction but will be more or less common to all baselines observed simultaneously. The tropospheric delay correction applied to the carrier phases suffers from two errors. First, the surface meteorological data used in the delay computation does not always represent the state of the atmosphere adequately. Secondly,

TABLE 2: Station coordinates from network adjustment

	Latitude	Longitude	Height	S.D. [mm]
01 PG	48 38 54.87263	-123 27 4.63941	.8940	fixed station
02 LO	48 9 1.23174	-123 40 13.29823	307.3673	1 1 2
03 BM	47 57 18.02860	-123 15 35.31166	1809.7847	1 1 3
04 SL	48 15 39.68680	-124 14 26.14575	117.7476	1 1 3
05 TU	48 8 23.34892	-123 24 11.02633	-18.4183	1 2 3
06 DU	48 10 52.50382	-123 6 37.78407	-18.7348	1 1 3
07 DI	48 25 31.57382	-123 13 37.60732	11.2914	1 1 2
08 RR	48 17 55.19872	-123 31 56.10602	-8.6477	1 1 2
09 DO	48 29 34.98338	-123 20 49.09730	205.3259	1 1 2
10 SM	48 19 6.60234	-122 50 41.51940	-4.2804	1 2 3
11 WO	48 8 26.80852	-122 46 6.11308	60.0943	2 2 4
12 IC	48 25 11.46348	-122 53 5.82707	21.3524	1 1 3
13 SO	48 17 4.66108	-124 35 28.92610	577.1828	2 2 3
14 SH	48 22 38.80995	-123 55 23.27116	-2.5227	1 1 2
15 BE	48 19 45.96862	-123 39 26.29857	182.9513	1 1 2
16 BA	48 22 18.34436	-124 40 34.56795	418.1421	2 2 5
17 AR	48 27 26.97814	-124 12 24.82777	-6.1397	1 1 3
18 EL	48 9 30.24640	-124 18 53.65498	794.4553	2 2 4
19 BO	48 35 38.09495	-124 42 59.10322	-16.2742	2 2 4
20 WA	48 23 6.73867	-124 36 .19435	-7.5062	4 15 6
21 RA	49 5 2.52295	-125 50 29.51038	106.6248	6 11 5
22 OK	49 13 40.45757	-124 15 51.51894	451.1252	4 9 4
23 PN	49 19 21.23847	-119 37 12.37748	528.5388	4 9 5
24 PE	48 31 53.65983	-124 27 38.36594	-10.4586	2 2 4

the tropospheric delay model itself is based on some assumptions which are not always valid. Errors in the tropospheric delay corrections to GPS carrier phase observations will primarily lead to errors in the height component of baseline estimates (cf, Beutler and Gurtner [1987]). In general, tropospheric delay errors will be different for different stations and/or different observation sessions. Errors in the satellite orbit will vary from day to day. Therefore, differences in the baseline components obtained in the daily solutions and the overall network adjustment result will be a measure for the impact of these two errors.

Table 3 shows the differences in baseline components between the day-by-day solutions and the adjustment of the complete Juan de Fuca network. Column 1 identifies the baseline, and columns 2 and 3 contain the baseline length and height component respectively, as obtained from the overall network adjustment. Columns 4, 5, and 6 list the discrepancies between the two solutions in latitude, longitude, and height component respectively. Column 7 gives the length difference in millimetres, and column 8 in parts per million. Column 9 identifies the day of observation. Obviously, non-redundant baselines have zero discrepancies. These baselines are marked with an asterisk (*) in column 9. The following statistical measures are computed from the differences of the redundant baselines only. The r.m.s. of the baseline discrepancies in latitude and longitude is 4 mm and 5 mm respectively. The much larger r.m.s. of the height component differences of 22 mm points to insufficiently modelled tropospheric delays. The r.m.s. of the length differences is 0.1 ppm. Based on these figures, the following rather conservative accuracy estimate for the internal accuracy of the overall network adjustment can be formulated. *The accuracy of the horizontal baseline components (length and azimuth) is better than 0.3 ppm (one sigma), and the vertical baseline component accuracy is better than 30 mm (one sigma).*

A separate issue is the external accuracy of the adjustment result. The network orientation and scale will depend on the accuracy of the a priori WGS 72 coordinates of station *PG* which were held fixed in the least-squares adjustment. Investigations of the effect of this type of error are

TABLE 3: Discrepancies between daily solutions and overall network adjustment

Baseline	Length	Hgt Comp.	D Lat.	D Lon.	D Hgt.	D L.	D L.	Day
	[m]	[m]	[mm]	[mm]	[mm]	[mm]	[ppm]	
PG - DO	18932.016	204.432	0	0	-16	0	0.0	245
			2	1	-6	-2	-0.1	246
PG - SH	46089.601	-3.417	6	3	20	-3	-0.1	248
			2	-20	-30	14	0.3	251
PG - BE	38618.467	182.057	-4	-2	9	5	0.1	247
PG - AR	59691.572	-7.034	-5	5	-4	-2	0.0	249
PG - OK	87744.170	450.231	0	0	0	0	0.0	252*
PG - PN	290211.189	527.645	0	0	0	0	0.0	252*
LO - BM	37565.923	1502.417	0	1	0	0	0.0	244
LO - RR	19427.615	-316.015	-3	-1	3	-4	-0.2	245
LO - BE	19939.046	-124.416	2	0	-1	2	0.1	247
BM - SL	80604.363	-1692.037	2	2	-2	-1	0.0	244
SL - SO	26175.548	459.435	8	4	53	-2	-0.1	247
SL - SH	26869.293	-120.270	-2	2	-41	1	0.0	247
TU - RR	20103.086	9.771	0	0	0	0	0.0	245*
DU - DI	28497.508	30.026	5	1	-40	4	0.1	245
			-5	-1	38	-5	-0.2	246
DI - RR	26645.479	-19.939	1	1	-1	-1	0.0	245
DI - DO	11625.663	194.034	-2	2	20	-3	-0.3	245
			0	-2	-14	1	0.1	246
DI - IC	25332.282	10.061	0	0	0	0	0.0	246*
DO - BE	29306.481	-22.375	2	1	-12	-2	-0.1	246
SM - WO	20562.852	64.375	0	0	0	0	0.0	246*
SM - IC	11654.716	25.633	0	0	0	0	0.0	246*
SO - BA	11556.646	-159.041	0	0	0	0	0.0	247*
SO - AR	34370.445	-583.322	-3	-4	26	-6	-0.2	248
SO - EL	24883.396	217.272	0	0	0	0	0.0	248*
SH - BE	20413.103	185.474	0	1	8	1	0.0	247
SH - AR	22812.810	-3.617	1	2	-18	-1	0.0	247
			7	1	-16	2	0.1	248
SH - WA	50149.308	-4.984	0	0	0	0	0.0	251*
AR - BO	40577.407	-10.134	-7	-4	-21	1	0.0	248
AR - PE	20484.500	-4.319	5	3	15	0	0.0	249
BO - PE	20110.362	5.816	-6	-3	-17	-1	0.0	249
RA - OK	116156.244	344.500	0	0	0	0	0.0	252*

presently being undertaken and results will be made available to the Pacific Geoscience Centre after completion.

REFERENCES

- Beutler, G. and W. Gurtner (1987). *The influence of atmospheric refraction on the evaluation of GPS phase observations*. Satellitenbeobachtungsstation Zimmerwald, Bericht Nr. 16, Universität Bern.
- Dragert, H. (1987). Geodetic coordinates: JDF-86 GPS survey (WGS 72). Personal communication.
- Santerre, R. (1987). DIPOP Version 2.0: Structure, modifications and user's guide. Department of Surveying Engineering, University of New Brunswick, Fredericton, N.B. (draft).
- Santerre, R., A. Kleusberg, and G. Beutler (1985). DIPOP: Software documentation. Department of Surveying Engineering Technical Memorandum No. TM-6, University of New Brunswick, Fredericton, N.B.
- Vaníček, P., G. Beutler, A. Kleusberg, R.B. Langley, R. Santerre, and D.E. Wells (1985). DIPOP: Differential POSitioning Program package for the Global Positioning System. Department of Surveying Engineering Technical Report No. 115, University of New Brunswick, Fredericton, N.B.

APPENDIX A

This appendix contains listings of files associated with the adjustments for individual observation days. For each day, the MPROC and PPROC control file, a one-page processing summary, and the processing result file are included.

The control file contains ellipsoid parameters for the transformation between Cartesian and ellipsoidal coordinates, approximate station coordinates and associated standard deviations, and one block of information for each individual baseline observed. This information consists of the names for observation and weather files, the standard deviation of the carrier phase double difference observations, the number of clock parameters to be estimated (zero for TI 4100 observations), and in the last line parameters for dual or single frequency processing and ambiguity parameter estimation.

The processing summary contains for each individual baseline the observation file name, the number of clock parameters and ambiguities estimated, the number of observations for this baseline, and the cumulative number of observations.

The result file consists of three sections. First, the estimated carrier phase ambiguities, the ellipsoid parameters, and the estimated a posteriori variance factor are listed. Obviously, ambiguity parameters will only be listed if the integer ambiguity values have not been unambiguously determined in an a priori baseline adjustment, e.g., for day 252. For a processing of the ionospheric refraction free linear combination L3 of the L1 and L2 observations, the ambiguity numbers are noninteger linear combinations of the integer L1 and L2 ambiguities (c.f. Vaníček et al. [1985]). The second part contains for each observed baseline the a priori and a posteriori station coordinates and baseline components. The standard deviations for the station coordinates describe the estimated accuracy with respect to the fixed station; they are not to be interpreted as absolute

coordinate accuracy measure. The last part of the result file lists first the lower triangular part of the inverse of the adjustment normal equation matrix in units of m^2 . Multiplication with the a posteriori variance factor yields the estimated covariance matrix of the Cartesian station coordinates relative to the fixed station. The matrix is arranged to correspond to the sequence of stations as listed in the above described control file.

The second matrix listed yields the estimated covariance matrix of the ellipsoidal station coordinates, when multiplied by the a posteriori variance factor. The matrix is ordered according to the sequence of stations in the control file, and for each station in the sequence the latitude, the longitude, and the height. Again, this matrix describes the covariances relative to the fixed station; it should not be interpreted as a measure for the estimated accuracy of absolute coordinates.

**** COMMAND FILE FOR PROGRAMS MPROC & PPROC ****

===== FILE NAMES (A64) =====

1. MAIN PROCESSOR OUTPUT	FILE NAME:
2. INTERMEDIATE SOLUTION	FILE NAME:
3. FINAL SOLUTION (MPROC)	FILE NAME:
4. NUISANCE PARAMETERS	FILE NAME:
5. RESIDUALS	FILE NAME:
6. POST PROCESSOR OUTPUT	FILE NAME:
7. DISCREPENCIES	FILE NAME:
8. FINAL SOLUTION & COV. (PPROC)	FILE NAME:

 1. mpout
 2. inter
 3. mpfin
 4. nuisa
 5. resid
 6. ppout
 7. discr
 8. ppfin

OBSERVATION FILES, BINARY(0) OR ASCII(1): 1

===== LEAST-SQUARES ADJUSTMENT PARAMETERS =====

DEFAULT MSL METEOROLOGICAL VALUES P(MB), T(C), RH(%), CUTOFF ANGLE (DEG.)

1013.25 15.0 50.0 20.

TAKE INTO ACCOUNT DOUBLE DIFF. CORRELATION Y(1) ?

0

COMPUTATION OF RESIDUALS Y(1) ?

0

NUISANCE PARAMETERS SEQ. SOLUTION EACH N EPOCH ?

999

STATION COORDINATES SEQ. SOLUTION EACH M EPOCH ?

999

CROSS-CORRELATION VALUE OF COMPARISON ?

1.0

=== A-PRIORI STATION COORDINATES AND STD. DEVIATION (M) ===

CART.(1) OR GEOD.(2) COORDINATES OR PREVIOUS SOLUTION(3): 2

6378135.0	298.2600	0.000	0.000	0.000
## NN	SDD MM SS.SSSSS	SDDD MM SS.SSSSS	HHHH.HHH	
02 LO	+48 9 1.23134	-123 40 13.29937	307.404	
		1.0D-04	1.0D-04	1.0D-04
03 BM	+47 57 18.02830	-123 15 35.32163	1809.675	
		1.0D+04	1.0D+04	1.0D+04
04 SL	+48 15 39.68634	-124 14 26.14666	117.786	
		1.0D+04	1.0D+04	1.0D+04

-1

NN XXXXXXXX.XXX YYYYYYYY.YYY ZZZZZZZZ.ZZZ

===== SESSION BY SESSION INFORMATION =====

==> ENTER (ANSWER) THE FOLLOWING LINES FOR EACH OBSERVATION SESSION

1. DELIMITER (BLANK) LINE.
 2. OBS. & SAT. INFORMATION FILE NAME (A64)
 3. A-PRIORI STD. DEVIATION OF DOUBLE DIFFERENCE OBS. (MM) (*)
 4. FIRST METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 5. SECOND METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 6. #CLOCK PAR. (ST.2 WRT ST.1) AND RESPECTIVE STD. DEV. (SEC) (*)
 7. L1:1, L2:2, L1&L2:3; ESTIMATE AMB.? Y(1); ROUND-OFF AMB.? Y(1) (*)
-

```
:::JdFData:Data44:BMSL4R
 27
:::JdFData:Data44:BM44W
:::JdFData:Data44:SL44W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data44:LOBM4R
 15
:::JdFData:Data44:LO44W
:::JdFData:Data44:BM44W
0 1.0D-03 1.0D-03
3 0 0
```

DIPOP 2.0: Processing Summary, Network 44

SESSION: 1 :::JdFData:Data44:BMSL4R
STATIONS: BM SL, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 636, #OBS. TOTAL: 636

SESSION: 2 :::JdFData:Data44:LOBM4R
STATIONS: LO BM, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 660, #OBS. TOTAL: 1296

DIPOP 2.0: L3 Network 44
 =====

RE-EVALUATION OF NUISANCE PARAMETERS

REFERENCE ELLIPSOID
 AE = 6378135.0, F-1 = 298.2600, XE = .000, YE = .000, ZE = .000

A POSTERIORI VARIANCE FACTOR : 1.0440

BASELINE: STATION : LO AND STATION : BM
 =====

STATION NAME : LO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 9 1.23134
 LONGITUDE : -123 40 13.29937
 HEIGHT : 307.4040

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 9 1.23134 +/- 0 MM
 LONGITUDE : -123 40 13.29937 +/- 0 MM
 HEIGHT : 307.4040 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2363735.0514 M +/- 0 MM
 Y : -3548246.1734 M +/- 0 MM
 Z : 4728273.4570 M +/- 0 MM

STATION NAME : BM

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 47 57 18.02830
 LONGITUDE : -123 15 35.32163
 HEIGHT : 1809.6750

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 47 57 18.02819 +/- 1 MM
 LONGITUDE : -123 15 35.31284 +/- 1 MM
 HEIGHT : 1809.8218 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2347661.4283 M +/- 1 MM
 Y : -3579442.1537 M +/- 1 MM

Z : 4714870.1728 M +/- 1 MM

BASELINE : LO BM

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 11 43.20304
DELTA LONGITUDE : 0 24 37.97774
DELTA HEIGHT : 1502.2710

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 11 43.20315 +/- 1 MM
DELTA LONGITUDE : 0 24 37.98653 +/- 1 MM
DELTA HEIGHT : 1502.4178 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 16073.6231 M +/- 1 MM
DELTA Y : -31195.9803 M +/- 1 MM
DELTA Z : -13403.2842 M +/- 1 MM

BASELINE LENGTH : 37565.9230 M +/- 1 MM

AZIMUTH LO TO BM : 125 12 29.569 +/- .006 SEC
AZIMUTH BM TO LO : - 54 29 11.229 +/- .006 SEC

BASELINE: STATION : BM AND STATION : SL
=====

STATION NAME : BM

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 47 57 18.02830
LONGITUDE : -123 15 35.32163
HEIGHT : 1809.6750

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 47 57 18.02819 +/- 1 MM
LONGITUDE : -123 15 35.31284 +/- 1 MM
HEIGHT : 1809.8218 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2347661.4283 M +/- 1 MM
Y : -3579442.1537 M +/- 1 MM
Z : 4714870.1728 M +/- 1 MM

STATION NAME : SL

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 15 39.68634
 LONGITUDE : -124 14 26.14666
 HEIGHT : 117.7860

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 15 39.68633 +/- 2 MM
 LONGITUDE : -124 14 26.14702 +/- 2 MM
 HEIGHT : 117.7866 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2393697.2054 M +/- 3 MM
 Y : -3516855.8196 M +/- 2 MM
 Z : 4736334.5999 M +/- 3 MM

BASELINE : BM SL

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 18 21.65804
 DELTA LONGITUDE : - 0 58 50.82503
 DELTA HEIGHT : -1691.8890

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 18 21.65814 +/- 2 MM
 DELTA LONGITUDE : - 0 58 50.83418 +/- 2 MM
 DELTA HEIGHT : -1692.0352 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -46035.7771 M +/- 2 MM
 DELTA Y : 62586.3341 M +/- 2 MM
 DELTA Z : 21464.4271 M +/- 3 MM

BASELINE LENGTH : 80604.3648 M +/- 1 MM

AZIMUTH BM TO SL : - 64 39 21.638 +/- .005 SEC
 AZIMUTH SL TO BM : 114 36 50.016 +/- .005 SEC

INVERSE OF NORMAL EQUATION MATRIX (CARTESIAN)

0.100E-07
 0.650E-17 0.100E-07
 -0.303E-17 -0.960E-17 0.100E-07
 0.100E-07 0.248E-11 -0.464E-11 0.156E-05
 -0.806E-11 0.100E-07 0.111E-10 0.601E-06 0.137E-05
 0.250E-12 -0.146E-10 0.100E-07 -0.698E-06 -0.117E-05 0.205E-05
 0.100E-07 -0.380E-11 0.108E-10 0.156E-05 0.598E-06 -0.694E-06
 0.678E-05
 0.104E-10 0.999E-08 -0.930E-11 0.604E-06 0.137E-05 -0.118E-05
 0.278E-05 0.596E-05
 -0.284E-11 0.137E-10 0.100E-07 -0.697E-06 -0.117E-05 0.205E-05

A-9

-0.332E-05 -0.541E-05 0.959E-05

INVERSE OF NORMAL EQUATION MATRIX (ELLIPSOID)

0.100E-07						
0.235E-16	0.100E-07					
-0.115E-16	-0.173E-16	0.100E-07				
0.100E-07	-0.537E-10	0.407E-10	0.652E-06			
0.485E-10	0.100E-07	-0.568E-10	0.285E-06	0.952E-06		
-0.462E-10	0.596E-10	0.100E-07	-0.105E-06	-0.175E-06	0.337E-05	
0.100E-07	0.763E-10	-0.233E-10	0.657E-06	0.299E-06	-0.128E-06	
0.285E-05						
-0.666E-10	0.100E-07	0.787E-10	0.276E-06	0.946E-06	-0.128E-06	
0.125E-05	0.394E-05					
0.268E-10	-0.814E-10	0.100E-07	-0.104E-06	-0.187E-06	0.337E-05	
-0.329E-06	-0.703E-06	0.155E-04				

**** COMMAND FILE FOR PROGRAMS MPROC & PPROC ****

===== FILE NAMES (A64) =====

- 1. MAIN PROCESSOR OUTPUT FILE NAME:
- 2. INTERMEDIATE SOLUTION FILE NAME:
- 3. FINAL SOLUTION (MPROC) FILE NAME:
- 4. NUISANCE PARAMETERS FILE NAME:
- 5. RESIDUALS FILE NAME:
- 6. POST PROCESSOR OUTPUT FILE NAME:
- 7. DISCREPENCIES FILE NAME:
- 8. FINAL SOLUTION & COV. (PPROC) FILE NAME:

- 1. mpout
- 2. inter
- 3. mpfin
- 4. nuisa
- 5. resid
- 6. ppout
- 7. discr
- 8. ppfin

OBSERVATION FILES, BINARY(0) OR ASCII(1): 1

===== LEAST-SQUARES ADJUSTMENT PARAMETERS =====

DEFAULT MSL METEOROLOGICAL VALUES P(MB), T(C), RH(%), CUTOFF ANGLE (DEG.)
1013.25 15.0 50.0 20.

TAKE INTO ACCOUNT DOUBLE DIFF. CORRELATION Y(1) ?

0

COMPUTATION OF RESIDUALS Y(1) ?

0

NUISANCE PARAMETERS SEQ. SOLUTION EACH N EPOCH ?

999

STATION COORDINATES SEQ. SOLUTION EACH M EPOCH ?

999

CROSS-CORRELATION VALUE OF COMPARISON ?

1.0

=== A-PRIORI STATION COORDINATES AND STD. DEVIATION (M) ===

CART.(1) OR GEOD.(2) COORDINATES OR PREVIOUS SOLUTION(3): 2

##	NN	SDD	MM	SS.SSSSS	SDDD	MM	SS.SSSSS	HHHH.HHH
01	PG	+48	38	54.87263	-123	27	4.63941	0.894
				1.0D-04			1.0D-04	1.0D-04
02	LO	+48	9	1.23134	-123	40	13.29937	307.404
				1.0D+04			1.0D+04	1.0D+04
05	TU	+48	8	23.34869	-123	24	11.02665	-18.417
				1.0D+04			1.0D+04	1.0D+04
06	DU	+48	10	52.50371	-123	6	37.78416	-18.736
				1.0D+04			1.0D+04	1.0D+04
07	DI	+48	25	31.57361	-123	13	37.60758	11.3386
				1.0D+04			1.0D+04	1.0D+04
08	RR	+48	17	55.19845	-123	31	56.10601	-8.628
				1.0D+04			1.0D+04	1.0D+04
09	DO	+48	29	34.98328	-123	20	49.09734	205.336
				1.0D+04			1.0D+04	1.0D+04

-1

NN XXXXXXXX.XXX YYYYYYYY.YYY ZZZZZZZZ.ZZZ

===== SESSION BY SESSION INFORMATION =====

==> ENTER (ANSWER) THE FOLLOWING LINES FOR EACH OBSERVATION SESSION

1. DELIMITER (BLANK) LINE.
 2. OBS. & SAT. INFORMATION FILE NAME (A64)
 3. A-PRIORI STD. DEVIATION OF DOUBLE DIFFERENCE OBS. (MM) (*)
 4. FIRST METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 5. SECOND METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 6. #CLOCK PAR. (ST.2 WRT ST.1) AND RESPECTIVE STD. DEV. (SEC) (*)
 7. L1:1, L2:2, L1&L2:3; ESTIMATE AMB.? Y(1); ROUND-OFF AMB.? Y(1) (*)
-

```
:::JdFData:Data45:PGDO5S
  20
```

```
:::JdFData:Data45:PG45W
:::JdFData:Data45:DO45W
0  1.0D-03  1.0D-03
3  0  0
```

```
:::JdFData:Data45:PGDO5T
  20
```

```
:::JdFData:Data45:PG45W
:::JdFData:Data45:DO45W
0  1.0D-03  1.0D-03
3  0  0
```

```
:::JdFData:Data45:DODI5R
  18
```

```
:::JdFData:Data45:DO45W
:::JdFData:Data45:DI45W
0  1.0D-03  1.0D-03
3  0  0
```

```
:::JdFData:Data45:DIRR5R
  16
```

```
:::JdFData:Data45:DI45W
:::JdFData:Data45:RR45W
0  1.0D-03  1.0D-03
3  0  0
```

```
:::JdFData:Data45:RRLO5R
  20
```

```
:::JdFData:Data45:RR45W
:::JdFData:Data45:LO45W
0  1.0D-03  1.0D-03
3  0  0
```

```
:::JdFData:Data45:RRTU5R
  17
```

```
:::JdFData:Data45:RR45W
:::JdFData:Data45:TU45W
0  1.0D-03  1.0D-03
3  0  0
```

```
:::JdFData:Data45:DIDU5R
  19
```

```
:::JdFData:Data45:DI45W
:::JdFData:Data45:DU45W
0  1.0D-03  1.0D-03
3  0  0
```

DIPOP 2.0: Processing Summary, Network 45

```
=====
SESSION:   1   :::JdFData:Data45:PGDO5S
STATIONS:  PG DO, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 60, #OBS. TOTAL: 60

SESSION:   2   :::JdFData:Data45:PGDO5T
STATIONS:  PG DO, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 406, #OBS. TOTAL: 466

SESSION:   3   :::JdFData:Data45:DODI5R
STATIONS:  DO DI, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 615, #OBS. TOTAL: 1081

SESSION:   4   :::JdFData:Data45:DIRR5R
STATIONS:  DI RR, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 696, #OBS. TOTAL: 1777

SESSION:   5   :::JdFData:Data45:RRLO5R
STATIONS:  RR LO, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 546, #OBS. TOTAL: 2323

SESSION:   6   :::JdFData:Data45:RRTU5R
STATIONS:  RR TU, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 694, #OBS. TOTAL: 3017

SESSION:   7   :::JdFData:Data45:DIDU5R
STATIONS:  DI DU, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 686, #OBS. TOTAL: 3703
```

DIPOP 2.0: L3 Network 45
 =====

RE-EVALUATION OF NUISANCE PARAMETERS

REFERENCE ELLIPSOID

AE = 6378135.0, F-1 = 298.2600, XE = .000, YE = .000, ZE = .000

A POSTERIORI VARIANCE FACTOR : .9591

BASELINE: STATION : PG AND STATION : DO
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 38 54.87263	+/-	0 MM
LONGITUDE :	-123 27 4.63941	+/-	0 MM
HEIGHT :	.8940	+/-	0 MM

A POSTERIORI CARTESIAN COORDINATES

X :	-2327201.1570 M	+/-	0 MM
Y :	-3522520.5056 M	+/-	0 MM
Z :	4764828.6655 M	+/-	0 MM

STATION NAME : DO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98328
 LONGITUDE : -123 20 49.09734
 HEIGHT : 205.3360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 29 34.98337	+/-	1 MM
LONGITUDE :	-123 20 49.09730	+/-	1 MM
HEIGHT :	205.3415	+/-	3 MM

A POSTERIORI CARTESIAN COORDINATES

X :	-2327986.4745 M	+/-	1 MM
Y :	-3537697.0253 M	+/-	2 MM

Z : 4753538.0607 M +/- 3 MM

BASELINE : PG DO

 A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 9 19.88935
 DELTA LONGITUDE : 0 6 15.54207
 DELTA HEIGHT : 204.4420

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 9 19.88926 +/- 1 MM
 DELTA LONGITUDE : 0 6 15.54211 +/- 1 MM
 DELTA HEIGHT : 204.4475 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -785.3175 M +/- 1 MM
 DELTA Y : -15176.5196 M +/- 2 MM
 DELTA Z : -11290.6048 M +/- 3 MM

BASELINE LENGTH : 18932.0159 M +/- 1 MM

AZIMUTH PG TO DO : 155 57 55.038 +/- .015 SEC
 AZIMUTH DO TO PG : - 23 57 23.397 +/- .015 SEC

BASELINE: STATION : LO AND STATION : RR

=====

STATION NAME : LO

 A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 9 1.23134
 LONGITUDE : -123 40 13.29937
 HEIGHT : 307.4040

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 9 1.23153 +/- 2 MM
 LONGITUDE : -123 40 13.29824 +/- 3 MM
 HEIGHT : 307.4069 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2363735.0306 M +/- 3 MM
 Y : -3548246.1844 M +/- 3 MM
 Z : 4728273.4630 M +/- 4 MM

STATION NAME : RR

A-PRIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 17 55.19845
LONGITUDE : -123 31 56.10601
HEIGHT : -8.6280

A POSTERIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 17 55.19860 +/- 2 MM
LONGITUDE : -123 31 56.10596 +/- 2 MM
HEIGHT : -8.6108 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES
X : -2348264.3738 M +/- 2 MM
Y : -3543505.0692 M +/- 3 MM
Z : 4739025.8092 M +/- 3 MM

BASELINE : LO RR

A-PRIORI ELLIPSOID BASELINE COMPONENTS
DELTA LATITUDE : 0 8 53.96711
DELTA LONGITUDE : 0 8 17.19336
DELTA HEIGHT : -316.0320

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
DELTA LATITUDE : 0 8 53.96707 +/- 1 MM
DELTA LONGITUDE : 0 8 17.19228 +/- 1 MM
DELTA HEIGHT : -316.0177 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
DELTA X : 15470.6569 M +/- 2 MM
DELTA Y : 4741.1152 M +/- 2 MM
DELTA Z : 10752.3463 M +/- 2 MM

BASELINE LENGTH : 19427.6182 M +/- 2 MM

AZIMUTH LO TO RR : 31 50 16.202 +/- .013 SEC
AZIMUTH RR TO LO : -148 3 33.025 +/- .013 SEC

BASELINE: STATION : TU AND STATION : RR
=====

STATION NAME : TU

A-PRIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 8 23.34869
LONGITUDE : -123 24 11.02665
HEIGHT : -18.4170

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 8 23.34880 +/- 2 MM
 LONGITUDE : -123 24 11.02627 +/- 2 MM
 HEIGHT : -18.3814 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2347516.1286 M +/- 3 MM
 Y : -3559780.9945 M +/- 3 MM
 Z : 4727250.0524 M +/- 4 MM

STATION NAME : RR

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 17 55.19845
 LONGITUDE : -123 31 56.10601
 HEIGHT : -8.6280

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 17 55.19860 +/- 2 MM
 LONGITUDE : -123 31 56.10596 +/- 2 MM
 HEIGHT : -8.6108 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2348264.3738 M +/- 2 MM
 Y : -3543505.0692 M +/- 3 MM
 Z : 4739025.8092 M +/- 3 MM

BASELINE : TU RR

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 9 31.84976
 DELTA LONGITUDE : - 0 7 45.07936
 DELTA HEIGHT : 9.7890

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 9 31.84980 +/- 1 MM
 DELTA LONGITUDE : - 0 7 45.07969 +/- 1 MM
 DELTA HEIGHT : 9.7706 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : -748.2452 M +/- 1 MM
 DELTA Y : 16275.9253 M +/- 1 MM
 DELTA Z : 11775.7569 M +/- 2 MM

BASELINE LENGTH : 20103.0860 M +/- 1 MM

AZIMUTH TU TO RR : - 28 28 33.622 +/- .012 SEC
 AZIMUTH RR TO TU : 151 25 39.567 +/- .012 SEC

BASELINE: STATION : DU AND STATION : DI
 =====

STATION NAME : DU

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 10 52.50371
 LONGITUDE : -123 6 37.78416
 HEIGHT : -18.7360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 10 52.50391 +/- 2 MM
 LONGITUDE : -123 6 37.78390 +/- 2 MM
 HEIGHT : -18.7391 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327433.4071 M +/- 3 MM
 Y : -3568846.4489 M +/- 3 MM
 Z : 4730322.8317 M +/- 4 MM

STATION NAME : DI

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57361
 LONGITUDE : -123 13 37.60758
 HEIGHT : 11.3380

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57374 +/- 2 MM
 LONGITUDE : -123 13 37.60724 +/- 2 MM
 HEIGHT : 11.3271 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2323594.0172 M +/- 2 MM
 Y : -3547159.1802 M +/- 2 MM
 Z : 4748406.7802 M +/- 3 MM

BASELINE : DU DI

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 14 39.06990
 DELTA LONGITUDE : - 0 6 59.82342
 DELTA HEIGHT : 30.0740

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 14 39.06983 +/- 1 MM
 DELTA LONGITUDE : - 0 6 59.82333 +/- 1 MM

DELTA HEIGHT : 30.0662 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 3839.3899 M +/- 2 MM
 DELTA Y : 21687.2687 M +/- 1 MM
 DELTA Z : 18083.9485 M +/- 2 MM

BASELINE LENGTH : 28497.5039 M +/- 1 MM

AZIMUTH DU TO DI : - 17 37 46.788 +/- .009 SEC
 AZIMUTH DI TO DU : 162 16 59.738 +/- .009 SEC

BASELINE: STATION : DI AND STATION : RR

STATION NAME : DI

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57361
 LONGITUDE : -123 13 37.60758
 HEIGHT : 11.3380

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57374 +/- 2 MM
 LONGITUDE : -123 13 37.60724 +/- 2 MM
 HEIGHT : 11.3271 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2323594.0172 M +/- 2 MM
 Y : -3547159.1802 M +/- 2 MM
 Z : 4748406.7802 M +/- 3 MM

STATION NAME : RR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 55.19845
 LONGITUDE : -123 31 56.10601
 HEIGHT : -8.6280

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 55.19860 +/- 2 MM
 LONGITUDE : -123 31 56.10596 +/- 2 MM
 HEIGHT : -8.6108 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2348264.3738 M +/- 2 MM
 Y : -3543505.0692 M +/- 3 MM
 Z : 4739025.8092 M +/- 3 MM

BASELINE : DI RR

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 7 36.37516
 DELTA LONGITUDE : - 0 18 18.49843
 DELTA HEIGHT : -19.9660

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE :	- 0 7 36.37514	+/-	1 MM
DELTA LONGITUDE :	- 0 18 18.49872	+/-	1 MM
DELTA HEIGHT :	-19.9379	+/-	2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X :	-24670.3565 M	+/-	1 MM
DELTA Y :	3654.1110 M	+/-	1 MM
DELTA Z :	-9380.9709 M	+/-	1 MM

BASELINE LENGTH : 26645.4806 M +/- 1 MM

AZIMUTH DI TO RR : -121 49 35.826 +/- .005 SEC

AZIMUTH RR TO DI : 57 56 43.199 +/- .005 SEC

BASELINE: STATION : DI AND STATION : DO
 =====

STATION NAME : DI

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57361
 LONGITUDE : -123 13 37.60758
 HEIGHT : 11.3380

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 25 31.57374	+/-	2 MM
LONGITUDE :	-123 13 37.60724	+/-	2 MM
HEIGHT :	11.3271	+/-	4 MM

A POSTERIORI CARTESIAN COORDINATES

X :	-2323594.0172 M	+/-	2 MM
Y :	-3547159.1802 M	+/-	2 MM
Z :	4748406.7802 M	+/-	3 MM

STATION NAME : DO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98328
 LONGITUDE : -123 20 49.09734
 HEIGHT : 205.3360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98337 +/- 1 MM
 LONGITUDE : -123 20 49.09730 +/- 1 MM
 HEIGHT : 205.3415 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327986.4745 M +/- 1 MM
 Y : -3537697.0253 M +/- 2 MM
 Z : 4753538.0607 M +/- 3 MM

BASELINE : DI DO

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 3.40967
 DELTA LONGITUDE : - 0 7 11.48976
 DELTA HEIGHT : 193.9980

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 3.40963 +/- 1 MM
 DELTA LONGITUDE : - 0 7 11.49006 +/- 1 MM
 DELTA HEIGHT : 194.0144 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -4392.4573 M +/- 2 MM
 DELTA Y : 9462.1549 M +/- 1 MM
 DELTA Z : 5131.2805 M +/- 2 MM

BASELINE LENGTH : 11625.6654 M +/- 1 MM

AZIMUTH DI TO DO : - 49 39 9.001 +/- .023 SEC
 AZIMUTH DO TO DI : 130 15 28.026 +/- .023 SEC

INVERSE OF NORMAL EQUATION MATRIX (CARTESIAN)

0.100E-07						
0.766E-17	0.100E-07					
-0.368E-17	-0.258E-17	0.100E-07				
0.100E-07	-0.265E-11	0.151E-10	0.933E-05			
0.126E-11	0.100E-07	0.146E-10	0.346E-05	0.110E-04		
-0.124E-10	-0.206E-10	0.999E-08	-0.393E-05	-0.934E-05	0.162E-04	
0.100E-07	-0.397E-12	0.957E-11	0.610E-05	0.222E-05	-0.291E-05	
0.801E-05						
-0.323E-11	0.100E-07	0.170E-10	0.221E-05	0.753E-05	-0.687E-05	
0.293E-05	0.916E-05					
-0.981E-11	-0.243E-10	0.999E-08	-0.290E-05	-0.687E-05	0.121E-04	
-0.372E-05	-0.829E-05	0.146E-04				

0.100E-07	0.198E-11	0.249E-11	0.442E-05	0.157E-05	-0.216E-05
0.442E-05	0.157E-05	-0.216E-05	0.681E-05		
-0.828E-11	0.100E-07	0.194E-10	0.156E-05	0.606E-05	-0.560E-05
0.156E-05	0.606E-05	-0.560E-05	0.249E-05	0.820E-05	
-0.601E-11	-0.262E-10	0.999E-08	-0.214E-05	-0.561E-05	0.987E-05
-0.215E-05	-0.560E-05	0.987E-05	-0.322E-05	-0.741E-05	0.130E-04
0.100E-07	0.191E-11	-0.216E-13	0.442E-05	0.157E-05	-0.216E-05
0.442E-05	0.157E-05	-0.216E-05	0.442E-05	0.157E-05	-0.216E-05
0.442E-05					
-0.545E-11	0.100E-07	0.105E-10	0.156E-05	0.606E-05	-0.561E-05
0.156E-05	0.606E-05	-0.561E-05	0.157E-05	0.606E-05	-0.561E-05
0.157E-05	0.606E-05				
-0.200E-11	-0.135E-10	0.100E-07	-0.214E-05	-0.560E-05	0.986E-05
-0.214E-05	-0.560E-05	0.987E-05	-0.215E-05	-0.559E-05	0.987E-05
-0.215E-05	-0.560E-05	0.986E-05			
0.100E-07	-0.822E-12	0.902E-11	0.610E-05	0.222E-05	-0.291E-05
0.610E-05	0.222E-05	-0.291E-05	0.442E-05	0.156E-05	-0.215E-05
0.442E-05	0.156E-05	-0.214E-05	0.610E-05		
-0.445E-12	0.100E-07	0.107E-10	0.222E-05	0.753E-05	-0.687E-05
0.222E-05	0.753E-05	-0.688E-05	0.157E-05	0.606E-05	-0.561E-05
0.157E-05	0.606E-05	-0.560E-05	0.222E-05	0.753E-05	
-0.768E-11	-0.154E-10	0.999E-08	-0.290E-05	-0.687E-05	0.121E-04
-0.291E-05	-0.686E-05	0.121E-04	-0.216E-05	-0.560E-05	0.987E-05
-0.216E-05	-0.560E-05	0.986E-05	-0.291E-05	-0.687E-05	0.121E-04
0.100E-07	0.118E-11	0.941E-12	0.206E-05	0.661E-06	-0.132E-05
0.206E-05	0.660E-06	-0.132E-05	0.206E-05	0.659E-06	-0.132E-05
0.206E-05	0.660E-06	-0.132E-05	0.206E-05	0.661E-06	-0.132E-05
0.206E-05					
-0.320E-11	0.100E-07	0.657E-11	0.655E-06	0.381E-05	-0.383E-05
0.658E-06	0.380E-05	-0.383E-05	0.661E-06	0.380E-05	-0.383E-05
0.662E-06	0.381E-05	-0.383E-05	0.658E-06	0.381E-05	-0.383E-05
0.661E-06	0.381E-05				
-0.159E-11	-0.900E-11	0.100E-07	-0.131E-05	-0.382E-05	0.674E-05
-0.131E-05	-0.382E-05	0.674E-05	-0.132E-05	-0.382E-05	0.674E-05
-0.132E-05	-0.382E-05	0.674E-05	-0.131E-05	-0.382E-05	0.674E-05
-0.132E-05	-0.382E-05	0.674E-05			

INVERSE OF NORMAL EQUATION MATRIX (ELLIPSOID)

0.100E-07					
0.658E-18	0.100E-07				
-0.439E-17	-0.278E-17	0.100E-07			
0.100E-07	0.322E-10	0.102E-09	0.491E-05		
-0.256E-10	0.100E-07	0.285E-10	0.169E-05	0.665E-05	
-0.116E-09	-0.275E-10	0.100E-07	0.148E-06	0.104E-05	0.250E-04
0.100E-07	-0.341E-11	0.104E-09	0.315E-05	0.106E-05	0.652E-06
0.396E-05					
0.690E-11	0.100E-07	-0.792E-11	0.108E-05	0.450E-05	0.842E-06
0.144E-05	0.567E-05				
-0.119E-09	0.101E-10	0.100E-07	0.655E-06	0.923E-06	0.181E-04
0.549E-06	0.666E-06	0.221E-04			
0.999E-08	-0.433E-10	0.962E-10	0.245E-05	0.738E-06	0.767E-06
0.245E-05	0.743E-06	0.770E-06	0.344E-05		
0.415E-10	0.100E-07	-0.478E-10	0.775E-06	0.348E-05	0.985E-06
0.763E-06	0.348E-05	0.998E-06	0.117E-05	0.494E-05	
-0.110E-09	0.514E-10	0.100E-07	0.792E-06	0.112E-05	0.144E-04
0.791E-06	0.107E-05	0.144E-04	0.560E-06	0.758E-06	0.196E-04
0.100E-07	-0.296E-10	0.460E-10	0.245E-05	0.737E-06	0.697E-06

0.245E-05	0.743E-06	0.699E-06	0.244E-05	0.748E-06	0.704E-06
0.244E-05					
0.270E-10	0.100E-07	-0.314E-10	0.773E-06	0.348E-05	0.101E-05
0.760E-06	0.348E-05	0.102E-05	0.746E-06	0.347E-05	0.103E-05
0.746E-06	0.347E-05				
-0.530E-10	0.340E-10	0.100E-07	0.804E-06	0.112E-05	0.144E-04
0.803E-06	0.107E-05	0.144E-04	0.788E-06	0.101E-05	0.144E-04
0.717E-06	0.103E-05	0.144E-04			
0.100E-07	0.129E-10	0.715E-10	0.315E-05	0.106E-05	0.595E-06
0.315E-05	0.107E-05	0.598E-06	0.245E-05	0.766E-06	0.746E-06
0.245E-05	0.763E-06	0.758E-06	0.315E-05		
-0.889E-11	0.100E-07	0.994E-11	0.108E-05	0.449E-05	0.874E-06
0.106E-05	0.449E-05	0.890E-06	0.740E-06	0.348E-05	0.109E-05
0.740E-06	0.348E-05	0.109E-05	0.107E-05	0.449E-05	
-0.817E-10	-0.872E-11	0.100E-07	0.664E-06	0.919E-06	0.181E-04
0.665E-06	0.855E-06	0.181E-04	0.777E-06	0.994E-06	0.144E-04
0.707E-06	0.102E-05	0.144E-04	0.608E-06	0.886E-06	0.181E-04
0.100E-07	-0.137E-10	0.318E-10	0.126E-05	0.258E-06	0.926E-06
0.125E-05	0.259E-06	0.927E-06	0.125E-05	0.259E-06	0.929E-06
0.125E-05	0.259E-06	0.935E-06	0.125E-05	0.258E-06	0.931E-06
0.125E-05					
0.126E-10	0.100E-07	-0.148E-10	0.275E-06	0.199E-05	0.110E-05
0.268E-06	0.198E-05	0.110E-05	0.260E-06	0.198E-05	0.111E-05
0.257E-06	0.198E-05	0.111E-05	0.268E-06	0.199E-05	0.110E-05
0.258E-06	0.198E-05				
-0.369E-10	0.170E-10	0.100E-07	0.101E-05	0.114E-05	0.936E-05
0.101E-05	0.111E-05	0.937E-05	0.994E-06	0.108E-05	0.937E-05
0.949E-06	0.109E-05	0.938E-05	0.977E-06	0.113E-05	0.937E-05
0.937E-06	0.111E-05	0.938E-05			

**** COMMAND FILE FOR PROGRAMS MPROC & PPROC ****

===== FILE NAMES (A64) =====

1. MAIN PROCESSOR OUTPUT FILE NAME:
 2. INTERMEDIATE SOLUTION FILE NAME:
 3. FINAL SOLUTION (MPROC) FILE NAME:
 4. NUISANCE PARAMETERS FILE NAME:
 5. RESIDUALS FILE NAME:
 6. POST PROCESSOR OUTPUT FILE NAME:
 7. DISCREPENCIES FILE NAME:
 8. FINAL SOLUTION & COV. (PPROC) FILE NAME:

 1. mpout
 2. inter
 3. mpfin
 4. nuisa
 5. resid
 6. ppout
 7. discr
 8. ppfin

OBSERVATION FILES, BINARY(0) OR ASCII(1): 1

===== LEAST-SQUARES ADJUSTMENT PARAMETERS =====

DEFAULT MSL METEOROLOGICAL VALUES P(MB), T(C), RH(%), CUTOFF ANGLE (DEG.)

1013.25 15.0 50.0 20.

TAKE INTO ACCOUNT DOUBLE DIFF. CORRELATION Y(1) ?

0

COMPUTATION OF RESIDUALS Y(1) ?

0

NUISANCE PARAMETERS SEQ. SOLUTION EACH N EPOCH ?

999

STATION COORDINATES SEQ. SOLUTION EACH M EPOCH ?

999

CROSS-CORRELATION VALUE OF COMPARISON ?

1.0

=== A-PRIORI STATION COORDINATES AND STD. DEVIATION (M) ===

CART.(1) OR GEOD.(2) COORDINATES OR PREVIOUS SOLUTION(3): 2

##	NN	SDD	MM	SS.SSSSS	SDDD	MM	SS.SSSSS	HHHH.HHH
01	PG	+48	38	54.87263	-123	27	4.63941	0.894
				1.0D-04			1.0D-04	1.0D-04
06	DU	+48	10	52.50371	-123	6	37.78416	-18.736
				1.0D+04			1.0D+04	1.0D+04
07	DI	+48	25	31.57361	-123	13	37.60758	11.3386
				1.0D+04			1.0D+04	1.0D+04
09	DO	+48	29	34.98328	-123	20	49.09734	205.336
				1.0D+04			1.0D+04	1.0D+04
10	SM	+48	19	6.60177	-122	50	41.51904	-4.237
				1.0D+04			1.0D+04	1.0D+04
11	WO	+48	8	26.80849	-122	46	6.11279	60.059
				1.0D+04			1.0D+04	1.0D+04
12	IC	+48	25	11.46345	-122	53	5.82724	21.336
				1.0D+04			1.0D+04	1.0D+04
15	BE	+48	19	45.96846	-123	39	26.29911	182.945
				1.0D+04			1.0D+04	1.0D+04

-1

NN XXXXXXXX.XXX YYYYYYYY.YYY ZZZZZZZZ.ZZZ

===== SESSION BY SESSION INFORMATION =====

==> ENTER (ANSWER) THE FOLLOWING LINES FOR EACH OBSERVATION SESSION

1. DELIMITER (BLANK) LINE.
 2. OBS. & SAT. INFORMATION FILE NAME (A64)
 3. A-PRIORI STD. DEVIATION OF DOUBLE DIFFERENCE OBS. (MM) (*)
 4. FIRST METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 5. SECOND METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 6. #CLOCK PAR. (ST.2 WRT ST.1) AND RESPECTIVE STD. DEV. (SEC) (*)
 7. L1:1, L2:2, L1&L2:3; ESTIMATE AMB.? Y(1); ROUND-OFF AMB.? Y(1) (*)
-

:::JdFData:Data46:PGDO6R
22

:::JdFData:Data46:PG46W
:::JdFData:Data46:DO46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:DOBE6R
18

:::JdFData:Data46:DO46W
:::JdFData:Data46:BE46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:DODI6R
17

:::JdFData:Data46:DO46W
:::JdFData:Data46:DI46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:DIDU6R
18

:::JdFData:Data46:DI46W
:::JdFData:Data46:DU46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:DIIC6R
15

:::JdFData:Data46:DI46W
:::JdFData:Data46:IC46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:ICSM6R
13

:::JdFData:Data46:IC46W
:::JdFData:Data46:SM46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:SMWO6R
17

:::JdFData:Data46:SM46W
:::JdFData:Data46:WO46W

0	1.0D-03	1.0D-03
3	0	0

DIPOP 2.0: Processing Summary, Network 46

```
=====
SESSION:   1   :::JdFData:Data46:PGDO6R
STATIONS:  PG DO, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 663, #OBS. TOTAL: 663

SESSION:   2   :::JdFData:Data46:DOBE6R
STATIONS:  DO BE, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 691, #OBS. TOTAL: 1354

SESSION:   3   :::JdFData:Data46:DODI6R
STATIONS:  DO DI, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 693, #OBS. TOTAL: 2047

SESSION:   4   :::JdFData:Data46:DIDU6R
STATIONS:  DI DU, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 634, #OBS. TOTAL: 2681

SESSION:   5   :::JdFData:Data46:DIIC6R
STATIONS:  DI IC, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 696, #OBS. TOTAL: 3377

SESSION:   6   :::JdFData:Data46:ICSM6R
STATIONS:  IC SM, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 692, #OBS. TOTAL: 4069

SESSION:   7   :::JdFData:Data46:SMWO6R
STATIONS:  SM WO, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 686, #OBS. TOTAL: 4755
```

DIPOP 2.0: L3 Network 46
 =====

RE-EVALUATION OF NUISANCE PARAMETERS

REFERENCE ELLIPSOID
 AE = 6378135.0, F-1 = 298.2600, XE = .000, YE = .000, ZE = .000

A POSTERIORI VARIANCE FACTOR : 1.0210

BASELINE: STATION : PG AND STATION : DO
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : DO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98328
 LONGITUDE : -123 20 49.09734
 HEIGHT : 205.3360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98331 +/- 1 MM
 LONGITUDE : -123 20 49.09727 +/- 1 MM
 HEIGHT : 205.3320 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327986.4713 M +/- 2 MM

Y : -3537697.0215 M +/- 2 MM
Z : 4753538.0524 M +/- 2 MM

BASELINE : PG DO

A-PRIORI ELLIPSOID BASELINE COMPONENTS
DELTA LATITUDE : - 0 9 19.88935
DELTA LONGITUDE : 0 6 15.54207
DELTA HEIGHT : 204.4420

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
DELTA LATITUDE : - 0 9 19.88932 +/- 1 MM
DELTA LONGITUDE : 0 6 15.54214 +/- 1 MM
DELTA HEIGHT : 204.4380 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
DELTA X : -785.3143 M +/- 2 MM
DELTA Y : -15176.5158 M +/- 2 MM
DELTA Z : -11290.6131 M +/- 2 MM

BASELINE LENGTH : 18932.0178 M +/- 1 MM

AZIMUTH PG TO DO : 155 57 55.040 +/- .017 SEC
AZIMUTH DO TO PG : - 23 57 23.395 +/- .017 SEC

BASELINE: STATION : DU AND STATION : DI
=====

STATION NAME : DU

A-PRIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 10 52.50371
LONGITUDE : -123 6 37.78416
HEIGHT : -18.7360

A POSTERIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 10 52.50359 +/- 2 MM
LONGITUDE : -123 6 37.78419 +/- 2 MM
HEIGHT : -18.7052 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES
X : -2327433.4284 M +/- 3 MM
Y : -3568846.4708 M +/- 3 MM
Z : 4730322.8504 M +/- 3 MM

STATION NAME : DI

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57361
LONGITUDE : -123 13 37.60758
HEIGHT : 11.3380

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57376 +/- 1 MM
LONGITUDE : -123 13 37.60739 +/- 2 MM
HEIGHT : 11.2831 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2323594.0036 M +/- 2 MM
Y : -3547159.1537 M +/- 2 MM
Z : 4748406.7477 M +/- 3 MM

BASELINE : DU DI

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 14 39.06990
DELTA LONGITUDE : - 0 6 59.82342
DELTA HEIGHT : 30.0740

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 14 39.07017 +/- 1 MM
DELTA LONGITUDE : - 0 6 59.82320 +/- 1 MM
DELTA HEIGHT : 29.9883 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 3839.4248 M +/- 2 MM
DELTA Y : 21687.3171 M +/- 1 MM
DELTA Z : 18083.8973 M +/- 2 MM

BASELINE LENGTH : 28497.5130 M +/- 1 MM

AZIMUTH DU TO DI : - 17 37 46.746 +/- .010 SEC
AZIMUTH DI TO DU : 162 16 59.780 +/- .010 SEC

BASELINE: STATION : DI AND STATION : DO
=====

STATION NAME : DI

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57361
LONGITUDE : -123 13 37.60758
HEIGHT : 11.3380

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57376 +/- 1 MM
 LONGITUDE : -123 13 37.60739 +/- 2 MM
 HEIGHT : 11.2831 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2323594.0036 M +/- 2 MM
 Y : -3547159.1537 M +/- 2 MM
 Z : 4748406.7477 M +/- 3 MM

STATION NAME : DO

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 29 34.98328
 LONGITUDE : -123 20 49.09734
 HEIGHT : 205.3360

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 29 34.98331 +/- 1 MM
 LONGITUDE : -123 20 49.09727 +/- 1 MM
 HEIGHT : 205.3320 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2327986.4713 M +/- 2 MM
 Y : -3537697.0215 M +/- 2 MM
 Z : 4753538.0524 M +/- 2 MM

BASELINE : DI DO

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 4 3.40967
 DELTA LONGITUDE : - 0 7 11.48976
 DELTA HEIGHT : 193.9980

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 4 3.40955 +/- 1 MM
 DELTA LONGITUDE : - 0 7 11.48988 +/- 1 MM
 DELTA HEIGHT : 194.0489 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : -4392.4677 M +/- 1 MM
 DELTA Y : 9462.1322 M +/- 1 MM
 DELTA Z : 5131.3047 M +/- 2 MM

BASELINE LENGTH : 11625.6616 M +/- 1 MM

AZIMUTH DI TO DO : - 49 39 8.992 +/- .020 SEC
 AZIMUTH DO TO DI : 130 15 28.036 +/- .020 SEC

BASELINE: STATION : DI AND STATION : IC
 =====

STATION NAME : DI

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57361
 LONGITUDE : -123 13 37.60758
 HEIGHT : 11.3380

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57376 +/- 1 MM
 LONGITUDE : -123 13 37.60739 +/- 2 MM
 HEIGHT : 11.2831 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2323594.0036 M +/- 2 MM
 Y : -3547159.1537 M +/- 2 MM
 Z : 4748406.7477 M +/- 3 MM

STATION NAME : IC

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 11.46345
 LONGITUDE : -122 53 5.82724
 HEIGHT : 21.3360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 11.46342 +/- 2 MM
 LONGITUDE : -122 53 5.82713 +/- 2 MM
 HEIGHT : 21.3441 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2302625.5574 M +/- 3 MM
 Y : -3561367.7778 M +/- 2 MM
 Z : 4748002.0403 M +/- 3 MM

BASELINE : DI IC

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 0 20.11016
 DELTA LONGITUDE : 0 20 31.78034
 DELTA HEIGHT : 9.9980

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 0 20.11034 +/- 1 MM
 DELTA LONGITUDE : 0 20 31.78026 +/- 1 MM

DELTA HEIGHT : 10.0610 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 20968.4462 M +/- 1 MM
 DELTA Y : -14208.6241 M +/- 1 MM
 DELTA Z : -404.7074 M +/- 1 MM

BASELINE LENGTH : 25332.2822 M +/- 1 MM

AZIMUTH DI TO IC : 91 16 37.633 +/- .006 SEC

AZIMUTH IC TO DI : - 88 28 .920 +/- .006 SEC

BASELINE: STATION : DO AND STATION : BE

STATION NAME : DO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98328
 LONGITUDE : -123 20 49.09734
 HEIGHT : 205.3360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98331 +/- 1 MM
 LONGITUDE : -123 20 49.09727 +/- 1 MM
 HEIGHT : 205.3320 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327986.4713 M +/- 2 MM
 Y : -3537697.0215 M +/- 2 MM
 Z : 4753538.0524 M +/- 2 MM

STATION NAME : BE

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96846
 LONGITUDE : -123 39 26.29911
 HEIGHT : 182.9450

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96851 +/- 2 MM
 LONGITUDE : -123 39 26.29857 +/- 2 MM
 HEIGHT : 182.9689 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2354647.2843 M +/- 2 MM
 Y : -3536350.5277 M +/- 2 MM
 Z : 4741444.3373 M +/- 3 MM

BASELINE : DO BE

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 9 49.01482

DELTA LONGITUDE : - 0 18 37.20177

DELTA HEIGHT : -22.3910

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 9 49.01480 +/- 1 MM

DELTA LONGITUDE : - 0 18 37.20130 +/- 1 MM

DELTA HEIGHT : -22.3631 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -26660.8130 M +/- 1 MM

DELTA Y : 1346.4938 M +/- 1 MM

DELTA Z : -12093.7151 M +/- 2 MM

BASELINE LENGTH : 29306.4829 M +/- 1 MM

AZIMUTH DO TO BE : -128 15 37.454 +/- .006 SEC

AZIMUTH BE TO DO : 51 30 26.956 +/- .006 SEC

BASELINE: STATION : SM AND STATION : WO
=====

STATION NAME : SM

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 6.60177

LONGITUDE : -122 50 41.51904

HEIGHT : -4.2370

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 6.60227 +/- 2 MM

LONGITUDE : -122 50 41.51946 +/- 2 MM

HEIGHT : -4.2887 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2304692.8145 M +/- 3 MM

Y : -3570040.5849 M +/- 3 MM

Z : 4740495.9584 M +/- 3 MM

STATION NAME : WO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 8 26.80849
 LONGITUDE : -122 46 6.11279
 HEIGHT : 60.0590

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 8 26.80846 +/- 2 MM
 LONGITUDE : -122 46 6.11314 +/- 2 MM
 HEIGHT : 60.0860 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2307924.4383 M +/- 3 MM
 Y : -3585543.9357 M +/- 3 MM
 Z : 4727379.8010 M +/- 4 MM

BASELINE : SM WO

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 10 39.79328
 DELTA LONGITUDE : 0 4 35.40625
 DELTA HEIGHT : 64.2960

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 10 39.79382 +/- 1 MM
 DELTA LONGITUDE : 0 4 35.40632 +/- 1 MM
 DELTA HEIGHT : 64.3747 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -3231.6238 M +/- 1 MM
 DELTA Y : -15503.3507 M +/- 1 MM
 DELTA Z : -13116.1574 M +/- 2 MM

BASELINE LENGTH : 20562.8515 M +/- 1 MM

AZIMUTH SM TO WO : 163 55 32.939 +/- .012 SEC
 AZIMUTH WO TO SM : - 16 1 1.658 +/- .012 SEC

BASELINE: STATION : SM AND STATION : IC
 =====

STATION NAME : SM

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 6.60177
 LONGITUDE : -122 50 41.51904
 HEIGHT : -4.2370

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 6.60227 +/- 2 MM

LONGITUDE : -122 50 41.51946 +/- 2 MM
 HEIGHT : -4.2887 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2304692.8145 M +/- 3 MM
 Y : -3570040.5849 M +/- 3 MM
 Z : 4740495.9584 M +/- 3 MM

STATION NAME : IC

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 25 11.46345
 LONGITUDE : -122 53 5.82724
 HEIGHT : 21.3360

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 25 11.46342 +/- 2 MM
 LONGITUDE : -122 53 5.82713 +/- 2 MM
 HEIGHT : 21.3441 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2302625.5574 M +/- 3 MM
 Y : -3561367.7778 M +/- 2 MM
 Z : 4748002.0403 M +/- 3 MM

BASELINE : SM IC

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 6 4.86168
 DELTA LONGITUDE : - 0 2 24.30820
 DELTA HEIGHT : 25.5730

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 6 4.86114 +/- 1 MM
 DELTA LONGITUDE : - 0 2 24.30767 +/- 1 MM
 DELTA HEIGHT : 25.6328 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : 2067.2572 M +/- 1 MM
 DELTA Y : 8672.8072 M +/- 1 MM
 DELTA Z : 7506.0819 M +/- 1 MM

BASELINE LENGTH : 11654.7158 M +/- 1 MM

AZIMUTH SM TO IC : - 14 44 55.191 +/- .016 SEC
 AZIMUTH IC TO SM : 165 13 16.947 +/- .016 SEC

INVERSE OF NORMAL EQUATION MATRIX (CARTESIAN)

0.100E-07					
0.760E-17	0.100E-07				
-0.542E-17	-0.526E-17	0.100E-07			
0.100E-07	0.102E-11	0.256E-11	0.745E-05		
-0.754E-11	0.100E-07	0.190E-10	0.279E-05	0.659E-05	
-0.681E-11	-0.259E-10	0.999E-08	-0.311E-05	-0.560E-05	0.982E-05
0.100E-07	0.971E-12	-0.214E-12	0.510E-05	0.192E-05	-0.224E-05
0.510E-05					
-0.470E-11	0.100E-07	0.925E-11	0.192E-05	0.451E-05	-0.389E-05
0.192E-05	0.451E-05				
-0.243E-11	-0.131E-10	0.100E-07	-0.224E-05	-0.388E-05	0.676E-05
-0.224E-05	-0.389E-05	0.676E-05			
0.100E-07	0.301E-12	0.951E-12	0.321E-05	0.121E-05	-0.140E-05
0.321E-05	0.122E-05	-0.140E-05	0.321E-05		
-0.239E-11	0.100E-07	0.580E-11	0.122E-05	0.286E-05	-0.246E-05
0.122E-05	0.286E-05	-0.246E-05	0.122E-05	0.286E-05	
-0.217E-11	-0.848E-11	0.100E-07	-0.140E-05	-0.245E-05	0.428E-05
-0.140E-05	-0.246E-05	0.427E-05	-0.140E-05	-0.246E-05	0.427E-05
0.100E-07	0.348E-11	-0.617E-11	0.510E-05	0.192E-05	-0.225E-05
0.510E-05	0.193E-05	-0.224E-05	0.322E-05	0.122E-05	-0.140E-05
0.766E-05					
-0.118E-10	0.100E-07	0.170E-10	0.192E-05	0.451E-05	-0.389E-05
0.192E-05	0.451E-05	-0.388E-05	0.121E-05	0.286E-05	-0.245E-05
0.290E-05	0.677E-05				
-0.909E-12	-0.230E-10	0.999E-08	-0.224E-05	-0.388E-05	0.676E-05
-0.224E-05	-0.389E-05	0.676E-05	-0.140E-05	-0.246E-05	0.428E-05
-0.341E-05	-0.584E-05	0.101E-04			
0.100E-07	0.348E-11	-0.424E-11	0.510E-05	0.192E-05	-0.224E-05
0.510E-05	0.193E-05	-0.224E-05	0.322E-05	0.122E-05	-0.140E-05
0.766E-05	0.290E-05	-0.341E-05	0.958E-05		
-0.137E-10	0.100E-07	0.232E-10	0.192E-05	0.451E-05	-0.388E-05
0.192E-05	0.451E-05	-0.388E-05	0.121E-05	0.286E-05	-0.245E-05
0.289E-05	0.676E-05	-0.583E-05	0.362E-05	0.843E-05	
-0.388E-11	-0.321E-10	0.999E-08	-0.224E-05	-0.389E-05	0.676E-05
-0.224E-05	-0.389E-05	0.676E-05	-0.140E-05	-0.246E-05	0.428E-05
-0.342E-05	-0.584E-05	0.101E-04	-0.429E-05	-0.729E-05	0.127E-04
0.100E-07	0.352E-11	-0.735E-11	0.510E-05	0.192E-05	-0.225E-05
0.510E-05	0.193E-05	-0.224E-05	0.321E-05	0.122E-05	-0.140E-05
0.656E-05	0.248E-05	-0.291E-05	0.656E-05	0.248E-05	-0.291E-05
0.656E-05					
-0.108E-10	0.100E-07	0.134E-10	0.192E-05	0.451E-05	-0.389E-05
0.192E-05	0.451E-05	-0.388E-05	0.121E-05	0.286E-05	-0.245E-05
0.248E-05	0.579E-05	-0.500E-05	0.248E-05	0.579E-05	-0.500E-05
0.248E-05	0.580E-05				
0.831E-12	-0.178E-10	0.100E-07	-0.223E-05	-0.388E-05	0.676E-05
-0.224E-05	-0.389E-05	0.676E-05	-0.140E-05	-0.246E-05	0.427E-05
-0.290E-05	-0.499E-05	0.868E-05	-0.290E-05	-0.499E-05	0.868E-05
-0.290E-05	-0.499E-05	0.868E-05			
0.100E-07	-0.260E-11	0.108E-10	0.321E-05	0.121E-05	-0.140E-05
0.321E-05	0.121E-05	-0.140E-05	0.321E-05	0.121E-05	-0.140E-05
0.322E-05	0.121E-05	-0.140E-05	0.322E-05	0.121E-05	-0.140E-05
0.321E-05	0.121E-05	-0.140E-05	0.534E-05		
0.256E-11	0.100E-07	0.708E-11	0.122E-05	0.286E-05	-0.246E-05
0.122E-05	0.286E-05	-0.246E-05	0.122E-05	0.286E-05	-0.246E-05
0.122E-05	0.286E-05	-0.246E-05	0.122E-05	0.286E-05	-0.246E-05

0.122E-05	0.286E-05	-0.246E-05	0.202E-05	0.473E-05	
-0.869E-11	-0.120E-10	0.999E-08	-0.140E-05	-0.245E-05	0.428E-05
-0.140E-05	-0.246E-05	0.427E-05	-0.140E-05	-0.246E-05	0.427E-05
-0.141E-05	-0.245E-05	0.428E-05	-0.141E-05	-0.245E-05	0.428E-05
-0.141E-05	-0.246E-05	0.428E-05	-0.232E-05	-0.405E-05	0.703E-05

INVERSE OF NORMAL EQUATION MATRIX (ELLIPSOID)

0.100E-07					
0.301E-17	0.100E-07				
-0.565E-17	-0.481E-17	0.100E-07			
0.999E-08	-0.428E-10	0.965E-10	0.324E-05		
0.414E-10	0.100E-07	-0.474E-10	0.144E-05	0.464E-05	
-0.109E-09	0.498E-10	0.100E-07	-0.498E-06	-0.674E-06	0.160E-04
0.100E-07	-0.287E-10	0.458E-10	0.214E-05	0.952E-06	-0.394E-06
0.214E-05					
0.272E-10	0.100E-07	-0.310E-10	0.940E-06	0.316E-05	-0.495E-06
0.948E-06	0.316E-05				
-0.520E-10	0.325E-10	0.100E-07	-0.326E-06	-0.514E-06	0.111E-04
-0.383E-06	-0.495E-06	0.111E-04			
0.100E-07	-0.130E-10	0.318E-10	0.136E-05	0.606E-06	-0.259E-06
0.137E-05	0.603E-06	-0.253E-06	0.137E-05		
0.128E-10	0.100E-07	-0.145E-10	0.593E-06	0.199E-05	-0.287E-06
0.597E-06	0.199E-05	-0.287E-06	0.601E-06	0.199E-05	
-0.361E-10	0.153E-10	0.100E-07	-0.205E-06	-0.314E-06	0.700E-05
-0.241E-06	-0.302E-06	0.699E-05	-0.251E-06	-0.290E-06	0.699E-05
0.999E-08	-0.797E-10	0.685E-10	0.213E-05	0.934E-06	-0.366E-06
0.214E-05	0.930E-06	-0.356E-06	0.136E-05	0.586E-06	-0.224E-06
0.317E-05					
0.729E-10	0.100E-07	-0.833E-10	0.952E-06	0.317E-05	-0.555E-06
0.960E-06	0.317E-05	-0.555E-06	0.611E-06	0.200E-05	-0.340E-06
0.139E-05	0.476E-05				
-0.773E-10	0.869E-10	0.100E-07	-0.327E-06	-0.499E-06	0.111E-04
-0.384E-06	-0.480E-06	0.111E-04	-0.253E-06	-0.278E-06	0.699E-05
-0.548E-06	-0.838E-06	0.166E-04			
0.999E-08	-0.885E-10	0.105E-09	0.213E-05	0.929E-06	-0.326E-06
0.213E-05	0.925E-06	-0.315E-06	0.136E-05	0.583E-06	-0.198E-06
0.316E-05	0.139E-05	-0.486E-06	0.392E-05		
0.825E-10	0.100E-07	-0.941E-10	0.955E-06	0.317E-05	-0.567E-06
0.963E-06	0.317E-05	-0.567E-06	0.613E-06	0.200E-05	-0.347E-06
0.140E-05	0.476E-05	-0.857E-06	0.173E-05	0.595E-05	
-0.118E-09	0.986E-10	0.100E-07	-0.335E-06	-0.499E-06	0.111E-04
-0.391E-06	-0.480E-06	0.111E-04	-0.258E-06	-0.278E-06	0.699E-05
-0.559E-06	-0.839E-06	0.166E-04	-0.630E-06	-0.109E-05	0.208E-04
0.999E-08	-0.752E-10	0.477E-10	0.213E-05	0.937E-06	-0.390E-06
0.214E-05	0.933E-06	-0.379E-06	0.136E-05	0.588E-06	-0.238E-06
0.272E-05	0.121E-05	-0.496E-06	0.272E-05	0.121E-05	-0.506E-06
0.273E-05					
0.678E-10	0.100E-07	-0.776E-10	0.951E-06	0.317E-05	-0.548E-06
0.958E-06	0.317E-05	-0.548E-06	0.610E-06	0.200E-05	-0.335E-06
0.120E-05	0.407E-05	-0.702E-06	0.119E-05	0.408E-05	-0.703E-06
0.120E-05	0.407E-05				
-0.538E-10	0.808E-10	0.100E-07	-0.322E-06	-0.499E-06	0.111E-04
-0.379E-06	-0.480E-06	0.111E-04	-0.250E-06	-0.278E-06	0.699E-05
-0.461E-06	-0.710E-06	0.142E-04	-0.408E-06	-0.726E-06	0.142E-04
-0.491E-06	-0.702E-06	0.142E-04			
0.100E-07	0.304E-10	0.648E-10	0.137E-05	0.613E-06	-0.237E-06
0.137E-05	0.611E-06	-0.231E-06	0.137E-05	0.608E-06	-0.230E-06

0.136E-05	0.618E-06	-0.231E-06	0.136E-05	0.620E-06	-0.236E-06
0.136E-05	0.617E-06	-0.228E-06	0.227E-05		
-0.236E-10	0.100E-07	0.275E-10	0.587E-06	0.199E-05	-0.257E-06
0.591E-06	0.199E-05	-0.257E-06	0.595E-06	0.199E-05	-0.259E-06
0.580E-06	0.199E-05	-0.248E-06	0.577E-06	0.200E-05	-0.248E-06
0.582E-06	0.199E-05	-0.247E-06	0.100E-05	0.329E-05	
-0.732E-10	-0.279E-10	0.100E-07	-0.213E-06	-0.325E-06	0.700E-05
-0.249E-06	-0.312E-06	0.700E-05	-0.259E-06	-0.301E-06	0.700E-05
-0.231E-06	-0.350E-06	0.700E-05	-0.205E-06	-0.358E-06	0.700E-05
-0.246E-06	-0.346E-06	0.700E-05	-0.411E-06	-0.471E-06	0.115E-04

**** COMMAND FILE FOR PROGRAMS MPROC & PPROC ****

===== FILE NAMES (A64) =====

1. MAIN PROCESSOR OUTPUT	FILE NAME:
2. INTERMEDIATE SOLUTION	FILE NAME:
3. FINAL SOLUTION (MPROC)	FILE NAME:
4. NUISANCE PARAMETERS	FILE NAME:
5. RESIDUALS	FILE NAME:
6. POST PROCESSOR OUTPUT	FILE NAME:
7. DISCREPENCIES	FILE NAME:
8. FINAL SOLUTION & COV. (PPROC)	FILE NAME:

 1. mpout
 2. inter
 3. mpfin
 4. nuisa
 5. resid
 6. ppout
 7. discr
 8. ppfin

OBSERVATION FILES, BINARY(0) OR ASCII(1): 1

===== LEAST-SQUARES ADJUSTMENT PARAMETERS =====

DEFAULT MSL METEOROLOGICAL VALUES P(MB), T(C), RH(%), CUTOFF ANGLE (DEG.)

1013.25 15.0 50.0 20.

TAKE INTO ACCOUNT DOUBLE DIFF. CORRELATION Y(1) ?

0

COMPUTATION OF RESIDUALS Y(1) ?

0

NUISANCE PARAMETERS SEQ. SOLUTION EACH N EPOCH ?

999

STATION COORDINATES SEQ. SOLUTION EACH M EPOCH ?

999

CROSS-CORRELATION VALUE OF COMPARISON ?

1.0

=== A-PRIORI STATION COORDINATES AND STD. DEVIATION (M) ===

CART.(1) OR GEOD.(2) COORDINATES OR PREVIOUS SOLUTION(3): 2

6378135.0	298.2600	0.000	0.000	0.000	
## NN	SDD MM SS.SSSSS	SDDD MM SS.SSSSS	HHHH.HHH		
01 PG	+48 38 54.87263	-123 27 4.63941	0.894		
	1.0D-04	1.0D-04	1.0D-04		
02 LO	+48 9 1.23134	-123 40 13.29937	307.404		
	1.0D+04	1.0D+04	1.0D+04		
04 SL	+48 15 39.68634	-124 14 26.14666	117.786		
	1.0D+04	1.0D+04	1.0D+04		
13 SO	+48 17 4.66031	-124 35 28.92762	577.178		
	1.0D+04	1.0D+04	1.0D+04		
14 SH	+48 22 38.80975	-123 55 23.27166	-2.499		
	1.0D+04	1.0D+04	1.0D+04		
15 BE	+48 19 45.96846	-123 39 26.29911	182.945		
	1.0D+04	1.0D+04	1.0D+04		
16 BA	+48 22 18.34370	-124 40 34.56994	418.174		
	1.0D+04	1.0D+04	1.0D+04		
17 AR	+48 27 26.97759	-124 12 24.82933	-6.070		
	1.0D+04	1.0D+04	1.0D+04		

-1

NN XXXXXXXX.XXX YYYYYYYY.YYY ZZZZZZZZ.ZZZ

===== SESSION BY SESSION INFORMATION =====

==> ENTER (ANSWER) THE FOLLOWING LINES FOR EACH OBSERVATION SESSION

1. DELIMITER (BLANK) LINE.
 2. OBS. & SAT. INFORMATION FILE NAME (A64)
 3. A-PRIORI STD. DEVIATION OF DOUBLE DIFFERENCE OBS. (MM) (*)
 4. FIRST METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 5. SECOND METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 6. #CLOCK PAR. (ST.2 WRT ST.1) AND RESPECTIVE STD. DEV. (SEC) (*)
 7. L1:1, L2:2, L1&L2:3; ESTIMATE AMB.? Y(1); ROUND-OFF AMB.? Y(1) (*)
-

:::JdFData:Data47:PGBE7R

21

:::JdFData:Data47:PG47W

:::JdFData:Data47:BE47W

0 1.0D-03 1.0D-03

3 0 0

:::JdFData:Data47:LOBE7R

19

:::JdFData:Data47:LO47W

:::JdFData:Data47:BE47W

0 1.0D-03 1.0D-03

3 0 0

:::JdFData:Data47:SHBE7R

20

:::JdFData:Data47:SH47W

:::JdFData:Data47:BE47W

0 1.0D-03 1.0D-03

3 0 0

:::JdFData:Data47:ARSH7R

22

:::JdFData:Data47:AR47W

:::JdFData:Data47:SH47W

0 1.0D-03 1.0D-03

3 0 0

:::JdFData:Data47:SHSL7R

30

:::JdFData:Data47:SH47W

:::JdFData:Data47:SL47W

0 1.0D-03 1.0D-03

3 0 0

:::JdFData:Data47:SOSL7R

28

:::JdFData:Data47:SO47W

:::JdFData:Data47:SL47W

0 1.0D-03 1.0D-03

3 0 0

:::JdFData:Data47:SOBA7R

20

:::JdFData:Data47:SO47W

:::JdFData:Data47:BA47W

0 1.0D-03 1.0D-03
3 0 0

DIPOP 2.0: Processing Summary, Network 47

```
=====
SESSION: 1   :::JdFData:Data47:PGBE7R
STATIONS: PG BE, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 715, #OBS. TOTAL: 715

SESSION: 2   :::JdFData:Data47:LOBE7R
STATIONS: LO BE, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 740, #OBS. TOTAL: 1455

SESSION: 3   :::JdFData:Data47:SHBE7R
STATIONS: SH BE, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 759, #OBS. TOTAL: 2214

SESSION: 4   :::JdFData:Data47:ARSH7R
STATIONS: AR SH, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 674, #OBS. TOTAL: 2888

SESSION: 5   :::JdFData:Data47:SHSL7R
STATIONS: SH SL, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 722, #OBS. TOTAL: 3610

SESSION: 6   :::JdFData:Data47:SOSL7R
STATIONS: SO SL, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 647, #OBS. TOTAL: 4257

SESSION: 7   :::JdFData:Data47:SOBA7R
STATIONS: SO BA, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 453, #OBS. TOTAL: 4710
```

DIPOP 2.0: L3 Network 47
 =====

RE-EVALUATION OF NUISANCE PARAMETERS

REFERENCE ELLIPSOID
 AE = 6378135.0, F-1 = 298.2600, XE = .000, YE = .000, ZE = .000

A POSTERIORI VARIANCE FACTOR : 1.0013

BASELINE: STATION : PG AND STATION : BE
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : BE

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96846
 LONGITUDE : -123 39 26.29911
 HEIGHT : 182.9450

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96877 +/- 1 MM
 LONGITUDE : -123 39 26.29846 +/- 1 MM
 HEIGHT : 182.9420 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2354647.2691 M +/- 2 MM
 Y : -3536350.5091 M +/- 2 MM

Z : 4741444.3224 M +/- 2 MM

BASELINE : PG BE

A-PRIORI ELLIPSOID BASELINE COMPONENTS
DELTA LATITUDE : - 0 19 8.90417
DELTA LONGITUDE : - 0 12 21.65970
DELTA HEIGHT : 182.0510

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
DELTA LATITUDE : - 0 19 8.90386 +/- 1 MM
DELTA LONGITUDE : - 0 12 21.65905 +/- 1 MM
DELTA HEIGHT : 182.0480 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
DELTA X : -27446.1120 M +/- 2 MM
DELTA Y : -13830.0035 M +/- 2 MM
DELTA Z : -23384.3431 M +/- 2 MM

BASELINE LENGTH : 38618.4614 M +/- 1 MM

AZIMUTH PG TO BE : -156 41 54.334 +/- .006 SEC
AZIMUTH BE TO PG : 23 8 50.294 +/- .006 SEC

BASELINE: STATION : LO AND STATION : BE

STATION NAME : LO

A-PRIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 9 1.23134
LONGITUDE : -123 40 13.29937
HEIGHT : 307.4040

A POSTERIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 9 1.23195 +/- 2 MM
LONGITUDE : -123 40 13.29811 +/- 2 MM
HEIGHT : 307.3569 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES
X : -2363735.0045 M +/- 2 MM
Y : -3548246.1501 M +/- 2 MM
Z : 4728273.4344 M +/- 3 MM

STATION NAME : BE

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96846
 LONGITUDE : -123 39 26.29911
 HEIGHT : 182.9450

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96877 +/- 1 MM
 LONGITUDE : -123 39 26.29846 +/- 1 MM
 HEIGHT : 182.9420 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2354647.2691 M +/- 2 MM
 Y : -3536350.5091 M +/- 2 MM
 Z : 4741444.3224 M +/- 2 MM

BASELINE : LO BE

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 10 44.73712
 DELTA LONGITUDE : 0 0 47.00026
 DELTA HEIGHT : -124.4590

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 10 44.73683 +/- 1 MM
 DELTA LONGITUDE : 0 0 46.99965 +/- 1 MM
 DELTA HEIGHT : -124.4149 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 9087.7355 M +/- 2 MM
 DELTA Y : 11895.6410 M +/- 1 MM
 DELTA Z : 13170.8881 M +/- 2 MM

BASELINE LENGTH : 19939.0447 M +/- 1 MM

AZIMUTH LO TO BE : 2 46 58.774 +/- .011 SEC

AZIMUTH BE TO LO : -177 12 26.168 +/- .011 SEC

BASELINE: STATION : SL AND STATION : SO
 =====

STATION NAME : SL

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 15 39.68634
 LONGITUDE : -124 14 26.14666
 HEIGHT : 117.7860

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 15 39.68687 +/- 3 MM
 LONGITUDE : -124 14 26.14552 +/- 2 MM
 HEIGHT : 117.7053 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2393697.1424 M +/- 3 MM
 Y : -3516855.7819 M +/- 3 MM
 Z : 4736334.5503 M +/- 4 MM

STATION NAME : SO

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 17 4.66031
 LONGITUDE : -124 35 28.92762
 HEIGHT : 577.1780

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 17 4.66090 +/- 3 MM
 LONGITUDE : -124 35 28.92607 +/- 3 MM
 HEIGHT : 577.0873 +/- 7 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2414244.2625 M +/- 4 MM
 Y : -3500774.4973 M +/- 4 MM
 Z : 4738424.4184 M +/- 6 MM

BASELINE : SL SO

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 1 24.97397
 DELTA LONGITUDE : - 0 21 2.78096
 DELTA HEIGHT : 459.3920

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 1 24.97403 +/- 2 MM
 DELTA LONGITUDE : - 0 21 2.78055 +/- 2 MM
 DELTA HEIGHT : 459.3820 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : -20547.1200 M +/- 2 MM
 DELTA Y : 16081.2846 M +/- 3 MM
 DELTA Z : 2089.8681 M +/- 4 MM

BASELINE LENGTH : 26175.5498 M +/- 2 MM

AZIMUTH SL TO SO : - 84 6 47.338 +/- .013 SEC
 AZIMUTH SO TO SL : 95 37 30.215 +/- .013 SEC

BASELINE: STATION : SL AND STATION : SH
 =====

STATION NAME : SL

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 15 39.68634
 LONGITUDE : -124 14 26.14666
 HEIGHT : 117.7860

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 15 39.68687 +/- 3 MM
 LONGITUDE : -124 14 26.14552 +/- 2 MM
 HEIGHT : 117.7053 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2393697.1424 M +/- 3 MM
 Y : -3516855.7819 M +/- 3 MM
 Z : 4736334.5503 M +/- 4 MM

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166
 HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.81011 +/- 2 MM
 LONGITUDE : -123 55 23.27101 +/- 2 MM
 HEIGHT : -2.5238 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2368733.6570 M +/- 2 MM
 Y : -3521975.3380 M +/- 2 MM
 Z : 4744853.5544 M +/- 3 MM

BASELINE : SL SH

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 6 59.12341
 DELTA LONGITUDE : 0 19 2.87500
 DELTA HEIGHT : -120.2850

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 6 59.12324 +/- 2 MM
 DELTA LONGITUDE : 0 19 2.87452 +/- 2 MM

DELTA HEIGHT : -120.2291 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 24963.4854 M +/- 2 MM
 DELTA Y : -5119.5561 M +/- 2 MM
 DELTA Z : 8519.0041 M +/- 3 MM

BASELINE LENGTH : 26869.2927 M +/- 2 MM

AZIMUTH SL TO SH : 61 4 38.700 +/- .011 SEC
 AZIMUTH SH TO SL : -118 41 7.734 +/- .011 SEC

BASELINE: STATION : SO AND STATION : BA
 =====

STATION NAME : SO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 4.66031
 LONGITUDE : -124 35 28.92762
 HEIGHT : 577.1780

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 4.66090 +/- 3 MM
 LONGITUDE : -124 35 28.92607 +/- 3 MM
 HEIGHT : 577.0873 +/- 7 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2414244.2625 M +/- 4 MM
 Y : -3500774.4973 M +/- 4 MM
 Z : 4738424.4184 M +/- 6 MM

STATION NAME : BA

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 18.34370
 LONGITUDE : -124 40 34.56994
 HEIGHT : 418.1740

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 18.34419 +/- 4 MM
 LONGITUDE : -124 40 34.56793 +/- 3 MM
 HEIGHT : 418.0466 +/- 8 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2415250.9287 M +/- 5 MM
 Y : -3491153.9486 M +/- 5 MM
 Z : 4744748.0045 M +/- 6 MM

BASELINE : SO BA

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 5 13.68339
 DELTA LONGITUDE : - 0 5 5.64232
 DELTA HEIGHT : -159.0040

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 5 13.68329 +/- 2 MM
 DELTA LONGITUDE : - 0 5 5.64186 +/- 1 MM
 DELTA HEIGHT : -159.0407 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -1006.6663 M +/- 2 MM
 DELTA Y : 9620.5487 M +/- 2 MM
 DELTA Z : 6323.5862 M +/- 3 MM

BASELINE LENGTH : 11556.6464 M +/- 1 MM

AZIMUTH SO TO BA : - 32 58 55.334 +/- .034 SEC
 AZIMUTH BA TO SO : 146 57 16.369 +/- .034 SEC

BASELINE: STATION : SH AND STATION : BE
 =====

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166
 HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.81011 +/- 2 MM
 LONGITUDE : -123 55 23.27101 +/- 2 MM
 HEIGHT : -2.5238 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2368733.6570 M +/- 2 MM
 Y : -3521975.3380 M +/- 2 MM
 Z : 4744853.5544 M +/- 3 MM

STATION NAME : BE

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96846
 LONGITUDE : -123 39 26.29911
 HEIGHT : 182.9450

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96877 +/- 1 MM
 LONGITUDE : -123 39 26.29846 +/- 1 MM
 HEIGHT : 182.9420 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2354647.2691 M +/- 2 MM
 Y : -3536350.5091 M +/- 2 MM
 Z : 4741444.3224 M +/- 2 MM

BASELINE : SH BE

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 2 52.84129
 DELTA LONGITUDE : 0 15 56.97255
 DELTA HEIGHT : 185.4440

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 2 52.84133 +/- 1 MM
 DELTA LONGITUDE : 0 15 56.97255 +/- 1 MM
 DELTA HEIGHT : 185.4658 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 14086.3879 M +/- 2 MM
 DELTA Y : -14375.1711 M +/- 2 MM
 DELTA Z : -3409.2319 M +/- 2 MM

BASELINE LENGTH : 20413.1019 M +/- 1 MM

AZIMUTH SH TO BE : 105 3 45.580 +/- .013 SEC
 AZIMUTH BE TO SH : - 74 44 19.318 +/- .013 SEC

BASELINE: STATION : SH AND STATION : AR
 =====

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166
 HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.81011 +/- 2 MM

LONGITUDE : -123 55 23.27101 +/- 2 MM
 HEIGHT : -2.5238 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2368733.6570 M +/- 2 MM
 Y : -3521975.3380 M +/- 2 MM
 Z : 4744853.5544 M +/- 3 MM

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 27 26.97759
 LONGITUDE : -124 12 24.82933
 HEIGHT : -6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 27 26.97826 +/- 3 MM
 LONGITUDE : -124 12 24.82772 +/- 2 MM
 HEIGHT : -6.1229 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2382403.2791 M +/- 4 MM
 Y : -3504692.4655 M +/- 3 MM
 Z : 4750758.4790 M +/- 4 MM

BASELINE : SH AR

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 4 48.16784
 DELTA LONGITUDE : - 0 17 1.55767
 DELTA HEIGHT : -3.5710

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 4 48.16815 +/- 2 MM
 DELTA LONGITUDE : - 0 17 1.55671 +/- 2 MM
 DELTA HEIGHT : -3.5991 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : -13669.6221 M +/- 3 MM
 DELTA Y : 17282.8725 M +/- 2 MM
 DELTA Z : 5904.9247 M +/- 2 MM

BASELINE LENGTH : 22812.8119 M +/- 1 MM

AZIMUTH SH TO AR : - 66 55 42.112 +/- .020 SEC
 AZIMUTH AR TO SH : 112 51 33.762 +/- .020 SEC

INVERSE OF NORMAL EQUATION MATRIX (CARTESIAN)

0.100E-07					
0.108E-16	0.100E-07				
-0.178E-16	-0.843E-17	0.100E-07			
0.100E-07	-0.233E-11	0.134E-10	0.520E-05		
0.412E-11	0.100E-07	0.151E-10	0.264E-05	0.504E-05	
-0.166E-10	-0.193E-10	0.999E-08	-0.216E-05	-0.414E-05	0.756E-05
0.100E-07	-0.126E-10	0.199E-10	0.285E-05	0.142E-05	-0.114E-05
0.117E-04					
0.137E-10	0.100E-07	0.522E-11	0.143E-05	0.285E-05	-0.232E-05
0.598E-05	0.109E-04				
-0.192E-10	-0.969E-11	0.999E-08	-0.114E-05	-0.232E-05	0.422E-05
-0.493E-05	-0.948E-05	0.176E-04			
0.100E-07	-0.169E-10	0.259E-10	0.285E-05	0.142E-05	-0.113E-05
0.117E-04	0.597E-05	-0.491E-05	0.162E-04		
0.203E-10	0.100E-07	0.140E-11	0.143E-05	0.286E-05	-0.233E-05
0.599E-05	0.109E-04	-0.949E-05	0.882E-05	0.176E-04	
-0.225E-10	-0.589E-11	0.999E-08	-0.114E-05	-0.232E-05	0.422E-05
-0.493E-05	-0.948E-05	0.176E-04	-0.836E-05	-0.170E-04	0.310E-04
0.100E-07	-0.752E-11	0.125E-10	0.286E-05	0.143E-05	-0.114E-05
0.548E-05	0.281E-05	-0.225E-05	0.547E-05	0.281E-05	-0.225E-05
0.548E-05					
0.822E-11	0.100E-07	0.466E-11	0.143E-05	0.285E-05	-0.232E-05
0.280E-05	0.524E-05	-0.436E-05	0.280E-05	0.524E-05	-0.436E-05
0.281E-05	0.524E-05				
-0.126E-10	-0.747E-11	0.999E-08	-0.114E-05	-0.232E-05	0.422E-05
-0.224E-05	-0.436E-05	0.796E-05	-0.223E-05	-0.436E-05	0.796E-05
-0.225E-05	-0.436E-05	0.796E-05			
0.100E-07	-0.263E-11	0.956E-11	0.286E-05	0.143E-05	-0.114E-05
0.285E-05	0.143E-05	-0.114E-05	0.285E-05	0.143E-05	-0.114E-05
0.286E-05	0.143E-05	-0.114E-05	0.286E-05		
0.378E-11	0.100E-07	0.909E-11	0.143E-05	0.285E-05	-0.232E-05
0.142E-05	0.286E-05	-0.232E-05	0.142E-05	0.286E-05	-0.232E-05
0.143E-05	0.285E-05	-0.232E-05	0.143E-05	0.285E-05	
-0.112E-10	-0.119E-10	0.999E-08	-0.114E-05	-0.232E-05	0.422E-05
-0.113E-05	-0.232E-05	0.422E-05	-0.113E-05	-0.232E-05	0.422E-05
-0.114E-05	-0.232E-05	0.422E-05	-0.114E-05	-0.232E-05	0.422E-05
0.100E-07	-0.185E-10	0.250E-10	0.285E-05	0.142E-05	-0.113E-05
0.117E-04	0.597E-05	-0.491E-05	0.162E-04	0.882E-05	-0.837E-05
0.547E-05	0.280E-05	-0.223E-05	0.285E-05	0.142E-05	-0.113E-05
0.221E-04					
0.222E-10	0.100E-07	-0.278E-11	0.143E-05	0.286E-05	-0.233E-05
0.599E-05	0.109E-04	-0.950E-05	0.882E-05	0.176E-04	-0.170E-04
0.282E-05	0.525E-05	-0.437E-05	0.143E-05	0.286E-05	-0.233E-05
0.127E-04	0.230E-04				
-0.215E-10	-0.206E-11	0.999E-08	-0.114E-05	-0.232E-05	0.422E-05
-0.493E-05	-0.948E-05	0.176E-04	-0.836E-05	-0.170E-04	0.310E-04
-0.225E-05	-0.436E-05	0.796E-05	-0.114E-05	-0.232E-05	0.422E-05
-0.118E-04	-0.222E-04	0.402E-04			
0.100E-07	-0.186E-10	0.117E-10	0.285E-05	0.142E-05	-0.114E-05
0.547E-05	0.280E-05	-0.225E-05	0.547E-05	0.281E-05	-0.225E-05
0.548E-05	0.280E-05	-0.224E-05	0.285E-05	0.142E-05	-0.114E-05
0.547E-05	0.281E-05	-0.225E-05	0.141E-04		
0.132E-10	0.100E-07	-0.293E-11	0.143E-05	0.285E-05	-0.233E-05
0.280E-05	0.524E-05	-0.437E-05	0.280E-05	0.525E-05	-0.437E-05
0.281E-05	0.524E-05	-0.436E-05	0.143E-05	0.286E-05	-0.232E-05

0.280E-05	0.525E-05	-0.436E-05	0.755E-05	0.982E-05	
-0.134E-10	0.658E-12	0.100E-07	-0.114E-05	-0.231E-05	0.422E-05
-0.224E-05	-0.436E-05	0.796E-05	-0.223E-05	-0.436E-05	0.796E-05
-0.225E-05	-0.436E-05	0.796E-05	-0.114E-05	-0.232E-05	0.422E-05
-0.223E-05	-0.436E-05	0.796E-05	-0.568E-05	-0.798E-05	0.132E-04

INVERSE OF NORMAL EQUATION MATRIX (ELLIPSOID)

0.100E-07					
-0.127E-16	0.100E-07				
-0.406E-17	-0.244E-17	0.100E-07			
0.999E-08	0.289E-10	0.102E-09	0.292E-05		
-0.291E-10	0.100E-07	0.294E-10	0.114E-05	0.271E-05	
-0.117E-09	-0.302E-10	0.100E-07	-0.491E-06	-0.359E-06	0.122E-04
0.999E-08	0.108E-09	0.796E-10	0.165E-05	0.648E-06	-0.271E-06
0.656E-05					
-0.102E-09	0.100E-07	0.108E-09	0.622E-06	0.153E-05	-0.620E-07
0.275E-05	0.588E-05				
-0.898E-10	-0.110E-09	0.100E-07	-0.255E-06	-0.128E-06	0.675E-05
-0.770E-06	-0.762E-06	0.277E-04			
0.100E-07	0.155E-09	0.748E-10	0.166E-05	0.655E-06	-0.275E-06
0.657E-05	0.278E-05	-0.789E-06	0.927E-05		
-0.147E-09	0.100E-07	0.156E-09	0.613E-06	0.153E-05	-0.281E-07
0.272E-05	0.587E-05	-0.624E-06	0.367E-05	0.840E-05	
-0.853E-10	-0.159E-09	0.100E-07	-0.258E-06	-0.135E-06	0.675E-05
-0.781E-06	-0.790E-06	0.277E-04	0.642E-06	0.417E-06	0.471E-04
0.100E-07	0.642E-10	0.556E-10	0.165E-05	0.642E-06	-0.287E-06
0.310E-05	0.124E-05	-0.562E-06	0.311E-05	0.122E-05	-0.567E-06
0.310E-05					
-0.616E-10	0.100E-07	0.645E-10	0.629E-06	0.154E-05	-0.927E-07
0.126E-05	0.280E-05	-0.368E-06	0.128E-05	0.279E-05	-0.381E-06
0.125E-05	0.280E-05				
-0.631E-10	-0.657E-10	0.100E-07	-0.248E-06	-0.120E-06	0.674E-05
-0.519E-06	-0.294E-06	0.128E-04	-0.527E-06	-0.230E-06	0.128E-04
-0.548E-06	-0.352E-06	0.128E-04			
0.100E-07	0.276E-10	0.655E-10	0.165E-05	0.636E-06	-0.279E-06
0.165E-05	0.622E-06	-0.280E-06	0.166E-05	0.613E-06	-0.283E-06
0.165E-05	0.630E-06	-0.273E-06	0.165E-05		
-0.272E-10	0.100E-07	0.278E-10	0.636E-06	0.154E-05	-0.119E-06
0.648E-06	0.153E-05	-0.129E-06	0.656E-06	0.153E-05	-0.136E-06
0.642E-06	0.154E-05	-0.121E-06	0.636E-06	0.154E-05	
-0.748E-10	-0.284E-10	0.100E-07	-0.248E-06	-0.115E-06	0.675E-05
-0.264E-06	-0.592E-07	0.674E-05	-0.268E-06	-0.253E-07	0.674E-05
-0.280E-06	-0.898E-07	0.674E-05	-0.272E-06	-0.116E-06	0.674E-05
0.100E-07	0.168E-09	0.569E-10	0.166E-05	0.658E-06	-0.287E-06
0.658E-05	0.279E-05	-0.840E-06	0.927E-05	0.368E-05	0.558E-06
0.311E-05	0.128E-05	-0.551E-06	0.166E-05	0.658E-06	-0.280E-06
0.123E-04					
-0.157E-09	0.100E-07	0.168E-09	0.611E-06	0.153E-05	-0.199E-07
0.271E-05	0.586E-05	-0.590E-06	0.366E-05	0.839E-05	0.472E-06
0.122E-05	0.279E-05	-0.214E-06	0.611E-06	0.153E-05	-0.171E-07
0.495E-05	0.105E-04				
-0.652E-10	-0.172E-09	0.100E-07	-0.255E-06	-0.136E-06	0.675E-05
-0.772E-06	-0.792E-06	0.278E-04	0.656E-06	0.414E-06	0.471E-04
-0.562E-06	-0.382E-06	0.128E-04	-0.280E-06	-0.137E-06	0.674E-05
-0.125E-06	-0.514E-06	0.625E-04			
0.999E-08	0.105E-09	0.394E-10	0.165E-05	0.648E-06	-0.298E-06
0.311E-05	0.125E-05	-0.584E-06	0.311E-05	0.123E-05	-0.589E-06

0.310E-05	0.126E-05	-0.570E-06	0.165E-05	0.648E-06	-0.291E-06
0.311E-05	0.123E-05	-0.585E-06	0.629E-05		
-0.101E-09	0.100E-07	0.104E-09	0.622E-06	0.153E-05	-0.649E-07
0.125E-05	0.279E-05	-0.315E-06	0.126E-05	0.279E-05	-0.328E-06
0.124E-05	0.280E-05	-0.299E-06	0.622E-06	0.153E-05	-0.620E-07
0.127E-05	0.278E-05	-0.329E-06	0.343E-05	0.573E-05	
-0.383E-10	-0.109E-09	0.100E-07	-0.247E-06	-0.125E-06	0.674E-05
-0.517E-06	-0.303E-06	0.128E-04	-0.525E-06	-0.239E-06	0.128E-04
-0.546E-06	-0.361E-06	0.128E-04	-0.272E-06	-0.126E-06	0.674E-05
-0.549E-06	-0.223E-06	0.128E-04	-0.364E-05	-0.332E-05	0.251E-04

**** COMMAND FILE FOR PROGRAMS MPROC & PPROC ****

===== FILE NAMES (A64) =====

1. MAIN PROCESSOR OUTPUT	FILE NAME:
2. INTERMEDIATE SOLUTION	FILE NAME:
3. FINAL SOLUTION (MPROC)	FILE NAME:
4. NUISANCE PARAMETERS	FILE NAME:
5. RESIDUALS	FILE NAME:
6. POST PROCESSOR OUTPUT	FILE NAME:
7. DISCREPENCIES	FILE NAME:
8. FINAL SOLUTION & COV. (PPROC)	FILE NAME:

 1. mpout
 2. inter
 3. mpfin
 4. nuisa
 5. resid
 6. ppout
 7. discr
 8. ppfin

OBSERVATION FILES, BINARY(0) OR ASCII(1): 1

===== LEAST-SQUARES ADJUSTMENT PARAMETERS =====

DEFAULT MSL METEOROLOGICAL VALUES P(MB), T(C), RH(%), CUTOFF ANGLE (DEG.)

1013.25 15.0 50.0 20.

TAKE INTO ACCOUNT DOUBLE DIFF. CORRELATION Y(1) ?

0

COMPUTATION OF RESIDUALS Y(1) ?

0

NUISANCE PARAMETERS SEQ. SOLUTION EACH N EPOCH ?

999

STATION COORDINATES SEQ. SOLUTION EACH M EPOCH ?

999

CROSS-CORRELATION VALUE OF COMPARISON ?

1.0

=== A-PRIORI STATION COORDINATES AND STD. DEVIATION (M) ===

CART.(1) OR GEOD.(2) COORDINATES OR PREVIOUS SOLUTION(3): 2

6378135.0	298.2600	0.000	0.000	0.000				
## NN	SDD MM SS.SSSSS	SDDD MM SS.SSSSS	HHHH.HHH					
01 PG	+48 38 54.87263	-123 27 4.63941	0.894					
		1.0D-04	1.0D-04	1.0D-04				
13 SO	+48 17 4.66031	-124 35 28.92762	577.178					
		1.0D+04	1.0D+04	1.0D+04				
14 SH	+48 22 38.80975	-123 55 23.27166	-2.499					
		1.0D+04	1.0D+04	1.0D+04				
17 AR	+48 27 26.97759	-124 12 24.82933	-6.070					
		1.0D+04	1.0D+04	1.0D+04				
18 EL	+48 9 30.24555	-124 18 53.65789	794.393					
		1.0D+04	1.0D+04	1.0D+04				
19 BO	+48 35 38.09457	-124 42 59.10624	-16.205					
		1.0D+04	1.0D+04	1.0D+04				

-1

NN XXXXXXXX.XXX YYYYYYYY.YYY ZZZZZZZZ.ZZZ

===== SESSION BY SESSION INFORMATION =====

==> ENTER (ANSWER) THE FOLLOWING LINES FOR EACH OBSERVATION SESSION

1. DELIMITER (BLANK) LINE.

2. OBS. & SAT. INFORMATION FILE NAME (A64)

3. A-PRIORI STD. DEVIATION OF DOUBLE DIFFERENCE OBS. (MM) (*)
 4. FIRST METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 5. SECOND METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 6. #CLOCK PAR. (ST.2 WRT ST.1) AND RESPECTIVE STD. DEV. (SEC) (*)
 7. L1:1, L2:2, L1&L2:3; ESTIMATE AMB.? Y(1); ROUND-OFF AMB.? Y(1) (*)
-

:::JdFData:Data48:PGSH8R
23

:::JdFData:Data48:PG48W
 :::JdFData:Data48:SH48W
 0 1.0D-03 1.0D-03
 3 0 0

:::JdFData:Data48:SHAR8R
25

:::JdFData:Data48:SH48W
 :::JdFData:Data48:AR48W
 0 1.0D-03 1.0D-03
 3 0 0

:::JdFData:Data48:ARBO8R
24

:::JdFData:Data48:AR48W
 :::JdFData:Data48:BO48W
 0 1.0D-03 1.0D-03
 3 0 0

:::JdFData:Data48:ARS08R
21

:::JdFData:Data48:AR48W
 :::JdFData:Data48:SO48W
 0 1.0D-03 1.0D-03
 3 0 0

:::JdFData:Data48:SOEL8R
20

:::JdFData:Data48:SO48W
 :::JdFData:Data48:EL48W
 0 1.0D-03 1.0D-03
 3 0 0

DIPOP 2.0: Processing Summary, Network 48

```
=====
SESSION:   1   :::JdFData:Data48:PGSH8R
STATIONS:  PG SH, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 705, #OBS. TOTAL: 705

SESSION:   2   :::JdFData:Data48:SHAR8R
STATIONS:  SH AR, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 678, #OBS. TOTAL: 1383

SESSION:   3   :::JdFData:Data48:ARBO8R
STATIONS:  AR BO, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 675, #OBS. TOTAL: 2058

SESSION:   4   :::JdFData:Data48:ARSO8R
STATIONS:  AR SO, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 679, #OBS. TOTAL: 2737

SESSION:   5   :::JdFData:Data48:SOEL8R
STATIONS:  SO EL, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 771, #OBS. TOTAL: 3508
```

DIPOP 2.0: L3 Network 48
 =====

RE-EVALUATION OF NUISANCE PARAMETERS

REFERENCE ELLIPSOID
 AE = 6378135.0, F-1 = 298.2600, XE = .000, YE = .000, ZE = .000

A POSTERIORI VARIANCE FACTOR : 1.0143

BASELINE: STATION : PG AND STATION : SH
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166
 HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80990 +/- 1 MM
 LONGITUDE : -123 55 23.27130 +/- 1 MM
 HEIGHT : -2.5427 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2368733.6576 M +/- 2 MM
 Y : -3521975.3283 M +/- 2 MM
 Z : 4744853.5360 M +/- 2 MM

BASELINE : PG SH

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 16 16.06288
DELTA LONGITUDE : - 0 28 18.63225
DELTA HEIGHT : -3.3930

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 16 16.06273 +/- 1 MM
DELTA LONGITUDE : - 0 28 18.63189 +/- 1 MM
DELTA HEIGHT : -3.4367 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -41532.5005 M +/- 2 MM
DELTA Y : 545.1774 M +/- 2 MM
DELTA Z : -19975.1295 M +/- 2 MM

BASELINE LENGTH : 46089.6042 M +/- 2 MM

AZIMUTH PG TO SH : -130 40 41.180 +/- .005 SEC
AZIMUTH SH TO PG : 48 58 6.358 +/- .005 SEC

BASELINE: STATION : SO AND STATION : AR
=====

STATION NAME : SO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 4.66031
LONGITUDE : -124 35 28.92762
HEIGHT : 577.1780

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 4.66070 +/- 3 MM
LONGITUDE : -124 35 28.92651 +/- 3 MM
HEIGHT : 577.2038 +/- 6 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2414244.3166 M +/- 5 MM
Y : -3500774.5598 M +/- 4 MM
Z : 4738424.5012 M +/- 4 MM

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97759
LONGITUDE : -124 12 24.82933
HEIGHT : -6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97786 +/- 2 MM
LONGITUDE : -124 12 24.82797 +/- 2 MM
HEIGHT : -6.1442 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2382403.2807 M +/- 4 MM
Y : -3504692.4585 M +/- 3 MM
Z : 4750758.4550 M +/- 3 MM

BASELINE : SO AR

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 10 22.31728
DELTA LONGITUDE : 0 23 4.09829
DELTA HEIGHT : -583.2480

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 10 22.31716 +/- 2 MM
DELTA LONGITUDE : 0 23 4.09854 +/- 2 MM
DELTA HEIGHT : -583.3480 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 31841.0360 M +/- 3 MM
DELTA Y : -3917.8987 M +/- 2 MM
DELTA Z : 12333.9538 M +/- 2 MM

BASELINE LENGTH : 34370.4512 M +/- 2 MM

AZIMUTH SO TO AR : 55 50 38.886 +/- .006 SEC
AZIMUTH AR TO SO : -123 52 6.575 +/- .006 SEC

BASELINE: STATION : SO AND STATION : EL
=====

STATION NAME : SO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 4.66031
LONGITUDE : -124 35 28.92762
HEIGHT : 577.1780

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 4.66070 +/- 3 MM

LONGITUDE : -124 35 28.92651 +/- 3 MM
 HEIGHT : 577.2038 +/- 6 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2414244.3166 M +/- 5 MM
 Y : -3500774.5598 M +/- 4 MM
 Z : 4738424.5012 M +/- 4 MM

STATION NAME : EL

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 9 30.24555
 LONGITUDE : -124 18 53.65789
 HEIGHT : 794.3930

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 9 30.24602 +/- 3 MM
 LONGITUDE : -124 18 53.65540 +/- 3 MM
 HEIGHT : 794.4764 +/- 6 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2403307.0934 M +/- 5 MM
 Y : -3521148.5420 M +/- 4 MM
 Z : 4729234.2138 M +/- 5 MM

BASELINE : SO EL

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 7 34.41476
 DELTA LONGITUDE : 0 16 35.26973
 DELTA HEIGHT : 217.2150

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 7 34.41468 +/- 1 MM
 DELTA LONGITUDE : 0 16 35.27112 +/- 1 MM
 DELTA HEIGHT : 217.2725 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 10937.2232 M +/- 2 MM
 DELTA Y : -20373.9822 M +/- 2 MM
 DELTA Z : -9190.2874 M +/- 2 MM

BASELINE LENGTH : 24883.3958 M +/- 1 MM

AZIMUTH SO TO EL : 124 14 21.894 +/- .011 SEC

AZIMUTH EL TO SO : - 55 33 15.915 +/- .011 SEC

BASELINE: STATION : SH AND STATION : AR

=====

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166
 HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80990 +/- 1 MM
 LONGITUDE : -123 55 23.27130 +/- 1 MM
 HEIGHT : -2.5427 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2368733.6576 M +/- 2 MM
 Y : -3521975.3283 M +/- 2 MM
 Z : 4744853.5360 M +/- 2 MM

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97759
 LONGITUDE : -124 12 24.82933
 HEIGHT : -6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97786 +/- 2 MM
 LONGITUDE : -124 12 24.82797 +/- 2 MM
 HEIGHT : -6.1442 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2382403.2807 M +/- 4 MM
 Y : -3504692.4585 M +/- 3 MM
 Z : 4750758.4550 M +/- 3 MM

BASELINE : SH AR

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 48.16784
 DELTA LONGITUDE : - 0 17 1.55767
 DELTA HEIGHT : -3.5710

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 48.16796 +/- 2 MM
 DELTA LONGITUDE : - 0 17 1.55667 +/- 2 MM
 DELTA HEIGHT : -3.6014 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X :	-13669.6231 M	+/-	3 MM
DELTA Y :	17282.8698 M	+/-	2 MM
DELTA Z :	5904.9190 M	+/-	3 MM

BASELINE LENGTH : 22812.8090 M +/- 1 MM

AZIMUTH SH TO AR :	- 66 55 42.158 +/-	.022 SEC
AZIMUTH AR TO SH :	112 51 33.716 +/-	.022 SEC

BASELINE: STATION : AR AND STATION : BO

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 27 26.97759
LONGITUDE :	-124 12 24.82933
HEIGHT :	-6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 27 26.97786	+/-	2 MM
LONGITUDE :	-124 12 24.82797	+/-	2 MM
HEIGHT :	-6.1442	+/-	5 MM

A POSTERIORI CARTESIAN COORDINATES

X :	-2382403.2807 M	+/-	4 MM
Y :	-3504692.4585 M	+/-	3 MM
Z :	4750758.4550 M	+/-	3 MM

STATION NAME : BO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 35 38.09457
LONGITUDE :	-124 42 59.10624
HEIGHT :	-16.2050

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 35 38.09491	+/-	3 MM
LONGITUDE :	-124 42 59.10322	+/-	3 MM
HEIGHT :	-16.2575	+/-	6 MM

A POSTERIORI CARTESIAN COORDINATES

X :	-2406998.1975 M	+/-	5 MM
Y :	-3474019.5438 M	+/-	4 MM
Z :	4760797.7909 M	+/-	4 MM

BASELINE : AR BO

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 8 11.11698
DELTA LONGITUDE : - 0 30 34.27691
DELTA HEIGHT : -10.1350

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 8 11.11705 +/- 2 MM
DELTA LONGITUDE : - 0 30 34.27525 +/- 2 MM
DELTA HEIGHT : -10.1133 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -24594.9169 M +/- 3 MM
DELTA Y : 30672.9147 M +/- 2 MM
DELTA Z : 10039.3359 M +/- 3 MM

BASELINE LENGTH : 40577.4062 M +/- 1 MM

AZIMUTH AR TO BO : - 67 51 20.648 +/- .012 SEC
AZIMUTH BO TO AR : 111 45 45.012 +/- .012 SEC

INVERSE OF NORMAL EQUATION MATRIX (CARTESIAN)

0.100E-07						
0.903E-18	0.100E-07					
-0.286E-16	-0.126E-16	0.100E-07				
0.100E-07	-0.290E-10	0.160E-10	0.224E-04			
0.150E-10	0.999E-08	-0.412E-11	0.122E-04	0.134E-04		
-0.190E-10	-0.184E-11	0.999E-08	-0.920E-05	-0.107E-04	0.165E-04	
0.100E-07	-0.730E-11	0.127E-10	0.372E-05	0.189E-05	-0.163E-05	
0.372E-05						
0.784E-11	0.100E-07	0.451E-11	0.188E-05	0.344E-05	-0.280E-05	
0.189E-05	0.344E-05					
-0.125E-10	-0.770E-11	0.999E-08	-0.162E-05	-0.280E-05	0.507E-05	
-0.163E-05	-0.280E-05	0.507E-05				
0.100E-07	-0.184E-10	0.120E-10	0.147E-04	0.794E-05	-0.609E-05	
0.372E-05	0.189E-05	-0.163E-05	0.147E-04			
0.128E-10	0.100E-07	-0.306E-11	0.792E-05	0.928E-05	-0.743E-05	
0.189E-05	0.344E-05	-0.280E-05	0.794E-05	0.928E-05		
-0.132E-10	0.388E-12	0.100E-07	-0.607E-05	-0.742E-05	0.118E-04	
-0.163E-05	-0.279E-05	0.507E-05	-0.608E-05	-0.742E-05	0.118E-04	
0.100E-07	-0.238E-10	0.145E-10	0.224E-04	0.122E-04	-0.921E-05	
0.372E-05	0.188E-05	-0.163E-05	0.147E-04	0.793E-05	-0.607E-05	
0.250E-04						
0.105E-10	0.999E-08	0.308E-11	0.122E-04	0.133E-04	-0.106E-04	
0.189E-05	0.344E-05	-0.280E-05	0.793E-05	0.927E-05	-0.741E-05	
0.135E-04	0.156E-04					
-0.199E-10	-0.955E-11	0.999E-08	-0.921E-05	-0.107E-04	0.165E-04	
-0.163E-05	-0.280E-05	0.507E-05	-0.610E-05	-0.743E-05	0.118E-04	
-0.103E-04	-0.126E-04	0.201E-04				

0.100E-07	-0.380E-10	0.109E-10	0.147E-04	0.792E-05	-0.608E-05
0.372E-05	0.188E-05	-0.163E-05	0.147E-04	0.792E-05	-0.607E-05
0.147E-04	0.791E-05	-0.609E-05	0.251E-04		
0.218E-10	0.999E-08	-0.163E-10	0.793E-05	0.929E-05	-0.744E-05
0.190E-05	0.344E-05	-0.281E-05	0.795E-05	0.929E-05	-0.744E-05
0.794E-05	0.928E-05	-0.745E-05	0.136E-04	0.147E-04	
-0.147E-10	0.146E-10	0.100E-07	-0.606E-05	-0.741E-05	0.118E-04
-0.163E-05	-0.279E-05	0.507E-05	-0.608E-05	-0.741E-05	0.118E-04
-0.607E-05	-0.740E-05	0.118E-04	-0.102E-04	-0.117E-04	0.180E-04

INVERSE OF NORMAL EQUATION MATRIX (ELLIPSOID)

0.100E-07					
-0.166E-16	0.100E-07				
-0.530E-17	-0.793E-17	0.100E-07			
0.999E-08	0.155E-09	0.759E-10	0.883E-05		
-0.156E-09	0.100E-07	0.158E-09	0.538E-05	0.813E-05	
-0.687E-10	-0.158E-09	0.999E-08	-0.713E-05	-0.684E-05	0.354E-04
0.100E-07	0.639E-10	0.556E-10	0.198E-05	0.746E-06	-0.491E-06
0.198E-05					
-0.615E-10	0.100E-07	0.648E-10	0.785E-06	0.187E-05	-0.425E-06
0.769E-06	0.188E-05				
-0.632E-10	-0.650E-10	0.100E-07	-0.469E-06	-0.325E-06	0.837E-05
-0.483E-06	-0.407E-06	0.837E-05			
0.999E-08	0.105E-09	0.395E-10	0.599E-05	0.344E-05	-0.445E-05
0.198E-05	0.777E-06	-0.498E-06	0.599E-05		
-0.101E-09	0.100E-07	0.104E-09	0.351E-05	0.556E-05	-0.429E-05
0.759E-06	0.188E-05	-0.372E-06	0.350E-05	0.560E-05	
-0.384E-10	-0.108E-09	0.100E-07	-0.435E-05	-0.409E-05	0.242E-04
-0.481E-06	-0.413E-06	0.837E-05	-0.441E-05	-0.425E-05	0.242E-04
0.998E-08	0.116E-09	0.102E-09	0.878E-05	0.533E-05	-0.701E-05
0.198E-05	0.776E-06	-0.446E-06	0.597E-05	0.348E-05	-0.427E-05
0.101E-04					
-0.120E-09	0.100E-07	0.119E-09	0.544E-05	0.818E-05	-0.700E-05
0.755E-06	0.187E-05	-0.358E-06	0.348E-05	0.559E-05	-0.420E-05
0.597E-05	0.946E-05				
-0.991E-10	-0.119E-09	0.999E-08	-0.713E-05	-0.683E-05	0.354E-04
-0.494E-06	-0.420E-06	0.837E-05	-0.445E-05	-0.427E-05	0.242E-04
-0.728E-05	-0.724E-05	0.412E-04			
0.999E-08	0.179E-09	0.125E-10	0.603E-05	0.349E-05	-0.455E-05
0.199E-05	0.792E-06	-0.524E-06	0.603E-05	0.355E-05	-0.451E-05
0.600E-05	0.353E-05	-0.455E-05	0.989E-05		
-0.171E-09	0.100E-07	0.175E-09	0.344E-05	0.551E-05	-0.408E-05
0.742E-06	0.187E-05	-0.309E-06	0.343E-05	0.555E-05	-0.405E-05
0.341E-05	0.554E-05	-0.407E-05	0.607E-05	0.896E-05	
0.474E-11	-0.185E-09	0.999E-08	-0.435E-05	-0.412E-05	0.242E-04
-0.478E-06	-0.425E-06	0.837E-05	-0.442E-05	-0.428E-05	0.242E-04
-0.427E-05	-0.423E-05	0.242E-04	-0.828E-05	-0.768E-05	0.389E-04

**** COMMAND FILE FOR PROGRAMS MPROC & PPROC ****

```
===== FILE NAMES (A64) =====
1. MAIN PROCESSOR OUTPUT      FILE NAME:
2. INTERMEDIATE SOLUTION      FILE NAME:
3. FINAL SOLUTION (MPROC)     FILE NAME:
4. NUISANCE PARAMETERS        FILE NAME:
5. RESIDUALS                  FILE NAME:
6. POST PROCESSOR OUTPUT      FILE NAME:
7. DISCREPENCIES              FILE NAME:
8. FINAL SOLUTION & COV. (PPROC) FILE NAME:
```

```
-----
1. mpout
2. inter
3. mpfin
4. nuisa
5. resid
6. ppout
7. discr
8. ppfin
-----
```

OBSERVATION FILES, BINARY(0) OR ASCII(1): 1

===== LEAST-SQUARES ADJUSTMENT PARAMETERS =====

DEFAULT MSL METEOROLOGICAL VALUES P(MB), T(C), RH(%), CUTOFF ANGLE (DEG.)
1013.25 15.0 50.0 20.

TAKE INTO ACCOUNT DOUBLE DIFF. CORRELATION Y(1) ?

0

COMPUTATION OF RESIDUALS Y(1) ?

0

NUISANCE PARAMETERS SEQ. SOLUTION EACH N EPOCH ?

999

STATION COORDINATES SEQ. SOLUTION EACH M EPOCH ?

999

CROSS-CORRELATION VALUE OF COMPARISON ?

1.0

==== A-PRIORI STATION COORDINATES AND STD. DEVIATION (M) =====

CART.(1) OR GEOD.(2) COORDINATES OR PREVIOUS SOLUTION(3): 2

6378135.0	298.2600	0.000	0.000	0.000		
## NN	SDD MM SS.SSSSS	SDDD MM SS.SSSSS	HHHH.HHH			
01 PG	+48 38 54.87263	-123 27 4.63941	0.894			
	1.0D-04	1.0D-04	1.0D-04			
17 AR	+48 27 26.97759	-124 12 24.82933	-6.070			
	1.0D+04	1.0D+04	1.0D+04			
19 BO	+48 35 38.09457	-124 42 59.10624	-16.205			
	1.0D+04	1.0D+04	1.0D+04			
24 PE	+48 31 53.65000	-124 27 38.40000	-10.000			
	1.0D+04	1.0D+04	1.0D+04			

-1

NN XXXXXXXX.XXX YYYYYYYY.YYY ZZZZZZZZ.ZZZ

===== SESSION BY SESSION INFORMATION =====

==> ENTER (ANSWER) THE FOLLOWING LINES FOR EACH OBSERVATION SESSION

1. DELIMITER (BLANK) LINE.

2. OBS. & SAT. INFORMATION FILE NAME (A64)

3. A-PRIORI STD. DEVIATION OF DOUBLE DIFFERENCE OBS. (MM) (*)

4. FIRST METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)

5. SECOND METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)

6. #CLOCK PAR. (ST.2 WRT ST.1) AND RESPECTIVE STD. DEV. (SEC) (*)

7. L1:1, L2:2, L1&L2:3; ESTIMATE AMB.? Y(1); ROUND-OFF AMB.? Y(1) (*)

:::JdFData:Data49:PGAR9T
25
:::JdFData:Data49:PG49W
:::JdFData:Data49:AR49W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data49:ARPE9R
20
:::JdFData:Data49:AR49W
:::JdFData:Data49:PE49W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data49:PEBO9R
21
:::JdFData:Data49:PE49W
:::JdFData:Data49:BO49W
0 1.0D-03 1.0D-03
3 0 0

DIPOP 2.0: Processing Summary, Network 49

```
=====
SESSION:    1   :::JdFData:Data49:PGAR9T
STATIONS:   PG AR, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 492, #OBS. TOTAL: 492

SESSION:    2   :::JdFData:Data49:ARPE9R
STATIONS:   AR PE, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 684, #OBS. TOTAL: 1176

SESSION:    3   :::JdFData:Data49:PEBO9R
STATIONS:   PE BO, NCLKP: 0, #AMBIGUITIES: 0, #OBS.: 714, #OBS. TOTAL: 1890
```

DIPOP 2.0: L3 Network 49
 =====

RE-EVALUATION OF NUISANCE PARAMETERS

REFERENCE ELLIPSOID
 AE = 6378135.0, F-1 = 298.2600, XE = .000, YE = .000, ZE = .000

A POSTERIORI VARIANCE FACTOR : .9979

BASELINE: STATION : PG AND STATION : AR
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97759
 LONGITUDE : -124 12 24.82933
 HEIGHT : -6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97832 +/- 2 MM
 LONGITUDE : -124 12 24.82800 +/- 2 MM
 HEIGHT : -6.1362 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2382403.2781 M +/- 4 MM
 Y : -3504692.4538 M +/- 3 MM
 Z : 4750758.4704 M +/- 3 MM

BASELINE : PG AR

A-PRIORI ELLIPSOID BASELINE COMPONENTS
DELTA LATITUDE : - 0 11 27.89504
DELTA LONGITUDE : - 0 45 20.18992
DELTA HEIGHT : -6.9640

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
DELTA LATITUDE : - 0 11 27.89431 +/- 2 MM
DELTA LONGITUDE : - 0 45 20.18859 +/- 2 MM
DELTA HEIGHT : -7.0302 +/- 5 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
DELTA X : -55202.1211 M +/- 4 MM
DELTA Y : 17828.0519 M +/- 3 MM
DELTA Z : -14070.1951 M +/- 3 MM

BASELINE LENGTH : 59691.5739 M +/- 2 MM
AZIMUTH PG TO AR : -110 34 9.479 +/- .006 SEC
AZIMUTH AR TO PG : 68 51 51.537 +/- .006 SEC

BASELINE: STATION : AR AND STATION : PE
=====

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 27 26.97759
LONGITUDE : -124 12 24.82933
HEIGHT : -6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 27 26.97832 +/- 2 MM
LONGITUDE : -124 12 24.82800 +/- 2 MM
HEIGHT : -6.1362 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES
X : -2382403.2781 M +/- 4 MM
Y : -3504692.4538 M +/- 3 MM
Z : 4750758.4704 M +/- 3 MM

STATION NAME : PE

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 31 53.65000
 LONGITUDE : -124 27 38.40000
 HEIGHT : -10.0000

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 31 53.65984 +/- 3 MM
 LONGITUDE : -124 27 38.36631 +/- 3 MM
 HEIGHT : -10.4698 +/- 6 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2394409.7148 M +/- 4 MM
 Y : -3489017.7613 M +/- 3 MM
 Z : 4756214.1311 M +/- 4 MM

BASELINE : AR PE

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 26.67241
 DELTA LONGITUDE : - 0 15 13.57067
 DELTA HEIGHT : -3.9300

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 26.68152 +/- 2 MM
 DELTA LONGITUDE : - 0 15 13.53831 +/- 2 MM
 DELTA HEIGHT : -4.3336 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -12006.4367 M +/- 3 MM
 DELTA Y : 15674.6925 M +/- 2 MM
 DELTA Z : 5455.6607 M +/- 2 MM

BASELINE LENGTH : 20484.5000 M +/- 1 MM

AZIMUTH AR TO PE : - 66 11 36.604 +/- .020 SEC
 AZIMUTH PE TO AR : 113 36 59.254 +/- .020 SEC

BASELINE: STATION : BO AND STATION : PE
 =====

STATION NAME : BO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 35 38.09457
 LONGITUDE : -124 42 59.10624
 HEIGHT : -16.2050

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 35 38.09478 +/- 3 MM

LONGITUDE : -124 42 59.10373 +/- 3 MM
 HEIGHT : -16.3020 +/- 6 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2406998.1912 M +/- 5 MM
 Y : -3474019.5162 M +/- 4 MM
 Z : 4760797.7547 M +/- 5 MM

STATION NAME : PE

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 31 53.65000
 LONGITUDE : -124 27 38.40000
 HEIGHT : -10.0000

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 31 53.65984 +/- 3 MM
 LONGITUDE : -124 27 38.36631 +/- 3 MM
 HEIGHT : -10.4698 +/- 6 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2394409.7148 M +/- 4 MM
 Y : -3489017.7613 M +/- 3 MM
 Z : 4756214.1311 M +/- 4 MM

BASELINE : BO PE

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : - 0 3 44.44457
 DELTA LONGITUDE : 0 15 20.70624
 DELTA HEIGHT : 6.2050

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : - 0 3 44.43494 +/- 1 MM
 DELTA LONGITUDE : 0 15 20.73742 +/- 1 MM
 DELTA HEIGHT : 5.8323 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : 12588.4764 M +/- 2 MM
 DELTA Y : -14998.2451 M +/- 2 MM
 DELTA Z : -4583.6236 M +/- 2 MM

BASELINE LENGTH : 20110.3630 M +/- 1 MM

AZIMUTH BO TO PE : 110 4 9.402 +/- .018 SEC
 AZIMUTH PE TO BO : - 69 44 20.339 +/- .018 SEC

INVERSE OF NORMAL EQUATION MATRIX (CARTESIAN)

0.100E-07					
0.189E-18	0.100E-07				
-0.133E-16	-0.516E-17	0.100E-07			
0.999E-08	-0.229E-10	0.524E-11	0.131E-04		
0.755E-11	0.999E-08	-0.679E-11	0.727E-05	0.701E-05	
-0.121E-10	0.276E-11	0.100E-07	-0.721E-05	-0.670E-05	0.121E-04
0.100E-07	-0.399E-10	0.585E-11	0.130E-04	0.726E-05	-0.720E-05
0.252E-04					
0.163E-10	0.999E-08	-0.192E-10	0.729E-05	0.702E-05	-0.671E-05
0.140E-04	0.141E-04				
-0.135E-10	0.161E-10	0.100E-07	-0.720E-05	-0.669E-05	0.121E-04
-0.122E-04	-0.124E-04	0.208E-04			
0.100E-07	-0.328E-10	0.458E-11	0.130E-04	0.727E-05	-0.720E-05
0.201E-04	0.111E-04	-0.999E-05	0.201E-04		
0.121E-10	0.999E-08	-0.136E-10	0.728E-05	0.702E-05	-0.670E-05
0.111E-04	0.107E-04	-0.962E-05	0.111E-04	0.107E-04	
-0.127E-10	0.102E-10	0.100E-07	-0.720E-05	-0.669E-05	0.121E-04
-0.999E-05	-0.963E-05	0.163E-04	-0.100E-04	-0.962E-05	0.163E-04

INVERSE OF NORMAL EQUATION MATRIX (ELLIPSOID)

0.100E-07					
-0.575E-17	0.100E-07				
-0.418E-17	-0.588E-17	0.100E-07			
0.999E-08	0.100E-09	0.398E-10	0.459E-05		
-0.107E-09	0.100E-07	0.105E-09	0.265E-05	0.438E-05	
-0.285E-10	-0.105E-09	0.100E-07	-0.294E-05	-0.528E-05	0.232E-04
0.998E-08	0.174E-09	0.128E-10	0.461E-05	0.269E-05	-0.304E-05
0.944E-05					
-0.176E-09	0.100E-07	0.176E-09	0.260E-05	0.433E-05	-0.510E-05
0.564E-05	0.850E-05				
0.122E-10	-0.180E-09	0.999E-08	-0.294E-05	-0.530E-05	0.232E-04
-0.713E-05	-0.890E-05	0.422E-04			
0.998E-08	0.137E-09	0.251E-10	0.460E-05	0.267E-05	-0.299E-05
0.724E-05	0.437E-05	-0.553E-05	0.722E-05		
-0.142E-09	0.100E-07	0.140E-09	0.262E-05	0.435E-05	-0.519E-05
0.445E-05	0.665E-05	-0.765E-05	0.442E-05	0.669E-05	
-0.561E-11	-0.143E-09	0.999E-08	-0.294E-05	-0.529E-05	0.232E-04
-0.559E-05	-0.750E-05	0.333E-04	-0.552E-05	-0.764E-05	0.332E-04

**** COMMAND FILE FOR PROGRAMS MPROC & PPROC ****

===== FILE NAMES (A64) =====

1. MAIN PROCESSOR OUTPUT	FILE NAME:
2. INTERMEDIATE SOLUTION	FILE NAME:
3. FINAL SOLUTION (MPROC)	FILE NAME:
4. NUISANCE PARAMETERS	FILE NAME:
5. RESIDUALS	FILE NAME:
6. POST PROCESSOR OUTPUT	FILE NAME:
7. DISCREPENCIES	FILE NAME:
8. FINAL SOLUTION & COV. (PPROC)	FILE NAME:

 1. mpout
 2. inter
 3. mpfin
 4. nuisa
 5. resid
 6. ppout
 7. discr
 8. ppfin

OBSERVATION FILES, BINARY(0) OR ASCII(1): 1

===== LEAST-SQUARES ADJUSTMENT PARAMETERS =====

DEFAULT MSL METEOROLOGICAL VALUES P(MB), T(C), RH(%), CUTOFF ANGLE (DEG.)
 1013.25 15.0 50.0 20.

TAKE INTO ACCOUNT DOUBLE DIFF. CORRELATION Y(1) ?

0

COMPUTATION OF RESIDUALS Y(1) ?

0

NUISANCE PARAMETERS SEQ. SOLUTION EACH N EPOCH ?

999

STATION COORDINATES SEQ. SOLUTION EACH M EPOCH ?

999

CROSS-CORRELATION VALUE OF COMPARISON ?

1.0

=== A-PRIORI STATION COORDINATES AND STD. DEVIATION (M) ===

CART.(1) OR GEOD.(2) COORDINATES OR PREVIOUS SOLUTION(3): 2

6378135.0	298.2600	0.000	0.000	0.000		
## NN	SDD MM	SS.SSSSS	SDDD MM	SS.SSSSS	HHHH.HHH	
01 PG	+48 38	54.87263	-123 27	4.63941	0.894	
		1.0D-04		1.0D-04	1.0D-04	
14 SH	+48 22	38.80975	-123 55	23.27166	-2.499	
		1.0D+04		1.0D+04	1.0D+04	
20 WA	+48 23	6.73799	-124 36	.19775	-7.445	
		1.0D+04		1.0D+04	1.0D+04	

-1

NN XXXXXXXX.XXX YYYYYYYY.YYY ZZZZZZZZ.ZZZ

===== SESSION BY SESSION INFORMATION =====

==> ENTER (ANSWER) THE FOLLOWING LINES FOR EACH OBSERVATION SESSION

1. DELIMITER (BLANK) LINE.
 2. OBS. & SAT. INFORMATION FILE NAME (A64)
 3. A-PRIORI STD. DEVIATION OF DOUBLE DIFFERENCE OBS. (MM) (*)
 4. FIRST METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 5. SECOND METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
 6. #CLOCK PAR.(ST.2 WRT ST.1) AND RESPECTIVE STD. DEV. (SEC) (*)
 7. L1:1, L2:2, L1&L2:3; ESTIMATE AMB.? Y(1); ROUND-OFF AMB.? Y(1) (*)
-

```
:::JdFData:Data51:PGSH1R
  20
:::JdFData:Data51:PG51W
:::JdFData:Data51:SH51W
0  1.0D-03  1.0D-03
3  0  0
```

```
:::JdFData:Data51:WASH1R
  22
:::JdFData:Data51:WA51W
:::JdFData:Data51:SH51W
0  1.0D-03  1.0D-03
3  1  0
```

DIPOP 2.0: Processing Summary, Network 51

SESSION:	1	:::JdFData:Data51:PGSH1R					
STATIONS:	PG SH,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 334,	#OBS. TOTAL:		334
SESSION:	2	:::JdFData:Data51:WASH1R					
STATIONS:	WA SH,	NCLKP: 0,	#AMBIGUITIES: 6,	#OBS.: 513,	#OBS. TOTAL:		847

DIPOP 2.0: L3 Network 51
 =====

RE-EVALUATION OF NUISANCE PARAMETERS

SESSION: 2 :::JdFData:Data51:WASH1R
 STATIONS: WA SH

AMBIGUITY WRT REFERENCE SATELLITE : 9
 AMBIGUITY 6 : -5.11 +/- 1.39
 AMBIGUITY 8 : -4.95 +/- 2.06
 AMBIGUITY 11 : -6.04 +/- 1.35
 AMBIGUITY 13 : -2.47 +/- .85
 AMBIGUITY 12 : -1.78 +/- 1.24
 AMBIGUITY 41 : -2.66 +/- 1.76

REFERENCE ELLIPSOID
 AE = 6378135.0, F-1 = 298.2600, XE = .000, YE = .000, ZE = .000
 A POSTERIORI VARIANCE FACTOR : 1.0012

BASELINE: STATION : PG AND STATION : SH
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166

HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80989 +/- 2 MM
 LONGITUDE : -123 55 23.27015 +/- 2 MM
 HEIGHT : -2.4925 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2368733.6567 M +/- 2 MM
 Y : -3521975.3693 M +/- 3 MM
 Z : 4744853.5733 M +/- 3 MM

BASELINE : PG SH

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 16 16.06288
 DELTA LONGITUDE : - 0 28 18.63225
 DELTA HEIGHT : -3.3930

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 16 16.06274 +/- 2 MM
 DELTA LONGITUDE : - 0 28 18.63074 +/- 2 MM
 DELTA HEIGHT : -3.3865 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -41532.4997 M +/- 2 MM
 DELTA Y : 545.1364 M +/- 3 MM
 DELTA Z : -19975.0922 M +/- 3 MM

BASELINE LENGTH : 46089.5868 M +/- 2 MM

AZIMUTH PG TO SH : -130 40 41.250 +/- .007 SEC

AZIMUTH SH TO PG : 48 58 6.288 +/- .007 SEC

BASELINE: STATION : SH AND STATION : WA
 =====

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166
 HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80989 +/- 2 MM
 LONGITUDE : -123 55 23.27015 +/- 2 MM
 HEIGHT : -2.4925 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2368733.6567 M +/- 2 MM
 Y : -3521975.3693 M +/- 3 MM
 Z : 4744853.5733 M +/- 3 MM

STATION NAME : WA

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 23 6.73799
 LONGITUDE : -124 36 .19775
 HEIGHT : -7.4450

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 23 6.73861 +/- 4 MM
 LONGITUDE : -124 36 .19333 +/- 15 MM
 HEIGHT : -7.4763 +/- 7 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2409809.7898 M +/- 14 MM
 Y : -3493211.1499 M +/- 8 MM
 Z : 4745422.8061 M +/- 4 MM

BASELINE : SH WA

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 0 27.92824
 DELTA LONGITUDE : - 0 40 36.92609
 DELTA HEIGHT : -4.9460

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 0 27.92872 +/- 4 MM
 DELTA LONGITUDE : - 0 40 36.92318 +/- 15 MM
 DELTA HEIGHT : -4.9837 +/- 6 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : -41076.1331 M +/- 14 MM
 DELTA Y : 28764.2194 M +/- 7 MM
 DELTA Z : 569.2328 M +/- 3 MM

BASELINE LENGTH : 50149.3076 M +/- 15 MM

AZIMUTH SH TO WA : - 88 45 40.814 +/- .016 SEC
 AZIMUTH WA TO SH : 90 43 57.377 +/- .016 SEC

INVERSE OF NORMAL EQUATION MATRIX (CARTESIAN)

0.100E-07						
-0.516E-17	0.100E-07					
-0.811E-17	-0.203E-17	0.100E-07				
0.100E-07	-0.688E-11	0.121E-10	0.441E-05			
0.104E-10	0.100E-07	0.576E-11	0.145E-05	0.815E-05		
-0.113E-10	-0.856E-11	0.999E-08	-0.796E-06	-0.592E-05	0.829E-05	
0.999E-08	-0.283E-10	0.280E-10	0.440E-05	0.142E-05	-0.769E-06	
0.208E-03						
0.189E-10	0.100E-07	-0.147E-10	0.146E-05	0.816E-05	-0.594E-05	
-0.656E-04	0.641E-04					
-0.143E-10	0.109E-12	0.999E-08	-0.796E-06	-0.592E-05	0.828E-05	
-0.225E-04	-0.565E-05	0.161E-04				

INVERSE OF NORMAL EQUATION MATRIX (ELLIPSOID)

0.100E-07						
-0.122E-16	0.100E-07					
0.331E-17	0.321E-17	0.100E-07				
0.100E-07	0.649E-10	0.558E-10	0.299E-05			
-0.637E-10	0.100E-07	0.652E-10	0.870E-06	0.423E-05		
-0.638E-10	-0.640E-10	0.100E-07	-0.651E-06	0.276E-05	0.136E-04	
0.999E-08	0.154E-09	0.557E-10	0.299E-05	0.907E-06	-0.626E-06	
0.173E-04						
-0.152E-09	0.999E-08	0.176E-09	0.836E-06	0.425E-05	0.292E-05	
0.228E-04	0.223E-03					
-0.477E-10	-0.153E-09	0.999E-08	-0.653E-06	0.273E-05	0.136E-04	
-0.185E-04	-0.407E-04	0.480E-04				

**** COMMAND FILE FOR PROGRAMS MPROC & PPROC ****

===== FILE NAMES (A64) =====

1. MAIN PROCESSOR OUTPUT FILE NAME:
 2. INTERMEDIATE SOLUTION FILE NAME:
 3. FINAL SOLUTION (MPROC) FILE NAME:
 4. NUISANCE PARAMETERS FILE NAME:
 5. RESIDUALS FILE NAME:
 6. POST PROCESSOR OUTPUT FILE NAME:
 7. DISCREPENCIES FILE NAME:
 8. FINAL SOLUTION & COV. (PPROC) FILE NAME:

 1. mpout
 2. inter
 3. mpfin
 4. nuisa
 5. resid
 6. ppout
 7. discr
 8. ppfin

OBSERVATION FILES, BINARY(0) OR ASCII(1): 1

===== LEAST-SQUARES ADJUSTMENT PARAMETERS =====

DEFAULT MSL METEOROLOGICAL VALUES P(MB), T(C), RH(%), CUTOFF ANGLE (DEG.)
 1013.25 15.0 50.0 20.

TAKE INTO ACCOUNT DOUBLE DIFF. CORRELATION Y(1) ?

0

COMPUTATION OF RESIDUALS Y(1) ?

0

NUISANCE PARAMETERS SEQ. SOLUTION EACH N EPOCH ?

999

STATION COORDINATES SEQ. SOLUTION EACH M EPOCH ?

999

CROSS-CORRELATION VALUE OF COMPARISON ?

1.0

==== A-PRIORI STATION COORDINATES AND STD. DEVIATION (M) ====

CART.(1) OR GEOD.(2) COORDINATES OR PREVIOUS SOLUTION(3): 2

##	NN	SDD	MM	SS.SSSSS	SDDD	MM	SS.SSSSS	HHHH.HHH
01	PG	+48	38	54.87263	-123	27	4.63941	0.894
				1.0D-04			1.0D-04	1.0D-04
21	RA	+49	5	2.52000	-125	50	29.50000	107.000
				1.0D+04			1.0D+04	1.0D+04
22	OK	+49	13	40.45000	-124	15	51.52000	451.000
				1.0D+04			1.0D+04	1.0D+04
23	PN	+49	19	21.20000	-119	37	12.38000	530.000
				1.0D+04			1.0D+04	1.0D+04

-1

NN XXXXXXXX.XXX YYYYYYYY.YYY ZZZZZZZZ.ZZZ

===== SESSION BY SESSION INFORMATION =====

==> ENTER (ANSWER) THE FOLLOWING LINES FOR EACH OBSERVATION SESSION

1. DELIMITER (BLANK) LINE.

2. OBS. & SAT. INFORMATION FILE NAME (A64)

3. A-PRIORI STD. DEVIATION OF DOUBLE DIFFERENCE OBS. (MM) (*)

4. FIRST METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)

5. SECOND METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)

6. #CLOCK PAR. (ST.2 WRT ST.1) AND RESPECTIVE STD. DEV. (SEC) (*)

7. L1:1, L2:2, L1&L2:3; ESTIMATE AMB.? Y(1); ROUND-OFF AMB.? Y(1) (*)

```
:::JdFData:Data52:PGOK2T
  17
:::JdFData:Data52:PG52W
:::JdFData:Data52:OK52W
0  1.0D-03  1.0D-03
3  1  0
```

```
:::JdFData:Data52:RAOK2R
  17
:::JdFData:Data52:RA52W
:::JdFData:Data52:OK52W
0  1.0D-03  1.0D-03
3  1  0
```

```
:::JdFData:Data52:PGPN2T
  22
:::JdFData:Data52:PG52W
:::JdFData:Data52:PN52W
0  1.0D-03  1.0D-03
3  1  0
```

DIPOP 2.0: Processing Summary, Network 52

SESSION:	1	:::JdFData:Data52:PGOK2T				
STATIONS:	PG OK,	NCLKP: 0,	#AMBIGUITIES: 8,	#OBS.: 536,	#OBS. TOTAL:	536
SESSION:	2	:::JdFData:Data52:RAOK2R				
STATIONS:	RA OK,	NCLKP: 0,	#AMBIGUITIES: 9,	#OBS.: 693,	#OBS. TOTAL:	1229
SESSION:	3	:::JdFData:Data52:PGPN2T				
STATIONS:	PG PN,	NCLKP: 0,	#AMBIGUITIES: 8,	#OBS.: 574,	#OBS. TOTAL:	1803

DIPOP 2.0: L3 Network 52
 =====

RE-EVALUATION OF NUISANCE PARAMETERS

SESSION: 1 :::JdFData:Data52:PGOK2T
 STATIONS: PG OK

AMBIGUITY	WRT REFERENCE SATELLITE :			
	9			
AMBIGUITY 6 :	6.14	+/-	.92	
AMBIGUITY 11 :	2.43	+/-	.90	
AMBIGUITY 8 :	-3.40	+/-	1.24	
AMBIGUITY 13 :	-4.15	+/-	.89	
AMBIGUITY 12 :	2.26	+/-	.84	
AMBIGUITY 36 :	-2.60	+/-	1.00	
AMBIGUITY 41 :	-3.74	+/-	1.15	
AMBIGUITY 43 :	-.72	+/-	.55	

SESSION: 2 :::JdFData:Data52:RAOK2R
 STATIONS: RA OK

AMBIGUITY	WRT REFERENCE SATELLITE :			
	9			
AMBIGUITY 3 :	-9.82	+/-	1.61	
AMBIGUITY 6 :	-10.66	+/-	.68	
AMBIGUITY 11 :	-2.47	+/-	.77	
AMBIGUITY 8 :	-9.77	+/-	1.06	
AMBIGUITY 13 :	3.04	+/-	.81	
AMBIGUITY 12 :	-1.66	+/-	.60	
AMBIGUITY 36 :	-7.33	+/-	.91	
AMBIGUITY 41 :	-4.07	+/-	1.10	
AMBIGUITY 43 :	.22	+/-	.46	

SESSION: 3 :::JdFData:Data52:PGPN2T
 STATIONS: PG PN

AMBIGUITY	WRT REFERENCE SATELLITE :			
	11			
AMBIGUITY 6 :	-7.21	+/-	.67	
AMBIGUITY 9 :	8.76	+/-	.90	
AMBIGUITY 8 :	-5.87	+/-	1.21	
AMBIGUITY 13 :	21.70	+/-	1.36	
AMBIGUITY 12 :	8.44	+/-	1.65	
AMBIGUITY 36 :	6.25	+/-	1.18	
AMBIGUITY 41 :	5.38	+/-	1.44	
AMBIGUITY 43 :	.44	+/-	1.35	

REFERENCE ELLIPSOID

AE = 6378135.0, F-1 = 298.2600, XE = .000, YE = .000, ZE = .000

A POSTERIORI VARIANCE FACTOR : .9988

BASELINE: STATION : PG AND STATION : OK
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : OK

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 49 13 40.45000
 LONGITUDE : -124 15 51.52000
 HEIGHT : 451.0000

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 49 13 40.45757 +/- 4 MM
 LONGITUDE : -124 15 51.51894 +/- 9 MM
 HEIGHT : 451.1252 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2349765.3661 M +/- 8 MM
 Y : -3449240.4625 M +/- 5 MM
 Z : 4807489.3150 M +/- 3 MM

BASELINE : PG OK

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 34 45.57737
 DELTA LONGITUDE : - 0 48 46.88059
 DELTA HEIGHT : 450.1060

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 34 45.58494 +/- 4 MM
 DELTA LONGITUDE : - 0 48 46.87953 +/- 9 MM
 DELTA HEIGHT : 450.2312 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : -22564.2091 M +/- 8 MM
 DELTA Y : 73280.0432 M +/- 5 MM
 DELTA Z : 42660.6495 M +/- 3 MM

BASELINE LENGTH : 87744.1695 M +/- 6 MM
 AZIMUTH PG TO OK : - 42 26 53.694 +/- .019 SEC
 AZIMUTH OK TO PG : 136 56 19.368 +/- .019 SEC

BASELINE: STATION : PG AND STATION : PN
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : PN

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 49 19 21.20000
 LONGITUDE : -119 37 12.38000
 HEIGHT : 530.0000

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 49 19 21.23847 +/- 4 MM
 LONGITUDE : -119 37 12.37748 +/- 9 MM
 HEIGHT : 528.5388 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2058853.7621 M +/- 9 MM
 Y : -3621278.7828 M +/- 5 MM
 Z : 4814417.0991 M +/- 4 MM

BASELINE : PG PN

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 40 26.32737
DELTA LONGITUDE : 3 49 52.25941
DELTA HEIGHT : 529.1060

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 40 26.36584 +/- 4 MM
DELTA LONGITUDE : 3 49 52.26193 +/- 9 MM
DELTA HEIGHT : 527.6448 +/- 5 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 268347.3949 M +/- 9 MM
DELTA Y : -98758.2771 M +/- 5 MM
DELTA Z : 49588.4336 M +/- 4 MM

BASELINE LENGTH : 290211.1893 M +/- 9 MM

AZIMUTH PG TO PN : 73 35 40.776 +/- .003 SEC
AZIMUTH PN TO PG : -103 30 50.488 +/- .003 SEC

BASELINE: STATION : RA AND STATION : OK
=====

STATION NAME : RA

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 49 5 2.52000
LONGITUDE : -125 50 29.50000
HEIGHT : 107.0000

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 49 5 2.52295 +/- 6 MM
LONGITUDE : -125 50 29.51038 +/- 11 MM
HEIGHT : 106.6248 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2450768.5910 M +/- 11 MM
Y : -3392888.0862 M +/- 6 MM
Z : 4796764.0465 M +/- 4 MM

STATION NAME : OK

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 49 13 40.45000
LONGITUDE : -124 15 51.52000

HEIGHT : 451.0000

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 49 13 40.45757 +/- 4 MM
 LONGITUDE : -124 15 51.51894 +/- 9 MM
 HEIGHT : 451.1252 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2349765.3661 M +/- 8 MM
 Y : -3449240.4625 M +/- 5 MM
 Z : 4807489.3150 M +/- 3 MM

BASELINE : RA OK

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 8 37.93000
 DELTA LONGITUDE : 1 34 37.98000
 DELTA HEIGHT : 344.0000

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 8 37.93462 +/- 4 MM
 DELTA LONGITUDE : 1 34 37.99143 +/- 7 MM
 DELTA HEIGHT : 344.5004 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 101003.2249 M +/- 7 MM
 DELTA Y : -56352.3763 M +/- 4 MM
 DELTA Z : 10725.2686 M +/- 3 MM

BASELINE LENGTH : 116156.2445 M +/- 7 MM

AZIMUTH RA TO OK : 81 29 10.478 +/- .006 SEC
 AZIMUTH OK TO RA : - 97 19 14.040 +/- .006 SEC

INVERSE OF NORMAL EQUATION MATRIX (CARTESIAN)

0.100E-07					
0.924E-17	0.100E-07				
0.249E-16	0.260E-16	0.100E-07			
0.100E-07	0.122E-10	0.249E-10	0.121E-03		
0.371E-10	0.996E-08	-0.471E-10	-0.295E-04	0.416E-04	
-0.212E-11	0.795E-10	0.100E-07	0.142E-04	-0.479E-05	0.179E-04
0.100E-07	0.296E-11	0.836E-11	0.696E-04	-0.225E-04	0.755E-05
0.695E-04					
0.988E-11	0.998E-08	-0.319E-10	-0.227E-04	0.278E-04	-0.283E-05
-0.227E-04	0.279E-04				
0.668E-11	0.506E-10	0.100E-07	0.770E-05	-0.291E-05	0.100E-04
0.768E-05	-0.293E-05	0.100E-04			
0.997E-08	0.363E-10	-0.626E-10	0.998E-08	0.735E-10	-0.645E-10
0.997E-08	0.463E-10	-0.558E-10	0.818E-04		

-0.442E-10	0.100E-07	0.330E-10	-0.319E-10	0.997E-08	0.113E-09
-0.412E-10	0.999E-08	0.837E-10	-0.165E-04	0.262E-04	
0.212E-10	-0.253E-10	0.100E-07	0.461E-10	-0.722E-10	0.100E-07
0.296E-10	-0.571E-10	0.100E-07	-0.735E-06	-0.318E-05	0.136E-04

INVERSE OF NORMAL EQUATION MATRIX (ELLIPSOID)

0.100E-07					
0.327E-16	0.100E-07				
0.546E-16	-0.202E-16	0.100E-07			
0.100E-07	0.317E-09	-0.103E-09	0.354E-04		
-0.268E-09	0.996E-08	0.300E-09	0.308E-04	0.122E-03	
0.138E-09	-0.335E-09	0.998E-08	-0.107E-04	-0.769E-05	0.233E-04
0.100E-07	0.103E-09	-0.122E-09	0.179E-04	0.131E-04	-0.496E-05
0.176E-04					
-0.848E-10	0.999E-08	0.108E-09	0.153E-04	0.770E-04	-0.286E-05
0.136E-04	0.775E-04				
0.148E-09	-0.119E-09	0.999E-08	-0.466E-05	-0.838E-06	0.124E-04
-0.465E-05	-0.116E-05	0.124E-04			
0.998E-08	-0.532E-09	-0.999E-10	0.999E-08	-0.800E-09	0.556E-10
0.999E-08	-0.617E-09	0.545E-10	0.174E-04		
0.470E-09	0.996E-08	-0.507E-09	0.791E-09	0.989E-08	-0.834E-09
0.579E-09	0.994E-08	-0.618E-09	0.123E-04	0.824E-04	
0.128E-09	0.499E-09	0.100E-07	0.411E-10	0.792E-09	0.996E-08
0.118E-10	0.604E-09	0.998E-08	-0.638E-05	-0.936E-05	0.218E-04

APPENDIX B

This appendix lists the control, summary, and result files for the processing of the complete Juan de Fuca network. Appendix A provides a description of the files.

**** COMMAND FILE FOR PROGRAMS MPROC & PPROC ****

===== FILE NAMES (A64) =====

1. MAIN PROCESSOR OUTPUT	FILE NAME:
2. INTERMEDIATE SOLUTION	FILE NAME:
3. FINAL SOLUTION (MPROC)	FILE NAME:
4. NUISANCE PARAMETERS	FILE NAME:
5. RESIDUALS	FILE NAME:
6. POST PROCESSOR OUTPUT	FILE NAME:
7. DISCREPENCIES	FILE NAME:
8. FINAL SOLUTION & COV. (PPROC)	FILE NAME:

 1. mpout
 2. inter
 3. mpfin
 4. nuisa
 5. resid
 6. ppout
 7. discr
 8. ppfin

 OBSERVATION FILES, BINARY(0) OR ASCII(1): 1

===== LEAST-SQUARES ADJUSTMENT PARAMETERS =====

DEFAULT MSL METEOROLOGICAL VALUES P(MB), T(C), RH(%), CUTOFF ANGLE (DEG.)

1013.25 15.0 50.0 20.

TAKE INTO ACCOUNT DOUBLE DIFF. CORRELATION Y(1) ?

0

COMPUTATION OF RESIDUALS Y(1) ?

0

NUISANCE PARAMETERS SEQ. SOLUTION EACH N EPOCH ?

999

STATION COORDINATES SEQ. SOLUTION EACH M EPOCH ?

999

CROSS-CORRELATION VALUE OF COMPARISON ?

1.0

==== A-PRIORI STATION COORDINATES AND STD. DEVIATION (M) =====

CART. (1) OR GEOD. (2) COORDINATES OR PREVIOUS SOLUTION (3): 2

6378135.0	298.2600	0.000	0.000	0.000		
## NN	SDD MM	SS.SSSS	SDDD MM	SS.SSSS	HHHH.HHH	
01 PG	+48 38	54.87263	-123 27	4.63941	0.894	
		1.0D-04		1.0D-04	1.0D-04	
02 LO	+48 9	1.23134	-123 40	13.29937	307.404	
		1.0D+04		1.0D+04	1.0D+04	
03 BM	+47 57	18.02830	-123 15	35.32163	1809.675	
		1.0D+04		1.0D+04	1.0D+04	
04 SL	+48 15	39.68634	-124 14	26.14666	117.786	
		1.0D+04		1.0D+04	1.0D+04	
05 TU	+48 8	23.34869	-123 24	11.02665	-18.417	
		1.0D+04		1.0D+04	1.0D+04	
06 DU	+48 10	52.50371	-123 6	37.78416	-18.736	
		1.0D+04		1.0D+04	1.0D+04	
07 DI	+48 25	31.57361	-123 13	37.60758	11.3386	
		1.0D+04		1.0D+04	1.0D+04	
08 RR	+48 17	55.19845	-123 31	56.10601	-8.628	
		1.0D+04		1.0D+04	1.0D+04	
09 DO	+48 29	34.98328	-123 20	49.09734	205.336	
		1.0D+04		1.0D+04	1.0D+04	

10	SM	+48	19	6.60177	-122	50	41.51904	-4.237
				1.0D+04			1.0D+04	1.0D+04
11	WO	+48	8	26.80849	-122	46	6.11279	60.059
				1.0D+04			1.0D+04	1.0D+04
12	IC	+48	25	11.46345	-122	53	5.82724	21.336
				1.0D+04			1.0D+04	1.0D+04
13	SO	+48	17	4.66031	-124	35	28.92762	577.178
				1.0D+04			1.0D+04	1.0D+04
14	SH	+48	22	38.80975	-123	55	23.27166	-2.499
				1.0D+04			1.0D+04	1.0D+04
15	BE	+48	19	45.96846	-123	39	26.29911	182.945
				1.0D+04			1.0D+04	1.0D+04
16	BA	+48	22	18.34370	-124	40	34.56994	418.174
				1.0D+04			1.0D+04	1.0D+04
17	AR	+48	27	26.97759	-124	12	24.82933	-6.070
				1.0D+04			1.0D+04	1.0D+04
18	EL	+48	9	30.24555	-124	18	53.65789	794.393
				1.0D+04			1.0D+04	1.0D+04
19	BO	+48	35	38.09457	-124	42	59.10624	-16.205
				1.0D+04			1.0D+04	1.0D+04
20	WA	+48	23	6.73799	-124	36	.19775	-7.445
				1.0D+04			1.0D+04	1.0D+04
21	RA	+49	5	2.52000	-125	50	29.50000	107.000
				1.0D+04			1.0D+04	1.0D+04
22	OK	+49	13	40.45000	-124	15	51.52000	451.000
				1.0D+04			1.0D+04	1.0D+04
23	PN	+49	19	21.20000	-119	37	12.38000	530.000
				1.0D+04			1.0D+04	1.0D+04
24	PE	+48	31	53.65000	-124	27	38.40000	-10.000
				1.0D+04			1.0D+04	1.0D+04

-1

NN XXXXXXXXX.XXX YYYYYYYY.YYY ZZZZZZZZ.ZZZ

===== SESSION BY SESSION INFORMATION =====

==> ENTER (ANSWER) THE FOLLOWING LINES FOR EACH OBSERVATION SESSION

1. DELIMITER (BLANK) LINE.
2. OBS. & SAT. INFORMATION FILE NAME (A64)
3. A-PRIORI STD. DEVIATION OF DOUBLE DIFFERENCE OBS. (MM) (*)
4. FIRST METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
5. SECOND METEOROLOGICAL AND ANTENNA HEIGHT FILE NAME (A64)
6. #CLOCK PAR. (ST.2 WRT ST.1) AND RESPECTIVE STD. DEV. (SEC) (*)
7. L1:1, L2:2, L1&L2:3; ESTIMATE AMB.? Y(1); ROUND-OFF AMB.? Y(1) (*)

:::JdFData:Data45:PGDO5S

20

:::JdFData:Data45:PG45W

:::JdFData:Data45:DO45W

0 1.0D-03 1.0D-03

3 0 0

:::JdFData:Data45:PGDO5T

20

:::JdFData:Data45:PG45W

:::JdFData:Data45:DO45W

0 1.0D-03 1.0D-03

3 0 0


```
:::JdFData:Data45:DODI5R
 18
:::JdFData:Data45:DO45W
:::JdFData:Data45:DI45W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data45:DIRR5R
 16
:::JdFData:Data45:DI45W
:::JdFData:Data45:RR45W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data45:RRLO5R
 20
:::JdFData:Data45:RR45W
:::JdFData:Data45:LO45W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data45:RRTU5R
 17
:::JdFData:Data45:RR45W
:::JdFData:Data45:TU45W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data45:DIDU5R
 19
:::JdFData:Data45:DI45W
:::JdFData:Data45:DU45W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:PGDO6R
 22
:::JdFData:Data46:PG46W
:::JdFData:Data46:DO46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:DOBE6R
 18
:::JdFData:Data46:DO46W
:::JdFData:Data46:BE46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:DODI6R
 17
:::JdFData:Data46:DO46W
:::JdFData:Data46:DI46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:DIDU6R
```

```
18
:::JdFData:Data46:DI46W
:::JdFData:Data46:DU46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:DIIC6R
15
:::JdFData:Data46:DI46W
:::JdFData:Data46:IC46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:ICSM6R
13
:::JdFData:Data46:IC46W
:::JdFData:Data46:SM46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data46:SMWO6R
17
:::JdFData:Data46:SM46W
:::JdFData:Data46:WO46W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data47:PGBE7R
21
:::JdFData:Data47:PG47W
:::JdFData:Data47:BE47W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data47:LOBE7R
19
:::JdFData:Data47:LO47W
:::JdFData:Data47:BE47W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data47:SHBE7R
20
:::JdFData:Data47:SH47W
:::JdFData:Data47:BE47W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data47:ARSH7R
22
:::JdFData:Data47:AR47W
:::JdFData:Data47:SH47W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data47:SHSL7R
30
```

```
:::JdFData:Data47:SH47W
:::JdFData:Data47:SL47W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data47:SOSL7R
28
:::JdFData:Data47:SO47W
:::JdFData:Data47:SL47W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data47:SOBA7R
20
:::JdFData:Data47:SO47W
:::JdFData:Data47:BA47W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data48:PGSH8R
23
:::JdFData:Data48:PG48W
:::JdFData:Data48:SH48W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data48:SHAR8R
25
:::JdFData:Data48:SH48W
:::JdFData:Data48:AR48W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data48:ARBO8R
24
:::JdFData:Data48:AR48W
:::JdFData:Data48:BO48W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data48:ARSO8R
21
:::JdFData:Data48:AR48W
:::JdFData:Data48:SO48W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data48:SOEL8R
20
:::JdFData:Data48:SO48W
:::JdFData:Data48:EL48W
0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data49:PGAR9T
25
:::JdFData:Data49:PG49W
```

```
:::JdFData:Data49:AR49W
0 1.0D-03 1.0D-03
3 0 0
```

```
:::JdFData:Data49:ARPE9R
20
:::JdFData:Data49:AR49W
:::JdFData:Data49:PE49W
0 1.0D-03 1.0D-03
3 0 0
```

```
:::JdFData:Data49:PEBO9R
21
:::JdFData:Data49:PE49W
:::JdFData:Data49:BO49W
0 1.0D-03 1.0D-03
3 0 0
```

```
:::JdFData:Data51:PGSH1R
20
:::JdFData:Data51:PG51W
:::JdFData:Data51:SH51W
0 1.0D-03 1.0D-03
3 0 0
```

```
:::JdFData:Data51:WASH1R
22
:::JdFData:Data51:WA51W
:::JdFData:Data51:SH51W
0 1.0D-03 1.0D-03
3 1 0
```

```
:::JdFData:Data52:PGOK2T
17
:::JdFData:Data52:PG52W
:::JdFData:Data52:OK52W
0 1.0D-03 1.0D-03
3 1 0
```

```
:::JdFData:Data52:RAOK2R
17
:::JdFData:Data52:RA52W
:::JdFData:Data52:OK52W
0 1.0D-03 1.0D-03
3 1 0
```

```
:::JdFData:Data52:PGPN2T
22
:::JdFData:Data52:PG52W
:::JdFData:Data52:PN52W
0 1.0D-03 1.0D-03
3 1 0
```

```
:::JdFData:Data44:BMSL4R
27
:::JdFData:Data44:BM44W
:::JdFData:Data44:SL44W
```

0 1.0D-03 1.0D-03
3 0 0

:::JdFData:Data44:LOBM4R
15
:::JdFData:Data44:LO44W
:::JdFData:Data44:BM44W
0 1.0D-03 1.0D-03
3 0 0

DIPOP 2.0: Processing Summary, Juan de Fuca Survey 1986

=====

SESSION:	1	:::JdFData:Data45:PGDO5S				
STATIONS:	PG DO,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 60,	#OBS. TOTAL:	60
SESSION:	2	:::JdFData:Data45:PGDO5T				
STATIONS:	PG DO,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 406,	#OBS. TOTAL:	466
SESSION:	3	:::JdFData:Data45:DODI5R				
STATIONS:	DO DI,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 615,	#OBS. TOTAL:	1081
SESSION:	4	:::JdFData:Data45:DIRR5R				
STATIONS:	DI RR,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 696,	#OBS. TOTAL:	1777
SESSION:	5	:::JdFData:Data45:RRLO5R				
STATIONS:	RR LO,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 546,	#OBS. TOTAL:	2323
SESSION:	6	:::JdFData:Data45:RRTU5R				
STATIONS:	RR TU,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 694,	#OBS. TOTAL:	3017
SESSION:	7	:::JdFData:Data45:DIDU5R				
STATIONS:	DI DU,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 686,	#OBS. TOTAL:	3703
SESSION:	8	:::JdFData:Data46:PGDO6R				
STATIONS:	PG DO,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 663,	#OBS. TOTAL:	4366
SESSION:	9	:::JdFData:Data46:DOBE6R				
STATIONS:	DO BE,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 691,	#OBS. TOTAL:	5057
SESSION:	10	:::JdFData:Data46:DODI6R				
STATIONS:	DO DI,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 693,	#OBS. TOTAL:	5750
SESSION:	11	:::JdFData:Data46:DIDU6R				
STATIONS:	DI DU,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 634,	#OBS. TOTAL:	6384
SESSION:	12	:::JdFData:Data46:DIIC6R				
STATIONS:	DI IC,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 696,	#OBS. TOTAL:	7080
SESSION:	13	:::JdFData:Data46:ICSM6R				
STATIONS:	IC SM,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 692,	#OBS. TOTAL:	7772
SESSION:	14	:::JdFData:Data46:SMWO6R				
STATIONS:	SM WO,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 686,	#OBS. TOTAL:	8458
SESSION:	15	:::JdFData:Data47:PGBE7R				
STATIONS:	PG BE,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 715,	#OBS. TOTAL:	9173
SESSION:	16	:::JdFData:Data47:LOBE7R				
STATIONS:	LO BE,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 740,	#OBS. TOTAL:	9913
SESSION:	17	:::JdFData:Data47:SHBE7R				
STATIONS:	SH BE,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 759,	#OBS. TOTAL:	10672

SESSION:	18	:::JdFData:Data47:ARSH7R					
STATIONS:	AR SH,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 674,	#OBS. TOTAL: 11346		
SESSION:	19	:::JdFData:Data47:SHSL7R					
STATIONS:	SH SL,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 722,	#OBS. TOTAL: 12068		
SESSION:	20	:::JdFData:Data47:SOSL7R					
STATIONS:	SO SL,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 647,	#OBS. TOTAL: 12715		
SESSION:	21	:::JdFData:Data47:SOBA7R					
STATIONS:	SO BA,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 453,	#OBS. TOTAL: 13168		
SESSION:	22	:::JdFData:Data48:PGSH8R					
STATIONS:	PG SH,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 705,	#OBS. TOTAL: 13873		
SESSION:	23	:::JdFData:Data48:SHAR8R					
STATIONS:	SH AR,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 678,	#OBS. TOTAL: 14551		
SESSION:	24	:::JdFData:Data48:ARBO8R					
STATIONS:	AR BO,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 675,	#OBS. TOTAL: 15226		
SESSION:	25	:::JdFData:Data48:ARSO8R					
STATIONS:	AR SO,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 679,	#OBS. TOTAL: 15905		
SESSION:	26	:::JdFData:Data48:SOEL8R					
STATIONS:	SO EL,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 771,	#OBS. TOTAL: 16676		
SESSION:	27	:::JdFData:Data49:PGAR9T					
STATIONS:	PG AR,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 492,	#OBS. TOTAL: 17168		
SESSION:	28	:::JdFData:Data49:ARPE9R					
STATIONS:	AR PE,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 684,	#OBS. TOTAL: 17852		
SESSION:	29	:::JdFData:Data49:PEBO9R					
STATIONS:	PE BO,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 714,	#OBS. TOTAL: 18566		
SESSION:	30	:::JdFData:Data51:PGSH1R					
STATIONS:	PG SH,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 334,	#OBS. TOTAL: 18900		
SESSION:	31	:::JdFData:Data51:WASH1R					
STATIONS:	WA SH,	NCLKP: 0,	#AMBIGUITIES: 6,	#OBS.: 513,	#OBS. TOTAL: 19413		
SESSION:	32	:::JdFData:Data52:PGOK2T					
STATIONS:	PG OK,	NCLKP: 0,	#AMBIGUITIES: 8,	#OBS.: 536,	#OBS. TOTAL: 19949		
SESSION:	33	:::JdFData:Data52:RAOK2R					
STATIONS:	RA OK,	NCLKP: 0,	#AMBIGUITIES: 9,	#OBS.: 693,	#OBS. TOTAL: 20642		
SESSION:	34	:::JdFData:Data52:PGPN2T					
STATIONS:	PG PN,	NCLKP: 0,	#AMBIGUITIES: 8,	#OBS.: 574,	#OBS. TOTAL: 21216		
SESSION:	35	:::JdFData:Data44:BMSL4R					
STATIONS:	BM SL,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 636,	#OBS. TOTAL: 21852		
SESSION:	36	:::JdFData:Data44:LOBM4R					
STATIONS:	LO BM,	NCLKP: 0,	#AMBIGUITIES: 0,	#OBS.: 660,	#OBS. TOTAL: 22512		

DIPOP 2.0: L3 Network Solution, Juan de Fuca Survey 1986

RE-EVALUATION OF NUISANCE PARAMETERS

SESSION: 31 :::JdFData:Data51:WASH1R
STATIONS: WA SH

AMBIGUITY	WRT REFERENCE SATELLITE :			
	9			
6 :		-5.10	+/-	1.44
8 :		-4.94	+/-	2.14
11 :		-6.04	+/-	1.40
13 :		-2.48	+/-	.88
12 :		-1.78	+/-	1.29
41 :		-2.65	+/-	1.83

SESSION: 32 :::JdFData:Data52:PGOK2T
STATIONS: PG OK

AMBIGUITY	WRT REFERENCE SATELLITE :			
	9			
6 :		6.14	+/-	.96
11 :		2.43	+/-	.93
8 :		-3.40	+/-	1.29
13 :		-4.15	+/-	.92
12 :		2.26	+/-	.88
36 :		-2.60	+/-	1.04
41 :		-3.74	+/-	1.20
43 :		-.72	+/-	.57

SESSION: 33 :::JdFData:Data52:RAOK2R
STATIONS: RA OK

AMBIGUITY	WRT REFERENCE SATELLITE :			
	9			
3 :		-9.82	+/-	1.67
6 :		-10.66	+/-	.71
11 :		-2.47	+/-	.80
8 :		-9.77	+/-	1.10
13 :		3.04	+/-	.84
12 :		-1.66	+/-	.63
36 :		-7.33	+/-	.95
41 :		-4.07	+/-	1.14
43 :		.22	+/-	.48

SESSION: 34 :::JdFData:Data52:PGPN2T
STATIONS: PG PN

AMBIGUITY	WRT REFERENCE SATELLITE :			
	11			
6 :		-7.21	+/-	.70
9 :		8.76	+/-	.94
8 :		-5.87	+/-	1.26
13 :		21.70	+/-	1.42
12 :		8.44	+/-	1.72
36 :		6.25	+/-	1.23
41 :		5.38	+/-	1.49
43 :		.44	+/-	1.41

REFERENCE ELLIPSOID
 AE = 6378135.0, F-1 = 298.2600, XE = .000, YE = .000, ZE = .000
 A POSTERIORI VARIANCE FACTOR : 1.0796

BASELINE: STATION : PG AND STATION : DO
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : DO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98328
 LONGITUDE : -123 20 49.09734
 HEIGHT : 205.3360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98338 +/- 1 MM
 LONGITUDE : -123 20 49.09730 +/- 1 MM
 HEIGHT : 205.3259 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327986.4688 M +/- 1 MM
 Y : -3537697.0166 M +/- 1 MM
 Z : 4753538.0491 M +/- 1 MM

BASELINE : PG DO

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 9 19.88935
 DELTA LONGITUDE : 0 6 15.54207
 DELTA HEIGHT : 204.4420

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 9 19.88925 +/- 1 MM
 DELTA LONGITUDE : 0 6 15.54211 +/- 1 MM
 DELTA HEIGHT : 204.4319 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -785.3117 M +/- 1 MM
 DELTA Y : -15176.5110 M +/- 1 MM
 DELTA Z : -11290.6164 M +/- 1 MM

BASELINE LENGTH : 18932.0157 M +/- 1 MM

AZIMUTH PG TO DO : 155 57 55.037 +/- .009 SEC
 AZIMUTH DO TO PG : - 23 57 23.398 +/- .009 SEC

BASELINE: STATION : PG AND STATION : SH
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166
 HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80995 +/- 1 MM
 LONGITUDE : -123 55 23.27116 +/- 1 MM
 HEIGHT : -2.5227 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2368733.6619 M +/- 1 MM
 Y : -3521975.3399 M +/- 1 MM
 Z : 4744853.5521 M +/- 1 MM

BASELINE : PG SH

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : - 0 16 16.06288
 DELTA LONGITUDE : - 0 28 18.63225
 DELTA HEIGHT : -3.3930

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : - 0 16 16.06268 +/- 1 MM
 DELTA LONGITUDE : - 0 28 18.63175 +/- 1 MM
 DELTA HEIGHT : -3.4167 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : -41532.5049 M +/- 1 MM
 DELTA Y : 545.1657 M +/- 1 MM
 DELTA Z : -19975.1134 M +/- 1 MM

BASELINE LENGTH : 46089.6010 M +/- 1 MM

AZIMUTH PG TO SH : -130 40 41.183 +/- .003 SEC
 AZIMUTH SH TO PG : 48 58 6.355 +/- .003 SEC

BASELINE: STATION : PG AND STATION : BE
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : BE

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96846
 LONGITUDE : -123 39 26.29911
 HEIGHT : 182.9450

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96862 +/- 1 MM
 LONGITUDE : -123 39 26.29857 +/- 1 MM
 HEIGHT : 182.9513 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2354647.2763 M +/- 1 MM
 Y : -3536350.5159 M +/- 1 MM
 Z : 4741444.3263 M +/- 1 MM

BASELINE : PG BE

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 19 8.90417
 DELTA LONGITUDE : - 0 12 21.65970
 DELTA HEIGHT : 182.0510

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 19 8.90401 +/- 1 MM
 DELTA LONGITUDE : - 0 12 21.65916 +/- 1 MM
 DELTA HEIGHT : 182.0573 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -27446.1193 M +/- 1 MM
 DELTA Y : -13830.0103 M +/- 1 MM
 DELTA Z : -23384.3393 M +/- 1 MM

BASELINE LENGTH : 38618.4667 M +/- 1 MM

AZIMUTH PG TO BE : -156 41 54.333 +/- .004 SEC
 AZIMUTH BE TO PG : 23 8 50.295 +/- .004 SEC

BASELINE: STATION : PG AND STATION : AR
 =====

STATION NAME : PG

 A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97759
 LONGITUDE : -124 12 24.82933
 HEIGHT : -6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97814 +/- 1 MM
 LONGITUDE : -124 12 24.82777 +/- 1 MM
 HEIGHT : -6.1397 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2382403.2753 M +/- 2 MM
 Y : -3504692.4579 M +/- 2 MM
 Z : 4750758.4641 M +/- 2 MM

BASELINE : PG AR

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 11 27.89504
 DELTA LONGITUDE : - 0 45 20.18992
 DELTA HEIGHT : -6.9640

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 11 27.89449 +/- 1 MM
 DELTA LONGITUDE : - 0 45 20.18836 +/- 1 MM
 DELTA HEIGHT : -7.0337 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -55202.1182 M +/- 2 MM
 DELTA Y : 17828.0477 M +/- 2 MM

DELTA Z : -14070.2015 M +/- 2 MM

BASELINE LENGTH : 59691.5715 M +/- 1 MM

AZIMUTH PG TO AR : -110 34 9.503 +/- .003 SEC

AZIMUTH AR TO PG : 68 51 51.513 +/- .003 SEC

BASELINE: STATION : PG AND STATION : OK

=====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263

LONGITUDE : -123 27 4.63941

HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM

LONGITUDE : -123 27 4.63941 +/- 0 MM

HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM

Y : -3522520.5056 M +/- 0 MM

Z : 4764828.6655 M +/- 0 MM

STATION NAME : OK

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 49 13 40.45000

LONGITUDE : -124 15 51.52000

HEIGHT : 451.0000

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 49 13 40.45757 +/- 4 MM

LONGITUDE : -124 15 51.51894 +/- 9 MM

HEIGHT : 451.1252 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2349765.3661 M +/- 9 MM

Y : -3449240.4625 M +/- 5 MM

Z : 4807489.3150 M +/- 3 MM

BASELINE : PG OK

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 34 45.57737
 DELTA LONGITUDE : - 0 48 46.88059
 DELTA HEIGHT : 450.1060

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 34 45.58494 +/- 4 MM
 DELTA LONGITUDE : - 0 48 46.87953 +/- 9 MM
 DELTA HEIGHT : 450.2312 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -22564.2091 M +/- 9 MM
 DELTA Y : 73280.0432 M +/- 5 MM
 DELTA Z : 42660.6495 M +/- 3 MM

BASELINE LENGTH : 87744.1695 M +/- 6 MM

AZIMUTH PG TO OK : - 42 26 53.694 +/- .019 SEC
 AZIMUTH OK TO PG : 136 56 19.368 +/- .019 SEC

BASELINE: STATION : PG AND STATION : PN
 =====

STATION NAME : PG

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263
 LONGITUDE : -123 27 4.63941
 HEIGHT : .8940

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 38 54.87263 +/- 0 MM
 LONGITUDE : -123 27 4.63941 +/- 0 MM
 HEIGHT : .8940 +/- 0 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327201.1570 M +/- 0 MM
 Y : -3522520.5056 M +/- 0 MM
 Z : 4764828.6655 M +/- 0 MM

STATION NAME : PN

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 49 19 21.20000
 LONGITUDE : -119 37 12.38000
 HEIGHT : 530.0000

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 49 19 21.23847 +/- 4 MM

LONGITUDE : -119 37 12.37748 +/- 9 MM
 HEIGHT : 528.5388 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2058853.7621 M +/- 9 MM
 Y : -3621278.7828 M +/- 5 MM
 Z : 4814417.0991 M +/- 4 MM

BASELINE : PG PN

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 40 26.32737
 DELTA LONGITUDE : 3 49 52.25941
 DELTA HEIGHT : 529.1060

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 40 26.36584 +/- 4 MM
 DELTA LONGITUDE : 3 49 52.26193 +/- 9 MM
 DELTA HEIGHT : 527.6448 +/- 5 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : 268347.3949 M +/- 9 MM
 DELTA Y : -98758.2771 M +/- 5 MM
 DELTA Z : 49588.4336 M +/- 4 MM

BASELINE LENGTH : 290211.1893 M +/- 10 MM

AZIMUTH PG TO PN : 73 35 40.776 +/- .003 SEC
 AZIMUTH PN TO PG : -103 30 50.488 +/- .003 SEC

BASELINE: STATION : LO AND STATION : BM
 =====

STATION NAME : LO

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 9 1.23134
 LONGITUDE : -123 40 13.29937
 HEIGHT : 307.4040

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 9 1.23174 +/- 1 MM
 LONGITUDE : -123 40 13.29823 +/- 1 MM
 HEIGHT : 307.3673 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2363735.0130 M +/- 2 MM

B-20

Y : -3548246.1584 M +/- 2 MM
Z : 4728273.4380 M +/- 2 MM

STATION NAME : BM

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 47 57 18.02830
LONGITUDE : -123 15 35.32163
HEIGHT : 1809.6750

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 47 57 18.02860 +/- 1 MM
LONGITUDE : -123 15 35.31166 +/- 1 MM
HEIGHT : 1809.7847 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2347661.3890 M +/- 2 MM
Y : -3579442.1386 M +/- 2 MM
Z : 4714870.1536 M +/- 2 MM

BASELINE : LO BM

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 11 43.20304
DELTA LONGITUDE : 0 24 37.97774
DELTA HEIGHT : 1502.2710

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 11 43.20315 +/- 1 MM
DELTA LONGITUDE : 0 24 37.98657 +/- 1 MM
DELTA HEIGHT : 1502.4174 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 16073.6240 M +/- 1 MM
DELTA Y : -31195.9802 M +/- 1 MM
DELTA Z : -13403.2843 M +/- 1 MM

BASELINE LENGTH : 37565.9234 M +/- 1 MM

AZIMUTH LO TO BM : 125 12 29.566 +/- .005 SEC
AZIMUTH BM TO LO : - 54 29 11.232 +/- .005 SEC

BASELINE: STATION : LO AND STATION : RR
=====

STATION NAME : LO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 9 1.23134
 LONGITUDE : -123 40 13.29937
 HEIGHT : 307.4040

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 9 1.23174 +/- 1 MM
 LONGITUDE : -123 40 13.29823 +/- 1 MM
 HEIGHT : 307.3673 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2363735.0130 M +/- 2 MM
 Y : -3548246.1584 M +/- 2 MM
 Z : 4728273.4380 M +/- 2 MM

STATION NAME : RR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 55.19845
 LONGITUDE : -123 31 56.10601
 HEIGHT : -8.6280

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 55.19872 +/- 1 MM
 LONGITUDE : -123 31 56.10602 +/- 1 MM
 HEIGHT : -8.6477 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2348264.3597 M +/- 2 MM
 Y : -3543505.0459 M +/- 2 MM
 Z : 4739025.7841 M +/- 2 MM

BASELINE : LO RR

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 8 53.96711
 DELTA LONGITUDE : 0 8 17.19336
 DELTA HEIGHT : -316.0320

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 8 53.96697 +/- 1 MM
 DELTA LONGITUDE : 0 8 17.19221 +/- 1 MM
 DELTA HEIGHT : -316.0150 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 15470.6533 M +/- 1 MM
 DELTA Y : 4741.1125 M +/- 1 MM
 DELTA Z : 10752.3461 M +/- 2 MM

BASELINE LENGTH : 19427.6146 M +/- 1 MM
 AZIMUTH LO TO RR : 31 50 16.207 +/- .010 SEC
 AZIMUTH RR TO LO : -148 3 33.020 +/- .010 SEC

BASELINE: STATION : LO AND STATION : BE
 =====

STATION NAME : LO

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 9 1.23134
 LONGITUDE : -123 40 13.29937
 HEIGHT : 307.4040

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 9 1.23174 +/- 1 MM
 LONGITUDE : -123 40 13.29823 +/- 1 MM
 HEIGHT : 307.3673 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2363735.0130 M +/- 2 MM
 Y : -3548246.1584 M +/- 2 MM
 Z : 4728273.4380 M +/- 2 MM

STATION NAME : BE

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 19 45.96846
 LONGITUDE : -123 39 26.29911
 HEIGHT : 182.9450

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 19 45.96862 +/- 1 MM
 LONGITUDE : -123 39 26.29857 +/- 1 MM
 HEIGHT : 182.9513 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2354647.2763 M +/- 1 MM
 Y : -3536350.5159 M +/- 1 MM
 Z : 4741444.3263 M +/- 1 MM

BASELINE : LO BE

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 10 44.73712
 DELTA LONGITUDE : 0 0 47.00026
 DELTA HEIGHT : -124.4590

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 10 44.73688 +/- 1 MM
 DELTA LONGITUDE : 0 0 46.99966 +/- 1 MM
 DELTA HEIGHT : -124.4160 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 9087.7367 M +/- 1 MM
 DELTA Y : 11895.6425 M +/- 1 MM
 DELTA Z : 13170.8883 M +/- 2 MM

BASELINE LENGTH : 19939.0463 M +/- 1 MM

AZIMUTH LO TO BE : 2 46 58.775 +/- .010 SEC
 AZIMUTH BE TO LO : -177 12 26.166 +/- .010 SEC

BASELINE: STATION : BM AND STATION : SL
 =====

STATION NAME : BM

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 47 57 18.02830
 LONGITUDE : -123 15 35.32163
 HEIGHT : 1809.6750

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 47 57 18.02860 +/- 1 MM
 LONGITUDE : -123 15 35.31166 +/- 1 MM
 HEIGHT : 1809.7847 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2347661.3890 M +/- 2 MM
 Y : -3579442.1386 M +/- 2 MM
 Z : 4714870.1536 M +/- 2 MM

STATION NAME : SL

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 15 39.68634
 LONGITUDE : -124 14 26.14666
 HEIGHT : 117.7860

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 15 39.68680 +/- 1 MM
 LONGITUDE : -124 14 26.14575 +/- 1 MM

HEIGHT : 117.7476 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES
X : -2393697.1631 M +/- 2 MM
Y : -3516855.8039 M +/- 2 MM
Z : 4736334.5803 M +/- 2 MM

BASELINE : BM SL

A-PRIORI ELLIPSOID BASELINE COMPONENTS
DELTA LATITUDE : 0 18 21.65804
DELTA LONGITUDE : - 0 58 50.82503
DELTA HEIGHT : -1691.8890

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
DELTA LATITUDE : 0 18 21.65820 +/- 1 MM
DELTA LONGITUDE : - 0 58 50.83409 +/- 1 MM
DELTA HEIGHT : -1692.0372 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
DELTA X : -46035.7741 M +/- 2 MM
DELTA Y : 62586.3347 M +/- 2 MM
DELTA Z : 21464.4267 M +/- 2 MM

BASELINE LENGTH : 80604.3634 M +/- 1 MM

AZIMUTH BM TO SL : - 64 39 21.632 +/- .004 SEC
AZIMUTH SL TO BM : 114 36 50.023 +/- .004 SEC

BASELINE: STATION : SL AND STATION : SO
=====

STATION NAME : SL

A-PRIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 15 39.68634
LONGITUDE : -124 14 26.14666
HEIGHT : 117.7860

A POSTERIORI ELLIPSOIDAL COORDINATES
LATITUDE : 48 15 39.68680 +/- 1 MM
LONGITUDE : -124 14 26.14575 +/- 1 MM
HEIGHT : 117.7476 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES
X : -2393697.1631 M +/- 2 MM
Y : -3516855.8039 M +/- 2 MM

Z : 4736334.5803 M +/- 2 MM

STATION NAME : SO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 4.66031
LONGITUDE : -124 35 28.92762
HEIGHT : 577.1780

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 4.66108 +/- 2 MM
LONGITUDE : -124 35 28.92610 +/- 2 MM
HEIGHT : 577.1828 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2414244.2966 M +/- 2 MM
Y : -3500774.5459 M +/- 2 MM
Z : 4738424.4933 M +/- 3 MM

BASELINE : SL SO

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 1 24.97397
DELTA LONGITUDE : - 0 21 2.78096
DELTA HEIGHT : 459.3920

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 1 24.97428 +/- 1 MM
DELTA LONGITUDE : - 0 21 2.78034 +/- 1 MM
DELTA HEIGHT : 459.4352 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -20547.1335 M +/- 2 MM
DELTA Y : 16081.2580 M +/- 2 MM
DELTA Z : 2089.9130 M +/- 3 MM

BASELINE LENGTH : 26175.5476 M +/- 1 MM

AZIMUTH SL TO SO : - 84 6 47.274 +/- .011 SEC
AZIMUTH SO TO SL : 95 37 30.279 +/- .011 SEC

BASELINE: STATION : SL AND STATION : SH
=====

STATION NAME : SL

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 15 39.68634
 LONGITUDE : -124 14 26.14666
 HEIGHT : 117.7860

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 15 39.68680 +/- 1 MM
 LONGITUDE : -124 14 26.14575 +/- 1 MM
 HEIGHT : 117.7476 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2393697.1631 M +/- 2 MM
 Y : -3516855.8039 M +/- 2 MM
 Z : 4736334.5803 M +/- 2 MM

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166
 HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80995 +/- 1 MM
 LONGITUDE : -123 55 23.27116 +/- 1 MM
 HEIGHT : -2.5227 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2368733.6619 M +/- 1 MM
 Y : -3521975.3399 M +/- 1 MM
 Z : 4744853.5521 M +/- 1 MM

BASELINE : SL SH

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 6 59.12341
 DELTA LONGITUDE : 0 19 2.87500
 DELTA HEIGHT : -120.2850

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 6 59.12316 +/- 1 MM
 DELTA LONGITUDE : 0 19 2.87460 +/- 1 MM
 DELTA HEIGHT : -120.2702 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 24963.5012 M +/- 2 MM
 DELTA Y : -5119.5360 M +/- 2 MM
 DELTA Z : 8518.9717 M +/- 2 MM

BASELINE LENGTH : 26869.2933 M +/- 2 MM
 AZIMUTH SL TO SH : 61 4 38.723 +/- .008 SEC
 AZIMUTH SH TO SL : -118 41 7.712 +/- .008 SEC

BASELINE: STATION : TU AND STATION : RR
 =====

STATION NAME : TU

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 8 23.34869
 LONGITUDE : -123 24 11.02665
 HEIGHT : -18.4170

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 8 23.34892 +/- 1 MM
 LONGITUDE : -123 24 11.02633 +/- 2 MM
 HEIGHT : -18.4183 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2347516.1145 M +/- 2 MM
 Y : -3559780.9712 M +/- 2 MM
 Z : 4727250.0272 M +/- 3 MM

STATION NAME : RR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 55.19845
 LONGITUDE : -123 31 56.10601
 HEIGHT : -8.6280

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 55.19872 +/- 1 MM
 LONGITUDE : -123 31 56.10602 +/- 1 MM
 HEIGHT : -8.6477 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2348264.3597 M +/- 2 MM
 Y : -3543505.0459 M +/- 2 MM
 Z : 4739025.7841 M +/- 2 MM

BASELINE : TU RR

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 9 31.84976

DELTA LONGITUDE : - 0 7 45.07936
 DELTA HEIGHT : 9.7890

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 9 31.84980 +/- 1 MM
 DELTA LONGITUDE : - 0 7 45.07969 +/- 1 MM
 DELTA HEIGHT : 9.7706 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -748.2452 M +/- 1 MM
 DELTA Y : 16275.9253 M +/- 1 MM
 DELTA Z : 11775.7569 M +/- 2 MM

BASELINE LENGTH : 20103.0860 M +/- 1 MM

AZIMUTH TU TO RR : - 28 28 33.622 +/- .013 SEC
 AZIMUTH RR TO TU : 151 25 39.567 +/- .013 SEC

BASELINE: STATION : DU AND STATION : DI
 =====

STATION NAME : DU

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 10 52.50371
 LONGITUDE : -123 6 37.78416
 HEIGHT : -18.7360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 10 52.50382 +/- 1 MM
 LONGITUDE : -123 6 37.78407 +/- 1 MM
 HEIGHT : -18.7348 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327433.4127 M +/- 2 MM
 Y : -3568846.4513 M +/- 2 MM
 Z : 4730322.8330 M +/- 2 MM

STATION NAME : DI

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57361
 LONGITUDE : -123 13 37.60758
 HEIGHT : 11.3380

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57382 +/- 1 MM
 LONGITUDE : -123 13 37.60732 +/- 1 MM
 HEIGHT : 11.2914 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2323594.0048 M +/- 1 MM
 Y : -3547159.1579 M +/- 1 MM
 Z : 4748406.7551 M +/- 2 MM

BASELINE : DU DI

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 14 39.06990
 DELTA LONGITUDE : - 0 6 59.82342
 DELTA HEIGHT : 30.0740

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 14 39.07001 +/- 1 MM
 DELTA LONGITUDE : - 0 6 59.82326 +/- 1 MM
 DELTA HEIGHT : 30.0263 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : 3839.4079 M +/- 1 MM
 DELTA Y : 21687.2934 M +/- 1 MM
 DELTA Z : 18083.9221 M +/- 1 MM

BASELINE LENGTH : 28497.5084 M +/- 1 MM

AZIMUTH DU TO DI : - 17 37 46.765 +/- .007 SEC
 AZIMUTH DI TO DU : 162 16 59.761 +/- .007 SEC

BASELINE: STATION : DI AND STATION : RR
 =====

STATION NAME : DI

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 25 31.57361
 LONGITUDE : -123 13 37.60758
 HEIGHT : 11.3380

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 25 31.57382 +/- 1 MM
 LONGITUDE : -123 13 37.60732 +/- 1 MM
 HEIGHT : 11.2914 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2323594.0048 M +/- 1 MM
 Y : -3547159.1579 M +/- 1 MM
 Z : 4748406.7551 M +/- 2 MM

STATION NAME : RR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 55.19845
LONGITUDE : -123 31 56.10601
HEIGHT : -8.6280

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 55.19872 +/- 1 MM
LONGITUDE : -123 31 56.10602 +/- 1 MM
HEIGHT : -8.6477 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2348264.3597 M +/- 2 MM
Y : -3543505.0459 M +/- 2 MM
Z : 4739025.7841 M +/- 2 MM

BASELINE : DI RR

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 7 36.37516
DELTA LONGITUDE : - 0 18 18.49843
DELTA HEIGHT : -19.9660

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 7 36.37510 +/- 1 MM
DELTA LONGITUDE : - 0 18 18.49869 +/- 1 MM
DELTA HEIGHT : -19.9391 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -24670.3549 M +/- 1 MM
DELTA Y : 3654.1120 M +/- 1 MM
DELTA Z : -9380.9710 M +/- 1 MM

BASELINE LENGTH : 26645.4792 M +/- 1 MM

AZIMUTH DI TO RR : -121 49 35.821 +/- .005 SEC
AZIMUTH RR TO DI : 57 56 43.205 +/- .005 SEC

BASELINE: STATION : DI AND STATION : DO
=====

STATION NAME : DI

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57361
 LONGITUDE : -123 13 37.60758
 HEIGHT : 11.3380

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57382 +/- 1 MM
 LONGITUDE : -123 13 37.60732 +/- 1 MM
 HEIGHT : 11.2914 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2323594.0048 M +/- 1 MM
 Y : -3547159.1579 M +/- 1 MM
 Z : 4748406.7551 M +/- 2 MM

STATION NAME : DO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98328
 LONGITUDE : -123 20 49.09734
 HEIGHT : 205.3360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98338 +/- 1 MM
 LONGITUDE : -123 20 49.09730 +/- 1 MM
 HEIGHT : 205.3259 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327986.4688 M +/- 1 MM
 Y : -3537697.0166 M +/- 1 MM
 Z : 4753538.0491 M +/- 1 MM

BASELINE : DI DO

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 3.40967
 DELTA LONGITUDE : - 0 7 11.48976
 DELTA HEIGHT : 193.9980

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 3.40955 +/- 1 MM
 DELTA LONGITUDE : - 0 7 11.48997 +/- 1 MM
 DELTA HEIGHT : 194.0345 +/- 1 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -4392.4640 M +/- 1 MM
 DELTA Y : 9462.1413 M +/- 1 MM
 DELTA Z : 5131.2939 M +/- 1 MM

BASELINE LENGTH : 11625.6628 M +/- 1 MM
 AZIMUTH DI TO DO : - 49 39 9.012 +/- .015 SEC
 AZIMUTH DO TO DI : 130 15 28.015 +/- .015 SEC

BASELINE: STATION : DI AND STATION : IC
 =====

STATION NAME : DI

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57361
 LONGITUDE : -123 13 37.60758
 HEIGHT : 11.3380

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 31.57382 +/- 1 MM
 LONGITUDE : -123 13 37.60732 +/- 1 MM
 HEIGHT : 11.2914 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2323594.0048 M +/- 1 MM
 Y : -3547159.1579 M +/- 1 MM
 Z : 4748406.7551 M +/- 2 MM

STATION NAME : IC

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 11.46345
 LONGITUDE : -122 53 5.82724
 HEIGHT : 21.3360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 11.46348 +/- 1 MM
 LONGITUDE : -122 53 5.82707 +/- 1 MM
 HEIGHT : 21.3524 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2302625.5585 M +/- 2 MM
 Y : -3561367.7820 M +/- 2 MM
 Z : 4748002.0477 M +/- 2 MM

BASELINE : DI IC

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 0 20.11016
 DELTA LONGITUDE : 0 20 31.78034

DELTA HEIGHT : 9.9980

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 0 20.11034 +/- 1 MM
 DELTA LONGITUDE : 0 20 31.78026 +/- 1 MM
 DELTA HEIGHT : 10.0610 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 20968.4462 M +/- 1 MM
 DELTA Y : -14208.6241 M +/- 1 MM
 DELTA Z : -404.7074 M +/- 1 MM

BASELINE LENGTH : 25332.2822 M +/- 1 MM

AZIMUTH DI TO IC : 91 16 37.633 +/- .007 SEC
 AZIMUTH IC TO DI : - 88 28 .920 +/- .007 SEC

BASELINE: STATION : DO AND STATION : BE
 =====

STATION NAME : DO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98328
 LONGITUDE : -123 20 49.09734
 HEIGHT : 205.3360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 29 34.98338 +/- 1 MM
 LONGITUDE : -123 20 49.09730 +/- 1 MM
 HEIGHT : 205.3259 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2327986.4688 M +/- 1 MM
 Y : -3537697.0166 M +/- 1 MM
 Z : 4753538.0491 M +/- 1 MM

STATION NAME : BE

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96846
 LONGITUDE : -123 39 26.29911
 HEIGHT : 182.9450

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96862 +/- 1 MM
 LONGITUDE : -123 39 26.29857 +/- 1 MM
 HEIGHT : 182.9513 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2354647.2763 M +/- 1 MM
 Y : -3536350.5159 M +/- 1 MM
 Z : 4741444.3263 M +/- 1 MM

BASELINE : DO BE

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : - 0 9 49.01482
 DELTA LONGITUDE : - 0 18 37.20177
 DELTA HEIGHT : -22.3910

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : - 0 9 49.01475 +/- 1 MM
 DELTA LONGITUDE : - 0 18 37.20127 +/- 1 MM
 DELTA HEIGHT : -22.3746 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : -26660.8075 M +/- 1 MM
 DELTA Y : 1346.5007 M +/- 1 MM
 DELTA Z : -12093.7228 M +/- 1 MM

BASELINE LENGTH : 29306.4814 M +/- 1 MM
 AZIMUTH DO TO BE : -128 15 37.449 +/- .004 SEC
 AZIMUTH BE TO DO : 51 30 26.961 +/- .004 SEC

BASELINE: STATION : SM AND STATION : WO
 =====

STATION NAME : SM

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 19 6.60177
 LONGITUDE : -122 50 41.51904
 HEIGHT : -4.2370

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 19 6.60234 +/- 1 MM
 LONGITUDE : -122 50 41.51940 +/- 2 MM
 HEIGHT : -4.2804 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2304692.8157 M +/- 2 MM
 Y : -3570040.5891 M +/- 2 MM
 Z : 4740495.9658 M +/- 3 MM

STATION NAME : WO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 8 26.80849
LONGITUDE : -122 46 6.11279
HEIGHT : 60.0590

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 8 26.80852 +/- 2 MM
LONGITUDE : -122 46 6.11308 +/- 2 MM
HEIGHT : 60.0943 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2307924.4395 M +/- 3 MM
Y : -3585543.9398 M +/- 2 MM
Z : 4727379.8084 M +/- 3 MM

BASELINE : SM WO

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 10 39.79328
DELTA LONGITUDE : 0 4 35.40625
DELTA HEIGHT : 64.2960

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 10 39.79382 +/- 1 MM
DELTA LONGITUDE : 0 4 35.40632 +/- 1 MM
DELTA HEIGHT : 64.3747 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -3231.6238 M +/- 1 MM
DELTA Y : -15503.3507 M +/- 1 MM
DELTA Z : -13116.1574 M +/- 2 MM

BASELINE LENGTH : 20562.8515 M +/- 1 MM

AZIMUTH SM TO WO : 163 55 32.939 +/- .012 SEC
AZIMUTH WO TO SM : - 16 1 1.658 +/- .012 SEC

BASELINE: STATION : SM AND STATION : IC
=====

STATION NAME : SM

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 6.60177

LONGITUDE : -122 50 41.51904
 HEIGHT : -4.2370

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 6.60234 +/- 1 MM
 LONGITUDE : -122 50 41.51940 +/- 2 MM
 HEIGHT : -4.2804 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2304692.8157 M +/- 2 MM
 Y : -3570040.5891 M +/- 2 MM
 Z : 4740495.9658 M +/- 3 MM

CROSS-CORRELATION BETWEEN COORDINATES

ALL |CROSS-CORRELATION VALUES| SMALLER THAN 1.00

STATION NAME : IC

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 11.46345
 LONGITUDE : -122 53 5.82724
 HEIGHT : 21.3360

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 25 11.46348 +/- 1 MM
 LONGITUDE : -122 53 5.82707 +/- 1 MM
 HEIGHT : 21.3524 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2302625.5585 M +/- 2 MM
 Y : -3561367.7820 M +/- 2 MM
 Z : 4748002.0477 M +/- 2 MM

BASELINE : SM IC

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 6 4.86168
 DELTA LONGITUDE : - 0 2 24.30820
 DELTA HEIGHT : 25.5730

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 6 4.86114 +/- 1 MM
 DELTA LONGITUDE : - 0 2 24.30767 +/- 1 MM
 DELTA HEIGHT : 25.6328 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 2067.2572 M +/- 1 MM
 DELTA Y : 8672.8072 M +/- 1 MM
 DELTA Z : 7506.0819 M +/- 1 MM

BASELINE LENGTH : 11654.7158 M +/- 1 MM
 AZIMUTH SM TO IC : - 14 44 55.191 +/- .016 SEC
 AZIMUTH IC TO SM : 165 13 16.947 +/- .016 SEC

BASELINE: STATION : SO AND STATION : BA
 =====

STATION NAME : SO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 4.66031
 LONGITUDE : -124 35 28.92762
 HEIGHT : 577.1780

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 17 4.66108 +/- 2 MM
 LONGITUDE : -124 35 28.92610 +/- 2 MM
 HEIGHT : 577.1828 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2414244.2966 M +/- 2 MM
 Y : -3500774.5459 M +/- 2 MM
 Z : 4738424.4933 M +/- 3 MM

STATION NAME : BA

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 18.34370
 LONGITUDE : -124 40 34.56994
 HEIGHT : 418.1740

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 18.34436 +/- 2 MM
 LONGITUDE : -124 40 34.56795 +/- 2 MM
 HEIGHT : 418.1421 +/- 5 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2415250.9629 M +/- 3 MM
 Y : -3491153.9973 M +/- 3 MM
 Z : 4744748.0795 M +/- 4 MM

BASELINE : SO BA

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 5 13.68339

DELTA LONGITUDE : - 0 5 5.64232
 DELTA HEIGHT : -159.0040

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 5 13.68329 +/- 2 MM
 DELTA LONGITUDE : - 0 5 5.64186 +/- 1 MM
 DELTA HEIGHT : -159.0406 +/- 4 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : -1006.6663 M +/- 3 MM
 DELTA Y : 9620.5486 M +/- 2 MM
 DELTA Z : 6323.5862 M +/- 3 MM

BASELINE LENGTH : 11556.6463 M +/- 1 MM

AZIMUTH SO TO BA : - 32 58 55.334 +/- .035 SEC
 AZIMUTH BA TO SO : 146 57 16.369 +/- .035 SEC

BASELINE: STATION : SO AND STATION : AR
 =====

STATION NAME : SO

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 17 4.66031
 LONGITUDE : -124 35 28.92762
 HEIGHT : 577.1780

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 17 4.66108 +/- 2 MM
 LONGITUDE : -124 35 28.92610 +/- 2 MM
 HEIGHT : 577.1828 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2414244.2966 M +/- 2 MM
 Y : -3500774.5459 M +/- 2 MM
 Z : 4738424.4933 M +/- 3 MM

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 27 26.97759
 LONGITUDE : -124 12 24.82933
 HEIGHT : -6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 27 26.97814 +/- 1 MM
 LONGITUDE : -124 12 24.82777 +/- 1 MM
 HEIGHT : -6.1397 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2382403.2753 M +/- 2 MM
 Y : -3504692.4579 M +/- 2 MM
 Z : 4750758.4641 M +/- 2 MM

BASELINE : SO AR

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 10 22.31728
 DELTA LONGITUDE : 0 23 4.09829
 DELTA HEIGHT : -583.2480

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 10 22.31706 +/- 1 MM
 DELTA LONGITUDE : 0 23 4.09833 +/- 1 MM
 DELTA HEIGHT : -583.3225 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : 31841.0214 M +/- 2 MM
 DELTA Y : -3917.9120 M +/- 2 MM
 DELTA Z : 12333.9707 M +/- 2 MM

BASELINE LENGTH : 34370.4453 M +/- 2 MM

AZIMUTH SO TO AR : 55 50 38.887 +/- .005 SEC
 AZIMUTH AR TO SO : -123 52 6.574 +/- .005 SEC

BASELINE: STATION : SO AND STATION : EL
 =====

STATION NAME : SO

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 17 4.66031
 LONGITUDE : -124 35 28.92762
 HEIGHT : 577.1780

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 17 4.66108 +/- 2 MM
 LONGITUDE : -124 35 28.92610 +/- 2 MM
 HEIGHT : 577.1828 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2414244.2966 M +/- 2 MM
 Y : -3500774.5459 M +/- 2 MM
 Z : 4738424.4933 M +/- 3 MM

STATION NAME : EL

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 9 30.24555
LONGITUDE : -124 18 53.65789
HEIGHT : 794.3930

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 9 30.24640 +/- 2 MM
LONGITUDE : -124 18 53.65498 +/- 2 MM
HEIGHT : 794.4553 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2403307.0734 M +/- 3 MM
Y : -3521148.5282 M +/- 3 MM
Z : 4729234.2059 M +/- 3 MM

BASELINE : SO EL

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 7 34.41476
DELTA LONGITUDE : 0 16 35.26973
DELTA HEIGHT : 217.2150

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 7 34.41468 +/- 1 MM
DELTA LONGITUDE : 0 16 35.27112 +/- 1 MM
DELTA HEIGHT : 217.2725 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 10937.2232 M +/- 2 MM
DELTA Y : -20373.9822 M +/- 2 MM
DELTA Z : -9190.2874 M +/- 2 MM

BASELINE LENGTH : 24883.3958 M +/- 1 MM

AZIMUTH SO TO EL : 124 14 21.894 +/- .012 SEC
AZIMUTH EL TO SO : - 55 33 15.914 +/- .012 SEC

BASELINE: STATION : SH AND STATION : BE
=====

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166
 HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80995 +/- 1 MM
 LONGITUDE : -123 55 23.27116 +/- 1 MM
 HEIGHT : -2.5227 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2368733.6619 M +/- 1 MM
 Y : -3521975.3399 M +/- 1 MM
 Z : 4744853.5521 M +/- 1 MM

STATION NAME : BE

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96846
 LONGITUDE : -123 39 26.29911
 HEIGHT : 182.9450

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 19 45.96862 +/- 1 MM
 LONGITUDE : -123 39 26.29857 +/- 1 MM
 HEIGHT : 182.9513 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2354647.2763 M +/- 1 MM
 Y : -3536350.5159 M +/- 1 MM
 Z : 4741444.3263 M +/- 1 MM

BASELINE : SH BE

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 2 52.84129
 DELTA LONGITUDE : 0 15 56.97255
 DELTA HEIGHT : 185.4440

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 2 52.84133 +/- 1 MM
 DELTA LONGITUDE : 0 15 56.97259 +/- 1 MM
 DELTA HEIGHT : 185.4739 +/- 2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : 14086.3856 M +/- 1 MM
 DELTA Y : -14375.1760 M +/- 1 MM
 DELTA Z : -3409.2258 M +/- 1 MM

BASELINE LENGTH : 20413.1028 M +/- 1 MM
 AZIMUTH SH TO BE : 105 3 45.577 +/- .010 SEC
 AZIMUTH BE TO SH : - 74 44 19.321 +/- .010 SEC

BASELINE: STATION : SH AND STATION : AR
 =====

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80975
 LONGITUDE : -123 55 23.27166
 HEIGHT : -2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 22 38.80995 +/- 1 MM
 LONGITUDE : -123 55 23.27116 +/- 1 MM
 HEIGHT : -2.5227 +/- 2 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2368733.6619 M +/- 1 MM
 Y : -3521975.3399 M +/- 1 MM
 Z : 4744853.5521 M +/- 1 MM

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97759
 LONGITUDE : -124 12 24.82933
 HEIGHT : -6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97814 +/- 1 MM
 LONGITUDE : -124 12 24.82777 +/- 1 MM
 HEIGHT : -6.1397 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2382403.2753 M +/- 2 MM
 Y : -3504692.4579 M +/- 2 MM
 Z : 4750758.4641 M +/- 2 MM

BASELINE : SH AR

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 48.16784
 DELTA LONGITUDE : - 0 17 1.55767

DELTA HEIGHT : -3.5710

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE :	0 4 48.16819	+/-	1 MM
DELTA LONGITUDE :	- 0 17 1.55661	+/-	1 MM
DELTA HEIGHT :	-3.6170	+/-	2 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X :	-13669.6134 M	+/-	2 MM
DELTA Y :	17282.8820 M	+/-	1 MM
DELTA Z :	5904.9120 M	+/-	2 MM

BASELINE LENGTH : 22812.8105 M +/- 1 MM

AZIMUTH SH TO AR : - 66 55 42.096 +/- .012 SEC

AZIMUTH AR TO SH : 112 51 33.778 +/- .012 SEC

BASELINE: STATION : SH AND STATION : WA

=====

STATION NAME : SH

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 22 38.80975
LONGITUDE :	-123 55 23.27166
HEIGHT :	-2.4990

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 22 38.80995	+/-	1 MM
LONGITUDE :	-123 55 23.27116	+/-	1 MM
HEIGHT :	-2.5227	+/-	2 MM

A POSTERIORI CARTESIAN COORDINATES

X :	-2368733.6619 M	+/-	1 MM
Y :	-3521975.3399 M	+/-	1 MM
Z :	4744853.5521 M	+/-	1 MM

STATION NAME : WA

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 23 6.73799
LONGITUDE :	-124 36 .19775
HEIGHT :	-7.4450

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE :	48 23 6.73867	+/-	4 MM
LONGITUDE :	-124 36 .19435	+/-	15 MM
HEIGHT :	-7.5062	+/-	6 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2409809.7950 M +/- 15 MM
 Y : -3493211.1205 M +/- 8 MM
 Z : 4745422.7849 M +/- 3 MM

BASELINE : SH WA

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 0 27.92824
 DELTA LONGITUDE : - 0 40 36.92609
 DELTA HEIGHT : -4.9460

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 0 27.92872 +/- 4 MM
 DELTA LONGITUDE : - 0 40 36.92319 +/- 15 MM
 DELTA HEIGHT : -4.9835 +/- 6 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : -41076.1332 M +/- 15 MM
 DELTA Y : 28764.2194 M +/- 8 MM
 DELTA Z : 569.2329 M +/- 3 MM

BASELINE LENGTH : 50149.3077 M +/- 15 MM
 AZIMUTH SH TO WA : - 88 45 40.815 +/- .016 SEC
 AZIMUTH WA TO SH : 90 43 57.376 +/- .016 SEC

BASELINE: STATION : AR AND STATION : BO
 =====

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 27 26.97759
 LONGITUDE : -124 12 24.82933
 HEIGHT : -6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES
 LATITUDE : 48 27 26.97814 +/- 1 MM
 LONGITUDE : -124 12 24.82777 +/- 1 MM
 HEIGHT : -6.1397 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2382403.2753 M +/- 2 MM
 Y : -3504692.4579 M +/- 2 MM
 Z : 4750758.4641 M +/- 2 MM

STATION NAME : BO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 35 38.09457
 LONGITUDE : -124 42 59.10624
 HEIGHT : -16.2050

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 35 38.09495 +/- 2 MM
 LONGITUDE : -124 42 59.10322 +/- 2 MM
 HEIGHT : -16.2742 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2406998.1906 M +/- 3 MM
 Y : -3474019.5341 M +/- 2 MM
 Z : 4760797.7791 M +/- 3 MM

BASELINE : AR BO

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 8 11.11698
 DELTA LONGITUDE : - 0 30 34.27691
 DELTA HEIGHT : -10.1350

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 8 11.11681 +/- 2 MM
 DELTA LONGITUDE : - 0 30 34.27545 +/- 1 MM
 DELTA HEIGHT : -10.1345 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -24594.9154 M +/- 2 MM
 DELTA Y : 30672.9239 M +/- 2 MM
 DELTA Z : 10039.3150 M +/- 2 MM

BASELINE LENGTH : 40577.4071 M +/- 1 MM

AZIMUTH AR TO BO : - 67 51 20.690 +/- .009 SEC

AZIMUTH BO TO AR : 111 45 44.969 +/- .009 SEC

BASELINE: STATION : AR AND STATION : PE

=====

STATION NAME : AR

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97759

LONGITUDE : -124 12 24.82933
 HEIGHT : -6.0700

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 27 26.97814 +/- 1 MM
 LONGITUDE : -124 12 24.82777 +/- 1 MM
 HEIGHT : -6.1397 +/- 3 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2382403.2753 M +/- 2 MM
 Y : -3504692.4579 M +/- 2 MM
 Z : 4750758.4641 M +/- 2 MM

STATION NAME : PE

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 31 53.65000
 LONGITUDE : -124 27 38.40000
 HEIGHT : -10.0000

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 31 53.65983 +/- 2 MM
 LONGITUDE : -124 27 38.36594 +/- 2 MM
 HEIGHT : -10.4586 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2394409.7129 M +/- 3 MM
 Y : -3489017.7718 M +/- 2 MM
 Z : 4756214.1392 M +/- 3 MM

BASELINE : AR PE

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 26.67241
 DELTA LONGITUDE : - 0 15 13.57067
 DELTA HEIGHT : -3.9300

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : 0 4 26.68169 +/- 1 MM
 DELTA LONGITUDE : - 0 15 13.53817 +/- 1 MM
 DELTA HEIGHT : -4.3189 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X : -12006.4376 M +/- 2 MM
 DELTA Y : 15674.6861 M +/- 2 MM
 DELTA Z : 5455.6751 M +/- 2 MM

BASELINE LENGTH : 20484.4995 M +/- 1 MM

AZIMUTH AR TO PE : - 66 11 36.544 +/- .017 SEC
AZIMUTH PE TO AR : 113 36 59.314 +/- .017 SEC

BASELINE: STATION : BO AND STATION : PE
=====

STATION NAME : BO

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 35 38.09457
LONGITUDE : -124 42 59.10624
HEIGHT : -16.2050

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 35 38.09495 +/- 2 MM
LONGITUDE : -124 42 59.10322 +/- 2 MM
HEIGHT : -16.2742 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2406998.1906 M +/- 3 MM
Y : -3474019.5341 M +/- 2 MM
Z : 4760797.7791 M +/- 3 MM

STATION NAME : PE

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 31 53.65000
LONGITUDE : -124 27 38.40000
HEIGHT : -10.0000

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE : 48 31 53.65983 +/- 2 MM
LONGITUDE : -124 27 38.36594 +/- 2 MM
HEIGHT : -10.4586 +/- 4 MM

A POSTERIORI CARTESIAN COORDINATES

X : -2394409.7129 M +/- 3 MM
Y : -3489017.7718 M +/- 2 MM
Z : 4756214.1392 M +/- 3 MM

BASELINE : BO PE

A-PRIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE : - 0 3 44.44457
DELTA LONGITUDE : 0 15 20.70624
DELTA HEIGHT : 6.2050

A POSTERIORI ELLIPSOID BASELINE COMPONENTS

DELTA LATITUDE :	- 0 3 44.43512	+/-	1 MM
DELTA LONGITUDE :	0 15 20.73727	+/-	1 MM
DELTA HEIGHT :	5.8156	+/-	3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS

DELTA X :	12588.4777 M	+/-	2 MM
DELTA Y :	-14998.2378 M	+/-	2 MM
DELTA Z :	-4583.6399 M	+/-	2 MM

BASELINE LENGTH :	20110.3621 M	+/-	1 MM
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AZIMUTH BO TO PE :	110 4 9.467	+/-	.016 SEC
AZIMUTH PE TO BO :	- 69 44 20.273	+/-	.016 SEC

BASELINE: STATION : RA AND STATION : OK
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STATION NAME : RA

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE :	49 5 2.52000
LONGITUDE :	-125 50 29.50000
HEIGHT :	107.0000

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE :	49 5 2.52295	+/-	6 MM
LONGITUDE :	-125 50 29.51038	+/-	11 MM
HEIGHT :	106.6248	+/-	5 MM

A POSTERIORI CARTESIAN COORDINATES

X :	-2450768.5910 M	+/-	11 MM
Y :	-3392888.0862 M	+/-	7 MM
Z :	4796764.0465 M	+/-	4 MM

STATION NAME : OK

A-PRIORI ELLIPSOIDAL COORDINATES

LATITUDE :	49 13 40.45000
LONGITUDE :	-124 15 51.52000
HEIGHT :	451.0000

A POSTERIORI ELLIPSOIDAL COORDINATES

LATITUDE :	49 13 40.45757	+/-	4 MM
LONGITUDE :	-124 15 51.51894	+/-	9 MM
HEIGHT :	451.1252	+/-	4 MM

A POSTERIORI CARTESIAN COORDINATES
 X : -2349765.3661 M +/- 9 MM
 Y : -3449240.4625 M +/- 5 MM
 Z : 4807489.3150 M +/- 3 MM

BASELINE : RA OK

A-PRIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 8 37.93000
 DELTA LONGITUDE : 1 34 37.98000
 DELTA HEIGHT : 344.0000

A POSTERIORI ELLIPSOID BASELINE COMPONENTS
 DELTA LATITUDE : 0 8 37.93462 +/- 4 MM
 DELTA LONGITUDE : 1 34 37.99143 +/- 7 MM
 DELTA HEIGHT : 344.5004 +/- 3 MM

A POSTERIORI CARTESIAN BASELINE COMPONENTS
 DELTA X : 101003.2249 M +/- 7 MM
 DELTA Y : -56352.3763 M +/- 4 MM
 DELTA Z : 10725.2686 M +/- 3 MM

BASELINE LENGTH : 116156.2445 M +/- 7 MM

AZIMUTH RA TO OK : 81 29 10.478 +/- .007 SEC
 AZIMUTH OK TO RA : - 97 19 14.040 +/- .007 SEC

INVERSE OF NORMAL EQUATION MATRIX (CARTESIAN)

0.100E-07					
0.240E-16	0.100E-07				
-0.764E-16	-0.371E-16	0.100E-07			
0.100E-07	-0.405E-11	0.126E-10	0.216E-05		
0.308E-11	0.100E-07	0.141E-10	0.100E-05	0.210E-05	
-0.149E-10	-0.203E-10	0.999E-08	-0.936E-06	-0.177E-05	0.317E-05
0.100E-07	-0.273E-11	0.697E-11	0.192E-05	0.912E-06	-0.842E-06
0.307E-05					
-0.527E-11	0.100E-07	0.250E-10	0.905E-06	0.187E-05	-0.158E-05
0.136E-05	0.285E-05				
-0.146E-10	-0.352E-10	0.999E-08	-0.839E-06	-0.158E-05	0.286E-05
-0.137E-05	-0.245E-05	0.438E-05			
0.100E-07	-0.128E-10	0.192E-10	0.113E-05	0.579E-06	-0.471E-06
0.170E-05	0.838E-06	-0.722E-06	0.359E-05		
0.123E-10	0.100E-07	0.403E-11	0.569E-06	0.111E-05	-0.928E-06
0.833E-06	0.159E-05	-0.136E-05	0.177E-05	0.323E-05	
-0.175E-10	-0.781E-11	0.999E-08	-0.470E-06	-0.928E-06	0.169E-05
-0.721E-06	-0.135E-05	0.244E-05	-0.166E-05	-0.291E-05	0.524E-05
0.100E-07	-0.142E-11	0.801E-11	0.127E-05	0.582E-06	-0.621E-06
0.114E-05	0.528E-06	-0.559E-06	0.691E-06	0.341E-06	-0.325E-06
0.435E-05					
-0.176E-11	0.100E-07	0.168E-10	0.571E-06	0.122E-05	-0.111E-05

B-50

0.522E-06	0.110E-05	-0.100E-05	0.337E-06	0.682E-06	-0.611E-06
0.169E-05	0.406E-05				
-0.116E-10	-0.241E-10	0.999E-08	-0.613E-06	-0.111E-05	0.202E-05
-0.553E-06	-0.998E-06	0.183E-05	-0.319E-06	-0.611E-06	0.112E-05
-0.185E-05	-0.345E-05	0.609E-05			
0.100E-07	0.114E-11	0.153E-11	0.805E-06	0.359E-06	-0.391E-06
0.727E-06	0.328E-06	-0.355E-06	0.464E-06	0.221E-06	-0.217E-06
0.138E-05	0.543E-06	-0.593E-06	0.287E-05		
-0.692E-11	0.100E-07	0.196E-10	0.357E-06	0.845E-06	-0.764E-06
0.329E-06	0.765E-06	-0.695E-06	0.223E-06	0.498E-06	-0.444E-06
0.544E-06	0.147E-05	-0.125E-05	0.109E-05	0.279E-05	
-0.775E-11	-0.261E-10	0.999E-08	-0.386E-06	-0.762E-06	0.140E-05
-0.351E-06	-0.691E-06	0.127E-05	-0.213E-06	-0.442E-06	0.819E-06
-0.589E-06	-0.124E-05	0.221E-05	-0.122E-05	-0.237E-05	0.418E-05
0.100E-07	0.108E-11	-0.111E-11	0.804E-06	0.359E-06	-0.391E-06
0.727E-06	0.328E-06	-0.355E-06	0.464E-06	0.221E-06	-0.217E-06
0.138E-05	0.543E-06	-0.594E-06	0.168E-05	0.647E-06	-0.741E-06
0.168E-05					
-0.409E-11	0.100E-07	0.103E-10	0.357E-06	0.846E-06	-0.765E-06
0.329E-06	0.766E-06	-0.696E-06	0.223E-06	0.498E-06	-0.445E-06
0.545E-06	0.147E-05	-0.125E-05	0.648E-06	0.174E-05	-0.149E-05
0.648E-06	0.174E-05				
-0.356E-11	-0.134E-10	0.100E-07	-0.385E-06	-0.761E-06	0.140E-05
-0.351E-06	-0.690E-06	0.127E-05	-0.212E-06	-0.441E-06	0.819E-06
-0.588E-06	-0.124E-05	0.221E-05	-0.739E-06	-0.149E-05	0.264E-05
-0.740E-06	-0.149E-05	0.264E-05			
0.100E-07	-0.184E-11	0.747E-11	0.127E-05	0.582E-06	-0.621E-06
0.114E-05	0.528E-06	-0.559E-06	0.691E-06	0.341E-06	-0.325E-06
0.244E-05	0.977E-06	-0.104E-05	0.138E-05	0.544E-06	-0.589E-06
0.138E-05	0.545E-06	-0.588E-06	0.244E-05		
0.102E-11	0.100E-07	0.105E-10	0.572E-06	0.122E-05	-0.111E-05
0.522E-06	0.110E-05	-0.100E-05	0.338E-06	0.683E-06	-0.611E-06
0.979E-06	0.243E-05	-0.204E-05	0.543E-06	0.147E-05	-0.124E-05
0.543E-06	0.147E-05	-0.124E-05	0.978E-06	0.243E-05	
-0.947E-11	-0.151E-10	0.999E-08	-0.612E-06	-0.111E-05	0.202E-05
-0.553E-06	-0.998E-06	0.183E-05	-0.319E-06	-0.611E-06	0.112E-05
-0.104E-05	-0.203E-05	0.357E-05	-0.593E-06	-0.124E-05	0.221E-05
-0.593E-06	-0.125E-05	0.221E-05	-0.104E-05	-0.204E-05	0.357E-05
0.100E-07	0.496E-12	0.281E-12	0.518E-06	0.224E-06	-0.262E-06
0.473E-06	0.207E-06	-0.240E-06	0.323E-06	0.147E-06	-0.157E-06
0.719E-06	0.279E-06	-0.343E-06	0.826E-06	0.313E-06	-0.400E-06
0.826E-06	0.313E-06	-0.399E-06	0.719E-06	0.279E-06	-0.342E-06
0.892E-06					
-0.189E-11	0.100E-07	0.672E-11	0.227E-06	0.603E-06	-0.551E-06
0.212E-06	0.552E-06	-0.506E-06	0.152E-06	0.380E-06	-0.341E-06
0.283E-06	0.853E-06	-0.753E-06	0.315E-06	0.959E-06	-0.855E-06
0.316E-06	0.959E-06	-0.854E-06	0.283E-06	0.853E-06	-0.753E-06
0.334E-06	0.103E-05				
-0.306E-11	-0.877E-11	0.100E-07	-0.258E-06	-0.546E-06	0.101E-05
-0.237E-06	-0.499E-06	0.927E-06	-0.153E-06	-0.337E-06	0.629E-06
-0.338E-06	-0.748E-06	0.135E-05	-0.399E-06	-0.851E-06	0.153E-05
-0.399E-06	-0.853E-06	0.153E-05	-0.338E-06	-0.749E-06	0.135E-05
-0.432E-06	-0.918E-06	0.164E-05			
0.100E-07	0.359E-11	-0.706E-11	0.805E-06	0.360E-06	-0.392E-06
0.727E-06	0.329E-06	-0.356E-06	0.464E-06	0.221E-06	-0.218E-06
0.138E-05	0.544E-06	-0.595E-06	0.168E-05	0.648E-06	-0.743E-06
0.168E-05	0.649E-06	-0.742E-06	0.138E-05	0.544E-06	-0.595E-06

0.827E-06	0.316E-06	-0.400E-06	0.424E-05		
-0.112E-10	0.100E-07	0.180E-10	0.357E-06	0.845E-06	-0.764E-06
0.329E-06	0.765E-06	-0.695E-06	0.222E-06	0.498E-06	-0.444E-06
0.544E-06	0.147E-05	-0.125E-05	0.646E-06	0.174E-05	-0.149E-05
0.647E-06	0.174E-05	-0.149E-05	0.543E-06	0.147E-05	-0.124E-05
0.313E-06	0.959E-06	-0.851E-06	0.162E-05	0.400E-05	
-0.204E-11	-0.232E-10	0.999E-08	-0.385E-06	-0.761E-06	0.140E-05
-0.351E-06	-0.690E-06	0.127E-05	-0.212E-06	-0.442E-06	0.819E-06
-0.588E-06	-0.124E-05	0.221E-05	-0.739E-06	-0.149E-05	0.264E-05
-0.740E-06	-0.149E-05	0.264E-05	-0.588E-06	-0.124E-05	0.221E-05
-0.399E-06	-0.855E-06	0.153E-05	-0.191E-05	-0.345E-05	0.602E-05
0.100E-07	0.359E-11	-0.514E-11	0.805E-06	0.360E-06	-0.392E-06
0.727E-06	0.329E-06	-0.356E-06	0.464E-06	0.221E-06	-0.218E-06
0.138E-05	0.544E-06	-0.595E-06	0.168E-05	0.648E-06	-0.742E-06
0.168E-05	0.649E-06	-0.741E-06	0.138E-05	0.544E-06	-0.594E-06
0.827E-06	0.316E-06	-0.400E-06	0.424E-05	0.162E-05	-0.191E-05
0.616E-05					
-0.131E-10	0.100E-07	0.243E-10	0.356E-06	0.845E-06	-0.763E-06
0.328E-06	0.765E-06	-0.694E-06	0.222E-06	0.498E-06	-0.444E-06
0.543E-06	0.147E-05	-0.124E-05	0.646E-06	0.174E-05	-0.149E-05
0.646E-06	0.174E-05	-0.149E-05	0.543E-06	0.147E-05	-0.124E-05
0.312E-06	0.958E-06	-0.851E-06	0.162E-05	0.399E-05	-0.344E-05
0.234E-05	0.566E-05				
-0.501E-11	-0.323E-10	0.999E-08	-0.386E-06	-0.762E-06	0.140E-05
-0.351E-06	-0.691E-06	0.127E-05	-0.212E-06	-0.442E-06	0.819E-06
-0.589E-06	-0.124E-05	0.221E-05	-0.740E-06	-0.149E-05	0.264E-05
-0.741E-06	-0.149E-05	0.264E-05	-0.589E-06	-0.125E-05	0.221E-05
-0.400E-06	-0.856E-06	0.153E-05	-0.191E-05	-0.345E-05	0.602E-05
-0.279E-05	-0.490E-05	0.853E-05			
0.100E-07	0.363E-11	-0.824E-11	0.805E-06	0.360E-06	-0.392E-06
0.727E-06	0.329E-06	-0.356E-06	0.464E-06	0.221E-06	-0.218E-06
0.138E-05	0.544E-06	-0.595E-06	0.168E-05	0.649E-06	-0.743E-06
0.168E-05	0.650E-06	-0.742E-06	0.138E-05	0.545E-06	-0.595E-06
0.826E-06	0.316E-06	-0.400E-06	0.314E-05	0.120E-05	-0.141E-05
0.314E-05	0.120E-05	-0.141E-05	0.314E-05		
-0.101E-10	0.100E-07	0.145E-10	0.357E-06	0.845E-06	-0.764E-06
0.329E-06	0.765E-06	-0.696E-06	0.223E-06	0.498E-06	-0.444E-06
0.544E-06	0.147E-05	-0.125E-05	0.647E-06	0.174E-05	-0.149E-05
0.647E-06	0.174E-05	-0.149E-05	0.544E-06	0.147E-05	-0.125E-05
0.313E-06	0.959E-06	-0.852E-06	0.120E-05	0.302E-05	-0.260E-05
0.120E-05	0.302E-05	-0.260E-05	0.120E-05	0.302E-05	
-0.302E-12	-0.180E-10	0.999E-08	-0.385E-06	-0.761E-06	0.140E-05
-0.351E-06	-0.690E-06	0.127E-05	-0.212E-06	-0.441E-06	0.819E-06
-0.588E-06	-0.124E-05	0.221E-05	-0.739E-06	-0.149E-05	0.264E-05
-0.739E-06	-0.149E-05	0.264E-05	-0.587E-06	-0.124E-05	0.221E-05
-0.399E-06	-0.855E-06	0.153E-05	-0.140E-05	-0.260E-05	0.456E-05
-0.140E-05	-0.260E-05	0.456E-05	-0.140E-05	-0.260E-05	0.456E-05
0.100E-07	-0.206E-10	0.222E-10	0.919E-06	0.449E-06	-0.316E-06
0.134E-05	0.635E-06	-0.465E-06	0.274E-05	0.129E-05	-0.102E-05
0.566E-06	0.263E-06	-0.222E-06	0.387E-06	0.176E-06	-0.151E-06
0.387E-06	0.176E-06	-0.151E-06	0.566E-06	0.263E-06	-0.222E-06
0.275E-06	0.123E-06	-0.113E-06	0.387E-06	0.176E-06	-0.151E-06
0.387E-06	0.176E-06	-0.151E-06	0.387E-06	0.176E-06	-0.151E-06
0.527E-05					
0.174E-10	0.100E-07	-0.103E-11	0.456E-06	0.707E-06	-0.523E-06
0.663E-06	0.950E-06	-0.710E-06	0.137E-05	0.178E-05	-0.138E-05
0.274E-06	0.451E-06	-0.364E-06	0.181E-06	0.342E-06	-0.275E-06

0.181E-06	0.342E-06	-0.275E-06	0.274E-06	0.452E-06	-0.363E-06
0.124E-06	0.272E-06	-0.222E-06	0.182E-06	0.342E-06	-0.275E-06
0.182E-06	0.342E-06	-0.276E-06	0.182E-06	0.342E-06	-0.275E-06
0.283E-05	0.389E-05				
-0.202E-10	-0.391E-11	0.999E-08	-0.359E-06	-0.534E-06	0.942E-06
-0.525E-06	-0.718E-06	0.125E-05	-0.112E-05	-0.139E-05	0.240E-05
-0.243E-06	-0.366E-06	0.665E-06	-0.168E-06	-0.279E-06	0.513E-06
-0.168E-06	-0.279E-06	0.512E-06	-0.243E-06	-0.367E-06	0.664E-06
-0.124E-06	-0.225E-06	0.418E-06	-0.168E-06	-0.279E-06	0.513E-06
-0.168E-06	-0.278E-06	0.513E-06	-0.168E-06	-0.279E-06	0.512E-06
-0.247E-05	-0.344E-05	0.591E-05			
0.100E-07	-0.712E-11	0.125E-10	0.489E-06	0.217E-06	-0.192E-06
0.574E-06	0.256E-06	-0.228E-06	0.856E-06	0.396E-06	-0.358E-06
0.338E-06	0.145E-06	-0.145E-06	0.260E-06	0.110E-06	-0.111E-06
0.260E-06	0.110E-06	-0.111E-06	0.338E-06	0.146E-06	-0.145E-06
0.211E-06	0.888E-07	-0.915E-07	0.260E-06	0.110E-06	-0.111E-06
0.260E-06	0.110E-06	-0.111E-06	0.260E-06	0.110E-06	-0.110E-06
0.860E-06	0.411E-06	-0.370E-06	0.120E-05		
0.756E-11	0.100E-07	0.425E-11	0.215E-06	0.510E-06	-0.404E-06
0.255E-06	0.584E-06	-0.464E-06	0.392E-06	0.834E-06	-0.677E-06
0.145E-06	0.363E-06	-0.302E-06	0.108E-06	0.300E-06	-0.249E-06
0.108E-06	0.300E-06	-0.248E-06	0.145E-06	0.363E-06	-0.302E-06
0.857E-07	0.260E-06	-0.215E-06	0.108E-06	0.300E-06	-0.248E-06
0.108E-06	0.300E-06	-0.249E-06	0.108E-06	0.300E-06	-0.248E-06
0.400E-06	0.831E-06	-0.681E-06	0.581E-06	0.115E-05	
-0.116E-10	-0.757E-11	0.999E-08	-0.194E-06	-0.403E-06	0.724E-06
-0.230E-06	-0.461E-06	0.829E-06	-0.361E-06	-0.678E-06	0.122E-05
-0.148E-06	-0.302E-06	0.549E-06	-0.114E-06	-0.250E-06	0.456E-06
-0.114E-06	-0.250E-06	0.456E-06	-0.148E-06	-0.303E-06	0.549E-06
-0.950E-07	-0.217E-06	0.397E-06	-0.114E-06	-0.250E-06	0.456E-06
-0.114E-06	-0.249E-06	0.456E-06	-0.114E-06	-0.250E-06	0.456E-06
-0.383E-06	-0.701E-06	0.129E-05	-0.479E-06	-0.927E-06	0.167E-05
0.100E-07	-0.292E-11	0.947E-11	0.828E-06	0.363E-06	-0.357E-06
0.773E-06	0.342E-06	-0.335E-06	0.590E-06	0.270E-06	-0.248E-06
0.618E-06	0.272E-06	-0.288E-06	0.508E-06	0.225E-06	-0.238E-06
0.508E-06	0.226E-06	-0.237E-06	0.617E-06	0.272E-06	-0.288E-06
0.440E-06	0.198E-06	-0.209E-06	0.508E-06	0.225E-06	-0.238E-06
0.508E-06	0.225E-06	-0.238E-06	0.508E-06	0.225E-06	-0.237E-06
0.521E-06	0.240E-06	-0.215E-06	0.469E-06	0.203E-06	-0.188E-06
0.106E-05					
0.323E-11	0.100E-07	0.846E-11	0.362E-06	0.849E-06	-0.721E-06
0.344E-06	0.791E-06	-0.674E-06	0.272E-06	0.602E-06	-0.503E-06
0.270E-06	0.661E-06	-0.584E-06	0.221E-06	0.581E-06	-0.512E-06
0.221E-06	0.581E-06	-0.512E-06	0.270E-06	0.662E-06	-0.584E-06
0.191E-06	0.530E-06	-0.467E-06	0.222E-06	0.581E-06	-0.512E-06
0.222E-06	0.581E-06	-0.512E-06	0.222E-06	0.581E-06	-0.512E-06
0.233E-06	0.464E-06	-0.365E-06	0.204E-06	0.485E-06	-0.387E-06
0.488E-06	0.106E-05				
-0.100E-10	-0.123E-10	0.999E-08	-0.359E-06	-0.721E-06	0.130E-05
-0.337E-06	-0.672E-06	0.121E-05	-0.249E-06	-0.503E-06	0.910E-06
-0.290E-06	-0.586E-06	0.107E-05	-0.242E-06	-0.515E-06	0.941E-06
-0.242E-06	-0.516E-06	0.941E-06	-0.290E-06	-0.586E-06	0.106E-05
-0.214E-06	-0.473E-06	0.863E-06	-0.242E-06	-0.515E-06	0.941E-06
-0.242E-06	-0.515E-06	0.941E-06	-0.242E-06	-0.516E-06	0.941E-06
-0.202E-06	-0.367E-06	0.669E-06	-0.188E-06	-0.388E-06	0.693E-06
-0.457E-06	-0.897E-06	0.162E-05			
0.100E-07	-0.222E-10	0.213E-10	0.919E-06	0.449E-06	-0.316E-06

0.134E-05	0.635E-06	-0.465E-06	0.274E-05	0.129E-05	-0.102E-05
0.566E-06	0.263E-06	-0.222E-06	0.387E-06	0.176E-06	-0.151E-06
0.387E-06	0.176E-06	-0.151E-06	0.566E-06	0.263E-06	-0.222E-06
0.275E-06	0.123E-06	-0.113E-06	0.387E-06	0.176E-06	-0.151E-06
0.387E-06	0.176E-06	-0.151E-06	0.387E-06	0.176E-06	-0.151E-06
0.527E-05	0.283E-05	-0.248E-05	0.860E-06	0.400E-06	-0.383E-06
0.521E-06	0.233E-06	-0.202E-06	0.112E-04		
0.193E-10	0.100E-07	-0.521E-11	0.457E-06	0.707E-06	-0.523E-06
0.664E-06	0.951E-06	-0.711E-06	0.137E-05	0.178E-05	-0.138E-05
0.274E-06	0.452E-06	-0.364E-06	0.182E-06	0.342E-06	-0.276E-06
0.182E-06	0.342E-06	-0.275E-06	0.274E-06	0.452E-06	-0.364E-06
0.124E-06	0.272E-06	-0.222E-06	0.182E-06	0.342E-06	-0.276E-06
0.182E-06	0.342E-06	-0.276E-06	0.182E-06	0.342E-06	-0.275E-06
0.283E-05	0.389E-05	-0.345E-05	0.411E-06	0.831E-06	-0.701E-06
0.240E-06	0.464E-06	-0.367E-06	0.672E-05	0.927E-05	
-0.192E-10	-0.822E-13	0.999E-08	-0.359E-06	-0.534E-06	0.942E-06
-0.525E-06	-0.718E-06	0.125E-05	-0.112E-05	-0.139E-05	0.240E-05
-0.243E-06	-0.366E-06	0.664E-06	-0.168E-06	-0.278E-06	0.513E-06
-0.168E-06	-0.279E-06	0.512E-06	-0.243E-06	-0.367E-06	0.664E-06
-0.124E-06	-0.225E-06	0.418E-06	-0.168E-06	-0.278E-06	0.513E-06
-0.168E-06	-0.278E-06	0.513E-06	-0.168E-06	-0.279E-06	0.512E-06
-0.247E-05	-0.344E-05	0.591E-05	-0.370E-06	-0.681E-06	0.129E-05
-0.215E-06	-0.365E-06	0.669E-06	-0.592E-05	-0.863E-05	0.151E-04
0.100E-07	-0.165E-10	0.124E-10	0.532E-06	0.248E-06	-0.218E-06
0.704E-06	0.325E-06	-0.287E-06	0.128E-05	0.602E-06	-0.543E-06
0.348E-06	0.155E-06	-0.159E-06	0.253E-06	0.111E-06	-0.116E-06
0.253E-06	0.111E-06	-0.116E-06	0.348E-06	0.156E-06	-0.158E-06
0.194E-06	0.834E-07	-0.925E-07	0.253E-06	0.110E-06	-0.116E-06
0.253E-06	0.110E-06	-0.116E-06	0.253E-06	0.111E-06	-0.116E-06
0.207E-05	0.110E-05	-0.104E-05	0.869E-06	0.415E-06	-0.402E-06
0.399E-06	0.174E-06	-0.176E-06	0.207E-05	0.110E-05	-0.104E-05
0.349E-05					
0.123E-10	0.100E-07	-0.300E-11	0.250E-06	0.478E-06	-0.380E-06
0.335E-06	0.591E-06	-0.472E-06	0.625E-06	0.977E-06	-0.801E-06
0.159E-06	0.325E-06	-0.275E-06	0.112E-06	0.259E-06	-0.219E-06
0.112E-06	0.260E-06	-0.219E-06	0.159E-06	0.325E-06	-0.275E-06
0.824E-07	0.217E-06	-0.184E-06	0.112E-06	0.259E-06	-0.219E-06
0.112E-06	0.259E-06	-0.219E-06	0.112E-06	0.260E-06	-0.219E-06
0.109E-05	0.165E-05	-0.148E-05	0.420E-06	0.835E-06	-0.710E-06
0.177E-06	0.390E-06	-0.321E-06	0.109E-05	0.165E-05	-0.147E-05
0.188E-05	0.222E-05				
-0.128E-10	0.149E-12	0.100E-07	-0.220E-06	-0.373E-06	0.700E-06
-0.294E-06	-0.461E-06	0.859E-06	-0.558E-06	-0.788E-06	0.145E-05
-0.159E-06	-0.270E-06	0.515E-06	-0.116E-06	-0.215E-06	0.414E-06
-0.117E-06	-0.216E-06	0.414E-06	-0.159E-06	-0.271E-06	0.515E-06
-0.922E-07	-0.182E-06	0.351E-06	-0.117E-06	-0.215E-06	0.414E-06
-0.117E-06	-0.215E-06	0.414E-06	-0.117E-06	-0.216E-06	0.414E-06
-0.101E-05	-0.147E-05	0.266E-05	-0.375E-06	-0.686E-06	0.132E-05
-0.171E-06	-0.312E-06	0.592E-06	-0.101E-05	-0.147E-05	0.266E-05
-0.157E-05	-0.188E-05	0.316E-05			
0.100E-07	-0.154E-10	0.208E-10	0.919E-06	0.449E-06	-0.316E-06
0.134E-05	0.636E-06	-0.465E-06	0.274E-05	0.130E-05	-0.102E-05
0.566E-06	0.263E-06	-0.222E-06	0.387E-06	0.176E-06	-0.152E-06
0.387E-06	0.176E-06	-0.151E-06	0.566E-06	0.263E-06	-0.222E-06
0.275E-06	0.123E-06	-0.113E-06	0.387E-06	0.176E-06	-0.151E-06
0.387E-06	0.176E-06	-0.152E-06	0.387E-06	0.176E-06	-0.151E-06
0.527E-05	0.283E-05	-0.248E-05	0.860E-06	0.400E-06	-0.383E-06

0.522E-06	0.233E-06	-0.202E-06	0.527E-05	0.283E-05	-0.248E-05
0.207E-05	0.109E-05	-0.101E-05	0.784E-05		
0.128E-10	0.100E-07	0.617E-11	0.456E-06	0.707E-06	-0.522E-06
0.663E-06	0.950E-06	-0.709E-06	0.137E-05	0.178E-05	-0.138E-05
0.274E-06	0.451E-06	-0.363E-06	0.181E-06	0.341E-06	-0.275E-06
0.181E-06	0.342E-06	-0.275E-06	0.274E-06	0.451E-06	-0.363E-06
0.124E-06	0.272E-06	-0.221E-06	0.181E-06	0.341E-06	-0.275E-06
0.181E-06	0.341E-06	-0.275E-06	0.181E-06	0.342E-06	-0.275E-06
0.283E-05	0.389E-05	-0.344E-05	0.410E-06	0.830E-06	-0.700E-06
0.240E-06	0.463E-06	-0.367E-06	0.283E-05	0.389E-05	-0.344E-05
0.110E-05	0.164E-05	-0.146E-05	0.416E-05	0.619E-05	
-0.210E-10	-0.116E-10	0.999E-08	-0.359E-06	-0.535E-06	0.942E-06
-0.526E-06	-0.719E-06	0.125E-05	-0.112E-05	-0.139E-05	0.240E-05
-0.243E-06	-0.367E-06	0.665E-06	-0.168E-06	-0.279E-06	0.513E-06
-0.168E-06	-0.279E-06	0.513E-06	-0.243E-06	-0.367E-06	0.664E-06
-0.124E-06	-0.225E-06	0.418E-06	-0.168E-06	-0.279E-06	0.513E-06
-0.168E-06	-0.278E-06	0.513E-06	-0.168E-06	-0.279E-06	0.513E-06
-0.248E-05	-0.344E-05	0.591E-05	-0.370E-06	-0.681E-06	0.129E-05
-0.215E-06	-0.365E-06	0.669E-06	-0.248E-05	-0.345E-05	0.591E-05
-0.104E-05	-0.148E-05	0.266E-05	-0.357E-05	-0.539E-05	0.949E-05
0.100E-07	-0.350E-10	0.121E-10	0.532E-06	0.247E-06	-0.217E-06
0.704E-06	0.324E-06	-0.286E-06	0.128E-05	0.601E-06	-0.542E-06
0.348E-06	0.155E-06	-0.158E-06	0.253E-06	0.110E-06	-0.116E-06
0.253E-06	0.110E-06	-0.116E-06	0.348E-06	0.155E-06	-0.158E-06
0.194E-06	0.830E-07	-0.922E-07	0.253E-06	0.110E-06	-0.116E-06
0.253E-06	0.110E-06	-0.116E-06	0.253E-06	0.110E-06	-0.116E-06
0.207E-05	0.110E-05	-0.104E-05	0.868E-06	0.413E-06	-0.401E-06
0.399E-06	0.174E-06	-0.176E-06	0.207E-05	0.110E-05	-0.104E-05
0.349E-05	0.187E-05	-0.157E-05	0.207E-05	0.110E-05	-0.104E-05
0.909E-05					
0.212E-10	0.999E-08	-0.159E-10	0.251E-06	0.479E-06	-0.381E-06
0.336E-06	0.592E-06	-0.473E-06	0.626E-06	0.977E-06	-0.803E-06
0.159E-06	0.325E-06	-0.276E-06	0.112E-06	0.260E-06	-0.220E-06
0.112E-06	0.260E-06	-0.219E-06	0.159E-06	0.326E-06	-0.276E-06
0.827E-07	0.218E-06	-0.185E-06	0.112E-06	0.260E-06	-0.219E-06
0.112E-06	0.260E-06	-0.220E-06	0.112E-06	0.260E-06	-0.219E-06
0.109E-05	0.165E-05	-0.148E-05	0.420E-06	0.835E-06	-0.711E-06
0.178E-06	0.390E-06	-0.322E-06	0.109E-05	0.165E-05	-0.148E-05
0.188E-05	0.222E-05	-0.188E-05	0.109E-05	0.165E-05	-0.148E-05
0.495E-05	0.527E-05				
-0.142E-10	0.140E-10	0.100E-07	-0.220E-06	-0.373E-06	0.699E-06
-0.293E-06	-0.461E-06	0.859E-06	-0.557E-06	-0.787E-06	0.145E-05
-0.159E-06	-0.270E-06	0.515E-06	-0.116E-06	-0.215E-06	0.414E-06
-0.116E-06	-0.216E-06	0.414E-06	-0.159E-06	-0.270E-06	0.514E-06
-0.921E-07	-0.182E-06	0.351E-06	-0.117E-06	-0.215E-06	0.414E-06
-0.117E-06	-0.215E-06	0.414E-06	-0.117E-06	-0.215E-06	0.414E-06
-0.101E-05	-0.147E-05	0.266E-05	-0.374E-06	-0.685E-06	0.132E-05
-0.171E-06	-0.311E-06	0.592E-06	-0.101E-05	-0.147E-05	0.266E-05
-0.157E-05	-0.187E-05	0.316E-05	-0.101E-05	-0.146E-05	0.266E-05
-0.383E-05	-0.431E-05	0.676E-05			
0.999E-08	-0.286E-10	0.283E-10	0.488E-06	0.215E-06	-0.190E-06
0.572E-06	0.254E-06	-0.225E-06	0.853E-06	0.393E-06	-0.354E-06
0.337E-06	0.144E-06	-0.144E-06	0.259E-06	0.109E-06	-0.109E-06
0.259E-06	0.109E-06	-0.109E-06	0.337E-06	0.144E-06	-0.143E-06
0.211E-06	0.878E-07	-0.903E-07	0.259E-06	0.109E-06	-0.109E-06
0.259E-06	0.109E-06	-0.109E-06	0.259E-06	0.109E-06	-0.109E-06
0.857E-06	0.408E-06	-0.366E-06	0.119E-05	0.576E-06	-0.473E-06

0.468E-06	0.202E-06	-0.186E-06	0.857E-06	0.408E-06	-0.366E-06
0.866E-06	0.416E-06	-0.371E-06	0.857E-06	0.407E-06	-0.366E-06
0.866E-06	0.417E-06	-0.370E-06	0.205E-03		
0.161E-10	0.100E-07	-0.163E-10	0.216E-06	0.511E-06	-0.405E-06
0.256E-06	0.585E-06	-0.466E-06	0.393E-06	0.835E-06	-0.680E-06
0.145E-06	0.363E-06	-0.303E-06	0.109E-06	0.301E-06	-0.249E-06
0.109E-06	0.301E-06	-0.249E-06	0.145E-06	0.364E-06	-0.303E-06
0.861E-07	0.260E-06	-0.216E-06	0.109E-06	0.301E-06	-0.249E-06
0.109E-06	0.301E-06	-0.250E-06	0.109E-06	0.301E-06	-0.249E-06
0.401E-06	0.832E-06	-0.684E-06	0.583E-06	0.115E-05	-0.930E-06
0.204E-06	0.486E-06	-0.389E-06	0.401E-06	0.833E-06	-0.683E-06
0.416E-06	0.836E-06	-0.688E-06	0.402E-06	0.832E-06	-0.684E-06
0.415E-06	0.837E-06	-0.688E-06	-0.665E-04	0.571E-04	
-0.145E-10	0.109E-11	0.999E-08	-0.194E-06	-0.403E-06	0.724E-06
-0.230E-06	-0.461E-06	0.829E-06	-0.361E-06	-0.677E-06	0.122E-05
-0.148E-06	-0.302E-06	0.549E-06	-0.114E-06	-0.249E-06	0.456E-06
-0.114E-06	-0.250E-06	0.456E-06	-0.148E-06	-0.302E-06	0.549E-06
-0.950E-07	-0.217E-06	0.397E-06	-0.114E-06	-0.249E-06	0.456E-06
-0.114E-06	-0.249E-06	0.456E-06	-0.114E-06	-0.250E-06	0.456E-06
-0.382E-06	-0.700E-06	0.129E-05	-0.479E-06	-0.926E-06	0.166E-05
-0.188E-06	-0.387E-06	0.692E-06	-0.382E-06	-0.701E-06	0.129E-05
-0.402E-06	-0.709E-06	0.132E-05	-0.383E-06	-0.699E-06	0.129E-05
-0.401E-06	-0.711E-06	0.132E-05	-0.222E-04	-0.645E-06	0.945E-05
0.100E-07	0.122E-10	0.249E-10	0.100E-07	0.154E-10	0.995E-11
0.100E-07	0.704E-11	0.102E-10	0.100E-07	0.245E-10	0.739E-11
0.100E-07	0.105E-10	0.133E-10	0.100E-07	0.537E-11	0.171E-10
0.100E-07	0.817E-11	0.213E-10	0.100E-07	0.133E-10	0.154E-10
0.100E-07	0.104E-10	0.219E-10	0.100E-07	0.111E-11	0.229E-10
0.100E-07	-0.816E-12	0.199E-10	0.100E-07	0.213E-11	0.246E-10
0.100E-07	0.296E-10	0.475E-11	0.100E-07	0.198E-10	0.134E-10
0.100E-07	0.155E-10	0.149E-10	0.100E-07	0.315E-10	0.573E-11
0.100E-07	0.245E-10	0.122E-10	0.100E-07	0.250E-10	0.387E-11
0.100E-07	0.334E-10	0.108E-10	0.999E-08	0.283E-10	0.104E-10
0.121E-03					
0.371E-10	0.996E-08	-0.471E-10	0.331E-10	0.996E-08	-0.673E-10
0.344E-10	0.997E-08	-0.821E-10	0.243E-10	0.996E-08	-0.549E-10
0.357E-10	0.996E-08	-0.711E-10	0.383E-10	0.997E-08	-0.730E-10
0.382E-10	0.996E-08	-0.604E-10	0.353E-10	0.996E-08	-0.621E-10
0.376E-10	0.996E-08	-0.558E-10	0.408E-10	0.997E-08	-0.701E-10
0.407E-10	0.997E-08	-0.792E-10	0.408E-10	0.997E-08	-0.650E-10
0.166E-10	0.996E-08	-0.510E-10	0.300E-10	0.996E-08	-0.546E-10
0.342E-10	0.996E-08	-0.593E-10	0.150E-10	0.996E-08	-0.472E-10
0.206E-10	0.996E-08	-0.469E-10	0.217E-10	0.996E-08	-0.587E-10
0.227E-11	0.995E-08	-0.332E-10	0.851E-11	0.996E-08	-0.460E-10
-0.295E-04	0.416E-04				
-0.212E-11	0.795E-10	0.100E-07	0.104E-10	0.937E-10	0.100E-07
0.485E-11	0.105E-09	0.100E-07	0.170E-10	0.835E-10	0.100E-07
0.590E-11	0.963E-10	0.100E-07	-0.570E-12	0.992E-10	0.100E-07
-0.321E-11	0.899E-10	0.100E-07	0.535E-11	0.900E-10	0.100E-07
-0.183E-11	0.862E-10	0.100E-07	-0.916E-11	0.976E-10	0.100E-07
-0.723E-11	0.104E-09	0.100E-07	-0.103E-10	0.941E-10	0.100E-07
0.200E-10	0.784E-10	0.100E-07	0.103E-10	0.837E-10	0.100E-07
0.734E-11	0.880E-10	0.100E-07	0.191E-10	0.742E-10	0.100E-07
0.102E-10	0.764E-10	0.100E-07	0.186E-10	0.856E-10	0.100E-07
0.973E-11	0.635E-10	0.100E-07	0.260E-10	0.632E-10	0.100E-07
0.142E-04	-0.479E-05	0.179E-04			
0.100E-07	0.296E-11	0.836E-11	0.100E-07	0.605E-11	-0.659E-11

0.100E-07	-0.228E-11	-0.628E-11	0.100E-07	0.153E-10	-0.916E-11
0.100E-07	0.121E-11	-0.326E-11	0.100E-07	-0.394E-11	0.598E-12
0.100E-07	-0.112E-11	0.479E-11	0.100E-07	0.399E-11	-0.112E-11
0.100E-07	0.108E-11	0.530E-11	0.100E-07	-0.820E-11	0.630E-11
0.100E-07	-0.101E-10	0.333E-11	0.100E-07	-0.717E-11	0.805E-11
0.100E-07	0.203E-10	-0.118E-10	0.100E-07	0.105E-10	-0.320E-11
0.100E-07	0.619E-11	-0.165E-11	0.100E-07	0.222E-10	-0.108E-10
0.100E-07	0.153E-10	-0.441E-11	0.100E-07	0.157E-10	-0.127E-10
0.100E-07	0.241E-10	-0.583E-11	0.999E-08	0.190E-10	-0.617E-11
0.696E-04	-0.225E-04	0.755E-05	0.695E-04		
0.988E-11	0.998E-08	-0.319E-10	0.581E-11	0.998E-08	-0.522E-10
0.714E-11	0.999E-08	-0.670E-10	-0.300E-11	0.998E-08	-0.397E-10
0.845E-11	0.999E-08	-0.559E-10	0.110E-10	0.999E-08	-0.579E-10
0.110E-10	0.999E-08	-0.452E-10	0.802E-11	0.998E-08	-0.470E-10
0.104E-10	0.998E-08	-0.407E-10	0.135E-10	0.999E-08	-0.550E-10
0.135E-10	0.999E-08	-0.641E-10	0.135E-10	0.999E-08	-0.499E-10
-0.107E-10	0.998E-08	-0.358E-10	0.273E-11	0.998E-08	-0.395E-10
0.693E-11	0.998E-08	-0.441E-10	-0.123E-10	0.998E-08	-0.320E-10
-0.667E-11	0.998E-08	-0.318E-10	-0.554E-11	0.998E-08	-0.435E-10
-0.251E-10	0.997E-08	-0.180E-10	-0.187E-10	0.998E-08	-0.308E-10
-0.227E-04	0.278E-04	-0.283E-05	-0.227E-04	0.279E-04	
0.668E-11	0.506E-10	0.100E-07	0.192E-10	0.648E-10	0.100E-07
0.137E-10	0.758E-10	0.100E-07	0.259E-10	0.547E-10	0.100E-07
0.147E-10	0.675E-10	0.100E-07	0.823E-11	0.704E-10	0.100E-07
0.558E-11	0.610E-10	0.100E-07	0.142E-10	0.612E-10	0.100E-07
0.697E-11	0.574E-10	0.100E-07	-0.375E-12	0.687E-10	0.100E-07
0.156E-11	0.750E-10	0.100E-07	-0.156E-11	0.652E-10	0.100E-07
0.288E-10	0.496E-10	0.100E-07	0.191E-10	0.549E-10	0.100E-07
0.161E-10	0.591E-10	0.100E-07	0.279E-10	0.454E-10	0.100E-07
0.190E-10	0.476E-10	0.100E-07	0.274E-10	0.568E-10	0.100E-07
0.186E-10	0.347E-10	0.100E-07	0.349E-10	0.343E-10	0.100E-07
0.770E-05	-0.291E-05	0.100E-04	0.768E-05	-0.293E-05	0.100E-04
0.997E-08	0.363E-10	-0.626E-10	0.998E-08	0.393E-10	-0.775E-10
0.998E-08	0.310E-10	-0.772E-10	0.997E-08	0.486E-10	-0.800E-10
0.998E-08	0.345E-10	-0.742E-10	0.998E-08	0.293E-10	-0.703E-10
0.997E-08	0.322E-10	-0.661E-10	0.998E-08	0.373E-10	-0.720E-10
0.997E-08	0.344E-10	-0.656E-10	0.997E-08	0.251E-10	-0.646E-10
0.997E-08	0.231E-10	-0.676E-10	0.997E-08	0.261E-10	-0.629E-10
0.997E-08	0.536E-10	-0.826E-10	0.997E-08	0.438E-10	-0.741E-10
0.998E-08	0.395E-10	-0.725E-10	0.998E-08	0.556E-10	-0.817E-10
0.998E-08	0.486E-10	-0.753E-10	0.997E-08	0.490E-10	-0.835E-10
0.998E-08	0.575E-10	-0.767E-10	0.996E-08	0.524E-10	-0.770E-10
0.998E-08	0.735E-10	-0.645E-10	0.997E-08	0.463E-10	-0.558E-10
0.818E-04					
-0.442E-10	0.100E-07	0.330E-10	-0.483E-10	0.100E-07	0.127E-10
-0.470E-10	0.100E-07	-0.223E-11	-0.570E-10	0.100E-07	0.252E-10
-0.456E-10	0.100E-07	0.886E-11	-0.431E-10	0.100E-07	0.687E-11
-0.432E-10	0.100E-07	0.196E-10	-0.461E-10	0.100E-07	0.179E-10
-0.437E-10	0.100E-07	0.242E-10	-0.407E-10	0.100E-07	0.975E-11
-0.407E-10	0.100E-07	0.652E-12	-0.406E-10	0.100E-07	0.149E-10
-0.648E-10	0.100E-07	0.291E-10	-0.513E-10	0.100E-07	0.254E-10
-0.471E-10	0.100E-07	0.207E-10	-0.664E-10	0.100E-07	0.330E-10
-0.608E-10	0.100E-07	0.332E-10	-0.596E-10	0.100E-07	0.214E-10
-0.792E-10	0.100E-07	0.470E-10	-0.727E-10	0.100E-07	0.341E-10
-0.319E-10	0.997E-08	0.113E-09	-0.412E-10	0.999E-08	0.837E-10
-0.165E-04	0.262E-04				
0.212E-10	-0.253E-10	0.100E-07	0.338E-10	-0.111E-10	0.999E-08

0.282E-10	-0.238E-12	0.999E-08	0.405E-10	-0.212E-10	0.100E-07
0.293E-10	-0.848E-11	0.999E-08	0.228E-10	-0.563E-11	0.999E-08
0.201E-10	-0.149E-10	0.100E-07	0.287E-10	-0.148E-10	0.100E-07
0.215E-10	-0.185E-10	0.100E-07	0.141E-10	-0.725E-11	0.100E-07
0.161E-10	-0.980E-12	0.999E-08	0.130E-10	-0.108E-10	0.100E-07
0.435E-10	-0.262E-10	0.100E-07	0.337E-10	-0.210E-10	0.100E-07
0.307E-10	-0.168E-10	0.100E-07	0.426E-10	-0.304E-10	0.100E-07
0.337E-10	-0.282E-10	0.100E-07	0.420E-10	-0.191E-10	0.999E-08
0.334E-10	-0.410E-10	0.100E-07	0.496E-10	-0.415E-10	0.100E-07
0.461E-10	-0.722E-10	0.100E-07	0.296E-10	-0.571E-10	0.100E-07
-0.735E-06	-0.318E-05	0.136E-04			
0.100E-07	-0.273E-10	0.112E-10	0.532E-06	0.248E-06	-0.217E-06
0.704E-06	0.325E-06	-0.286E-06	0.128E-05	0.601E-06	-0.542E-06
0.348E-06	0.155E-06	-0.158E-06	0.253E-06	0.110E-06	-0.116E-06
0.253E-06	0.110E-06	-0.116E-06	0.348E-06	0.155E-06	-0.158E-06
0.194E-06	0.832E-07	-0.923E-07	0.253E-06	0.110E-06	-0.116E-06
0.253E-06	0.110E-06	-0.116E-06	0.253E-06	0.110E-06	-0.116E-06
0.207E-05	0.110E-05	-0.104E-05	0.869E-06	0.414E-06	-0.402E-06
0.399E-06	0.174E-06	-0.176E-06	0.207E-05	0.110E-05	-0.104E-05
0.349E-05	0.188E-05	-0.157E-05	0.207E-05	0.110E-05	-0.104E-05
0.672E-05	0.364E-05	-0.284E-05	0.866E-06	0.415E-06	-0.402E-06
0.100E-07	0.988E-11	0.889E-11	0.100E-07	-0.174E-10	0.178E-10
0.998E-08	-0.716E-10	0.325E-10	0.833E-05		
0.169E-10	0.999E-08	-0.101E-10	0.251E-06	0.479E-06	-0.380E-06
0.335E-06	0.592E-06	-0.472E-06	0.626E-06	0.977E-06	-0.802E-06
0.159E-06	0.325E-06	-0.276E-06	0.112E-06	0.260E-06	-0.219E-06
0.112E-06	0.260E-06	-0.219E-06	0.159E-06	0.326E-06	-0.276E-06
0.825E-07	0.218E-06	-0.184E-06	0.112E-06	0.260E-06	-0.219E-06
0.112E-06	0.259E-06	-0.219E-06	0.112E-06	0.260E-06	-0.219E-06
0.109E-05	0.165E-05	-0.148E-05	0.420E-06	0.835E-06	-0.711E-06
0.177E-06	0.390E-06	-0.321E-06	0.109E-05	0.165E-05	-0.148E-05
0.188E-05	0.222E-05	-0.188E-05	0.109E-05	0.165E-05	-0.148E-05
0.364E-05	0.383E-05	-0.313E-05	0.416E-06	0.836E-06	-0.710E-06
0.291E-10	0.995E-08	0.693E-10	0.198E-10	0.997E-08	0.405E-10
0.532E-10	0.100E-07	-0.353E-10	0.454E-05	0.482E-05	
-0.134E-10	0.783E-11	0.100E-07	-0.220E-06	-0.373E-06	0.699E-06
-0.293E-06	-0.461E-06	0.859E-06	-0.557E-06	-0.787E-06	0.145E-05
-0.159E-06	-0.270E-06	0.515E-06	-0.116E-06	-0.215E-06	0.414E-06
-0.116E-06	-0.216E-06	0.414E-06	-0.159E-06	-0.270E-06	0.514E-06
-0.921E-07	-0.182E-06	0.351E-06	-0.117E-06	-0.215E-06	0.414E-06
-0.117E-06	-0.215E-06	0.414E-06	-0.117E-06	-0.215E-06	0.414E-06
-0.101E-05	-0.147E-05	0.266E-05	-0.374E-06	-0.685E-06	0.132E-05
-0.171E-06	-0.311E-06	0.592E-06	-0.101E-05	-0.147E-05	0.266E-05
-0.157E-05	-0.187E-05	0.316E-05	-0.101E-05	-0.146E-05	0.266E-05
-0.284E-05	-0.313E-05	0.493E-05	-0.370E-06	-0.688E-06	0.132E-05
0.115E-10	-0.393E-10	0.100E-07	-0.506E-11	-0.241E-10	0.100E-07
-0.759E-10	0.409E-10	0.100E-07	-0.351E-05	-0.394E-05	0.619E-05

INVERSE OF NORMAL EQUATION MATRIX (ELLIPSOID)

0.100E-07					
-0.188E-17	0.100E-07				
0.295E-16	-0.561E-16	0.100E-07			
0.999E-08	0.304E-10	0.102E-09	0.112E-05		
-0.295E-10	0.100E-07	0.295E-10	0.441E-06	0.121E-05	
-0.116E-09	-0.289E-10	0.100E-07	-0.153E-06	-0.127E-06	0.509E-05
0.999E-08	-0.235E-10	0.143E-09	0.101E-05	0.391E-06	-0.111E-06
0.147E-05					

0.183E-10	0.100E-07	-0.266E-10	0.405E-06	0.107E-05	-0.145E-06
0.612E-06	0.175E-05				
-0.161E-09	0.308E-10	0.100E-07	-0.132E-06	-0.110E-06	0.457E-05
-0.183E-06	-0.284E-06	0.707E-05			
0.999E-08	0.107E-09	0.796E-10	0.639E-06	0.256E-06	-0.985E-07
0.895E-06	0.388E-06	-0.156E-06	0.178E-05		
-0.102E-09	0.100E-07	0.108E-09	0.254E-06	0.594E-06	-0.486E-07
0.368E-06	0.891E-06	-0.105E-06	0.784E-06	0.183E-05	
-0.860E-10	-0.109E-09	0.100E-07	-0.925E-07	-0.637E-07	0.270E-05
-0.127E-06	-0.158E-06	0.394E-05	-0.255E-06	-0.341E-06	0.845E-05
0.999E-08	-0.439E-11	0.104E-09	0.622E-06	0.244E-06	-0.160E-07
0.563E-06	0.224E-06	-0.117E-07	0.371E-06	0.144E-06	-0.146E-07
0.199E-05					
0.438E-11	0.100E-07	-0.725E-11	0.252E-06	0.722E-06	-0.103E-06
0.224E-06	0.642E-06	-0.887E-07	0.151E-06	0.374E-06	-0.480E-07
0.832E-06	0.271E-05				
-0.118E-09	0.877E-11	0.100E-07	-0.124E-07	-0.781E-07	0.316E-05
0.474E-08	-0.869E-07	0.286E-05	-0.154E-07	-0.212E-07	0.175E-05
-0.234E-06	-0.270E-06	0.979E-05			
0.999E-08	-0.441E-10	0.965E-10	0.421E-06	0.152E-06	0.194E-07
0.384E-06	0.141E-06	0.191E-07	0.264E-06	0.941E-07	0.684E-08
0.703E-06	0.254E-06	-0.218E-07	0.134E-05		
0.394E-10	0.100E-07	-0.473E-10	0.158E-06	0.488E-06	-0.210E-07
0.141E-06	0.437E-06	-0.164E-07	0.986E-07	0.270E-06	-0.659E-08
0.258E-06	0.908E-06	0.157E-07	0.534E-06	0.184E-05	
-0.110E-09	0.500E-10	0.100E-07	0.261E-07	-0.239E-09	0.214E-05
0.341E-07	-0.118E-07	0.195E-05	0.104E-07	0.137E-07	0.125E-05
-0.138E-07	0.319E-07	0.345E-05	-0.114E-06	-0.117E-06	0.666E-05
0.100E-07	-0.302E-10	0.461E-10	0.421E-06	0.153E-06	0.866E-08
0.384E-06	0.141E-06	0.927E-08	0.264E-06	0.945E-07	0.555E-09
0.704E-06	0.255E-06	-0.391E-07	0.816E-06	0.308E-06	-0.408E-07
0.817E-06					
0.251E-10	0.100E-07	-0.309E-10	0.157E-06	0.487E-06	-0.175E-07
0.141E-06	0.437E-06	-0.132E-07	0.982E-07	0.270E-06	-0.453E-08
0.256E-06	0.908E-06	0.214E-07	0.305E-06	0.111E-05	-0.630E-08
0.306E-06	0.110E-05				
-0.529E-10	0.326E-10	0.100E-07	0.283E-07	-0.209E-09	0.214E-05
0.360E-07	-0.118E-07	0.195E-05	0.117E-07	0.137E-07	0.125E-05
-0.102E-07	0.318E-07	0.345E-05	-0.158E-07	-0.133E-07	0.414E-05
-0.367E-07	-0.646E-08	0.414E-05			
0.100E-07	0.119E-10	0.716E-10	0.622E-06	0.245E-06	-0.265E-07
0.563E-06	0.226E-06	-0.212E-07	0.372E-06	0.145E-06	-0.204E-07
0.118E-05	0.461E-06	-0.146E-06	0.704E-06	0.259E-06	-0.250E-07
0.705E-06	0.258E-06	-0.214E-07	0.118E-05		
-0.114E-10	0.100E-07	0.106E-10	0.251E-06	0.722E-06	-0.969E-07
0.223E-06	0.642E-06	-0.835E-07	0.151E-06	0.374E-06	-0.448E-07
0.456E-06	0.154E-05	-0.670E-07	0.253E-06	0.908E-06	0.381E-07
0.254E-06	0.907E-06	0.380E-07	0.459E-06	0.154E-05	
-0.813E-10	-0.100E-10	0.100E-07	-0.106E-07	-0.786E-07	0.316E-05
0.640E-08	-0.872E-07	0.286E-05	-0.143E-07	-0.214E-07	0.175E-05
-0.124E-06	-0.787E-07	0.573E-05	-0.197E-07	0.150E-07	0.345E-05
-0.370E-07	0.207E-07	0.345E-05	-0.142E-06	-0.681E-07	0.572E-05
0.100E-07	-0.141E-10	0.320E-10	0.286E-06	0.936E-07	0.321E-07
0.264E-06	0.878E-07	0.297E-07	0.192E-06	0.625E-07	0.147E-07
0.385E-06	0.124E-06	0.330E-07	0.423E-06	0.139E-06	0.430E-07
0.423E-06	0.139E-06	0.451E-07	0.385E-06	0.123E-06	0.342E-07
0.450E-06					

0.112E-10	0.100E-07	-0.144E-10	0.935E-07	0.336E-06	0.290E-07
0.845E-07	0.305E-06	0.281E-07	0.626E-07	0.202E-06	0.201E-07
0.121E-06	0.501E-06	0.632E-07	0.135E-06	0.578E-06	0.614E-07
0.136E-06	0.578E-06	0.612E-07	0.122E-06	0.501E-06	0.627E-07
0.148E-06	0.627E-06				
-0.371E-10	0.156E-10	0.100E-07	0.495E-07	0.344E-07	0.151E-05
0.520E-07	0.228E-07	0.138E-05	0.261E-07	0.292E-07	0.938E-06
0.553E-07	0.636E-07	0.203E-05	0.612E-07	0.518E-07	0.231E-05
0.497E-07	0.555E-07	0.231E-05	0.488E-07	0.672E-07	0.203E-05
0.514E-07	0.618E-07	0.249E-05			
0.999E-08	-0.811E-10	0.688E-10	0.420E-06	0.150E-06	0.136E-07
0.383E-06	0.139E-06	0.137E-07	0.263E-06	0.931E-07	0.339E-08
0.702E-06	0.251E-06	-0.315E-07	0.814E-06	0.302E-06	-0.314E-07
0.815E-06	0.301E-06	-0.273E-07	0.703E-06	0.249E-06	-0.293E-07
0.423E-06	0.133E-06	0.546E-07	0.185E-05		
0.707E-10	0.100E-07	-0.832E-10	0.159E-06	0.488E-06	-0.287E-07
0.142E-06	0.438E-06	-0.234E-07	0.993E-07	0.270E-06	-0.111E-07
0.260E-06	0.909E-06	0.317E-08	0.309E-06	0.111E-05	-0.282E-07
0.310E-06	0.111E-05	-0.284E-07	0.261E-06	0.908E-06	0.243E-08
0.140E-06	0.578E-06	0.436E-07	0.757E-06	0.269E-05	
-0.782E-10	0.871E-10	0.100E-07	0.280E-07	0.205E-08	0.214E-05
0.358E-07	-0.975E-08	0.195E-05	0.116E-07	0.150E-07	0.125E-05
-0.106E-07	0.360E-07	0.345E-05	-0.162E-07	-0.811E-08	0.414E-05
-0.371E-07	-0.123E-08	0.414E-05	-0.218E-07	0.423E-07	0.345E-05
0.448E-07	0.640E-07	0.231E-05	-0.219E-06	-0.321E-06	0.971E-05
0.999E-08	-0.899E-10	0.105E-09	0.420E-06	0.150E-06	0.214E-07
0.383E-06	0.139E-06	0.208E-07	0.263E-06	0.929E-07	0.794E-08
0.702E-06	0.250E-06	-0.189E-07	0.814E-06	0.301E-06	-0.163E-07
0.814E-06	0.300E-06	-0.122E-07	0.703E-06	0.249E-06	-0.168E-07
0.423E-06	0.133E-06	0.629E-07	0.185E-05	0.753E-06	-0.184E-06
0.261E-05					
0.803E-10	0.100E-07	-0.940E-10	0.159E-06	0.488E-06	-0.310E-07
0.143E-06	0.438E-06	-0.255E-07	0.996E-07	0.270E-06	-0.124E-07
0.260E-06	0.909E-06	-0.590E-09	0.309E-06	0.111E-05	-0.327E-07
0.311E-06	0.111E-05	-0.329E-07	0.262E-06	0.909E-06	-0.133E-08
0.141E-06	0.578E-06	0.412E-07	0.759E-06	0.269E-05	-0.332E-06
0.110E-05	0.388E-05				
-0.119E-09	0.988E-10	0.100E-07	0.265E-07	0.199E-08	0.214E-05
0.344E-07	-0.982E-08	0.195E-05	0.106E-07	0.149E-07	0.125E-05
-0.132E-07	0.360E-07	0.345E-05	-0.192E-07	-0.809E-08	0.414E-05
-0.401E-07	-0.121E-08	0.414E-05	-0.244E-07	0.423E-07	0.345E-05
0.432E-07	0.641E-07	0.231E-05	-0.226E-06	-0.322E-06	0.972E-05
-0.323E-06	-0.569E-06	0.139E-04			
0.999E-08	-0.766E-10	0.480E-10	0.420E-06	0.150E-06	0.911E-08
0.383E-06	0.139E-06	0.967E-08	0.264E-06	0.932E-07	0.792E-09
0.703E-06	0.251E-06	-0.386E-07	0.815E-06	0.303E-06	-0.400E-07
0.815E-06	0.301E-06	-0.359E-07	0.703E-06	0.250E-06	-0.365E-07
0.423E-06	0.133E-06	0.498E-07	0.141E-05	0.565E-06	-0.153E-06
0.141E-05	0.567E-06	-0.158E-06	0.141E-05		
0.657E-10	0.100E-07	-0.775E-10	0.159E-06	0.488E-06	-0.275E-07
0.142E-06	0.438E-06	-0.223E-07	0.992E-07	0.270E-06	-0.104E-07
0.259E-06	0.909E-06	0.515E-08	0.308E-06	0.111E-05	-0.258E-07
0.310E-06	0.111E-05	-0.260E-07	0.261E-06	0.908E-06	0.440E-08
0.140E-06	0.578E-06	0.449E-07	0.563E-06	0.201E-05	-0.190E-06
0.560E-06	0.201E-05	-0.190E-06	0.564E-06	0.201E-05	
-0.547E-10	0.809E-10	0.100E-07	0.289E-07	0.211E-08	0.214E-05
0.367E-07	-0.968E-08	0.195E-05	0.121E-07	0.150E-07	0.125E-05

-0.913E-08	0.361E-07	0.345E-05	-0.145E-07	-0.806E-08	0.414E-05
-0.353E-07	-0.118E-08	0.414E-05	-0.203E-07	0.423E-07	0.345E-05
0.457E-07	0.640E-07	0.231E-05	-0.135E-06	-0.194E-06	0.731E-05
-0.108E-06	-0.202E-06	0.731E-05	-0.150E-06	-0.190E-06	0.731E-05
0.999E-08	0.154E-09	0.750E-10	0.459E-06	0.209E-06	-0.181E-06
0.621E-06	0.317E-06	-0.291E-06	0.118E-05	0.640E-06	-0.629E-06
0.274E-06	0.126E-06	-0.786E-07	0.200E-06	0.831E-07	-0.349E-07
0.201E-06	0.827E-07	-0.339E-07	0.275E-06	0.126E-06	-0.779E-07
0.151E-06	0.540E-07	-0.821E-08	0.200E-06	0.838E-07	-0.339E-07
0.200E-06	0.840E-07	-0.347E-07	0.200E-06	0.837E-07	-0.335E-07
0.230E-05					
-0.150E-09	0.100E-07	0.157E-09	0.210E-06	0.431E-06	-0.139E-06
0.299E-06	0.616E-06	-0.242E-06	0.620E-06	0.119E-05	-0.625E-06
0.118E-06	0.281E-06	-0.742E-07	0.782E-07	0.207E-06	-0.275E-07
0.787E-07	0.207E-06	-0.274E-07	0.119E-06	0.281E-06	-0.743E-07
0.528E-07	0.160E-06	-0.272E-08	0.776E-07	0.208E-06	-0.265E-07
0.773E-07	0.208E-06	-0.265E-07	0.777E-07	0.208E-06	-0.264E-07
0.118E-05	0.218E-05				
-0.781E-10	-0.157E-09	0.999E-08	-0.210E-06	-0.190E-06	0.168E-05
-0.315E-06	-0.343E-06	0.230E-05	-0.692E-06	-0.761E-06	0.455E-05
-0.892E-07	-0.114E-06	0.113E-05	-0.452E-07	-0.585E-07	0.833E-06
-0.495E-07	-0.570E-07	0.833E-06	-0.930E-07	-0.112E-06	0.113E-05
-0.204E-07	-0.216E-07	0.654E-06	-0.473E-07	-0.616E-07	0.833E-06
-0.442E-07	-0.626E-07	0.833E-06	-0.491E-07	-0.611E-07	0.833E-06
-0.102E-05	-0.116E-05	0.106E-04			
0.100E-07	0.641E-10	0.555E-10	0.273E-06	0.966E-07	-0.429E-07
0.313E-06	0.116E-06	-0.560E-07	0.454E-06	0.167E-06	-0.832E-07
0.185E-06	0.640E-07	-0.902E-08	0.150E-06	0.474E-07	0.290E-08
0.150E-06	0.472E-07	0.368E-08	0.185E-06	0.637E-07	-0.845E-08
0.127E-06	0.358E-07	0.106E-07	0.150E-06	0.479E-07	0.355E-08
0.150E-06	0.480E-07	0.299E-08	0.150E-06	0.478E-07	0.387E-08
0.472E-06	0.165E-06	-0.454E-07	0.656E-06		
-0.614E-10	0.100E-07	0.647E-10	0.970E-07	0.296E-06	0.106E-08
0.112E-06	0.341E-06	-0.728E-08	0.176E-06	0.483E-06	-0.488E-07
0.630E-07	0.212E-06	0.805E-08	0.469E-07	0.172E-06	0.209E-07
0.471E-07	0.172E-06	0.208E-07	0.634E-07	0.212E-06	0.789E-08
0.371E-07	0.146E-06	0.261E-07	0.462E-07	0.172E-06	0.216E-07
0.462E-07	0.172E-06	0.216E-07	0.463E-07	0.172E-06	0.216E-07
0.181E-06	0.473E-06	-0.636E-07	0.262E-06	0.644E-06	
-0.623E-10	-0.642E-10	0.100E-07	-0.380E-07	-0.281E-08	0.115E-05
-0.437E-07	-0.211E-07	0.133E-05	-0.799E-07	-0.377E-07	0.197E-05
-0.662E-08	0.709E-09	0.853E-06	0.250E-08	0.125E-07	0.694E-06
-0.978E-09	0.137E-07	0.694E-06	-0.941E-08	0.226E-08	0.853E-06
0.487E-08	0.219E-07	0.596E-06	0.515E-09	0.100E-07	0.694E-06
0.303E-08	0.927E-08	0.694E-06	-0.921E-09	0.104E-07	0.694E-06
-0.637E-07	-0.355E-07	0.204E-05	-0.139E-06	-0.721E-07	0.271E-05
0.100E-07	0.285E-10	0.653E-10	0.436E-06	0.164E-06	-0.343E-07
0.409E-06	0.157E-06	-0.330E-07	0.324E-06	0.120E-06	-0.347E-07
0.329E-06	0.119E-06	0.844E-08	0.285E-06	0.957E-07	0.248E-07
0.285E-06	0.953E-07	0.262E-07	0.329E-06	0.118E-06	0.943E-08
0.257E-06	0.795E-07	0.356E-07	0.285E-06	0.965E-07	0.260E-07
0.285E-06	0.968E-07	0.250E-07	0.285E-06	0.963E-07	0.266E-07
0.270E-06	0.105E-06	-0.679E-07	0.255E-06	0.915E-07	-0.372E-07
0.566E-06					
-0.268E-10	0.100E-07	0.278E-10	0.165E-06	0.500E-06	-0.109E-07
0.152E-06	0.464E-06	-0.958E-08	0.124E-06	0.342E-06	-0.136E-07
0.118E-06	0.382E-06	0.690E-08	0.959E-07	0.325E-06	0.296E-07

0.962E-07	0.325E-06	0.296E-07	0.119E-06	0.381E-06	0.662E-08
0.827E-07	0.288E-06	0.395E-07	0.946E-07	0.325E-06	0.311E-07
0.944E-07	0.325E-06	0.311E-07	0.947E-07	0.325E-06	0.311E-07
0.110E-06	0.284E-06	-0.663E-07	0.924E-07	0.286E-06	-0.452E-08
0.219E-06	0.613E-06				
-0.741E-10	-0.275E-10	0.100E-07	-0.276E-07	-0.103E-07	0.204E-05
-0.180E-07	-0.234E-07	0.191E-05	-0.325E-07	-0.302E-08	0.144E-05
0.125E-07	0.232E-08	0.163E-05	0.238E-07	0.208E-07	0.142E-05
0.167E-07	0.231E-07	0.142E-05	0.719E-08	0.525E-08	0.163E-05
0.235E-07	0.378E-07	0.129E-05	0.198E-07	0.157E-07	0.142E-05
0.249E-07	0.142E-07	0.142E-05	0.169E-07	0.165E-07	0.142E-05
-0.611E-07	-0.369E-07	0.110E-05	-0.382E-07	-0.253E-09	0.111E-05
-0.632E-07	-0.385E-07	0.256E-05			
0.999E-08	0.167E-09	0.571E-10	0.460E-06	0.210E-06	-0.184E-06
0.622E-06	0.319E-06	-0.296E-06	0.118E-05	0.643E-06	-0.638E-06
0.275E-06	0.127E-06	-0.808E-07	0.201E-06	0.834E-07	-0.364E-07
0.201E-06	0.830E-07	-0.354E-07	0.275E-06	0.126E-06	-0.800E-07
0.151E-06	0.542E-07	-0.940E-08	0.200E-06	0.842E-07	-0.355E-07
0.200E-06	0.844E-07	-0.362E-07	0.201E-06	0.840E-07	-0.351E-07
0.230E-05	0.118E-05	-0.104E-05	0.473E-06	0.182E-06	-0.674E-07
0.270E-06	0.110E-06	-0.631E-07	0.533E-05		
-0.160E-09	0.100E-07	0.168E-09	0.209E-06	0.431E-06	-0.137E-06
0.298E-06	0.615E-06	-0.239E-06	0.618E-06	0.119E-05	-0.619E-06
0.118E-06	0.281E-06	-0.728E-07	0.780E-07	0.207E-06	-0.264E-07
0.784E-07	0.207E-06	-0.264E-07	0.119E-06	0.280E-06	-0.729E-07
0.526E-07	0.160E-06	-0.194E-08	0.773E-07	0.207E-06	-0.254E-07
0.770E-07	0.208E-06	-0.255E-07	0.774E-07	0.207E-06	-0.254E-07
0.117E-05	0.218E-05	-0.115E-05	0.164E-06	0.473E-06	-0.330E-07
0.104E-06	0.283E-06	-0.355E-07	0.246E-05	0.426E-05	
-0.579E-10	-0.170E-09	0.100E-07	-0.209E-06	-0.190E-06	0.168E-05
-0.314E-06	-0.344E-06	0.230E-05	-0.691E-06	-0.761E-06	0.455E-05
-0.888E-07	-0.114E-06	0.113E-05	-0.449E-07	-0.586E-07	0.833E-06
-0.492E-07	-0.571E-07	0.833E-06	-0.927E-07	-0.112E-06	0.113E-05
-0.202E-07	-0.217E-07	0.654E-06	-0.470E-07	-0.617E-07	0.833E-06
-0.439E-07	-0.627E-07	0.833E-06	-0.488E-07	-0.612E-07	0.833E-06
-0.102E-05	-0.116E-05	0.106E-04	-0.446E-07	-0.639E-07	0.204E-05
-0.675E-07	-0.665E-07	0.110E-05	-0.173E-05	-0.213E-05	0.260E-04
0.999E-08	0.104E-09	0.392E-10	0.283E-06	0.109E-06	-0.688E-07
0.353E-06	0.150E-06	-0.107E-06	0.598E-06	0.271E-06	-0.216E-06
0.181E-06	0.682E-07	-0.224E-07	0.140E-06	0.473E-07	-0.444E-08
0.141E-06	0.470E-07	-0.372E-08	0.181E-06	0.678E-07	-0.219E-07
0.113E-06	0.329E-07	0.680E-08	0.140E-06	0.477E-07	-0.382E-08
0.140E-06	0.479E-07	-0.434E-08	0.140E-06	0.476E-07	-0.352E-08
0.955E-06	0.430E-06	-0.302E-06	0.480E-06	0.181E-06	-0.724E-07
0.215E-06	0.769E-07	-0.308E-07	0.956E-06	0.428E-06	-0.301E-06
0.142E-05					
-0.100E-09	0.100E-07	0.104E-09	0.106E-06	0.284E-06	-0.502E-07
0.140E-06	0.364E-06	-0.883E-07	0.267E-06	0.614E-06	-0.236E-06
0.633E-07	0.196E-06	-0.250E-07	0.438E-07	0.153E-06	-0.285E-08
0.440E-07	0.152E-06	-0.287E-08	0.637E-07	0.195E-06	-0.251E-07
0.317E-07	0.125E-06	0.812E-08	0.432E-07	0.153E-06	-0.215E-08
0.431E-07	0.153E-06	-0.215E-08	0.433E-07	0.153E-06	-0.214E-08
0.436E-06	0.917E-06	-0.432E-06	0.167E-06	0.471E-06	-0.597E-07
0.720E-07	0.234E-06	-0.176E-07	0.438E-06	0.916E-06	-0.433E-06
0.799E-06	0.134E-05				
-0.388E-10	-0.107E-09	0.100E-07	-0.575E-07	-0.650E-07	0.114E-05
-0.870E-07	-0.123E-06	0.144E-05	-0.203E-06	-0.264E-06	0.250E-05

-0.130E-07	-0.388E-07	0.811E-06	0.172E-08	-0.150E-07	0.634E-06
-0.149E-08	-0.139E-07	0.634E-06	-0.157E-07	-0.373E-07	0.811E-06
0.805E-08	0.159E-08	0.525E-06	0.399E-11	-0.173E-07	0.634E-06
0.233E-08	-0.180E-07	0.634E-06	-0.132E-08	-0.169E-07	0.634E-06
-0.262E-06	-0.382E-06	0.450E-05	-0.336E-07	-0.642E-07	0.207E-05
-0.180E-07	-0.278E-07	0.933E-06	-0.271E-06	-0.377E-06	0.450E-05
-0.893E-06	-0.103E-05	0.611E-05			
0.999E-08	0.116E-09	0.101E-09	0.458E-06	0.207E-06	-0.176E-06
0.619E-06	0.314E-06	-0.284E-06	0.118E-05	0.634E-06	-0.615E-06
0.274E-06	0.125E-06	-0.754E-07	0.200E-06	0.821E-07	-0.326E-07
0.200E-06	0.817E-07	-0.316E-07	0.274E-06	0.124E-06	-0.746E-07
0.151E-06	0.533E-07	-0.648E-08	0.200E-06	0.828E-07	-0.316E-07
0.200E-06	0.831E-07	-0.324E-07	0.200E-06	0.827E-07	-0.312E-07
0.229E-05	0.117E-05	-0.986E-06	0.471E-06	0.179E-06	-0.582E-07
0.269E-06	0.109E-06	-0.581E-07	0.229E-05	0.116E-05	-0.983E-06
0.953E-06	0.431E-06	-0.249E-06	0.367E-05		
-0.114E-09	0.100E-07	0.119E-09	0.212E-06	0.433E-06	-0.146E-06
0.302E-06	0.618E-06	-0.252E-06	0.627E-06	0.120E-05	-0.644E-06
0.120E-06	0.282E-06	-0.788E-07	0.791E-07	0.208E-06	-0.308E-07
0.796E-07	0.208E-06	-0.307E-07	0.120E-06	0.281E-06	-0.789E-07
0.534E-07	0.160E-06	-0.526E-08	0.784E-07	0.208E-06	-0.298E-07
0.781E-07	0.208E-06	-0.299E-07	0.786E-07	0.208E-06	-0.297E-07
0.119E-05	0.219E-05	-0.120E-05	0.166E-06	0.474E-06	-0.435E-07
0.106E-06	0.284E-06	-0.413E-07	0.119E-05	0.219E-05	-0.121E-05
0.434E-06	0.920E-06	-0.401E-06	0.176E-05	0.344E-05	
-0.108E-09	-0.119E-09	0.999E-08	-0.211E-06	-0.189E-06	0.168E-05
-0.316E-06	-0.342E-06	0.230E-05	-0.693E-06	-0.758E-06	0.455E-05
-0.895E-07	-0.113E-06	0.113E-05	-0.455E-07	-0.579E-07	0.833E-06
-0.498E-07	-0.564E-07	0.833E-06	-0.934E-07	-0.111E-06	0.113E-05
-0.207E-07	-0.212E-07	0.654E-06	-0.476E-07	-0.611E-07	0.833E-06
-0.445E-07	-0.620E-07	0.833E-06	-0.494E-07	-0.605E-07	0.833E-06
-0.102E-05	-0.116E-05	0.106E-04	-0.461E-07	-0.623E-07	0.204E-05
-0.683E-07	-0.655E-07	0.110E-05	-0.104E-05	-0.114E-05	0.106E-04
-0.303E-06	-0.430E-06	0.450E-05	-0.126E-05	-0.146E-05	0.164E-04
0.999E-08	0.178E-09	0.122E-10	0.283E-06	0.111E-06	-0.723E-07
0.354E-06	0.153E-06	-0.112E-06	0.600E-06	0.276E-06	-0.225E-06
0.181E-06	0.697E-07	-0.249E-07	0.141E-06	0.484E-07	-0.622E-08
0.141E-06	0.482E-07	-0.550E-08	0.182E-06	0.693E-07	-0.243E-07
0.113E-06	0.338E-07	0.540E-08	0.140E-06	0.489E-07	-0.560E-08
0.140E-06	0.490E-07	-0.612E-08	0.141E-06	0.488E-07	-0.530E-08
0.959E-06	0.437E-06	-0.318E-06	0.481E-06	0.184E-06	-0.786E-07
0.215E-06	0.787E-07	-0.335E-07	0.960E-06	0.436E-06	-0.316E-06
0.143E-05	0.811E-06	-0.917E-06	0.956E-06	0.442E-06	-0.319E-06
0.356E-05					
-0.170E-09	0.100E-07	0.175E-09	0.104E-06	0.283E-06	-0.416E-07
0.137E-06	0.363E-06	-0.773E-07	0.261E-06	0.611E-06	-0.217E-06
0.620E-07	0.195E-06	-0.190E-07	0.428E-07	0.152E-06	0.168E-08
0.431E-07	0.152E-06	0.167E-08	0.624E-07	0.195E-06	-0.192E-07
0.309E-07	0.125E-06	0.118E-07	0.423E-07	0.152E-06	0.238E-08
0.421E-07	0.152E-06	0.238E-08	0.423E-07	0.152E-06	0.239E-08
0.427E-06	0.912E-06	-0.398E-06	0.164E-06	0.469E-06	-0.445E-07
0.704E-07	0.233E-06	-0.108E-07	0.429E-06	0.911E-06	-0.399E-06
0.783E-06	0.133E-05	-0.986E-06	0.423E-06	0.915E-06	-0.396E-06
0.219E-05	0.322E-05				
0.312E-11	-0.183E-09	0.999E-08	-0.571E-07	-0.667E-07	0.114E-05
-0.866E-07	-0.125E-06	0.144E-05	-0.202E-06	-0.267E-06	0.250E-05
-0.127E-07	-0.400E-07	0.811E-06	0.196E-08	-0.160E-07	0.634E-06

-0.125E-08	-0.149E-07	0.634E-06	-0.155E-07	-0.385E-07	0.811E-06
0.827E-08	0.767E-09	0.525E-06	0.250E-09	-0.182E-07	0.634E-06
0.257E-08	-0.189E-07	0.634E-06	-0.107E-08	-0.179E-07	0.634E-06
-0.261E-06	-0.388E-06	0.450E-05	-0.329E-07	-0.670E-07	0.207E-05
-0.177E-07	-0.293E-07	0.932E-06	-0.270E-06	-0.382E-06	0.450E-05
-0.893E-06	-0.104E-05	0.611E-05	-0.248E-06	-0.406E-06	0.450E-05
-0.289E-05	-0.285E-05	0.144E-04			
0.999E-08	0.154E-09	0.554E-10	0.274E-06	0.991E-07	-0.430E-07
0.314E-06	0.119E-06	-0.561E-07	0.456E-06	0.171E-06	-0.837E-07
0.186E-06	0.658E-07	-0.898E-08	0.151E-06	0.489E-07	0.304E-08
0.151E-06	0.487E-07	0.382E-08	0.186E-06	0.655E-07	-0.842E-08
0.127E-06	0.371E-07	0.108E-07	0.150E-06	0.493E-07	0.370E-08
0.150E-06	0.495E-07	0.314E-08	0.150E-06	0.493E-07	0.402E-08
0.473E-06	0.169E-06	-0.460E-07	0.657E-06	0.268E-06	-0.140E-06
0.256E-06	0.949E-07	-0.382E-07	0.474E-06	0.168E-06	-0.453E-07
0.481E-06	0.171E-06	-0.343E-07	0.473E-06	0.171E-06	-0.468E-07
0.482E-06	0.168E-06	-0.336E-07	0.149E-04		
-0.150E-09	0.999E-08	0.175E-09	0.941E-07	0.295E-06	0.143E-07
0.109E-06	0.340E-06	0.804E-08	0.171E-06	0.481E-06	-0.262E-07
0.613E-07	0.211E-06	0.176E-07	0.456E-07	0.171E-06	0.285E-07
0.457E-07	0.171E-06	0.285E-07	0.616E-07	0.211E-06	0.174E-07
0.360E-07	0.146E-06	0.326E-07	0.449E-07	0.171E-06	0.293E-07
0.448E-07	0.171E-06	0.293E-07	0.449E-07	0.171E-06	0.293E-07
0.176E-06	0.471E-06	-0.405E-07	0.255E-06	0.640E-06	-0.406E-07
0.888E-07	0.285E-06	0.124E-07	0.177E-06	0.471E-06	-0.408E-07
0.176E-06	0.469E-06	-0.408E-07	0.174E-06	0.472E-06	-0.392E-07
0.179E-06	0.467E-06	-0.437E-07	0.221E-04	0.219E-03	
-0.462E-10	-0.154E-09	0.999E-08	-0.385E-07	-0.530E-08	0.115E-05
-0.442E-07	-0.240E-07	0.133E-05	-0.807E-07	-0.418E-07	0.197E-05
-0.689E-08	-0.109E-08	0.853E-06	0.231E-08	0.111E-07	0.693E-06
-0.117E-08	0.122E-07	0.693E-06	-0.969E-08	0.462E-09	0.853E-06
0.474E-08	0.207E-07	0.595E-06	0.334E-09	0.855E-08	0.693E-06
0.285E-08	0.781E-08	0.693E-06	-0.110E-08	0.895E-08	0.693E-06
-0.645E-07	-0.394E-07	0.203E-05	-0.140E-06	-0.774E-07	0.271E-05
-0.376E-07	-0.694E-08	0.110E-05	-0.683E-07	-0.370E-07	0.204E-05
-0.732E-07	-0.636E-07	0.207E-05	-0.590E-07	-0.475E-07	0.204E-05
-0.794E-07	-0.484E-07	0.207E-05	-0.180E-04	-0.437E-04	0.372E-04
0.100E-07	0.317E-09	-0.103E-09	0.100E-07	0.287E-09	-0.220E-09
0.100E-07	0.335E-09	-0.264E-09	0.100E-07	0.213E-09	-0.192E-09
0.100E-07	0.321E-09	-0.221E-09	0.100E-07	0.357E-09	-0.211E-09
0.100E-07	0.342E-09	-0.155E-09	0.100E-07	0.305E-09	-0.185E-09
0.100E-07	0.328E-09	-0.140E-09	0.100E-07	0.388E-09	-0.179E-09
0.100E-07	0.398E-09	-0.219E-09	0.100E-07	0.383E-09	-0.155E-09
0.100E-07	0.165E-09	-0.186E-09	0.100E-07	0.254E-09	-0.167E-09
0.100E-07	0.290E-09	-0.178E-09	0.100E-07	0.154E-09	-0.166E-09
0.100E-07	0.215E-09	-0.145E-09	0.100E-07	0.201E-09	-0.215E-09
0.100E-07	0.144E-09	-0.106E-09	0.100E-07	0.164E-09	-0.154E-09
0.354E-04					
-0.268E-09	0.996E-08	0.300E-09	-0.234E-09	0.996E-08	0.274E-09
-0.287E-09	0.996E-08	0.335E-09	-0.159E-09	0.996E-08	0.193E-09
-0.269E-09	0.996E-08	0.311E-09	-0.309E-09	0.996E-08	0.352E-09
-0.297E-09	0.996E-08	0.333E-09	-0.254E-09	0.996E-08	0.292E-09
-0.281E-09	0.996E-08	0.316E-09	-0.347E-09	0.996E-08	0.388E-09
-0.354E-09	0.996E-08	0.401E-09	-0.343E-09	0.996E-08	0.382E-09
-0.112E-09	0.997E-08	0.145E-09	-0.202E-09	0.996E-08	0.237E-09
-0.238E-09	0.996E-08	0.274E-09	-0.100E-09	0.997E-08	0.132E-09
-0.163E-09	0.996E-08	0.194E-09	-0.149E-09	0.996E-08	0.184E-09

-0.903E-10	0.997E-08	0.117E-09	-0.113E-09	0.996E-08	0.148E-09
0.308E-04	0.122E-03				
0.138E-09	-0.335E-09	0.998E-08	0.239E-09	-0.306E-09	0.998E-08
0.281E-09	-0.361E-09	0.998E-08	0.214E-09	-0.228E-09	0.998E-08
0.242E-09	-0.342E-09	0.998E-08	0.236E-09	-0.382E-09	0.998E-08
0.185E-09	-0.365E-09	0.998E-08	0.209E-09	-0.324E-09	0.998E-08
0.170E-09	-0.349E-09	0.998E-08	0.209E-09	-0.417E-09	0.998E-08
0.246E-09	-0.428E-09	0.998E-08	0.188E-09	-0.411E-09	0.998E-08
0.207E-09	-0.180E-09	0.998E-08	0.191E-09	-0.271E-09	0.998E-08
0.202E-09	-0.307E-09	0.998E-08	0.189E-09	-0.169E-09	0.998E-08
0.173E-09	-0.232E-09	0.998E-08	0.234E-09	-0.218E-09	0.998E-08
0.144E-09	-0.162E-09	0.998E-08	0.188E-09	-0.161E-09	0.998E-08
-0.107E-04	-0.769E-05	0.233E-04			
0.100E-07	0.103E-09	-0.122E-09	0.100E-07	0.734E-10	-0.238E-09
0.100E-07	0.122E-09	-0.283E-09	0.100E-07	-0.504E-12	-0.209E-09
0.100E-07	0.108E-09	-0.240E-09	0.100E-07	0.143E-09	-0.231E-09
0.100E-07	0.129E-09	-0.174E-09	0.100E-07	0.917E-10	-0.203E-09
0.100E-07	0.115E-09	-0.158E-09	0.100E-07	0.175E-09	-0.199E-09
0.100E-07	0.185E-09	-0.240E-09	0.100E-07	0.170E-09	-0.175E-09
0.100E-07	-0.484E-10	-0.201E-09	0.100E-07	0.410E-10	-0.185E-09
0.100E-07	0.761E-10	-0.196E-09	0.100E-07	-0.594E-10	-0.181E-09
0.100E-07	0.167E-11	-0.161E-09	0.100E-07	-0.124E-10	-0.231E-09
0.100E-07	-0.691E-10	-0.120E-09	0.100E-07	-0.491E-10	-0.169E-09
0.179E-04	0.131E-04	-0.496E-05	0.176E-04		
-0.848E-10	0.999E-08	0.108E-09	-0.532E-10	0.999E-08	0.798E-10
-0.107E-09	0.999E-08	0.140E-09	0.228E-10	0.999E-08	-0.563E-12
-0.880E-10	0.999E-08	0.118E-09	-0.128E-09	0.999E-08	0.159E-09
-0.114E-09	0.999E-08	0.141E-09	-0.721E-10	0.999E-08	0.984E-10
-0.985E-10	0.999E-08	0.124E-09	-0.165E-09	0.999E-08	0.195E-09
-0.173E-09	0.999E-08	0.207E-09	-0.161E-09	0.999E-08	0.189E-09
0.703E-10	0.999E-08	-0.488E-10	-0.202E-10	0.999E-08	0.441E-10
-0.556E-10	0.999E-08	0.809E-10	0.825E-10	0.999E-08	-0.612E-10
0.197E-10	0.999E-08	0.160E-11	0.322E-10	0.999E-08	-0.100E-10
0.931E-10	0.999E-08	-0.750E-10	0.694E-10	0.998E-08	-0.452E-10
0.153E-04	0.770E-04	-0.286E-05	0.136E-04	0.775E-04	
0.148E-09	-0.119E-09	0.999E-08	0.250E-09	-0.896E-10	0.999E-08
0.291E-09	-0.145E-09	0.999E-08	0.227E-09	-0.119E-10	0.999E-08
0.253E-09	-0.126E-09	0.999E-08	0.245E-09	-0.165E-09	0.999E-08
0.195E-09	-0.149E-09	0.999E-08	0.220E-09	-0.108E-09	0.999E-08
0.180E-09	-0.133E-09	0.999E-08	0.218E-09	-0.201E-09	0.999E-08
0.254E-09	-0.211E-09	0.999E-08	0.197E-09	-0.195E-09	0.999E-08
0.221E-09	0.359E-10	0.999E-08	0.203E-09	-0.548E-10	0.999E-08
0.213E-09	-0.912E-10	0.999E-08	0.203E-09	0.474E-10	0.999E-08
0.186E-09	-0.160E-10	0.999E-08	0.247E-09	-0.174E-11	0.999E-08
0.158E-09	0.537E-10	0.999E-08	0.202E-09	0.545E-10	0.999E-08
-0.466E-05	-0.838E-06	0.124E-04	-0.465E-05	-0.116E-05	0.124E-04
0.998E-08	-0.532E-09	-0.999E-10	0.997E-08	-0.562E-09	-0.214E-09
0.997E-08	-0.513E-09	-0.263E-09	0.997E-08	-0.635E-09	-0.180E-09
0.997E-08	-0.527E-09	-0.218E-09	0.997E-08	-0.492E-09	-0.212E-09
0.998E-08	-0.506E-09	-0.154E-09	0.997E-08	-0.543E-09	-0.181E-09
0.998E-08	-0.520E-09	-0.138E-09	0.998E-08	-0.460E-09	-0.183E-09
0.997E-08	-0.451E-09	-0.224E-09	0.998E-08	-0.465E-09	-0.159E-09
0.996E-08	-0.682E-09	-0.169E-09	0.997E-08	-0.594E-09	-0.159E-09
0.997E-08	-0.559E-09	-0.172E-09	0.996E-08	-0.693E-09	-0.149E-09
0.997E-08	-0.633E-09	-0.133E-09	0.996E-08	-0.647E-09	-0.202E-09
0.996E-08	-0.703E-09	-0.870E-10	0.996E-08	-0.683E-09	-0.138E-09
0.999E-08	-0.800E-09	0.556E-10	0.999E-08	-0.617E-09	0.545E-10

0.174E-04					
0.470E-09	0.996E-08	-0.507E-09	0.494E-09	0.996E-08	-0.542E-09
0.438E-09	0.997E-08	-0.484E-09	0.572E-09	0.995E-08	-0.620E-09
0.460E-09	0.997E-08	-0.504E-09	0.420E-09	0.997E-08	-0.463E-09
0.437E-09	0.997E-08	-0.477E-09	0.478E-09	0.996E-08	-0.521E-09
0.454E-09	0.996E-08	-0.494E-09	0.385E-09	0.997E-08	-0.424E-09
0.374E-09	0.998E-08	-0.415E-09	0.391E-09	0.997E-08	-0.429E-09
0.619E-09	0.995E-08	-0.668E-09	0.530E-09	0.996E-08	-0.574E-09
0.495E-09	0.996E-08	-0.538E-09	0.632E-09	0.995E-08	-0.679E-09
0.571E-09	0.995E-08	-0.615E-09	0.580E-09	0.995E-08	-0.631E-09
0.646E-09	0.995E-08	-0.689E-09	0.619E-09	0.994E-08	-0.662E-09
0.791E-09	0.989E-08	-0.834E-09	0.579E-09	0.994E-08	-0.618E-09
0.123E-04	0.824E-04				
0.128E-09	0.499E-09	0.100E-07	0.231E-09	0.528E-09	0.999E-08
0.269E-09	0.473E-09	0.999E-08	0.213E-09	0.605E-09	0.998E-08
0.232E-09	0.492E-09	0.999E-08	0.222E-09	0.452E-09	0.100E-07
0.172E-09	0.468E-09	0.100E-07	0.200E-09	0.509E-09	0.999E-08
0.159E-09	0.484E-09	0.100E-07	0.193E-09	0.417E-09	0.100E-07
0.229E-09	0.406E-09	0.100E-07	0.172E-09	0.422E-09	0.100E-07
0.211E-09	0.653E-09	0.998E-08	0.187E-09	0.562E-09	0.999E-08
0.195E-09	0.526E-09	0.999E-08	0.193E-09	0.665E-09	0.998E-08
0.172E-09	0.601E-09	0.999E-08	0.234E-09	0.616E-09	0.998E-08
0.149E-09	0.671E-09	0.998E-08	0.191E-09	0.672E-09	0.998E-08
0.411E-10	0.792E-09	0.996E-08	0.118E-10	0.604E-09	0.998E-08
-0.638E-05	-0.936E-05	0.218E-04			
0.999E-08	0.141E-09	0.245E-10	0.283E-06	0.110E-06	-0.707E-07
0.354E-06	0.152E-06	-0.110E-06	0.599E-06	0.274E-06	-0.221E-06
0.181E-06	0.689E-07	-0.237E-07	0.141E-06	0.478E-07	-0.541E-08
0.141E-06	0.476E-07	-0.469E-08	0.181E-06	0.686E-07	-0.232E-07
0.113E-06	0.334E-07	0.603E-08	0.140E-06	0.483E-07	-0.479E-08
0.140E-06	0.484E-07	-0.531E-08	0.140E-06	0.482E-07	-0.449E-08
0.957E-06	0.434E-06	-0.310E-06	0.480E-06	0.182E-06	-0.757E-07
0.215E-06	0.778E-07	-0.322E-07	0.958E-06	0.432E-06	-0.309E-06
0.142E-05	0.805E-06	-0.906E-06	0.954E-06	0.438E-06	-0.311E-06
0.259E-05	0.160E-05	-0.211E-05	0.481E-06	0.177E-06	-0.766E-07
0.100E-07	-0.126E-09	0.157E-09	0.100E-07	0.568E-10	0.171E-09
0.996E-08	0.609E-09	0.159E-09	0.324E-05		
-0.136E-09	0.100E-07	0.139E-09	0.105E-06	0.284E-06	-0.459E-07
0.139E-06	0.363E-06	-0.828E-07	0.264E-06	0.613E-06	-0.227E-06
0.627E-07	0.195E-06	-0.220E-07	0.433E-07	0.152E-06	-0.589E-09
0.435E-07	0.152E-06	-0.604E-09	0.631E-07	0.195E-06	-0.221E-07
0.313E-07	0.125E-06	0.996E-08	0.427E-07	0.153E-06	0.113E-09
0.426E-07	0.153E-06	0.111E-09	0.428E-07	0.152E-06	0.123E-09
0.431E-06	0.914E-06	-0.416E-06	0.165E-06	0.470E-06	-0.521E-07
0.712E-07	0.233E-06	-0.142E-07	0.433E-06	0.913E-06	-0.416E-06
0.791E-06	0.134E-05	-0.101E-05	0.427E-06	0.917E-06	-0.413E-06
0.163E-05	0.238E-05	-0.220E-05	0.169E-06	0.468E-06	-0.560E-07
0.179E-09	0.997E-08	-0.197E-09	-0.344E-10	0.999E-08	0.187E-10
-0.669E-09	0.995E-08	0.636E-09	0.201E-05	0.297E-05	
-0.152E-10	-0.146E-09	0.100E-07	-0.572E-07	-0.658E-07	0.114E-05
-0.868E-07	-0.124E-06	0.144E-05	-0.202E-06	-0.266E-06	0.250E-05
-0.128E-07	-0.394E-07	0.811E-06	0.187E-08	-0.155E-07	0.634E-06
-0.134E-08	-0.144E-07	0.634E-06	-0.155E-07	-0.379E-07	0.811E-06
0.819E-08	0.118E-08	0.525E-06	0.160E-09	-0.178E-07	0.634E-06
0.248E-08	-0.184E-07	0.634E-06	-0.116E-08	-0.174E-07	0.634E-06
-0.261E-06	-0.385E-06	0.450E-05	-0.332E-07	-0.656E-07	0.207E-05
-0.178E-07	-0.285E-07	0.932E-06	-0.270E-06	-0.379E-06	0.450E-05

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-0.892E-06	-0.104E-05	0.611E-05	-0.248E-06	-0.403E-06	0.450E-05
-0.213E-05	-0.215E-05	0.105E-04	-0.339E-07	-0.422E-07	0.207E-05
-0.123E-09	0.155E-09	0.998E-08	-0.138E-09	-0.376E-10	0.999E-08
-0.107E-09	-0.653E-09	0.998E-08	-0.262E-05	-0.266E-05	0.131E-04