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Crustal Dynamics Project Data Analysis—1986

Volume 1—Fixed Station VLBI Geodetic Results

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CRUSTAL DYNAMICS PROJECT DATA ANALYSIS - 1986

Volume 1. Fixed Station VLBI Geodetic Results

I. INTRODUCTION

This report to the Crustal Dynamics Project Data Information System (CDP-DIS) documents the results obtained by the Goddard VLBI Data Analysis Team in analyzing the CDP VLBI observing sessions using only fixed stations between 1979 and the end of 1985. Also included are results from: 1) earth orientation observing sessions of the IRIS Program (formerly the POLARIS Project) coordinated by the National Geodetic Survey (NGS) from 1980 until the end of 1985 and 2) data acquired between fixed stations and the mobile VLBI sites at Platteville, CO, Penticton, B.C. and Yellowknife, N-W.T. These sites were occupied for the measurement of continental plate stability.

Results from CDP mobile sessions and special purpose experiments such as source surveys will be discussed in later volumes of this report.

The results presented here are complete in that they include all available relevant data and supersede results given in previous submissions. The values presented are the results from two new least-squares adjustments using most of the Mark III geodetic data acquired with fixed stations between 1979 and 1985. These solutions, called GLB027 and GLB028, are discussed below.

II. OBSERVATIONS

A. Instrumentation

The Mark III instrumentation is described in detail in Rogers et al. (1983) and Clark et al. (1985). Its salient characteristic is the ability to record up to 28 channels simultaneously, each 2 MHz in bandwidth. The current standard CDP practice is to record 14 channels in the forward direction and the remaining 14 in the backward direction with 8 channels applied to X-band (8.4 GHz) and 6 channels to S-band (2.3 GHz). Observations run from 100 to 800 seconds. Real time logging of pressure, temperature, relative humidity, and cable length calibrations is an integral part of the Mark III system. Hydrogen masers provide both time and frequency for all observing sessions. The receivers have 400 MHz bandwidth at X-band and 80 MHz at S-band. A single phase calibration frequency is used in each recorded channel to remove instrumental dispersion.

Table 1 describes the radio telescopes employed in the observing sessions. The 8-character station names are used throughout this report.

B. Observing Sessions

Table 2 is a summary of the observing sessions discussed here. Each line corresponds to one observing session and contains the data base name of the session, the purpose of the session, and the stations which participated. An asterisk indicates which station was the reference station in the GLB027 solution. (See below.) The PLATTVIL, PENTICTN, and YELLOWKN sites are also included.

The purposes of the various session types are as follows:

North American Plate Stability, US transcontinental sessions designed to measure the stability of the North American Plate.

Transatlantic, US to Europe sessions designed to measure motion between North America and Europe.

POLARIS/IRIS, NGS sessions designed to measure earth rotation. These sessions began in November 1980 with HAYSTACK and HRAS 085 and were scheduled every seven days. ONSALA60 participated when possible on a monthly basis. In August 1983 operations were increased to once every five days. In late 1983 two new stations, RICHMOND and WETTZELL, were brought on line and became fully operational in 1984. Currently IRIS is undertaking one 24-hour session every five days with WESTFORD, HRAS 085, RICHMOND, and WETTZELL. Whenever possible, ONSALA60 continues to observe monthly.

Pacific Basin, sessions involving the station at Kashima, Japan and stations in California. Only two sessions are so designated in Table 2 and they occur in early 1984 when Kashima was first used operationally.

East Pacific, sessions designed to measure baselines in the Pacific Basin with emphasis on the baselines in the east.

West Pacific, sessions designed to measure baselines in the Pacific Basin with emphasis on the baselines in the west.

Polar, sessions involving stations in Europe, the conterminous US, Alaska, and Japan. These sessions are undertaken to link the global VLBI reference frame.

North Atlantic, sessions designed to measure baselines between Europe and stations on the east and west of the North American Plate.

North Pacific, sessions designed to measure baselines in the Pacific Basin with emphasis on the northern baselines.

III. DATA ANALYSIS METHODS

A. Processing and Data Handling

More than 90% of the Mark III data discussed here was correlated by the Haystack Mark III correlator. Some IRIS data were correlated at the Max Planck Institute for Radio Astronomy in Bonn (FRG); this correlator is a copy of the Haystack Mark III correlator. Some data involving the Kashima station were correlated at Kashima using the Japanese K-3 correlator. For the purposes of this report the output of the three Mark III-compatible correlators can be considered indistinguishable. The output of these correlators is sent either to the analysis center at the Goddard Space Flight Center or to a similar center at the NGS in Rockville, MD, where the data are organized by session and frequency band into Mark III data bases. Calibration data, solar system ephemerides, a priori parameter values, partial derivatives, and theoretical delays and rates are added to each data base prior to actual data analysis. In the analysis process information about editing, ambiguity resolution, solution parametrization, and data-variance-modification is added to the data bases. The final data base files are available to investigators from the CDP-DIS. The Mark III Data Base System utilities required to read the files have been implemented on HP 1000 and VAX 11/780 computer systems.

B. Models

The precession and nutation models used in the data analysis are the J2000.0 and IAU 1980 models, respectively. The a priori earth orientation parameters from BIH Circular D are interpolated to each observation epoch then modified by Yoder's model for short-period tidal variations in UT1. The tidal potential used to compute the effect of solid earth tides is calculated using

the MIT PEP ephemeris; the values of the Love numbers are 0.60967 for Love h, 0.085 for Love l, and zero for the phase lag. General relativistic solar deflection is modeled using Einstein's value for gamma. An axis offset model is applied for each antenna where the pointing axes do not intersect. Clocks are modeled with a combination of polynomials and diurnal sinusoids. The value of the speed of light is 299,792,458. m/sec. The models are described in greater detail in NASA TM-79582 and are embodied in the program CALC developed by the Goddard VLBI group. The most recent version CALC 6.0, used for this analysis, includes a pole tide model.

Mark III observations are calibrated for the delay caused by charged particles in the line of sight (ionosphere and solar corona) by generating new observables which are linear combinations of the X-band and S-band observations. To the extent that the delay effects of charged particles have an inverse frequency-squared dependence these new observables are free of charged particle effects.

In general the effects of tropospheric refraction are calibrated using the Marini model; this model requires surface measurements of pressure, temperature, and relative humidity. In some cases valid meteorological measurements were not available and the Chao model, which requires only an average zenith-path-delay for each station, was used. The formulation of the Marini model was presented in our 1984 report to the CDP-DIS. Water vapor radiometer data, which can be used to calibrate the wet portion of the tropospheric delay, were either unavailable or deemed not operational for the data presented here.

Cable calibration, i.e., corrections for variations in the electrical length of the cable carrying timing signals from the maser frequency standard to the receiver, was applied where available.

IV. DATA ANALYSIS RESULTS

A. The GLOBL analysis system

The GLOBL analysis system, developed in-house by W. E. Himwich, permits the adjustment of parameters using an arbitrarily large set of data within the memory limits of the Goddard VLBI group's minicomputer facility. GLOBL is an extension of the interactive SOLVE system developed by the Goddard VLBI group and used for all routine VLBI data analysis. After a data base for one observing session has been fully updated using SOLVE, a superfile retaining the necessary information is created. The complete set of superfiles is the potential input to GLOBL. GLOBL processes the selected superfiles sequentially, in each step applying arc parameter elimination and carrying the global parameters forward. Arc parameters are those relevant only to a single data base, e.g., clock and atmosphere parametrization for a single session, UT1 and polar motion, and daily nutation adjustments. Global parameters are those whose estimated values may be affected by more than one observing session, e.g., source positions. Coefficients of the nutation series, the precession constant, and Love numbers of the solid earth tide are other possible global parameters. Depending on the purpose of the GLOBL solution, station coordinates can be either global or arc parameters.

Since at each step GLOBL handles only the global parameters and arc parameters required for a single data base, large data sets can be analyzed. Current program and machine size constraints limit the maximum number of parameters to 192 at one time. Sequential processing does entail two passes through the data. After the forward pass the values of the global parameters are known. The backward pass is necessary to recover the arc parameter values and the solution statistics. The two passes give a solution which is identi-

cal to a conventional one-step least-squares estimation of the entire ensemble of estimated parameters.

B. The GLB027 solution

The purpose of the GLB027 solution was to produce tables of baseline evolution from the ensemble of CDP fixed station data in a manner which made no a priori assumptions about tectonic plate motion. The station coordinates were therefore treated as arc parameters, i.e., they were allowed to vary from session to session subject only to the constraint of being estimated with a global set of source coordinate values. The GLB027 solution used 126780 delay/delay rate pairs to estimate 99 global parameters and 8668 arc parameters. 361 separate sessions, listed in Table 2, were included. The overall weighted rms fit of the solution was 90 ps for delay and 78 fs/s for delay rate, and the reduced chi-square was 0.97. The coordinates of the observed extragalactic radio sources except for the right ascension of 3C273B, which was fixed to define the right ascension origin, made up the 99 global parameters. The source positions are given in Table 3.1. The arc parameters included the positions of the stations for each session (except for the reference station for that session), the parametrizations for the station clocks and atmospheres, and daily offsets in obliquity and longitude.

The estimated station positions are tabulated in Tables 6.1-6.22. For the fixed stations the coordinates are those of the VLBI reference point. For the mobile sites the coordinates are those of the listed ground survey mark. These positions are affected by two factors independent of any station motion. The reference station for any observing session is selected in the following order: HAYSTACK, WESTFORD, MOJAVE12, OVRO 130, HRAS 085, GILCREEK. Since the reference station is not adjusted, its a priori position affects all the adjusted positions in the network. The a priori station coordinates of the reference stations are given in Table 4.1 and the reference station in each session is indicated by an asterisk in Table 2. The a priori value of earth orientation applied to each observation also affects the adjusted station coordinates by rotating the entire network. The earth orientation series used was the standard BIH Circular D quadratically interpolated to each observation and modified by tidal effects on UT1.

Tables 7.1-7.101 present the baseline lengths and formal errors of the baselines measured in these sessions. Zero observations indicates that either the data for that baseline were not correlated or that no useful observations were produced for that baseline. Routinely a few baselines were not correlated in order to save correlator time and often a baseline from a mobile system to a small, distant fixed station produced no useful observations. Neither case is unusual and the missing baseline(s) can be inferred from the other baselines in the network used during the observing session. With the exception of the three mobile sites, the lengths presented are the chord distances between the VLBI reference points of the two antennas involved. For an antenna with intersecting axes the VLBI reference point is located at the intersection of axes. For an offset axis antenna the VLBI reference point is located at the point of intersection of the fixed axis with the plane perpendicular to the fixed axis containing the moving axis. In the case of the baselines involving mobile sites, the baseline lengths are the chord distances from the fixed station VLBI reference points to a ground survey monument near the mobile antenna. The eccentricity data used to map the VLBI results to the monuments are presented in Table 5.

For the purposes of geodetic interpretation, the HAYSTACK and WESTFORD antennas, which are only 1.24 km apart, can be considered to be identical. In the tables for HAYSTACK the results from the WESTFORD antenna have been mapped to HAYSTACK. The mapping used the geodetic tie between the antennas

given in CDP: Catalog of Site Information (NASA TM 86218) which was derived from an NGS ground survey. An asterisk indicates a mapped value.

Tables 7.1-7.101 also show the weighted mean baseline values, the weighted rms scatter about the mean values, and, where a useful value could be computed, the rate of change of baseline length. In general the rate of change is not presented if there were too few observing sessions or if the sessions did not span more than one year. The least-squares mean and rate estimates were based on the formal standard errors of the individual baseline length values. The listed error for each mean and rate value was computed by scaling the formal error from the least-squares estimate by the reduced chi-square of the fit. The weighted rms fit of the data about the best-fit line is also given where relevant.

The nutation offsets estimated for each session are tabulated in Table 9. These offsets are with respect to the reference day 17 October 1980.

C. The GLB028 solution

The purpose of the GLB028 solution was to produce a time series of earth orientation (polar motion and universal time) from the ensemble of CDP data. In such a solution it is necessary to estimate the station coordinates as global parameters. The GLB028 solution used the same data as the GLB027 solution with some exceptions in order to stay within the limits of the GLOBL analysis system. The data involving PENTICTN and YELLOWKN were excluded. The coordinates of PLATTVIL, ROBLED32, and 12 sources were treated as arc parameters. There were 129 global parameters (source and station positions) and 7044 arc parameters. The right ascension of 3C273B and the coordinates of HAYSTACK were held fixed to define the celestial and terrestrial reference frames, respectively. The source catalog is given in Table 3.2 and the station catalog in Table 4.2. The weighted rms fit was 92 ps for delay and 79 fs/s for delay rate. The reduced chi-square was 0.99. As in solution GLB027, the arc parameters included clock and atmosphere parametrization and daily nutation offsets. (The nutation offsets from solution GLB028 are not significantly different from those of solution GLB027.)

Earth orientation results are presented in Table 8 together with their correlations. No a priori model of global plate motion was applied. Because VLBI cannot measure absolute earth orientation, a reference day was selected to fix the geographic pole and UT1 angle. The reference day is 17 October 1980, a date which is a BIH tabular day and for which a 5-station network was used. The geographic pole is defined by the values of pole position from the nearest four Circular D tabular points quadratically interpolated and applied as a priori parameters for each observation in the data set spanning 0 hr UT 17 October 1980. The rotation about the pole is defined similarly except that to each interpolated value the short period terms from the standard MERIT model of UT1 variation were added. The values for 17 October 1980 in Table 8 are identical to the Circular D values, however. In order to make the UT1 values from this solution identical in origin to those in Circular D, the tidal effect at the reference epoch has been removed from all the estimated UT1 values.

For the single-baseline sessions only UT1 and one component of polar motion were estimated. Since single North American baselines are predominant because of POLARIS, the x-component is generally the single pole component estimated. In a single baseline solution the correlation between UT1 and the adjusted polar motion component is large, and both adjustments depend on the a priori value of the unadjusted component.

The tabular values are the unmodified results from the GLB028 solution except

for the UT1 rotation described above. In particular, no smoothing has been applied, and no corrections have been made to the UT1 values to account for known tidal variations. For comparison with BIH Circular D values, the tidal terms should be removed from the values in Table 8.

D. Formal Errors

The formal errors for the cartesian coordinates of the stations or ground monuments, the baseline lengths, the earth orientation values, and the nutation offsets are computed from the covariance matrix of the relevant solution. The weights applied to each observation are composed of three terms: 1) SNR measurement error, 2) ionosphere calibration error from the SNR of X and S-band observations, and 3) normalizing white noise root-sum-squared to each baseline. The last term is computed for each baseline for each session such that the reduced chi-square of the observations for each baseline is reduced to unity in a standard baseline solution in which only the data from that session are included and a good a priori source catalog is used. The true uncertainties will be larger because of unmodeled systematic effects.

V. Differences from the 1985 CDP-DIS Submission

The 1986 CDP-DIS submission differs from the previous submission in several substantive ways. The differences, including some discussed earlier, are summarized below:

1) No Mark I data are included here. The Mark III data extend an additional year and include PENTICTN, ROBLED32, VNDNBERG and YELLOWKN.

2) The previous submission included data from fixed stations acquired during mobile VLBI sessions. With the three exceptions given earlier, no data from mobile VLBI sessions are included here. Consequently several baseline evolution tables, e.g., HRAS 085 to MOJAVE12, have fewer entries.

3) CALC 6.0 was used to compute the model values of delay and rate and the partial derivatives whereas CALC 5.0 was used previously.

4) The previous two-step process of first estimating a global source and station catalog from several years of data and then using this source catalog as errorless a priori values to estimate station and baseline parameters for each individual experiment has been changed to the two separate GLOBL solutions described above.

5) No estimates of nutation parameters were made in the previous analysis.

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Table 1

VLBI OBSERVING STATIONS

ALGOPARK, 46-m-diameter antenna at the Algonquin Radio Observatory near Lake Traverse, Ontario, Canada.

CHLBOLTN, 26-m-diameter antenna located in Chilbolton, England and operated by the Appleton Laboratories. (No longer in use for VLBI.)

EFLSBERG, 100-m-diameter antenna of the Max Planck Institute for Radio Astronomy located near Effelsberg, FRG.

GILCREEK, 26-m-diameter antenna operated by the CDP and located at the NOAA/NESDIS facility at Gilmore Creek, Alaska.

HATCREEK, 26-m-diameter antenna at the Hat Creek Radio Observatory, Hat Creek, CA.

HAYSTACK, 37-m-diameter antenna at the Haystack Observatory, Westford, MA.

HRAS 085, 26-m-diameter antenna at the George R. Agassiz Station operated by the Harvard College Observatory and located near Fort Davis, TX.

KASHIMA, 26-m-diameter antenna at the Kashima Space Research Center, Kashima, Japan.

KAUAI, 9-m-diameter antenna of NASA's Spaceflight Tracking and Data Network located near Kokee Park on Kauai in the state of Hawaii.

KWAJAL26, 26-m-diameter TRADEX antenna operated for the US Air Force by Lincoln Laboratory in the Marshall Islands.

MARPOINT, 26-m-diameter antenna of the US Naval Research Laboratory located near Maryland Point, MD.

MOJAVE12, 12-m-diameter antenna located at the NASA Goldstone complex near Barstow, CA and operated by the NGS.

NRAO 140, 43-m-diameter antenna at the National Radio Astronomy Observatory, Green Bank, WV.

ONSALA60, 20-m-diameter antenna at the Onsala Space Observatory, Onsala, Sweden.

OVRO 130, 40-m-diameter antenna at the Owens Valley Radio Observatory, Big Pine, CA.

PENTICTN, the site of occupation by CDP mobile VLBI systems located near Penticton, B.C., Canada.

PLATTVIL, the site of occupation by CDP mobile VLBI systems located near Platteville, CO.

RICHMOND, 18-m-diameter antenna of the NGS near Miami, FL.

ROBLED32, 32-m-diameter antenna located at the NASA Madrid complex in Spain and operated by the Deep Space Network.

VNDNBERG, 9-m-diameter antenna operated by the CDP and located at the Vandenberg Air Force Base in California.

WESTFORD, 18-m-diameter antenna at the Haystack Observatory, Westford, MA.

WETTZELL, 20-m-diameter antenna located in Bavaria, FRG and operated by the German Institute for Applied Geodesy (IFAG).

YELLOWKN, the site of occupation by CDP mobile VLBI systems located near Yellowknife, N-W.T., Canada.

Table 2

Summary of VLBI Experiments

DATABASE NAME	EXPERIMENT PURPOSE	ALGOPARK	CHLBOLTN	EFLSBERG	GILCREEK	HATCREEK	HAYSTACK	HRAS 085	KASHIMA	KAUAI	KWAJAL26	MARPOINT	MOJAVE12	NRAO 140	ONSALA60	OVRO 130	PENTICTN	PLATTVIL	RICHMOND	ROBLED32	VNDNBERG	WESTFORD	WETTZELL	YELLOWKN
79AUG03XX	N. Am. Pl. Stab.	.	.	.	.	.	*	.	.	.	.	.	.	X	.	X	.	.	.	.	.	.	.	.
79NOV25X	N. Am. Pl. Stab.	.	.	X	.	.	*	.	.	.	.	.	.	X	.	X	.	.	.	.	.	.	.	.
80APR11XQ	N. Am. Pl. Stab.	.	.	.	.	.	*	X	.	.	.	.	.	X	.	X	.	.	.	.	.	.	.	.
80JUL26X	Transatlantic	.	.	X	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80JUL27X	Transatlantic	.	.	X	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80SEP26X	Transatlantic	.	.	X	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80SEP27X	Transatlantic	.	.	X	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80SEP28X	Transatlantic	.	.	X	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80SEP29X	Transatlantic	.	.	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80SEP30X	Transatlantic	.	.	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80OCT01X	Transatlantic	.	.	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80OCT02X	Transatlantic	.	.	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80OCT16X	Transatlantic	.	X	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80OCT17X	Transatlantic	.	X	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80OCT18X	Transatlantic	.	X	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80OCT19X	Transatlantic	.	X	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80OCT20X	Transatlantic	.	X	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80OCT21X	Transatlantic	.	X	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80OCT22X	Transatlantic	.	X	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
80NOV03XA	Polaris/Iris	.	.	.	.	.	*	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
80DEC01XA	Polaris/Iris	.	.	.	.	.	*	X	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
80DEC19XA	Polaris/Iris	.	.	.	.	.	*	X	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
81JAN07XB	Polaris/Iris	.	.	.	.	.	*	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
81JAN22XA	Polaris/Iris	.	.	.	.	.	*	X	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
81FEB12X	Polaris/Iris	.	.	.	.	.	*	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
81FEB27X	Polaris/Iris	.	.	.	.	.	*	X	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
81MAR16X	Polaris/Iris	.	.	.	.	.	*	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
81MAY13X	Polaris/Iris	.	.	.	.	.	*	X	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.
81JUN16X	N. Am. Pl. Stab.	.	.	.	.	.	*	X	.	.	.	.	.	.	.	X	.	.	.	.	.	X	.	.
81JUN24XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81JUL01X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81JUL08X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81JUL15X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81JUL22X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81JUL29X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81AUG05X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81AUG26X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81SEP02XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81SEP09X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81SEP16X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81SEP23X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.

DATABASE NAME	EXPERIMENT PURPOSE	ALGOPARK	CHLBOLTN	EFLSBERG	GILCREEK	HATCREEK	HAYSTACK	HRAS085	KASHIMA	KAUAI	KWAJAL26	MARPOINT	MOJAVE12	NRAO140	ONSALA60	OVRO130	PENTICTN	PLATTVL	RICHMOND	ROBLED32	VNDNBERG	WESTFORD	WETTZELL	YELLOWKN
81SEP30X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81OCT15X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81OCT21XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
81OCT28X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81NOV04XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81NOV10X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81NOV18X	Transatlantic	.	.	.	.	.	*	X	.	.	.	.	.	X	X	X	.	.	.	.	.	X	.	.
81NOV19X	Transatlantic	.	.	.	.	.	*	X	.	.	.	.	.	X	X	X	.	.	.	.	.	X	.	.
81NOV24XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81DEC02XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81DEC16X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81DEC22X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
81DEC29XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JAN06X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JAN13X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JAN20X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JAN27X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82FEB01X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82FEB10X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82FEB17X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82FEB24X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82MAR03X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82MAR10X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82MAR17X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
82MAR24X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82MAR29X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82APR07X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82APR13X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82APR19XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
82APR26X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82MAY03X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82MAY10XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82MAY17X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JUN02X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JUN07X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JUN16X	Transatlantic	.	.	.	.	.	.	.	.	.	.	.	.	.	X	X	.	.	.	.	.	*	.	.
82JUN18X	Transatlantic	.	.	.	.	.	*	.	.	.	.	X	.	.	X	X	.	.	.	.	.	X	.	.
82JUN19XA	Transatlantic	.	.	.	.	.	*	.	.	.	.	X	.	.	X	X	.	.	.	.	.	X	.	.
82JUN20XA	Transatlantic	.	.	.	.	.	*	X	.	.	.	.	.	.	X	X	.	.	.	.	.	X	.	.
82JUN21X	Transatlantic	.	.	.	.	.	.	X	.	.	.	.	.	.	X	X	.	.	.	.	.	*	.	.
82JUN28X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JUL06XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JUL12X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JUL19X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82JUL26X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.

DATABASE NAME	EXPERIMENT PURPOSE	ALGOPARK	CHLBOLTN	EFLSBERG	GILCREEK	HATCREEK	HAYSTACK	HRAS 085	KASHIMA	KAUAI	KWAJAL26	MARPOINT	MOJAVE12	NRAO 140	ONSALA60	OVRO 130	PENTICTN	PLATTVIL	RICHMOND	ROBLED32	VNDNBERG	WESTFORD	WETTZELL	YELLOWKN
82AUG04X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82AUG09X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82AUG16X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82AUG23X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82AUG30X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82SEP07X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82SEP13X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
82SEP20X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
82SEP27X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82OCT04X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82OCT13X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82OCT18X	N. Am. Pl. Stab.	.	.	.	.	.	.	X	.	.	.	X	.	.	X	X	.	.	.	.	.	*	.	.
82OCT25X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	X	.	.	.	.	.	*	.	.
82NOV01XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82NOV08XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82NOV15X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
82NOV22XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82NOV29XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82DEC06XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82DEC15X	Transatlantic	.	.	.	.	.	.	X	.	.	.	.	.	X	X	X	.	.	.	.	.	*	.	.
82DEC16X	Transatlantic	.	.	.	.	.	.	X	.	.	.	.	.	X	X	X	.	.	.	.	.	*	.	.
82DEC20XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
82DEC27X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83JAN03X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83JAN10X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83JAN17X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83JAN24XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83JAN31XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83FEB07X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
83FEB14XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83FEB28X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
83MAR07X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83MAR14X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
83MAR21X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83MAR28X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83APR04X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83APR11X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83APR18X	Polaris/Iris	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
83APR25X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83MAY02X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83MAY05X	Transatlantic	.	.	X	.	.	*	X	.	.	.	.	.	.	X	.	.	.	.	X	.	X	.	.
83MAY09X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83MAY16X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
83MAY23X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83MAY31X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.

DATABASE NAME	EXPERIMENT PURPOSE	ALGOPARK	CHLBOLTN	EFLSBERG	GILCREEK	HATCREEK	HAYSTACK	HRAS 085	KASHIMA	KAUAI	KWAJAL26	MARPOINT	MOJAVE12	NRAO 140	ONSALA60	OVRO 130	PENTICTN	PLATTVIL	RICHMOND	ROBLED32	VNDNBERG	WESTFORD	WETTZELL	YELLOWKN
83JUN06X	N. Am. Pl. Stab.	.	.	.	.	X	.	X	.	.	.	.	.	.	.	X	.	X	.	.	.	*	.	.
83JUN07X	N. Am. Pl. Stab.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	*	.	X	.	.	.	.	.	.
83JUN07XP	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83JUN09X	N. Am. Pl. Stab.	.	.	.	.	X	.	X	.	.	.	.	.	.	.	.	.	X	.	.	.	*	.	.
83JUN13X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
83JUN20X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83JUN28XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	*	.	.
83JUL05X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83JUL11X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83JUL25X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	*	.	.
83AUG01X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83AUG08X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	*	.	.
83AUG15X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83AUG22XP	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83AUG29X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	X	.	.	X	.	.	.	.	.	.	*	.	.
83AUG30X	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
83SEP02X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83SEP07X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83SEP12X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83SEP17X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83SEP22X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	.	.
83SEP23XA	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
83SEP27X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	*	.	.
83OCT02X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83OCT07X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83OCT12X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	*	.	.
83OCT17X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83OCT22X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83OCT27X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	X	.	X	.	.	.	.	.	.	*	.	.
83OCT28X	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
83NOV01X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83NOV06X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83NOV11X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83NOV16X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
83NOV17X	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
83NOV21X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	*	.	.
83NOV26X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83DEC01X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	*	.	.
83DEC06X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83DEC11X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83DEC16X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83DEC21X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
83DEC22X	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
83DEC26X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
83DEC31X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.

DATABASE NAME	EXPERIMENT PURPOSE	ALGOPARK	CHLBOLTN	EFLSBERG	GILCREEK	HATCREEK	HAYSTACK	HRAS 085	KASHIMA	KAUAI	KWAJAL26	MARPOINT	MOJAVE12	NRAO 140	ONSALA60	OVRO 130	PENTICTN	PLATTVIL	RICHMOND	ROBLED32	VNDNBERG	WESTFORD	WETTZELL	YELLOWKN
84JAN04X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.	.	X	.	.	*	.	.
84JAN09X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84JAN14X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	.	.
84JAN24X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
84JAN24XK	Pacific Basin	.	.	.	.	.	.	.	X	.	.	.	*	.	.	.	.	.	.	.	.	.	.	.
84JAN29X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84FEB03X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84FEB08X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84FEB13X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	.	.
84FEB18X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84FEB23XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
84FEB24XW	Pacific Basin	.	.	.	.	X	.	.	X	.	.	.	*	.	.	.	.	.	.	.	.	.	.	.
84FEB24X	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
84FEB28XP	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84MAR04XP	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84MAR09XP	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84MAR14X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
84MAR19X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84MAR25X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84MAR30X	Polaris/Iris	.	.	.	.	.	.	*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.
84APR03X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84APR08X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84APR13X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84APR18X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
84APR19X	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	X	.	.	.	.	.	.	.	.
84APR23X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84APR26X	N. Am. Pl. Stab.	.	.	.	.	X	*	X	.	.	.	.	X	.	.	X	.	X	.	.	.	.	.	.
84APR28X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84MAY03X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84MAY08X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84MAY13X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84MAY18X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
84MAY19X	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
84MAY23X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84MAY28X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84JUN02X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84JUN07X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84JUN12XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
84JUN17X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84JUN22XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84JUN27XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84JUL02XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84JUL07X	East Pacific 1	.	.	.	X	.	.	.	.	X	X	.	*	.	.	.	.	.	.	.	X	.	.	.
84JUL07XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84JUL12XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.

DATABASE NAME	EXPERIMENT PURPOSE	ALGOPARK	CHLBOLTN	EFLSBERG	GILCREEK	HATCREEK	HAYSTACK	HRAS 085	KASHIMA	KAUAI	KWAJAL26	MARPOINT	MOJAVE12	NRAO140	ONSALA60	OVRO130	PENTICTN	PLATTVIL	RICHMOND	ROBLED32	VNDNBERG	WESTFORD	WETTZELL	YELLOWKN
		STATIONS																						
84JUL17XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84JUL21X	East Pacific 2	.	.	.	X	.	.	.	.	X	X	.	*	.	.	.	.	.	.	.	X	.	.	.
84JUL22X	East Pacific 2	.	.	.	X	.	.	.	.	X	X	.	*	.	.	.	.	.	.	.	X	.	.	.
84JUL22XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	.	.
84JUL27XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	.	.
84JUL28X	West Pacific 1	.	.	.	.	.	.	.	X	X	X	.	*	.	.	.	.	.	.	.	.	.	.	.
84JUL29X	West Pacific 1	.	.	.	X	.	.	.	X	X	X	.	*	.	.	.	.	.	.	.	.	.	.	.
84AUG01X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84AUG04X	West Pacific 2	.	.	.	X	.	.	.	X	X	X	.	*	.	.	.	.	.	.	.	.	.	.	.
84AUG05X	West Pacific 2	.	.	.	X	.	.	.	X	X	X	.	*	.	.	.	.	.	.	.	.	.	.	.
84AUG06X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84AUG11X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84AUG16X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84AUG21X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84AUG24X	N. Am. Pl. Stab.1	X	.	.	X	.	.	*	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	X
84AUG26XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84AUG28X	N. Am. Pl. Stab.2	X	.	.	X	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	.	.
84AUG30X	Polar 1	.	.	.	X	.	*	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	X	.
84AUG31XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84SEP02X	Polar 2	.	.	.	X	.	*	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	X	.
84SEP05XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84SEP10XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84SEP15XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84SEP20XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84SEP25XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84SEP30XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84OCT05XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84OCT10XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84OCT15XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84OCT20XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84OCT25XB	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
84OCT26X	N. Am. Pl. Stab.	.	.	.	.	.	*	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
84OCT30XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84NOV04XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
84NOV09XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84NOV14XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
84NOV15X	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.
84NOV19XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84NOV24XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84NOV29XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84DEC04XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84DEC09XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84DEC14XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
84DEC19XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
84DEC23XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.

DATABASE NAME	EXPERIMENT PURPOSE	ALGOPARK	CHLBOLTN	EFLSBERG	GILCREEK	HATCREEK	HAYSTACK	HRAS 085	KASHIMA	KAUAI	KWAJAL26	MARPOINT	MOJAVE12	NRAO140	ONSALA60	OVRO 130	PENTICTN	PLATTVIL	RICHMOND	ROBLED32	VNDNBERG	WESTFORD	WETTZELL	YELLOWKN
84DEC29XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
85JAN03XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JAN08XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JAN13XI	Polaris/Iris	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JAN18XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JAN23XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
85JAN24X	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	X	.
85JAN28XA	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85FEB02XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85FEB07XB	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85FEB12XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85FEB17XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85FEB22XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85FEB27XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
85MAR04XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
85MAR05X	North Atlantic 1	.	.	.	.	.	*	X	.	.	.	.	X	.	X	X	.	.	.	.	.	.	X	.
85MAR09XI	Polaris/Iris	.	.	.	.	.	.	*	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.
85MAR14XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
85MAR19XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
85MAR24XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85MAR29XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85APR03XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85APR08XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85APR13XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85APR18XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85APR23XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
85APR24X	Transatlantic	.	.	.	.	.	*	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	X	.
85APR28XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85MAY03XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
85MAY07XA	N. Am. Pl. Stab.	.	.	.	X	X	.	X	.	.	.	.	X	.	.	X	.	X	.	.	.	*	.	.
85MAY08XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
85MAY09X	North Atlantic 2	.	.	.	.	.	.	X	.	.	.	.	X	.	X	X	.	.	.	.	.	*	X	.
85MAY13XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85MAY15XG	North Pacific 1	.	.	.	X	X	.	.	X	X	.	.	*	.	.	.	.	.	.	.	X	.	.	.
85MAY18XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85MAY23XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85MAY28XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JUN02XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JUN07XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JUN12XI	Polaris/Iris	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	X	.	.	*	X	.
85JUN17XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
85JUN18X	Transatlantic	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
85JUN19X	Polar 1	.	.	.	X	.	.	.	X	.	.	.	X	.	X	.	.	.	.	.	.	*	X	.
85JUN22XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JUN27XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.

DATABASE NAME	EXPERIMENT PURPOSE	STATIONS																						
		ALGOPARK	CHLBOLTN	EFLSBERG	GILCREEK	HATCREEK	HAYSTACK	HRAS085	KASHIMA	KAUAI	KWAJAL26	MARPOINT	MOJAVE12	NRAO140	ONSALA60	OVRO130	PENTICTN	PLATTVIL	RICHMOND	ROBLED32	VNDNBERG	WESTFORD	WETTZELL	YELLOWKN
85JUL02XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JUL06X	East Pacific 1	.	.	.	X	.	.	.	X	X	X	.	*	.	.	.	.	.	.	.	X	.	.	.
85JUL07XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JUL12XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JUL17XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JUL20X	West Pacific 1	.	.	.	X	.	.	.	X	X	X	.	*	.	.	.	.	.	.	.	X	.	.	.
85JUL22XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85JUL27X	East Pacific 2	.	.	.	X	.	.	.	X	X	X	.	*	.	.	.	.	.	.	.	X	.	.	.
85JUL27XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85AUG01XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85AUG06XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85AUG10X	West Pacific 2	.	.	.	X	.	.	.	X	X	X	.	*	.	.	.	.	.	.	.	X	.	.	.
85AUG11XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85AUG16X	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
85AUG21XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85AUG24X	N. Am. Pl. Stab.C	X	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.	.	.	.	.	*	.	.
85AUG26XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85AUG28X	N. Am. Pl. Stab.B	X	.	.	.	.	.	*	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.
85AUG31XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85SEP04X	N. Am. Pl. Stab.B	X	.	.	X	.	.	*	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	X
85SEP05XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85SEP10XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
85SEP11X	Transatlantic	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
85SEP15XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85SEP20XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85SEP25XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85SEP30X	North Pacific 2	.	.	.	X	X	.	.	X	X	.	.	*	.	.	.	.	.	.	.	X	.	.	.
85SEP30XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85OCT05XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85OCT10XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85OCT15XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85OCT20XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85OCT25XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.
85OCT29X	North Atlantic 3	.	.	.	.	.	.	X	.	.	.	.	X	.	X	X	.	.	.	.	.	*	X	.
85OCT30XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
85NOV04XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
85NOV09XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85NOV14XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85NOV19XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
85NOV20X	Transatlantic	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.	.	.	*	X	.
85NOV21X	Polar 2	.	.	.	X	.	.	.	X	.	.	.	X	.	X	.	.	.	.	.	.	*	X	.
85NOV24XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	*	X	.
85NOV29XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85DEC04XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	X	.	.	*	X	.
85DEC09XI	Polaris/Iris	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	*	X	.

DATABASE NAME	EXPERIMENT PURPOSE	STATIONS A C E G H H H K K K M M N O O P P R R V W W Y L H F I A A R A A W A O R N V E L I O N E E E G L L L T Y A S U A R J A S R N A C B D S T L O B S C C S S H A J P A O A O T T H L N T T L P O B R R T I I A O V L I T M E B F Z O A L E E E A 0 M L I E 1 A 1 C V O D E O E W R T R E E C 8 A 2 N 1 4 6 3 T I N 3 R R L K K N G K K K 5 6 T 2 0 0 0 N L D 2 G D L N
85DEC10X	Transatlantic	. . . . . X . . . . . * X .
85DEC14XI	Polaris/Iris	. . . . . X . . . . . X . . * X .
85DEC19XI	Polaris/Iris	. . . . . X . . . . . X . . * X .
85DEC23XI	Polaris/Iris	. . . . . * X .
85DEC29XI	Polaris/Iris	. . . . . X . . . . . * X .

* Reference station, i.e., station with coordinates fixed for given experiment in 'stations as arc parameters' solution, GLB027.

Table 3.1

Source Coordinates from GLB027 Solution
(Values from GLOBL Solution with
Stations as Arc Parameters)

Source Name	Right Ascension h	m	s		Declination °	'	"	
0106+013	1	8	38.77107	± .00001	1	35	0.3200	± .0004
0212+735	2	17	30.81368	± .00005	73	49	32.6223	± .0003
4C67.05	2	28	50.05173	± .00004	67	21	3.0299	± .0003
0229+131	2	31	45.89408	± .00001	13	22	54.7178	± .0003
0234+285	2	37	52.40573	± .00001	28	48	8.9909	± .0003
0235+164	2	38	38.93012	± .00001	16	36	59.2761	± .0004
0300+470	3	3	35.24231	± .00002	47	16	16.2765	± .0003
3C84	3	19	48.16021	± .00003	41	30	42.1047	± .0004
NRAO150	3	59	29.74736	± .00002	50	57	50.1616	± .0002
0420-014	4	23	15.80072	± .00001	-1	20	33.0647	± .0005
3C120	4	33	11.09557	± .00003	5	21	15.6157	± .0016
0528+134	5	30	56.41675	± .00001	13	31	55.1494	± .0003
0552+398	5	55	30.80565	± .00002	39	48	49.1643	± .0002
0727-115	7	30	19.11212	± .00014	-11	41	12.6038	± .0060
0742+103	7	45	33.05951	± .00010	10	11	12.6890	± .0028
OJ287	8	54	48.87489	± .00001	20	6	30.6397	± .0002
4C39.25	9	27	3.01382	± .00001	39	2	20.8507	± .0002
OK290	9	56	49.87539	± .00002	25	15	16.0477	± .0008
1144+402	11	46	58.29778	± .00001	39	58	34.3045	± .0003
1219+285	12	21	31.69047	± .00002	28	13	58.4994	± .0008
3C273B	12	29	6.6997	*	2	3	8.5994	± .0004
3C279	12	56	11.16657	± .00004	-5	47	21.5285	± .0023
1308+326	13	10	28.66374	± .00004	32	20	43.7820	± .0006
1354+195	13	57	4.43657	± .00001	19	19	7.3729	± .0004
OQ208	14	7	0.39429	± .00001	28	27	14.6901	± .0003
1418+546	14	19	46.59716	± .00003	54	23	14.7875	± .0003
1502+106	15	4	24.97972	± .00001	10	29	39.2007	± .0004
1548+056	15	50	35.26917	± .00001	5	27	10.4509	± .0003
CTD93	16	9	13.32022	± .00033	26	41	28.9580	± .0090
1633+38	16	35	15.49280	± .00004	38	8	4.5027	± .0006
1637+574	16	38	13.45610	± .00003	57	20	23.9809	± .0003
1642+690	16	42	7.84821	± .00005	68	56	39.7577	± .0002
3C345	16	42	58.80982	± .00001	39	48	36.9956	± .0002
NRAO530	17	33	2.70582	± .00003	-13	4	49.5429	± .0013
1741-038	17	43	58.85609	± .00001	-3	50	4.6122	± .0005
1749+701	17	48	32.84026	± .00020	70	5	50.7676	± .0007
1749+096	17	51	32.81852	± .00001	9	39	0.7317	± .0004
1803+784	18	0	45.68344	± .00009	78	28	4.0198	± .0002
3C390.3	18	42	8.98959	± .00042	79	46	17.1281	± .0009
1921-293	19	24	51.05603	± .00017	-29	14	30.1138	± .0138
1923+210	19	25	59.60533	± .00002	21	6	26.1625	± .0009
1928+738	19	27	48.49466	± .00015	73	58	1.5727	± .0009
3C418	20	38	37.03480	± .00010	51	19	12.6658	± .0012
2134+00	21	36	38.58631	± .00001	0	41	54.2169	± .0003
2145+067	21	48	5.45863	± .00001	6	57	38.6071	± .0003

Source Name	Right Ascension h m s	Declination ° ' "
VR422201	22 2 43.29135 ± .00002	42 16 39.9825 ± .0002
2201+315	22 3 14.97577 ± .00004	31 45 38.2738 ± .0008
2216-038	22 18 52.03770 ± .00001	-3 35 36.8755 ± .0004
2234+282	22 36 22.47080 ± .00002	28 28 57.4154 ± .0003
3C454.3	22 53 57.74795 ± .00001	16 8 53.5637 ± .0003

* The right ascension origin of the CDP celestial reference frame is fixed by the adopted value of 3C273B given above.

Table 3.2

Source Coordinates from GLB028 Solution
(Values from GLOBL Solution with
Stations as Global Parameters)

Source Name	Right Ascension h m s	Declination ° ' "
0106+013	1 8 38.77107 ± .00001	1 35 0.3200 ± .0004
0212+735	2 17 30.81371 ± .00005	73 49 32.6223 ± .0003
4C67.05	2 28 50.05174 ± .00004	67 21 3.0300 ± .0003
0229+131	2 31 45.89409 ± .00001	13 22 54.7179 ± .0003
0234+285	2 37 52.40574 ± .00001	28 48 8.9909 ± .0003
0235+164	2 38 38.93012 ± .00001	16 36 59.2767 ± .0004
0300+470	3 3 35.24233 ± .00002	47 16 16.2763 ± .0003
3C84	3 19 48.16023 ± .00003	41 30 42.1047 ± .0004
NRAO150	3 59 29.74737 ± .00002	50 57 50.1618 ± .0002
0420-014	4 23 15.80073 ± .00001	-1 20 33.0645 ± .0005
3C120	4 33 11.09556 ± .00003	5 21 15.6167 ± .0016
0528+134	5 30 56.41676 ± .00001	13 31 55.1495 ± .0003
0552+398	5 55 30.80566 ± .00002	39 48 49.1643 ± .0002
0742+103	7 45 33.05955 ± .00010	10 11 12.6878 ± .0028
OJ287	8 54 48.87489 ± .00001	20 6 30.6397 ± .0003
4C39.25	9 27 3.01383 ± .00001	39 2 20.8507 ± .0002
1144+402	11 46 58.29779 ± .00001	39 58 34.3043 ± .0003
3C273B	12 29 6.6997 *	2 3 8.5993 ± .0004
3C279	12 56 11.16657 ± .00004	-5 47 21.5293 ± .0023
1354+195	13 57 4.43658 ± .00001	19 19 7.3729 ± .0004
OQ208	14 7 0.39430 ± .00001	28 27 14.6901 ± .0003
1418+546	14 19 46.59718 ± .00003	54 23 14.7875 ± .0003
1502+106	15 4 24.97972 ± .00001	10 29 39.2006 ± .0004
1548+056	15 50 35.26917 ± .00001	5 27 10.4508 ± .0003
1637+574	16 38 13.45611 ± .00003	57 20 23.9809 ± .0003
1642+690	16 42 7.84819 ± .00005	68 56 39.7576 ± .0002
3C345	16 42 58.80983 ± .00002	39 48 36.9956 ± .0002
NRAO530	17 33 2.70583 ± .00003	-13 4 49.5435 ± .0013
1741-038	17 43 58.85610 ± .00001	-3 50 4.6123 ± .0005
1749+096	17 51 32.81853 ± .00001	9 39 0.7317 ± .0004
1803+784	18 0 45.68343 ± .00009	78 28 4.0198 ± .0002
1921-293	19 24 51.05600 ± .00017	-29 14 30.1130 ± .0140
2134+00	21 36 38.58631 ± .00001	0 41 54.2171 ± .0003
2145+067	21 48 5.45864 ± .00001	6 57 38.6071 ± .0003
VR422201	22 2 43.29136 ± .00002	42 16 39.9825 ± .0003
2216-038	22 18 52.03771 ± .00001	-3 35 36.8755 ± .0004
2234+282	22 36 22.47082 ± .00002	28 28 57.4155 ± .0003
3C454.3	22 53 57.74795 ± .00001	16 8 53.5637 ± .0003

* The right ascension origin of the CDP celestial reference frame is fixed by the adopted value of 3C273B given above.

Table 4.1

A Priori Station Coordinates for GLB027 Solution

Station Name	X-Component Value (meters)	Y-Component Value (meters)	Z-Component Value (meters)
HAYSTACK	1492406.6910	-4457267.3300	4296882.1020
WESTFORD	1492208.5540	-4458131.3290	4296015.8770
MOJAVE12	-2356169.1500	-4646756.8300	3668471.2200
OVRO 130	-2409598.8669	-4478350.4481	3838603.7849
HRAS 085	-1324209.1474	-5332024.0619	3232118.9778
GILCREEK	-2281545.2013	-1453645.8400	5756993.7057

Table 4.2

Station Coordinates from GLB028 Solution
(Values from GLOBL Solution with
Station Coordinates as Global Parameters)

Station Name	X-Component Value (meters)	X-Component Formal Error	Y-Component Value (meters)	Y-Component Formal Error	Z-Component Value (meters)	Z-Component Formal Error
ALGOPARK	918036.7217	± .0023	-4346133.0669	± .0068	4561971.5616	± .0070
EFLSBERG	4033949.4632	± .0091	486989.4263	± .0059	4900430.7578	± .0154
CHLBOLTN	4008312.0366	± .0094	-100651.8449	± .0055	4943794.7776	± .0143
GILCREEK	-2281545.1580	± .0043	-1453645.7851	± .0070	5756993.7003	± .0134
HAYSTACK	1492406.6910	*	-4457267.3300	*	4296882.1020	*
HATCREEK	-2523968.0393	± .0031	-4123507.1811	± .0079	4147753.1680	± .0107
HRAS 085	-1324209.1418	± .0020	-5332023.9754	± .0062	3232118.9492	± .0071
KASHIMA	-3997890.4005	± .0160	3276580.4743	± .0102	3724118.7529	± .0265
KAUAI	-5543844.2085	± .0106	-2054565.1562	± .0142	2387814.3144	± .0204
KWAJAL26	-6143534.8101	± .0211	1363996.1858	± .0175	1034707.8575	± .0277
MARPOINT	1106631.2229	± .0038	-4882907.9888	± .0106	3938087.3400	± .0095
MOJAVE12	-2356169.1324	± .0020	-4646756.7276	± .0073	3668471.1842	± .0095
NRAO 140	882881.8099	± .0016	-4924483.1207	± .0055	3944131.0655	± .0051
ONSALA60	3370608.0972	± .0066	711916.4741	± .0048	5349830.8047	± .0131
OVRO 130	-2409598.8741	± .0018	-4478350.3888	± .0069	3838603.7881	± .0094
RICHMOND	961259.8520	± .0028	-5674090.9124	± .0053	2740534.2036	± .0045
ROBLED32	4849247.1414	± .0455	-360279.2980	± .0143	4114884.5202	± .0414
VNDNBERG	-2678095.5230	± .0038	-4525456.3851	± .0085	3597414.3611	± .0109
WESTFORD	1492208.5519	± .0009	-4458131.3431	± .0019	4296015.8809	± .0022
WETTZELL	4075541.9654	± .0079	931734.2008	± .0051	4801629.4090	± .0141

* The CDP terrestrial reference frame is fixed by the adopted value of the coordinates of HAYSTACK given above and the BIH Circular D earth orientation parameters of the reference date 17 October 1980 modified by the MERIT standard UT1 tidal model.

Table 5

Eccentricity Data for Mobile Antennas

Vector from Monument to Mobile VLBI Reference Point

MONUMENT	to STATION	Experiment Date YY MM DD HH MM:	EAST	NORTH (m)	UP
83JUN06X					
7258	PLATTVIL	83 6 7 00 00	2.715	-0.082	4.181
83JUN07X					
7258	PLATTVIL	83 6 8 00 00	2.715	-0.082	4.181
83JUN09X					
7258	PLATTVIL	83 6 10 00 00	2.715	-0.082	4.181
84APR26X					
7258	PLATTVIL	84 4 27 00 00	-0.051	-0.005	2.751
84AUG24X					
7283	PENTICTN	84 8 25 00 00	-0.007	0.063	2.871
7285	YELLOWKW	84 8 25 00 00	0.051	0.075	4.243
85MAY07XA					
7258	PLATTVIL	85 5 8 00 00	0.050	-0.034	2.854
85AUG28X					
7283	PENTICTN	85 8 29 00 00	-0.071	0.031	2.853
85SEP04X					
7283	PENTICTN	85 9 5 00 00	-0.071	0.031	2.853
7285	YELLOWKW	85 9 5 00 00	0.046	0.074	4.224

Except for 85AUG28X, all values are taken from eccentricity file "ECCDAT" maintained by the National Geodetic Survey. The values for PLATTVILL for 85AUG28X were assumed to be identical to those for 85SEP04X.

Table 6.1
Geocentric Rectangular Positions of ALGOPARK

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84 8 24	918036.634	0.005	-4346132.969	0.013	4561971.600	0.013
84 8 28	918036.724	0.004	-4346133.128	0.016	4561971.576	0.014
85 8 24	918036.691	0.003	-4346133.030	0.013	4561971.488	0.011
85 8 28	918036.585	0.011	-4346133.176	0.035	4561971.762	0.024
85 9 4	918036.658	0.004	-4346133.214	0.013	4561971.741	0.012

Table 6.2
Geocentric Rectangular Positions of CHLBOLTN

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
80 10 16	4008312.027	0.018	-100651.816	0.011	4943794.757	0.024
80 10 17	4008312.018	0.024	-100651.872	0.016	4943794.808	0.032
80 10 18	4008312.004	0.033	-100651.803	0.021	4943794.780	0.043
80 10 19	4008311.863	0.017	-100651.753	0.009	4943794.654	0.022
80 10 20	4008311.940	0.022	-100651.816	0.011	4943794.899	0.028
80 10 21	4008311.631	0.034	-100651.724	0.018	4943794.527	0.044
80 10 22	4008311.870	0.016	-100651.790	0.008	4943794.864	0.021

Table 6.3
Geocentric Rectangular Positions of EFLSBERG

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
79 11 25	4033948.547	0.031	486989.819	0.042	4900430.964	0.057
80 7 26	4033950.119	0.016	486989.231	0.020	4900430.662	0.027
80 7 27	4033950.000	0.018	486989.201	0.024	4900430.453	0.033
80 9 26	4033950.094	0.020	486989.035	0.018	4900430.504	0.030
80 9 27	4033950.125	0.020	486989.070	0.021	4900430.514	0.029
80 9 28	4033950.222	0.012	486989.036	0.011	4900430.584	0.019
83 5 5	4033949.401	0.019	486989.439	0.016	4900431.270	0.026

Table 6.4
Geocentric Rectangular Positions of GILCREEK

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84 7 7	-2281545.679	0.014	-1453645.880	0.012	5756993.768	0.020
84 7 21	-2281545.503	0.015	-1453645.875	0.012	5756993.818	0.022
84 7 22	-2281545.488	0.012	-1453645.892	0.010	5756993.734	0.018
84 7 29	-2281545.394	0.018	-1453645.875	0.015	5756993.799	0.024
84 8 4	-2281545.344	0.019	-1453645.862	0.016	5756993.772	0.020
84 8 5	-2281545.429	0.024	-1453645.981	0.019	5756993.812	0.031
84 8 24	-2281545.456	0.004	-1453645.986	0.008	5756993.825	0.009
84 8 28	-2281545.426	0.005	-1453646.139	0.016	5756993.709	0.015
84 8 30	-2281545.497	0.009	-1453646.117	0.017	5756993.715	0.022
84 9 2	-2281545.398	0.010	-1453645.998	0.016	5756993.694	0.023
85 5 7	-2281545.335	0.007	-1453646.022	0.014	5756993.628	0.014
85 5 15	-2281545.411	0.007	-1453645.869	0.008	5756993.709	0.012
85 6 19	-2281545.349	0.008	-1453645.995	0.013	5756993.653	0.019
85 7 6	-2281545.239	0.010	-1453645.958	0.009	5756993.817	0.017
85 7 20	-2281545.437	0.011	-1453645.965	0.010	5756993.871	0.014
85 7 27	-2281545.411	0.011	-1453645.933	0.009	5756993.803	0.017
85 8 10	-2281545.460	0.010	-1453645.936	0.009	5756993.848	0.013
85 8 24	-2281545.334	0.005	-1453645.920	0.013	5756993.584	0.015
85 9 4	-2281545.326	0.006	-1453645.975	0.009	5756993.878	0.013
85 9 30	-2281545.367	0.006	-1453645.921	0.007	5756993.797	0.011
85 11 21	-2281545.407	0.008	-1453646.012	0.011	5756993.595	0.017

Table 6.5
Geocentric Rectangular Positions of HATCREEK

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
83 6 6	-2523968.075	0.006	-4123507.630	0.015	4147752.871	0.014
83 6 7	-2523968.100	0.029	-4123507.289	0.048	4147753.166	0.046
83 6 9	-2523968.105	0.016	-4123507.837	0.033	4147753.036	0.028
84 2 24	-2523968.023	0.018	-4123507.281	0.013	4147753.194	0.017
84 4 26	-2523968.062	0.007	-4123507.389	0.013	4147753.083	0.012
85 5 7	-2523968.010	0.011	-4123507.404	0.020	4147753.094	0.019
85 5 15	-2523968.110	0.006	-4123507.296	0.008	4147753.211	0.008
85 9 30	-2523968.088	0.007	-4123507.292	0.009	4147753.213	0.009

Table 6.6
Geocentric Rectangular Positions of HRAS 085

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
80 4 11	-1324209.123	0.009	-5332023.739	0.033	3232118.681	0.021
80 7 26	-1324209.279	0.012	-5332023.552	0.041	3232118.865	0.026
80 7 27	-1324209.320	0.014	-5332023.489	0.051	3232118.805	0.034
80 9 26	-1324209.318	0.019	-5332023.678	0.072	3232119.122	0.048
80 9 27	-1324209.393	0.018	-5332023.677	0.054	3232119.127	0.038
80 9 28	-1324209.332	0.011	-5332023.632	0.044	3232119.089	0.029
80 9 29	-1324209.281	0.015	-5332023.425	0.058	3232118.934	0.037
80 9 30	-1324209.273	0.015	-5332023.591	0.057	3232119.089	0.037
80 10 1	-1324209.288	0.016	-5332023.710	0.066	3232119.144	0.043
80 10 2	-1324209.263	0.011	-5332023.707	0.041	3232119.098	0.027
80 10 16	-1324209.140	0.009	-5332023.892	0.035	3232118.884	0.022
80 10 17	-1324209.157	0.010	-5332024.161	0.039	3232119.039	0.026
80 10 18	-1324209.148	0.011	-5332024.090	0.043	3232118.977	0.027
80 10 19	-1324209.130	0.009	-5332023.989	0.032	3232118.886	0.021
80 10 20	-1324209.100	0.008	-5332024.096	0.032	3232118.954	0.021
80 10 21	-1324209.113	0.010	-5332024.109	0.038	3232118.965	0.025
80 10 22	-1324209.101	0.006	-5332024.100	0.023	3232118.910	0.015
80 11 3	-1324209.033	0.016	-5332024.124	0.060	3232118.808	0.037
80 12 1	-1324208.858	0.015	-5332024.470	0.056	3232118.604	0.035
80 12 19	-1324208.860	0.011	-5332024.362	0.044	3232118.593	0.027
81 1 7	-1324208.854	0.009	-5332024.486	0.032	3232118.618	0.022
81 1 22	-1324208.966	0.017	-5332023.999	0.070	3232118.626	0.042
81 2 12	-1324208.820	0.007	-5332024.470	0.024	3232118.583	0.018
81 2 27	-1324208.790	0.027	-5332024.745	0.101	3232118.741	0.063
81 3 16	-1324209.133	0.009	-5332023.817	0.032	3232118.823	0.025
81 5 13	-1324208.987	0.015	-5332024.106	0.051	3232118.614	0.036
81 6 16	-1324209.264	0.010	-5332023.382	0.037	3232118.840	0.024
81 6 24	-1324209.296	0.019	-5332023.449	0.070	3232118.926	0.056
81 7 1	-1324209.273	0.015	-5332023.594	0.054	3232118.848	0.042
81 7 8	-1324209.191	0.014	-5332023.762	0.052	3232118.813	0.041
81 7 15	-1324209.054	0.042	-5332024.076	0.126	3232118.652	0.128
81 7 22	-1324209.023	0.008	-5332024.290	0.031	3232118.797	0.024
81 7 29	-1324209.071	0.012	-5332024.088	0.043	3232118.734	0.033
81 8 5	-1324209.173	0.017	-5332023.800	0.062	3232118.782	0.050
81 8 26	-1324209.175	0.011	-5332023.863	0.044	3232118.899	0.035
81 9 2	-1324209.072	0.015	-5332024.449	0.059	3232119.031	0.046
81 9 9	-1324208.989	0.013	-5332024.594	0.046	3232118.967	0.035
81 9 16	-1324208.940	0.014	-5332024.623	0.049	3232118.870	0.038
81 9 23	-1324209.012	0.015	-5332024.333	0.053	3232118.873	0.042
81 9 30	-1324209.145	0.011	-5332024.111	0.042	3232119.015	0.036
81 10 15	-1324209.192	0.019	-5332024.314	0.070	3232119.049	0.046
81 10 21	-1324209.139	0.019	-5332024.079	0.065	3232118.958	0.044
81 10 28	-1324209.099	0.012	-5332023.964	0.043	3232118.837	0.031
81 11 4	-1324209.123	0.015	-5332023.952	0.054	3232118.819	0.039
81 11 10	-1324209.086	0.009	-5332024.207	0.033	3232118.979	0.023
81 11 18	-1324209.082	0.004	-5332024.198	0.014	3232118.951	0.011
81 11 19	-1324209.074	0.008	-5332024.051	0.030	3232118.843	0.018

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
81 11 24	-1324209.052	0.012	-5332024.210	0.046	3232118.882	0.036
81 12 2	-1324209.042	0.014	-5332024.261	0.053	3232118.870	0.040
81 12 16	-1324209.070	0.010	-5332024.105	0.037	3232118.849	0.028
81 12 22	-1324209.140	0.009	-5332023.924	0.036	3232118.820	0.027
81 12 29	-1324209.104	0.007	-5332023.926	0.026	3232118.798	0.020
82 1 6	-1324209.072	0.008	-5332024.070	0.029	3232118.786	0.022
82 1 13	-1324208.910	0.011	-5332024.441	0.036	3232118.706	0.028
82 1 20	-1324208.950	0.009	-5332024.421	0.033	3232118.735	0.024
82 1 27	-1324209.033	0.010	-5332024.249	0.042	3232118.818	0.033
82 2 1	-1324208.988	0.012	-5332024.399	0.048	3232118.839	0.038
82 2 10	-1324208.865	0.008	-5332024.667	0.028	3232118.724	0.021
82 2 17	-1324208.835	0.009	-5332024.819	0.036	3232118.808	0.027
82 2 24	-1324208.799	0.014	-5332024.818	0.052	3232118.725	0.043
82 3 3	-1324208.887	0.012	-5332024.448	0.048	3232118.620	0.037
82 3 10	-1324208.899	0.016	-5332024.243	0.058	3232118.487	0.044
82 3 17	-1324208.910	0.017	-5332024.358	0.067	3232118.602	0.043
82 3 24	-1324208.909	0.012	-5332024.499	0.049	3232118.664	0.036
82 3 29	-1324208.885	0.013	-5332024.377	0.058	3232118.646	0.045
82 4 7	-1324208.993	0.015	-5332024.272	0.059	3232118.689	0.045
82 4 13	-1324209.045	0.021	-5332024.250	0.078	3232118.844	0.060
82 4 19	-1324209.033	0.029	-5332024.209	0.106	3232118.716	0.066
82 4 26	-1324208.979	0.022	-5332024.292	0.081	3232118.797	0.064
82 5 3	-1324209.062	0.010	-5332023.959	0.040	3232118.685	0.029
82 5 10	-1324209.152	0.012	-5332023.717	0.044	3232118.728	0.033
82 5 17	-1324209.151	0.011	-5332023.759	0.043	3232118.791	0.032
82 6 2	-1324209.220	0.013	-5332023.620	0.050	3232118.870	0.036
82 6 7	-1324209.250	0.013	-5332023.333	0.049	3232118.660	0.036
82 6 20	-1324209.314	0.009	-5332023.190	0.033	3232118.755	0.024
82 6 21	-1324209.330	0.012	-5332023.256	0.039	3232118.780	0.033
82 6 28	-1324209.291	0.013	-5332023.337	0.051	3232118.816	0.037
82 7 6	-1324209.346	0.015	-5332023.437	0.056	3232118.927	0.042
82 7 12	-1324209.301	0.020	-5332023.461	0.073	3232118.940	0.056
82 7 19	-1324209.310	0.016	-5332023.284	0.059	3232118.827	0.045
82 7 26	-1324209.328	0.016	-5332023.363	0.058	3232118.868	0.043
82 8 4	-1324209.257	0.018	-5332023.632	0.063	3232118.992	0.048
82 8 9	-1324209.173	0.016	-5332023.652	0.061	3232118.852	0.048
82 8 16	-1324209.116	0.044	-5332023.778	0.165	3232118.943	0.124
82 8 23	-1324209.198	0.024	-5332023.773	0.095	3232118.834	0.069
82 8 30	-1324209.170	0.016	-5332023.830	0.059	3232118.874	0.044
82 9 7	-1324209.203	0.018	-5332023.695	0.066	3232118.841	0.052
82 9 13	-1324209.209	0.035	-5332023.812	0.131	3232118.943	0.085
82 9 20	-1324209.241	0.086	-5332023.688	0.317	3232118.840	0.210
82 9 27	-1324209.259	0.012	-5332023.716	0.046	3232118.896	0.035
82 10 4	-1324209.185	0.018	-5332023.671	0.066	3232118.810	0.051
82 10 13	-1324209.173	0.014	-5332023.886	0.053	3232118.940	0.039
82 10 18	-1324209.132	0.008	-5332023.838	0.026	3232118.816	0.022
82 10 25	-1324209.106	0.016	-5332024.080	0.062	3232118.952	0.042
82 11 1	-1324209.060	0.012	-5332024.223	0.047	3232118.908	0.033
82 11 8	-1324209.026	0.012	-5332024.200	0.049	3232118.859	0.036
82 11 15	-1324209.020	0.020	-5332024.251	0.075	3232118.816	0.049
82 11 22	-1324209.043	0.010	-5332024.085	0.038	3232118.754	0.028

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
82 11 29	-1324209.026	0.010	-5332024.117	0.041	3232118.713	0.032
82 12 6	-1324209.016	0.011	-5332024.097	0.040	3232118.785	0.030
82 12 15	-1324209.071	0.008	-5332023.890	0.024	3232118.709	0.021
82 12 16	-1324209.075	0.007	-5332023.835	0.028	3232118.699	0.018
82 12 20	-1324209.082	0.009	-5332023.915	0.034	3232118.765	0.025
82 12 27	-1324209.059	0.010	-5332023.947	0.042	3232118.668	0.033
83 1 3	-1324208.948	0.007	-5332024.353	0.026	3232118.777	0.020
83 1 10	-1324209.011	0.009	-5332024.169	0.034	3232118.816	0.027
83 1 17	-1324209.156	0.008	-5332023.785	0.028	3232118.788	0.021
83 1 24	-1324209.282	0.007	-5332023.276	0.028	3232118.757	0.022
83 1 31	-1324209.145	0.008	-5332023.716	0.031	3232118.759	0.024
83 2 7	-1324209.087	0.007	-5332024.058	0.025	3232118.802	0.018
83 2 14	-1324209.067	0.008	-5332023.994	0.032	3232118.723	0.024
83 2 28	-1324209.075	0.011	-5332024.154	0.037	3232118.851	0.026
83 3 7	-1324209.031	0.006	-5332024.287	0.023	3232118.928	0.017
83 3 14	-1324209.073	0.017	-5332024.109	0.060	3232118.811	0.039
83 3 21	-1324209.064	0.022	-5332024.151	0.084	3232118.877	0.065
83 3 28	-1324209.029	0.011	-5332024.031	0.043	3232118.762	0.033
83 4 4	-1324209.072	0.011	-5332023.990	0.041	3232118.779	0.032
83 4 11	-1324209.065	0.009	-5332023.886	0.036	3232118.710	0.028
83 4 25	-1324209.140	0.007	-5332023.747	0.026	3232118.770	0.020
83 5 2	-1324209.096	0.011	-5332023.886	0.040	3232118.751	0.032
83 5 5	-1324209.053	0.009	-5332023.956	0.018	3232118.775	0.019
83 5 9	-1324209.052	0.008	-5332023.998	0.032	3232118.723	0.024
83 5 16	-1324209.049	0.017	-5332024.228	0.061	3232118.822	0.041
83 5 23	-1324208.917	0.012	-5332024.253	0.051	3232118.686	0.039
83 5 31	-1324208.971	0.016	-5332024.207	0.065	3232118.665	0.049
83 6 6	-1324208.969	0.005	-5332024.154	0.014	3232118.607	0.012
83 6 7	-1324208.949	0.008	-5332024.415	0.029	3232118.794	0.022
83 6 9	-1324208.972	0.019	-5332024.352	0.072	3232118.747	0.044
83 6 13	-1324209.007	0.018	-5332024.392	0.065	3232118.813	0.043
83 6 20	-1324209.030	0.009	-5332024.104	0.035	3232118.700	0.027
83 6 28	-1324209.111	0.014	-5332023.925	0.050	3232118.768	0.037
83 7 5	-1324209.096	0.015	-5332023.865	0.055	3232118.705	0.045
83 7 11	-1324209.027	0.011	-5332024.105	0.039	3232118.789	0.030
83 7 25	-1324209.121	0.011	-5332024.148	0.043	3232118.965	0.032
83 8 1	-1324209.183	0.017	-5332023.905	0.060	3232118.883	0.047
83 8 8	-1324209.137	0.012	-5332023.913	0.047	3232118.862	0.034
83 8 15	-1324209.107	0.013	-5332024.011	0.048	3232118.862	0.036
83 8 22	-1324209.110	0.013	-5332024.118	0.048	3232118.968	0.038
83 8 29	-1324209.121	0.021	-5332023.919	0.063	3232118.921	0.051
83 9 2	-1324209.226	0.012	-5332023.731	0.043	3232118.916	0.032
83 9 7	-1324209.250	0.011	-5332023.781	0.041	3232118.998	0.031
83 9 12	-1324209.252	0.019	-5332023.808	0.074	3232119.106	0.053
83 9 17	-1324209.277	0.011	-5332023.659	0.039	3232119.032	0.029
83 9 22	-1324209.241	0.013	-5332023.799	0.046	3232119.047	0.035
83 9 27	-1324209.192	0.010	-5332023.857	0.037	3232118.954	0.030
83 10 2	-1324209.195	0.012	-5332023.923	0.042	3232119.006	0.032
83 10 7	-1324209.182	0.011	-5332023.880	0.041	3232118.944	0.032
83 10 12	-1324209.184	0.010	-5332023.860	0.037	3232118.934	0.030
83 10 17	-1324209.194	0.020	-5332023.923	0.051	3232118.955	0.051

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
83 10 22	-1324209.113	0.013	-5332024.037	0.044	3232118.895	0.034
83 10 27	-1324209.076	0.009	-5332024.190	0.032	3232118.972	0.025
83 11 1	-1324209.082	0.011	-5332023.966	0.037	3232118.831	0.028
83 11 6	-1324209.144	0.009	-5332023.931	0.033	3232118.926	0.025
83 11 11	-1324209.139	0.012	-5332023.980	0.038	3232118.961	0.029
83 11 16	-1324209.122	0.009	-5332023.885	0.029	3232118.834	0.023
83 11 21	-1324209.125	0.009	-5332024.023	0.031	3232118.933	0.024
83 11 26	-1324209.109	0.008	-5332024.039	0.029	3232118.907	0.022
83 12 1	-1324209.094	0.008	-5332024.086	0.028	3232118.944	0.020
83 12 6	-1324209.101	0.012	-5332024.010	0.042	3232118.938	0.031
83 12 11	-1324209.115	0.007	-5332024.044	0.026	3232118.956	0.019
83 12 16	-1324209.083	0.007	-5332024.159	0.023	3232118.930	0.017
83 12 21	-1324209.061	0.014	-5332024.248	0.044	3232118.928	0.034
83 12 26	-1324209.030	0.007	-5332024.336	0.025	3232118.965	0.019
83 12 31	-1324209.076	0.008	-5332024.092	0.027	3232118.920	0.021
84 1 4	-1324209.166	0.007	-5332023.887	0.023	3232118.951	0.017
84 1 9	-1324209.191	0.008	-5332023.842	0.026	3232118.982	0.020
84 1 14	-1324209.140	0.007	-5332023.976	0.024	3232118.940	0.019
84 1 24	-1324209.080	0.009	-5332024.211	0.030	3232118.935	0.023
84 1 29	-1324209.068	0.008	-5332024.246	0.026	3232118.973	0.021
84 2 3	-1324209.111	0.010	-5332024.075	0.031	3232118.944	0.024
84 2 8	-1324209.123	0.015	-5332024.032	0.050	3232118.898	0.035
84 2 13	-1324209.129	0.007	-5332023.997	0.026	3232118.924	0.020
84 2 18	-1324209.116	0.008	-5332023.984	0.026	3232118.851	0.019
84 2 23	-1324209.146	0.015	-5332023.749	0.049	3232118.723	0.036
84 2 28	-1324209.092	0.017	-5332023.991	0.056	3232118.855	0.043
84 3 4	-1324209.157	0.014	-5332024.051	0.048	3232118.969	0.034
84 3 9	-1324209.152	0.016	-5332023.858	0.054	3232118.850	0.036
84 3 14	-1324209.118	0.010	-5332024.024	0.037	3232118.876	0.024
84 3 19	-1324209.052	0.011	-5332024.008	0.038	3232118.775	0.026
84 3 25	-1324209.067	0.011	-5332024.082	0.035	3232118.823	0.025
84 4 3	-1324209.062	0.020	-5332024.378	0.068	3232118.936	0.046
84 4 8	-1324209.006	0.015	-5332024.261	0.048	3232118.810	0.033
84 4 13	-1324209.060	0.013	-5332024.304	0.043	3232118.913	0.030
84 4 18	-1324209.076	0.017	-5332024.158	0.060	3232118.889	0.039
84 4 23	-1324209.114	0.019	-5332024.100	0.060	3232118.887	0.043
84 4 26	-1324209.076	0.006	-5332024.096	0.017	3232118.863	0.013
84 4 28	-1324209.060	0.017	-5332024.098	0.058	3232118.853	0.040
84 5 3	-1324208.956	0.045	-5332024.147	0.156	3232118.818	0.097
84 5 8	-1324209.001	0.018	-5332024.249	0.060	3232118.794	0.046
84 5 13	-1324208.969	0.023	-5332024.208	0.079	3232118.836	0.056
84 5 18	-1324209.014	0.013	-5332024.338	0.046	3232118.842	0.034
84 5 23	-1324209.027	0.021	-5332024.235	0.071	3232118.764	0.051
84 5 28	-1324209.017	0.010	-5332024.257	0.035	3232118.790	0.025
84 6 2	-1324209.010	0.016	-5332024.273	0.056	3232118.841	0.039
84 6 7	-1324209.021	0.031	-5332024.079	0.106	3232118.697	0.075
84 6 12	-1324209.020	0.016	-5332024.306	0.059	3232118.788	0.041
84 6 17	-1324209.021	0.010	-5332024.267	0.035	3232118.842	0.025
84 6 22	-1324209.019	0.017	-5332024.330	0.062	3232118.921	0.044
84 6 27	-1324209.001	0.015	-5332024.111	0.052	3232118.854	0.037
84 7 2	-1324209.039	0.015	-5332024.335	0.051	3232118.911	0.036

Date			X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84	7	7	-1324208.982	0.015	-5332024.383	0.049	3232118.859	0.037
84	7	12	-1324209.033	0.012	-5332024.288	0.041	3232118.819	0.031
84	7	17	-1324209.007	0.013	-5332024.168	0.044	3232118.771	0.033
84	7	22	-1324209.018	0.020	-5332024.261	0.062	3232118.917	0.046
84	7	27	-1324209.034	0.022	-5332024.124	0.081	3232118.823	0.060
84	8	1	-1324209.069	0.014	-5332024.188	0.048	3232118.975	0.036
84	8	6	-1324209.080	0.012	-5332024.093	0.039	3232118.782	0.029
84	8	11	-1324209.101	0.013	-5332024.112	0.044	3232118.820	0.033
84	8	16	-1324209.120	0.016	-5332024.075	0.050	3232118.885	0.037
84	8	21	-1324209.110	0.013	-5332023.956	0.044	3232118.798	0.033
84	8	26	-1324209.040	0.014	-5332024.098	0.049	3232118.817	0.037
84	8	28	-1324209.042	0.005	-5332024.189	0.016	3232118.907	0.014
84	8	31	-1324209.047	0.014	-5332024.226	0.046	3232118.941	0.035
84	9	5	-1324209.081	0.013	-5332024.027	0.042	3232118.901	0.032
84	9	10	-1324209.067	0.011	-5332024.092	0.037	3232118.891	0.029
84	9	15	-1324209.114	0.015	-5332023.967	0.051	3232118.893	0.040
84	9	20	-1324209.104	0.016	-5332023.847	0.056	3232118.866	0.042
84	9	25	-1324209.115	0.013	-5332023.880	0.044	3232118.833	0.033
84	9	30	-1324209.119	0.013	-5332023.824	0.044	3232118.822	0.035
84	10	5	-1324209.175	0.011	-5332023.854	0.038	3232118.891	0.029
84	10	10	-1324209.208	0.015	-5332023.806	0.053	3232118.928	0.038
84	10	15	-1324209.220	0.011	-5332023.667	0.039	3232118.945	0.029
84	10	20	-1324209.217	0.012	-5332023.768	0.042	3232118.944	0.031
84	10	25	-1324209.208	0.011	-5332023.768	0.038	3232118.899	0.028
84	10	30	-1324209.186	0.011	-5332023.871	0.037	3232118.975	0.028
84	11	4	-1324209.171	0.013	-5332023.827	0.044	3232118.820	0.034
84	11	9	-1324209.124	0.011	-5332023.902	0.037	3232118.852	0.028
84	11	14	-1324209.094	0.011	-5332024.035	0.040	3232118.860	0.029
84	11	19	-1324209.074	0.008	-5332024.002	0.028	3232118.846	0.021
84	11	24	-1324209.117	0.010	-5332023.956	0.036	3232118.888	0.027
84	11	29	-1324209.122	0.009	-5332023.992	0.032	3232118.871	0.024
84	12	4	-1324209.046	0.010	-5332024.033	0.033	3232118.809	0.025
84	12	9	-1324209.053	0.010	-5332023.959	0.034	3232118.761	0.026
84	12	14	-1324209.096	0.011	-5332024.124	0.037	3232118.940	0.028
84	12	19	-1324209.120	0.013	-5332023.972	0.047	3232118.899	0.034
84	12	23	-1324209.120	0.007	-5332023.920	0.025	3232118.913	0.018
84	12	29	-1324209.145	0.013	-5332024.123	0.044	3232119.043	0.035
85	1	3	-1324209.136	0.006	-5332023.787	0.020	3232118.843	0.016
85	1	8	-1324209.143	0.007	-5332023.872	0.021	3232118.935	0.017
85	1	18	-1324209.081	0.009	-5332023.830	0.032	3232118.815	0.023
85	1	23	-1324209.072	0.007	-5332024.008	0.024	3232118.876	0.018
85	1	28	-1324209.102	0.006	-5332023.929	0.021	3232118.885	0.015
85	2	2	-1324209.099	0.010	-5332023.788	0.032	3232118.834	0.023
85	2	7	-1324209.029	0.007	-5332024.042	0.022	3232118.761	0.016
85	2	12	-1324208.973	0.009	-5332024.159	0.027	3232118.758	0.023
85	2	17	-1324209.008	0.007	-5332024.137	0.024	3232118.746	0.018
85	2	22	-1324209.093	0.009	-5332023.863	0.030	3232118.782	0.022
85	2	27	-1324209.108	0.007	-5332023.909	0.023	3232118.883	0.017
85	3	4	-1324209.128	0.011	-5332023.875	0.034	3232118.800	0.027
85	3	5	-1324209.091	0.003	-5332024.051	0.010	3232118.897	0.008
85	3	14	-1324209.114	0.009	-5332023.876	0.032	3232118.928	0.022

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
85 3 19	-1324209.161	0.010	-5332023.868	0.034	3232118.960	0.025
85 3 24	-1324209.113	0.007	-5332023.954	0.025	3232118.940	0.018
85 3 29	-1324209.108	0.008	-5332024.057	0.028	3232118.951	0.021
85 4 3	-1324209.047	0.006	-5332024.110	0.019	3232118.918	0.015
85 4 8	-1324209.018	0.006	-5332024.241	0.020	3232118.893	0.016
85 4 13	-1324209.007	0.010	-5332024.249	0.032	3232118.850	0.024
85 4 18	-1324209.075	0.008	-5332024.081	0.025	3232118.783	0.020
85 4 23	-1324209.068	0.007	-5332024.050	0.023	3232118.861	0.018
85 4 28	-1324209.065	0.009	-5332024.086	0.028	3232118.917	0.021
85 5 3	-1324209.019	0.010	-5332024.159	0.033	3232118.885	0.024
85 5 7	-1324209.032	0.007	-5332024.147	0.016	3232118.896	0.014
85 5 8	-1324209.030	0.013	-5332024.116	0.046	3232118.892	0.031
85 5 9	-1324209.069	0.006	-5332024.069	0.016	3232118.862	0.014
85 5 13	-1324209.043	0.011	-5332024.144	0.037	3232118.868	0.028
85 5 18	-1324209.053	0.009	-5332024.188	0.030	3232118.924	0.023
85 5 23	-1324209.031	0.010	-5332024.152	0.033	3232118.774	0.025
85 5 28	-1324208.999	0.009	-5332023.994	0.027	3232118.640	0.021
85 6 2	-1324209.033	0.010	-5332023.886	0.033	3232118.684	0.025
85 6 7	-1324209.025	0.007	-5332023.970	0.024	3232118.715	0.019
85 6 17	-1324209.010	0.013	-5332024.156	0.039	3232118.897	0.033
85 6 22	-1324209.059	0.010	-5332024.099	0.030	3232118.881	0.023
85 6 27	-1324209.082	0.009	-5332023.938	0.029	3232118.873	0.022
85 7 2	-1324209.130	0.007	-5332023.889	0.025	3232118.872	0.020
85 7 7	-1324209.085	0.011	-5332023.960	0.034	3232118.858	0.027
85 7 12	-1324209.032	0.010	-5332024.058	0.034	3232118.795	0.026
85 7 17	-1324209.019	0.008	-5332024.051	0.027	3232118.771	0.021
85 7 22	-1324209.043	0.010	-5332024.029	0.035	3232118.805	0.026
85 7 27	-1324209.046	0.010	-5332024.004	0.032	3232118.766	0.025
85 8 1	-1324209.043	0.008	-5332024.153	0.027	3232118.877	0.022
85 8 6	-1324209.053	0.009	-5332024.073	0.030	3232118.796	0.023
85 8 11	-1324209.022	0.014	-5332024.168	0.044	3232118.809	0.034
85 8 16	-1324209.010	0.008	-5332024.113	0.027	3232118.781	0.022
85 8 21	-1324209.047	0.009	-5332024.092	0.030	3232118.826	0.023
85 8 24	-1324209.064	0.006	-5332023.962	0.024	3232118.754	0.017
85 8 26	-1324209.040	0.009	-5332024.246	0.030	3232118.954	0.023
85 8 31	-1324209.046	0.008	-5332024.046	0.028	3232118.757	0.021
85 9 5	-1324209.085	0.011	-5332023.772	0.036	3232118.671	0.029
85 9 10	-1324209.068	0.009	-5332023.876	0.028	3232118.728	0.023
85 9 15	-1324209.061	0.008	-5332023.990	0.028	3232118.792	0.022
85 9 20	-1324209.089	0.010	-5332023.943	0.034	3232118.761	0.026
85 9 25	-1324209.074	0.010	-5332024.020	0.032	3232118.774	0.025
85 9 30	-1324209.094	0.008	-5332024.138	0.027	3232118.887	0.021
85 10 5	-1324209.072	0.009	-5332024.024	0.030	3232118.825	0.023
85 10 10	-1324209.018	0.009	-5332024.024	0.032	3232118.810	0.025
85 10 15	-1324209.083	0.009	-5332024.067	0.032	3232118.857	0.026
85 10 20	-1324209.033	0.008	-5332023.904	0.027	3232118.722	0.021
85 10 25	-1324209.048	0.005	-5332023.960	0.017	3232118.784	0.013
85 10 29	-1324209.090	0.005	-5332023.936	0.018	3232118.773	0.014
85 10 30	-1324209.066	0.010	-5332023.951	0.033	3232118.837	0.025
85 11 4	-1324209.078	0.011	-5332023.881	0.036	3232118.741	0.028
85 11 9	-1324209.010	0.006	-5332024.199	0.022	3232118.868	0.017

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
85 11 14	-1324209.031	0.008	-5332024.229	0.028	3232118.844	0.023
85 11 19	-1324209.020	0.007	-5332024.229	0.026	3232118.878	0.021
85 11 24	-1324209.017	0.006	-5332024.020	0.021	3232118.748	0.016
85 11 29	-1324209.027	0.007	-5332023.976	0.025	3232118.749	0.019
85 12 4	-1324209.070	0.008	-5332023.991	0.028	3232118.812	0.022
85 12 9	-1324209.087	0.007	-5332024.064	0.023	3232118.873	0.020
85 12 14	-1324209.071	0.007	-5332023.918	0.027	3232118.829	0.019
85 12 19	-1324209.057	0.005	-5332024.032	0.017	3232118.836	0.013
85 12 29	-1324209.066	0.007	-5332024.032	0.023	3232118.843	0.017

Table 6.7
Geocentric Rectangular Positions of KASHIMA

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84 1 24	-3997891.197	0.037	3276580.212	0.036	3724118.809	0.042
84 2 24	-3997890.329	0.027	3276580.369	0.020	3724119.041	0.027
84 7 28	-3997890.931	0.050	3276580.274	0.030	3724118.950	0.044
84 7 29	-3997890.856	0.027	3276580.321	0.017	3724118.868	0.026
84 8 4	-3997890.728	0.024	3276580.321	0.017	3724118.819	0.023
84 8 5	-3997890.908	0.029	3276580.201	0.020	3724118.874	0.029
84 8 30	-3997891.344	0.019	3276580.109	0.021	3724118.979	0.025
84 9 2	-3997891.094	0.018	3276580.163	0.020	3724118.897	0.023
85 5 15	-3997890.956	0.011	3276580.265	0.010	3724118.757	0.013
85 6 19	-3997890.770	0.021	3276580.196	0.022	3724118.774	0.026
85 7 6	-3997890.626	0.041	3276580.396	0.016	3724119.113	0.031
85 7 20	-3997890.693	0.016	3276580.220	0.011	3724118.817	0.016
85 7 27	-3997890.770	0.028	3276580.305	0.012	3724118.913	0.021
85 8 10	-3997890.920	0.016	3276580.300	0.010	3724118.898	0.016
85 9 30	-3997890.786	0.010	3276580.324	0.009	3724118.967	0.012
85 11 21	-3997890.785	0.016	3276580.200	0.017	3724118.710	0.019

Table 6.8
Geocentric Rectangular Positions of KAUAI

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84 7 7	-5543844.552	0.018	-2054565.723	0.013	2387814.272	0.014
84 7 21	-5543844.344	0.020	-2054565.533	0.012	2387814.300	0.013
84 7 22	-5543844.453	0.017	-2054565.585	0.011	2387814.315	0.012
84 7 28	-5543844.398	0.038	-2054565.479	0.026	2387814.344	0.032
84 7 29	-5543844.340	0.024	-2054565.436	0.016	2387814.281	0.020
84 8 4	-5543844.297	0.024	-2054565.387	0.017	2387814.256	0.020
84 8 5	-5543844.418	0.029	-2054565.546	0.019	2387814.317	0.025
85 5 15	-5543844.422	0.013	-2054565.491	0.009	2387814.328	0.011
85 7 6	-5543844.285	0.014	-2054565.258	0.010	2387814.427	0.011
85 7 20	-5543844.262	0.018	-2054565.373	0.011	2387814.272	0.015
85 7 27	-5543844.321	0.015	-2054565.356	0.010	2387814.327	0.011
85 8 10	-5543844.391	0.017	-2054565.420	0.010	2387814.296	0.014
85 9 30	-5543844.253	0.013	-2054565.311	0.008	2387814.326	0.010

Table 6.9
Geocentric Rectangular Positions of KWAJAL26

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84 7 7	-6143535.747	0.031	1363995.546	0.014	1034707.867	0.022
84 7 21	-6143535.308	0.041	1363995.715	0.015	1034707.905	0.026
84 7 22	-6143535.434	0.035	1363995.706	0.013	1034707.938	0.022
84 7 28	-6143535.119	0.058	1363995.838	0.028	1034707.943	0.040
84 7 29	-6143535.089	0.039	1363995.919	0.017	1034707.834	0.027
84 8 4	-6143534.992	0.024	1363995.955	0.016	1034707.781	0.024
84 8 5	-6143535.183	0.040	1363995.786	0.020	1034707.880	0.030
85 7 6	-6143534.885	0.041	1363996.113	0.013	1034708.079	0.024
85 7 20	-6143534.852	0.026	1363995.938	0.012	1034707.832	0.017
85 7 27	-6143535.033	0.032	1363996.032	0.012	1034707.915	0.020
85 8 10	-6143534.973	0.023	1363995.917	0.010	1034707.828	0.016

Table 6.10
Geocentric Rectangular Positions of MARPOINT

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
82 6 18	1106631.123	0.005	-4882907.828	0.014	3938087.253	0.013
82 6 19	1106631.166	0.009	-4882907.945	0.024	3938087.364	0.022
82 10 18	1106631.228	0.008	-4882907.974	0.025	3938087.323	0.021
83 8 29	1106631.263	0.020	-4882907.989	0.062	3938087.365	0.051

Table 6.11
Geocentric Rectangular Positions of MOJAVE12

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
83 6 28	-2356169.147	0.020	-4646756.756	0.052	3668471.033	0.043
83 7 25	-2356169.127	0.011	-4646756.898	0.033	3668471.185	0.029
83 8 8	-2356169.097	0.012	-4646756.640	0.035	3668471.099	0.031
83 9 27	-2356169.161	0.010	-4646756.642	0.030	3668471.274	0.027
83 10 12	-2356169.142	0.010	-4646756.579	0.030	3668471.200	0.027
83 10 27	-2356169.154	0.011	-4646757.116	0.027	3668471.294	0.025
83 11 21	-2356169.132	0.009	-4646756.811	0.025	3668471.204	0.024
83 12 1	-2356169.120	0.007	-4646756.916	0.019	3668471.225	0.017
84 1 4	-2356169.158	0.007	-4646756.673	0.018	3668471.237	0.016
84 4 26	-2356169.105	0.006	-4646756.909	0.013	3668471.087	0.011
84 8 30	-2356169.144	0.008	-4646757.039	0.021	3668471.108	0.020
84 9 2	-2356169.157	0.009	-4646756.915	0.021	3668471.125	0.021
85 3 5	-2356169.111	0.004	-4646756.792	0.009	3668471.095	0.009
85 5 7	-2356169.076	0.008	-4646756.955	0.018	3668471.129	0.016
85 5 9	-2356169.123	0.006	-4646756.892	0.011	3668471.095	0.012
85 6 12	-2356169.125	0.017	-4646756.758	0.039	3668470.919	0.039
85 6 19	-2356169.121	0.007	-4646756.914	0.016	3668471.097	0.016
85 8 24	-2356169.099	0.006	-4646756.776	0.016	3668470.964	0.014
85 10 29	-2356169.117	0.005	-4646756.713	0.012	3668471.011	0.011
85 11 21	-2356169.096	0.005	-4646756.877	0.013	3668470.970	0.013

Table 6.12
Geocentric Rectangular Positions of NRAO 140

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
79 8 3	882881.786	0.008	-4924483.040	0.025	3944130.960	0.020
79 11 25	882881.927	0.009	-4924483.212	0.033	3944131.042	0.027
80 4 11	882881.810	0.002	-4924483.056	0.009	3944130.981	0.008
81 11 18	882881.853	0.003	-4924483.158	0.010	3944131.050	0.009
81 11 19	882881.834	0.005	-4924483.140	0.017	3944131.033	0.013
82 12 15	882881.841	0.009	-4924483.126	0.025	3944131.030	0.025
82 12 16	882881.822	0.003	-4924483.100	0.016	3944131.026	0.013

Table 6.13
Geocentric Rectangular Positions of ONSALA60

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
80 7 26	3370608.704	0.013	711916.324	0.021	5349830.628	0.028
80 7 27	3370608.742	0.014	711916.285	0.026	5349830.622	0.033
80 9 26	3370608.786	0.014	711916.185	0.017	5349830.553	0.027
80 9 27	3370608.744	0.021	711916.212	0.021	5349830.502	0.032
80 9 28	3370608.914	0.013	711916.190	0.011	5349830.648	0.025
80 9 29	3370608.902	0.026	711916.171	0.022	5349830.727	0.046
80 9 30	3370608.863	0.019	711916.148	0.017	5349830.743	0.037
80 10 1	3370608.601	0.048	711916.175	0.079	5349830.781	0.144
80 10 2	3370608.720	0.016	711916.200	0.021	5349830.719	0.033
80 10 16	3370608.070	0.011	711916.493	0.010	5349830.743	0.020
80 10 17	3370608.085	0.017	711916.456	0.016	5349830.868	0.030
80 10 18	3370608.004	0.022	711916.501	0.021	5349830.696	0.042
80 10 19	3370607.887	0.010	711916.537	0.008	5349830.639	0.018
80 10 20	3370607.920	0.010	711916.482	0.009	5349830.814	0.018
80 10 21	3370607.867	0.020	711916.564	0.016	5349830.822	0.036
80 10 22	3370607.868	0.009	711916.490	0.007	5349830.860	0.016
80 12 1	3370607.157	0.019	711916.656	0.015	5349831.461	0.032
80 12 19	3370607.175	0.014	711916.619	0.010	5349831.261	0.023
81 1 22	3370607.875	0.016	711916.411	0.013	5349831.349	0.025
81 2 27	3370606.514	0.028	711916.877	0.021	5349831.079	0.045
81 10 21	3370607.924	0.038	711916.487	0.025	5349830.916	0.060
81 11 18	3370608.099	0.123	711916.400	0.032	5349831.075	0.121
81 11 19	3370607.720	0.012	711916.575	0.015	5349831.092	0.025
82 3 17	3370607.276	0.022	711916.667	0.018	5349831.212	0.037
82 4 19	3370607.600	0.034	711916.531	0.028	5349831.227	0.058
82 6 16	3370609.134	0.028	711916.029	0.028	5349831.244	0.052
82 6 18	3370609.211	0.016	711916.012	0.016	5349831.176	0.026
82 6 19	3370609.266	0.020	711915.994	0.022	5349831.158	0.035
82 6 20	3370609.314	0.017	711915.976	0.014	5349831.182	0.029
82 6 21	3370609.319	0.028	711915.985	0.027	5349831.124	0.050
82 9 13	3370608.989	0.049	711916.120	0.039	5349830.615	0.082
82 9 20	3370609.157	0.094	711916.224	0.061	5349830.764	0.166
82 10 18	3370608.185	0.021	711916.464	0.019	5349830.823	0.036
82 11 15	3370607.844	0.058	711916.454	0.033	5349831.457	0.087
82 12 15	3370608.274	0.049	711916.366	0.028	5349831.244	0.066
82 12 16	3370608.209	0.018	711916.338	0.023	5349831.096	0.037
83 2 7	3370608.009	0.031	711916.381	0.019	5349831.108	0.052
83 2 28	3370607.678	0.023	711916.568	0.017	5349830.826	0.040
83 3 14	3370607.655	0.029	711916.590	0.020	5349830.876	0.049
83 4 18	3370608.248	0.026	711916.380	0.020	5349831.103	0.045
83 5 5	3370608.042	0.018	711916.417	0.017	5349831.346	0.028
83 5 16	3370607.334	0.058	711916.741	0.032	5349830.890	0.095
83 6 13	3370607.290	0.045	711916.645	0.028	5349831.479	0.070
83 8 29	3370607.609	0.073	711916.658	0.065	5349830.221	0.134
83 8 30	3370608.040	0.023	711916.499	0.021	5349830.887	0.039
83 9 22	3370608.469	0.053	711916.314	0.037	5349831.001	0.101
83 9 23	3370608.449	0.029	711916.335	0.028	5349831.068	0.047

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
83 10 27	3370607.623	0.038	711916.583	0.030	5349830.875	0.069
83 10 28	3370607.652	0.024	711916.597	0.018	5349830.888	0.037
83 11 16	3370608.017	0.021	711916.502	0.022	5349831.066	0.043
83 11 17	3370608.015	0.017	711916.456	0.015	5349831.009	0.028
83 12 21	3370607.527	0.036	711916.644	0.023	5349830.941	0.063
83 12 22	3370607.372	0.022	711916.772	0.019	5349830.722	0.035
84 1 24	3370607.637	0.022	711916.683	0.017	5349830.875	0.037
84 2 23	3370608.153	0.022	711916.438	0.018	5349831.054	0.037
84 2 24	3370608.172	0.011	711916.387	0.012	5349831.074	0.018
84 3 14	3370608.050	0.021	711916.436	0.014	5349830.916	0.034
84 4 18	3370607.781	0.023	711916.611	0.017	5349830.853	0.037
84 4 19	3370607.794	0.012	711916.577	0.010	5349830.922	0.020
84 5 18	3370607.342	0.027	711916.777	0.020	5349830.893	0.043
84 5 19	3370607.353	0.017	711916.715	0.015	5349830.913	0.027
84 6 12	3370607.518	0.035	711916.695	0.024	5349831.175	0.058
84 10 25	3370608.508	0.030	711916.307	0.021	5349830.959	0.045
84 11 14	3370607.934	0.027	711916.548	0.019	5349831.019	0.043
84 11 15	3370607.896	0.020	711916.539	0.017	5349830.972	0.032
84 12 19	3370607.933	0.053	711916.599	0.031	5349830.831	0.074
85 1 23	3370607.994	0.019	711916.494	0.014	5349830.872	0.030
85 1 24	3370607.998	0.014	711916.514	0.011	5349830.878	0.021
85 2 27	3370608.152	0.014	711916.430	0.011	5349831.008	0.022
85 3 4	3370607.974	0.021	711916.546	0.019	5349830.953	0.034
85 3 5	3370607.913	0.006	711916.559	0.006	5349830.905	0.010
85 4 23	3370607.973	0.018	711916.512	0.014	5349830.965	0.029
85 4 24	3370607.954	0.017	711916.570	0.013	5349830.816	0.025
85 5 8	3370607.770	0.017	711916.569	0.014	5349830.858	0.028
85 5 9	3370607.802	0.009	711916.622	0.010	5349830.871	0.015
85 6 17	3370607.775	0.026	711916.569	0.026	5349830.989	0.043
85 6 18	3370607.766	0.014	711916.588	0.013	5349830.929	0.022
85 6 19	3370607.817	0.015	711916.598	0.014	5349830.975	0.023
85 8 16	3370607.699	0.044	711916.586	0.022	5349831.091	0.066
85 9 10	3370608.159	0.035	711916.469	0.025	5349831.209	0.054
85 9 11	3370608.004	0.013	711916.498	0.011	5349831.005	0.020
85 10 25	3370607.874	0.012	711916.526	0.011	5349831.008	0.020
85 10 29	3370608.007	0.009	711916.501	0.009	5349831.065	0.015
85 11 19	3370607.686	0.016	711916.583	0.014	5349831.051	0.028
85 11 20	3370607.719	0.015	711916.633	0.013	5349831.007	0.023
85 11 21	3370607.742	0.009	711916.588	0.010	5349831.018	0.015
85 12 9	3370608.029	0.015	711916.481	0.012	5349830.993	0.024
85 12 10	3370608.054	0.012	711916.478	0.009	5349831.006	0.019

Table 6.14
Geocentric Rectangular Positions of OVRO 130

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
79 8 3	-2409598.862	0.012	-4478350.356	0.030	3838603.569	0.026
79 11 25	-2409598.844	0.016	-4478351.089	0.046	3838603.730	0.041
80 4 11	-2409598.840	0.005	-4478350.114	0.012	3838603.450	0.011
80 7 26	-2409598.907	0.011	-4478349.870	0.028	3838603.702	0.024
80 7 27	-2409598.894	0.011	-4478349.730	0.029	3838603.599	0.026
80 9 26	-2409598.894	0.016	-4478349.911	0.038	3838603.953	0.036
80 9 27	-2409598.952	0.018	-4478349.873	0.033	3838603.967	0.032
80 9 28	-2409598.889	0.008	-4478349.835	0.020	3838603.912	0.018
80 9 29	-2409598.826	0.014	-4478349.638	0.031	3838603.727	0.028
80 9 30	-2409598.844	0.010	-4478349.892	0.025	3838603.976	0.022
80 10 1	-2409598.831	0.011	-4478349.924	0.030	3838603.993	0.028
80 10 2	-2409598.865	0.010	-4478349.978	0.023	3838603.932	0.021
80 10 16	-2409598.869	0.008	-4478350.341	0.017	3838603.744	0.015
80 10 17	-2409598.868	0.010	-4478350.488	0.023	3838603.816	0.021
80 10 18	-2409598.871	0.009	-4478350.454	0.020	3838603.758	0.017
80 10 19	-2409598.903	0.026	-4478350.557	0.054	3838603.792	0.051
80 10 20	-2409598.847	0.008	-4478350.575	0.018	3838603.785	0.016
80 10 21	-2409598.874	0.009	-4478350.575	0.020	3838603.793	0.018
80 10 22	-2409598.847	0.007	-4478350.523	0.015	3838603.703	0.013
81 6 16	-2409598.844	0.008	-4478349.633	0.020	3838603.684	0.018
81 11 18	-2409598.860	0.006	-4478350.707	0.014	3838603.840	0.013
81 11 19	-2409598.875	0.006	-4478350.641	0.015	3838603.779	0.013
82 6 16	-2409598.807	0.027	-4478349.370	0.055	3838603.425	0.050
82 6 18	-2409598.867	0.010	-4478349.406	0.021	3838603.505	0.023
82 6 19	-2409598.844	0.014	-4478349.482	0.039	3838603.695	0.037
82 6 20	-2409598.841	0.014	-4478349.324	0.029	3838603.543	0.026
82 6 21	-2409598.845	0.021	-4478349.360	0.044	3838603.563	0.040
82 10 18	-2409598.855	0.014	-4478350.233	0.029	3838603.637	0.026
82 10 25	-2409598.846	0.015	-4478350.470	0.041	3838603.761	0.037
82 12 15	-2409598.837	0.011	-4478350.288	0.025	3838603.485	0.025
82 12 16	-2409598.823	0.007	-4478350.234	0.019	3838603.462	0.016
83 6 6	-2409598.843	0.009	-4478350.795	0.019	3838603.470	0.016
84 4 19	-2409598.840	0.009	-4478350.608	0.020	3838603.743	0.020
84 4 26	-2409598.863	0.006	-4478350.583	0.012	3838603.701	0.011
84 10 26	-2409598.862	0.010	-4478350.057	0.025	3838603.786	0.026
85 3 5	-2409598.879	0.003	-4478350.487	0.006	3838603.729	0.007
85 5 7	-2409598.841	0.006	-4478350.624	0.014	3838603.733	0.013
85 5 9	-2409598.859	0.007	-4478350.531	0.014	3838603.678	0.014
85 10 29	-2409598.883	0.005	-4478350.386	0.011	3838603.624	0.011

Table 6.15
Geocentric Rectangular Positions of PENTICTN(7283)

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84 8 24	-2058838.675	0.023	-3621287.407	0.040	4814421.447	0.048
85 8 28	-2058838.696	0.033	-3621287.498	0.065	4814421.506	0.070
85 9 4	-2058838.640	0.006	-3621287.395	0.011	4814421.447	0.012

Table 6.16
Geocentric Rectangular Positions of PLATTVIL(7258)

Date			X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
83	6	6	-1240706.197	0.030	-4720455.506	0.091	4094481.960	0.075
83	6	7	-1240706.262	0.028	-4720455.131	0.050	4094482.288	0.052
83	6	9	-1240706.204	0.021	-4720455.557	0.069	4094481.996	0.055
84	4	26	-1240706.207	0.011	-4720455.156	0.038	4094482.019	0.033
85	5	7	-1240706.197	0.007	-4720455.296	0.016	4094482.116	0.015

Table 6.17
Geocentric Rectangular Positions of RICHMOND

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
83 12 21	961259.746	0.060	-5674090.958	0.253	2740534.264	0.151
84 1 4	961259.809	0.008	-5674090.894	0.031	2740534.213	0.021
84 1 14	961259.860	0.010	-5674090.891	0.044	2740534.201	0.025
84 1 24	961259.939	0.012	-5674090.931	0.054	2740534.187	0.033
84 2 3	961259.915	0.017	-5674090.985	0.075	2740534.223	0.040
84 2 13	961259.874	0.014	-5674091.008	0.066	2740534.274	0.037
84 2 18	961259.945	0.012	-5674090.997	0.042	2740534.194	0.029
84 3 4	961259.863	0.008	-5674090.871	0.028	2740534.200	0.020
84 3 19	961259.966	0.009	-5674090.953	0.034	2740534.183	0.024
84 3 25	961259.963	0.009	-5674090.947	0.039	2740534.206	0.025
84 4 3	961260.035	0.014	-5674090.991	0.048	2740534.165	0.035
84 4 8	961260.044	0.012	-5674090.914	0.046	2740534.128	0.033
84 4 13	961260.036	0.011	-5674091.027	0.040	2740534.260	0.026
84 4 18	961259.948	0.009	-5674090.890	0.034	2740534.159	0.025
84 4 23	961259.919	0.014	-5674090.910	0.054	2740534.180	0.035
84 4 28	961259.943	0.011	-5674090.906	0.042	2740534.191	0.029
84 5 28	961260.027	0.010	-5674090.940	0.038	2740534.139	0.024
84 6 2	961260.053	0.010	-5674091.026	0.035	2740534.215	0.024
84 6 7	961259.978	0.023	-5674090.720	0.094	2740534.058	0.062
84 6 12	961260.042	0.011	-5674090.896	0.051	2740534.133	0.031
84 6 17	961260.045	0.008	-5674090.920	0.030	2740534.180	0.020
84 6 22	961260.046	0.013	-5674091.062	0.051	2740534.250	0.032
84 6 27	961260.000	0.010	-5674091.026	0.042	2740534.239	0.028
84 7 2	961259.985	0.010	-5674090.885	0.038	2740534.164	0.025
84 7 7	961260.080	0.011	-5674090.971	0.040	2740534.173	0.029
84 7 12	961260.024	0.010	-5674090.849	0.043	2740534.102	0.028
84 7 17	961260.005	0.011	-5674090.928	0.041	2740534.133	0.028
84 7 22	961259.973	0.015	-5674090.836	0.053	2740534.119	0.037
84 7 27	961259.988	0.018	-5674090.848	0.078	2740534.155	0.048
84 8 1	961259.952	0.013	-5674090.865	0.047	2740534.180	0.032
84 8 6	961259.951	0.010	-5674090.802	0.038	2740534.066	0.025
84 8 11	961259.963	0.011	-5674090.885	0.047	2740534.132	0.031
84 8 16	961259.932	0.011	-5674090.834	0.039	2740534.149	0.028
84 8 21	961259.906	0.011	-5674090.834	0.040	2740534.133	0.029
84 8 26	961259.981	0.011	-5674090.935	0.039	2740534.160	0.028
84 8 31	961259.975	0.012	-5674090.879	0.045	2740534.161	0.032
84 9 5	961259.923	0.010	-5674090.941	0.039	2740534.225	0.026
84 9 10	961259.932	0.009	-5674090.844	0.033	2740534.151	0.024
84 9 15	961259.890	0.028	-5674090.906	0.067	2740534.196	0.045
84 9 25	961259.893	0.011	-5674090.893	0.042	2740534.184	0.029
84 9 30	961259.887	0.011	-5674090.883	0.042	2740534.193	0.030
84 10 5	961259.838	0.009	-5674090.894	0.043	2740534.214	0.027
84 10 10	961259.793	0.010	-5674090.763	0.044	2740534.110	0.027
84 10 15	961259.713	0.010	-5674090.658	0.038	2740534.102	0.026
84 10 20	961259.770	0.010	-5674090.818	0.039	2740534.197	0.026
84 10 25	961259.781	0.009	-5674090.752	0.040	2740534.135	0.025
84 10 30	961259.809	0.009	-5674090.854	0.037	2740534.216	0.024

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84 11 9	961259.874	0.009	-5674090.810	0.034	2740534.144	0.024
84 11 19	961259.959	0.006	-5674090.948	0.026	2740534.228	0.017
84 11 24	961259.879	0.007	-5674090.780	0.027	2740534.146	0.019
84 11 29	961259.906	0.007	-5674090.908	0.030	2740534.205	0.021
84 12 4	961259.993	0.009	-5674090.966	0.034	2740534.198	0.024
84 12 9	961259.962	0.007	-5674090.895	0.029	2740534.170	0.020
84 12 14	961259.930	0.009	-5674090.878	0.039	2740534.185	0.024
84 12 19	961259.884	0.012	-5674090.795	0.044	2740534.124	0.031
84 12 23	961259.851	0.008	-5674090.868	0.029	2740534.191	0.022
85 1 3	961259.866	0.007	-5674090.861	0.025	2740534.181	0.018
85 1 8	961259.832	0.007	-5674090.873	0.023	2740534.190	0.017
85 1 13	961259.833	0.011	-5674090.932	0.037	2740534.247	0.027
85 1 18	961259.916	0.008	-5674091.002	0.034	2740534.236	0.021
85 1 28	961259.886	0.004	-5674090.958	0.017	2740534.231	0.012
85 2 2	961259.876	0.007	-5674090.919	0.024	2740534.207	0.017
85 2 7	961259.988	0.006	-5674090.855	0.026	2740534.145	0.016
85 2 12	961260.060	0.008	-5674090.958	0.023	2740534.178	0.020
85 2 17	961260.038	0.005	-5674090.945	0.018	2740534.162	0.013
85 2 22	961259.902	0.006	-5674090.818	0.025	2740534.134	0.017
85 2 27	961259.880	0.004	-5674090.879	0.018	2740534.193	0.012
85 3 24	961259.867	0.005	-5674090.918	0.023	2740534.207	0.015
85 3 29	961259.899	0.006	-5674090.915	0.023	2740534.194	0.016
85 4 3	961259.954	0.005	-5674090.937	0.018	2740534.208	0.012
85 4 8	961260.018	0.006	-5674090.996	0.025	2740534.212	0.016
85 4 13	961260.031	0.006	-5674090.976	0.025	2740534.194	0.015
85 4 18	961259.973	0.007	-5674090.930	0.027	2740534.142	0.018
85 4 23	961259.949	0.005	-5674090.941	0.019	2740534.209	0.013
85 4 28	961259.940	0.007	-5674090.920	0.026	2740534.194	0.016
85 5 13	961259.982	0.009	-5674090.962	0.032	2740534.185	0.023
85 5 18	961259.967	0.007	-5674090.918	0.031	2740534.194	0.019
85 5 23	961260.028	0.006	-5674090.921	0.028	2740534.154	0.016
85 5 28	961260.035	0.007	-5674090.920	0.025	2740534.125	0.016
85 6 2	961259.987	0.007	-5674090.919	0.030	2740534.138	0.019
85 6 7	961259.983	0.005	-5674090.880	0.022	2740534.119	0.014
85 6 12	961259.898	0.014	-5674090.658	0.042	2740534.010	0.032
85 6 17	961260.005	0.012	-5674090.926	0.036	2740534.189	0.029
85 6 22	961259.970	0.009	-5674090.940	0.037	2740534.184	0.023
85 6 27	961259.923	0.008	-5674090.989	0.041	2740534.215	0.023
85 7 2	961259.868	0.005	-5674090.863	0.020	2740534.165	0.013
85 7 7	961259.915	0.008	-5674090.878	0.026	2740534.159	0.019
85 7 12	961259.985	0.007	-5674090.905	0.025	2740534.165	0.019
85 7 17	961260.000	0.005	-5674090.879	0.020	2740534.145	0.015
85 7 22	961259.976	0.014	-5674090.941	0.067	2740534.203	0.035
85 7 27	961259.986	0.007	-5674090.870	0.026	2740534.140	0.020
85 8 1	961259.997	0.007	-5674090.973	0.024	2740534.213	0.018
85 8 6	961259.968	0.007	-5674090.861	0.024	2740534.146	0.019
85 8 11	961260.016	0.009	-5674090.939	0.031	2740534.180	0.023
85 8 16	961260.006	0.008	-5674090.892	0.031	2740534.153	0.020
85 8 21	961259.982	0.010	-5674090.882	0.034	2740534.176	0.022
85 8 26	961260.015	0.007	-5674091.060	0.025	2740534.286	0.020
85 8 31	961260.001	0.007	-5674090.916	0.034	2740534.143	0.020

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
85 9 5	961259.907	0.009	-5674090.757	0.033	2740534.063	0.025
85 9 10	961259.926	0.008	-5674090.818	0.029	2740534.121	0.020
85 9 15	961259.940	0.006	-5674090.851	0.024	2740534.143	0.016
85 9 20	961259.931	0.007	-5674090.851	0.024	2740534.102	0.018
85 9 25	961259.957	0.007	-5674090.767	0.025	2740534.085	0.020
85 9 30	961259.946	0.007	-5674090.828	0.027	2740534.121	0.018
85 10 5	961259.926	0.007	-5674090.781	0.027	2740534.100	0.019
85 10 10	961259.997	0.008	-5674090.938	0.032	2740534.190	0.023
85 10 15	961259.948	0.007	-5674090.881	0.024	2740534.141	0.020
85 10 20	961259.965	0.008	-5674090.863	0.032	2740534.118	0.020
85 10 25	961259.959	0.005	-5674090.885	0.019	2740534.145	0.012
85 11 9	961260.021	0.005	-5674090.932	0.019	2740534.179	0.014
85 11 14	961260.010	0.007	-5674090.850	0.025	2740534.104	0.018
85 11 29	961259.996	0.007	-5674090.940	0.026	2740534.220	0.018
85 12 4	961259.945	0.007	-5674090.893	0.032	2740534.169	0.021
85 12 9	961259.934	0.006	-5674090.914	0.033	2740534.159	0.019
85 12 14	961259.903	0.006	-5674090.925	0.024	2740534.193	0.015
85 12 19	961259.957	0.003	-5674090.870	0.010	2740534.149	0.009

Table 6.18
Geocentric Rectangular Positions of ROBLED32

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
83 5 5	4849247.118	0.045	-360279.217	0.019	4114885.002	0.043

Table 6.19
Geocentric Rectangular Positions of VNDNBERG

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84 7 7	-2678095.520	0.021	-4525456.558	0.020	3597414.390	0.019
84 7 21	-2678095.517	0.014	-4525456.537	0.014	3597414.397	0.013
84 7 22	-2678095.569	0.011	-4525456.575	0.012	3597414.392	0.011
85 5 15	-2678095.553	0.008	-4525456.504	0.012	3597414.395	0.011
85 7 6	-2678095.514	0.009	-4525456.449	0.010	3597414.371	0.009
85 7 20	-2678095.595	0.016	-4525456.515	0.012	3597414.421	0.015
85 7 27	-2678095.555	0.012	-4525456.499	0.013	3597414.406	0.012
85 8 10	-2678095.589	0.013	-4525456.526	0.010	3597414.434	0.014
85 9 30	-2678095.541	0.006	-4525456.462	0.008	3597414.376	0.008

Table 6.20
Geocentric Rectangular Positions of WESTFORD

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
81 5 13	1492208.545	0.007	-4458131.298	0.016	4296015.844	0.015
81 6 16	1492208.550	0.003	-4458131.314	0.011	4296015.859	0.009
81 11 18	1492208.551	0.003	-4458131.317	0.007	4296015.864	0.007
81 11 19	1492208.550	0.003	-4458131.320	0.009	4296015.860	0.008
82 6 18	1492208.558	0.003	-4458131.334	0.007	4296015.898	0.008
82 6 19	1492208.538	0.011	-4458131.310	0.019	4296015.870	0.020
82 6 20	1492208.551	0.003	-4458131.331	0.007	4296015.874	0.008

Table 6.21
Geocentric Rectangular Positions of WETTZELL

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
83 11 16	4075541.842	0.021	931734.242	0.021	4801629.619	0.041
83 12 21	4075541.328	0.039	931734.439	0.024	4801629.517	0.061
84 1 9	4075542.198	0.027	931734.074	0.019	4801629.434	0.039
84 1 24	4075541.453	0.021	931734.463	0.016	4801629.440	0.030
84 1 29	4075541.476	0.026	931734.439	0.018	4801629.501	0.042
84 2 3	4075541.687	0.049	931734.334	0.026	4801629.473	0.064
84 2 8	4075541.857	0.037	931734.227	0.025	4801629.569	0.056
84 2 18	4075541.860	0.025	931734.284	0.018	4801629.585	0.042
84 2 23	4075542.025	0.022	931734.167	0.018	4801629.665	0.034
84 2 28	4075541.876	0.031	931734.237	0.031	4801629.584	0.051
84 3 4	4075542.033	0.033	931734.152	0.024	4801629.648	0.051
84 3 9	4075542.081	0.039	931734.160	0.026	4801629.482	0.057
84 3 14	4075541.902	0.021	931734.163	0.015	4801629.504	0.032
84 3 19	4075541.679	0.024	931734.328	0.017	4801629.470	0.035
84 3 25	4075541.658	0.023	931734.349	0.017	4801629.496	0.034
84 3 30	4075541.420	0.072	931734.346	0.168	4801629.840	0.183
84 4 3	4075541.326	0.031	931734.502	0.025	4801629.500	0.046
84 4 8	4075541.282	0.048	931734.492	0.029	4801629.603	0.069
84 4 13	4075541.380	0.029	931734.489	0.021	4801629.473	0.041
84 4 18	4075541.619	0.023	931734.366	0.017	4801629.438	0.033
84 4 23	4075541.619	0.036	931734.341	0.031	4801629.474	0.054
84 4 28	4075541.468	0.030	931734.421	0.024	4801629.405	0.045
84 5 3	4075541.454	0.039	931734.426	0.031	4801629.519	0.057
84 5 8	4075541.290	0.035	931734.538	0.031	4801629.523	0.052
84 5 13	4075541.238	0.038	931734.537	0.032	4801629.481	0.055
84 5 18	4075541.153	0.027	931734.605	0.020	4801629.472	0.039
84 5 23	4075541.182	0.034	931734.645	0.031	4801629.404	0.051
84 5 28	4075541.192	0.021	931734.597	0.018	4801629.457	0.030
84 6 2	4075541.401	0.031	931734.442	0.025	4801629.656	0.044
84 6 7	4075541.332	0.038	931734.508	0.032	4801629.530	0.053
84 6 12	4075541.318	0.030	931734.508	0.023	4801629.700	0.043
84 6 17	4075541.343	0.024	931734.522	0.018	4801629.681	0.033
84 6 22	4075541.355	0.035	931734.444	0.026	4801629.617	0.049
84 6 27	4075541.551	0.031	931734.364	0.024	4801629.631	0.044
84 7 2	4075541.491	0.029	931734.382	0.023	4801629.644	0.041
84 7 7	4075541.223	0.042	931734.564	0.033	4801629.616	0.057
84 7 12	4075541.238	0.032	931734.580	0.026	4801629.570	0.044
84 7 17	4075541.373	0.037	931734.518	0.027	4801629.619	0.049
84 8 1	4075541.776	0.033	931734.197	0.032	4801629.643	0.049
84 8 6	4075541.619	0.041	931734.443	0.027	4801629.566	0.054
84 8 11	4075541.596	0.033	931734.396	0.025	4801629.512	0.047
84 8 16	4075541.866	0.031	931734.207	0.028	4801629.601	0.047
84 8 21	4075542.014	0.036	931734.244	0.027	4801629.708	0.050
84 8 26	4075541.496	0.035	931734.440	0.028	4801629.521	0.049
84 8 30	4075541.401	0.019	931734.539	0.016	4801629.470	0.026
84 8 31	4075541.544	0.035	931734.394	0.030	4801629.609	0.051
84 9 2	4075541.563	0.017	931734.481	0.015	4801629.459	0.023

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84 9 5	4075541.651	0.031	931734.342	0.026	4801629.478	0.044
84 9 10	4075541.685	0.030	931734.377	0.026	4801629.567	0.044
84 9 15	4075541.889	0.037	931734.218	0.030	4801629.573	0.053
84 9 20	4075542.087	0.042	931734.110	0.033	4801629.543	0.062
84 9 25	4075542.063	0.037	931734.149	0.027	4801629.646	0.050
84 9 30	4075542.205	0.032	931734.078	0.031	4801629.707	0.046
84 10 5	4075542.270	0.033	931734.029	0.025	4801629.596	0.048
84 10 10	4075542.405	0.030	931733.964	0.023	4801629.632	0.043
84 10 15	4075542.496	0.034	931733.895	0.026	4801629.567	0.046
84 10 20	4075542.408	0.031	931733.988	0.027	4801629.522	0.045
84 10 25	4075542.422	0.029	931733.997	0.020	4801629.587	0.039
84 10 30	4075542.287	0.026	931734.069	0.022	4801629.566	0.039
84 11 4	4075542.009	0.032	931734.271	0.026	4801629.463	0.046
84 11 9	4075541.966	0.026	931734.217	0.023	4801629.584	0.038
84 11 14	4075541.818	0.028	931734.322	0.020	4801629.640	0.040
84 11 19	4075541.795	0.026	931734.238	0.019	4801629.566	0.036
84 11 24	4075542.110	0.029	931734.151	0.022	4801629.595	0.041
84 11 29	4075541.935	0.028	931734.241	0.021	4801629.556	0.039
84 12 4	4075541.666	0.026	931734.346	0.021	4801629.617	0.037
84 12 9	4075541.675	0.033	931734.323	0.025	4801629.581	0.046
84 12 14	4075541.825	0.032	931734.244	0.026	4801629.597	0.045
84 12 19	4075541.791	0.043	931734.342	0.029	4801629.464	0.060
84 12 23	4075541.838	0.027	931734.311	0.019	4801629.553	0.037
84 12 29	4075541.859	0.034	931734.255	0.030	4801629.657	0.051
85 1 3	4075542.106	0.017	931734.137	0.013	4801629.565	0.024
85 1 8	4075542.134	0.022	931734.095	0.016	4801629.535	0.031
85 1 13	4075542.132	0.029	931734.094	0.021	4801629.519	0.040
85 1 18	4075542.095	0.024	931734.141	0.017	4801629.577	0.033
85 1 23	4075541.875	0.020	931734.218	0.014	4801629.510	0.029
85 1 24	4075541.884	0.015	931734.245	0.011	4801629.494	0.020
85 1 28	4075542.006	0.018	931734.204	0.013	4801629.458	0.025
85 2 2	4075542.220	0.021	931734.107	0.015	4801629.592	0.030
85 2 7	4075541.716	0.018	931734.297	0.013	4801629.628	0.026
85 2 12	4075541.532	0.020	931734.375	0.020	4801629.601	0.031
85 2 17	4075541.484	0.021	931734.421	0.015	4801629.500	0.029
85 2 22	4075541.916	0.021	931734.226	0.017	4801629.501	0.031
85 2 27	4075542.003	0.014	931734.145	0.011	4801629.585	0.020
85 3 4	4075541.837	0.021	931734.293	0.019	4801629.546	0.031
85 3 5	4075541.765	0.007	931734.310	0.006	4801629.508	0.009
85 3 9	4075541.764	0.035	931734.347	0.067	4801629.556	0.065
85 3 14	4075541.981	0.016	931734.200	0.012	4801629.526	0.023
85 3 19	4075542.037	0.023	931734.201	0.016	4801629.362	0.032
85 3 24	4075541.939	0.014	931734.220	0.011	4801629.388	0.020
85 3 29	4075541.890	0.022	931734.234	0.016	4801629.340	0.030
85 4 3	4075541.725	0.019	931734.313	0.012	4801629.449	0.026
85 4 8	4075541.522	0.020	931734.409	0.013	4801629.502	0.028
85 4 13	4075541.472	0.022	931734.465	0.014	4801629.479	0.029
85 4 18	4075541.603	0.022	931734.429	0.016	4801629.445	0.031
85 4 23	4075541.838	0.018	931734.243	0.014	4801629.561	0.026
85 4 24	4075541.825	0.018	931734.308	0.013	4801629.440	0.024
85 4 28	4075541.731	0.022	931734.313	0.015	4801629.496	0.030

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
85 5 3	4075541.503	0.024	931734.422	0.016	4801629.523	0.033
85 5 8	4075541.632	0.017	931734.341	0.014	4801629.478	0.026
85 5 9	4075541.655	0.007	931734.382	0.010	4801629.459	0.013
85 5 13	4075541.631	0.024	931734.386	0.023	4801629.444	0.035
85 5 18	4075541.613	0.024	931734.351	0.015	4801629.482	0.032
85 5 23	4075541.569	0.026	931734.404	0.017	4801629.575	0.034
85 5 28	4075541.508	0.022	931734.439	0.016	4801629.577	0.030
85 6 2	4075541.787	0.025	931734.282	0.018	4801629.644	0.034
85 6 7	4075541.768	0.019	931734.317	0.014	4801629.679	0.026
85 6 12	4075541.631	0.027	931734.427	0.029	4801629.501	0.045
85 6 17	4075541.591	0.026	931734.336	0.026	4801629.556	0.040
85 6 18	4075541.624	0.015	931734.366	0.013	4801629.547	0.021
85 6 19	4075541.619	0.014	931734.364	0.013	4801629.518	0.020
85 6 22	4075541.768	0.026	931734.338	0.019	4801629.681	0.037
85 6 27	4075542.028	0.023	931734.170	0.017	4801629.693	0.032
85 7 2	4075542.107	0.019	931734.131	0.015	4801629.653	0.027
85 7 7	4075541.956	0.024	931734.213	0.018	4801629.684	0.034
85 7 12	4075541.770	0.030	931734.303	0.022	4801629.813	0.041
85 7 17	4075541.724	0.021	931734.309	0.017	4801629.741	0.031
85 7 22	4075541.668	0.025	931734.260	0.021	4801629.506	0.037
85 7 27	4075541.773	0.026	931734.361	0.021	4801629.651	0.037
85 8 1	4075541.664	0.022	931734.343	0.018	4801629.604	0.032
85 8 6	4075541.740	0.032	931734.368	0.023	4801629.711	0.045
85 8 11	4075541.611	0.035	931734.339	0.030	4801629.707	0.048
85 8 16	4075541.656	0.027	931734.386	0.019	4801629.828	0.037
85 8 21	4075541.733	0.025	931734.321	0.019	4801629.734	0.036
85 8 26	4075541.782	0.023	931734.206	0.019	4801629.769	0.034
85 8 31	4075541.703	0.033	931734.417	0.022	4801629.781	0.044
85 9 5	4075541.903	0.033	931734.296	0.026	4801629.602	0.047
85 9 10	4075542.036	0.025	931734.200	0.019	4801629.779	0.036
85 9 11	4075541.875	0.014	931734.236	0.011	4801629.629	0.018
85 9 15	4075541.830	0.026	931734.291	0.017	4801629.727	0.036
85 9 20	4075541.760	0.025	931734.366	0.018	4801629.649	0.034
85 9 25	4075541.619	0.025	931734.411	0.020	4801629.564	0.036
85 9 30	4075541.725	0.021	931734.333	0.017	4801629.645	0.030
85 10 5	4075541.798	0.019	931734.289	0.016	4801629.747	0.028
85 10 10	4075541.818	0.020	931734.276	0.017	4801629.728	0.031
85 10 15	4075541.741	0.022	931734.330	0.019	4801629.658	0.033
85 10 20	4075541.723	0.019	931734.362	0.014	4801629.641	0.026
85 10 25	4075541.745	0.012	931734.293	0.011	4801629.638	0.019
85 10 29	4075541.883	0.009	931734.268	0.009	4801629.689	0.013
85 10 30	4075541.875	0.028	931734.241	0.019	4801629.630	0.038
85 11 4	4075541.722	0.033	931734.352	0.025	4801629.524	0.046
85 11 9	4075541.461	0.020	931734.415	0.014	4801629.607	0.028
85 11 14	4075541.419	0.019	931734.498	0.017	4801629.581	0.029
85 11 19	4075541.528	0.017	931734.394	0.014	4801629.646	0.026
85 11 20	4075541.577	0.016	931734.420	0.013	4801629.624	0.022
85 11 21	4075541.646	0.009	931734.382	0.010	4801629.683	0.014
85 11 24	4075541.762	0.017	931734.312	0.012	4801629.767	0.024
85 11 29	4075541.786	0.021	931734.274	0.015	4801629.677	0.029
85 12 4	4075541.866	0.018	931734.267	0.017	4801629.639	0.027

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
85 12 9	4075541.900	0.016	931734.224	0.012	4801629.607	0.023
85 12 10	4075541.931	0.013	931734.221	0.009	4801629.622	0.018
85 12 14	4075541.968	0.017	931734.204	0.012	4801629.666	0.024
85 12 19	4075541.854	0.017	931734.247	0.010	4801629.652	0.023
85 12 23	4075541.908	0.026	931734.252	0.019	4801629.625	0.052
85 12 29	4075541.879	0.017	931734.231	0.012	4801629.702	0.025

Table 6.22
Geocentric Rectangular Positions of YELLOWKN(7285)

Date	X-COMPONENT Value (m)	Formal Error	Y-COMPONENT Value (m)	Formal Error	Z-COMPONENT Value (m)	Formal Error
84 8 24	-1224122.734	0.009	-2689531.484	0.019	5633555.827	0.039
85 9 4	-1224122.662	0.007	-2689531.541	0.015	5633555.876	0.030

Table 7.1

VLBI BASELINE LENGTH EVOLUTION
ALGOPARK TO HRAS 085

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 24	278714107.9	0.5	148	171
84 8 28	278714107.7	0.4	150	165
85 8 24	278714105.4	0.7	121	139
85 8 28	278714104.3	1.2	50	55
85 9 4	278714107.8	0.5	88	92

Length:
Mean = 278714107.4 $\pm$ 0.5 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.0 cm

Table 7.2

VLBI BASELINE LENGTH EVOLUTION
ALGOPARK TO MOJAVE12

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 8 24	340721901.1	0.6	157	159

Table 7.3

VLBI BASELINE LENGTH EVOLUTION
ALGOPARK TO PENTICTN(7283)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 24	307423464.1	1.8	107	167
85 9 4	307423467.9	.6	160	184

LENGTH:
Mean = 307423467.5 ± 1.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.1 cm

Table 7.4

VLBI BASELINE LENGTH EVOLUTION
ALGOPARK TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 28	64261133.0	0.6	130	166
85 8 24	64261134.0	0.4	153	165

Length:

Mean = 64261133.7 ± 0.5 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.5 cm

Table 7.5

VLBI BASELINE LENGTH EVOLUTION
ALGOPARK TO YELLOWKN(7285)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 24	291229600.1	1.2	132	172
85 9 4	291229603.9	.9	164	180

LENGTH:
Mean = 291229602.5 ± 1.9 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.9 cm

Table 7.6

VLBI BASELINE LENGTH EVOLUTION
CHLBOLTN TO HAYSTACK

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
80 10 16	507231449.9	1.1	89	99
80 10 17	507231445.3	1.4	90	111
80 10 18	507231450.2	1.6	86	97
80 10 19	507231445.9	0.9	97	107
80 10 20	507231447.4	1.3	84	108
80 10 21	507231435.3	2.0	82	96
80 10 22	507231445.7	0.9	100	110

Length:

Mean = 507231446.4 $\pm$ 1.3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 3.2 cm

Table 7.7

VLBI BASELINE LENGTH EVOLUTION
CHLBOLTN TO HRAS 085

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
80 10 16	766373734.5	2.8	53	71
80 10 17	766373747.2	3.2	61	77
80 10 18	766373746.3	3.9	51	66
80 10 19	766373731.0	2.6	54	66
80 10 20	766373741.3	2.9	59	70
80 10 21	766373719.3	3.9	58	76
80 10 22	766373738.7	2.1	58	73

Length:
Mean = 766373737.2 $\pm$ 3.0 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 7.4 cm

Table 7.8

VLBI BASELINE LENGTH EVOLUTION
CHLBOLTN TO ONSALA60

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
80 10 16	110986432.4	0.7	93	99
80 10 17	110986435.1	1.1	67	112
80 10 18	110986431.9	2.1	2	97
80 10 19	110986432.1	0.6	79	88
80 10 20	110986432.6	0.9	104	113
80 10 21	110986431.0	1.5	92	99
80 10 22	110986433.1	0.6	102	113

Length:
Mean = 110986432.7 $\pm$ 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.9 cm

Table 7.9

VLBI BASELINE LENGTH EVOLUTION
CHLBOLTN TO OVRO 130

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
80 10 16	784699126.0	2.0	53	62
80 10 17	784699129.9	2.5	32	44
80 10 18	784699131.4	3.0	62	74
80 10 19	784699128.8	4.5	38	76
80 10 20	784699131.5	2.3	82	85
80 10 21	784699108.3	3.3	71	83
80 10 22	784699125.0	1.8	74	85

Length:
Mean = 784699126.4 $\pm$ 2.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 5.9 cm

Table 7.10

VLBI BASELINE LENGTH EVOLUTION
EFLSBERG TO HAYSTACK

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
79 11 25	559190352.2	2.5	30	35
80 7 26	559190368.4	1.5	131	139
80 7 27	559190358.0	1.8	101	111
80 9 26	559190348.3	1.5	36	96
80 9 27	559190352.9	1.2	45	104
80 9 28	559190355.0	0.9	23	32
83 5 5	559190360.7	1.3	51	108

Length:

Mean = 559190356.5 $\pm$ 2.3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 5.7 cm

Slope = 1.6 $\pm$ 2.3 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 5.5 cm

Table 7.11

VLBI BASELINE LENGTH EVOLUTION
EFLSBERG TO HRAS 085

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
80 7 26	808418494.2	3.3	124	130
80 7 27	808418479.2	3.9	120	126
80 9 26	808418481.6	5.4	48	59
80 9 27	808418491.2	3.9	60	81
80 9 28	808418490.0	3.4	18	24
83 5 5	808418490.1	1.8	26	45

Length:

Mean = 808418489.3 $\pm$ 1.9 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 4.1 cm

Slope = 0.6 $\pm$ 1.4 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 4.1 cm

Table 7.12

VLBI BASELINE LENGTH EVOLUTION
EFLSBERG TO NRAO 140

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
79 11 25	633464843.2	2.9	35	37

Table 7.13

VLBI BASELINE LENGTH EVOLUTION
EFLSBERG TO ONSALA60

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
80 7 26	83221052.6	0.9	115	142
80 7 27	83221050.8	0.9	88	102
80 9 26	83221050.1	0.6	79	99
80 9 27	83221052.3	0.5	73	100
80 9 28	83221051.0	0.5	17	20
83 5 5	83221051.0	0.7	110	182

Length:

Mean = 83221051.3 $\pm$ 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.9 cm

Slope = -.1 $\pm$ 0.4 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 0.9 cm

Table 7.14

VLBI BASELINE LENGTH EVOLUTION
EFLSBERG TO OVRO 130

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
79 11 25	820374246.3	3.1	32	37
80 7 26	820374261.9	2.3	107	124
80 7 27	820374239.8	2.4	110	120
80 9 26	820374244.2	3.0	33	64
80 9 27	820374251.0	2.5	54	80
80 9 28	820374250.9	1.7	18	25

Length:

Mean = 820374249.9 $\pm$ 3.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 6.8 cm

Table 7.15

VLBI BASELINE LENGTH EVOLUTION
EFLSBERG TO ROBLED32

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 5 5	141409245.9	1.1	83	108

Table 7.16

VLBI BASELINE LENGTH EVOLUTION
EFLSBERG TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 5 5	559285106.3	1.8	31	60

Table 7.17

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO HATCREEK

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 5 7	312675289.2	0.9	0	0
85 5 15	312675291.4	0.5	112	121
85 9 30	312675291.1	0.5	94	113

Length:
Mean = 312675291.0 ± 0.5 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.7 cm

Table 7.18

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO HAYSTACK

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 28	503948219.8	0.8	118	167 *
84 8 30	503948225.8	1.1	85	94
84 9 2	503948224.9	1.2	83	91
85 5 7	503948217.6	0.6	51	55 *
85 6 19	503948221.0	1.0	75	85 *
85 8 24	503948222.4	0.7	148	157 *
85 11 21	503948222.7	0.9	74	87 *

Length:
Mean = 503948221.2 $\pm$ 1.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.6 cm

* WESTFORD - GILCREEK results mapped to HAYSTACK - GILCREEK

Table 7.19

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO HRAS 085

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 24	472581234.3	0.5	164	172
84 8 28	472581231.3	0.5	154	165
85 5 7	472581232.0	0.7	68	76
85 8 24	472581229.9	1.1	127	133
85 9 4	472581235.5	0.7	88	95

Length:
Mean = 472581232.9 $\pm$ 0.9 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.8 cm

Table 7.20

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO KASHIMA

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
84	7	29	542710439.4	1.3	79	102
84	8	4	542710436.6	0.9	113	114
84	8	5	542710439.0	1.5	111	112
84	8	30	542710446.9	1.4	79	88
84	9	2	542710438.7	1.3	83	89
85	5	15	542710437.4	0.8	130	134
85	6	19	542710435.7	1.7	85	89
85	7	6	542710442.3	1.6	123	128
85	7	20	542710436.5	0.8	159	172
85	7	27	542710438.3	1.1	143	159
85	8	10	542710443.6	0.7	173	184
85	9	30	542710438.5	0.7	116	126
85	11	21	542710436.5	1.3	71	88

Length:

Mean = 542710439.0 $\pm$ 0.8 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.9 cm

Slope = -.2 $\pm$ 1.9 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.9 cm

Table 7.21

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO KAUAI

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 7 7	472811474.8	1.1	251	264
84 7 21	472811471.8	1.2	112	130
84 7 22	472811473.8	1.0	117	133
84 7 29	472811477.9	1.1	103	113
84 8 4	472811477.7	1.1	98	111
84 8 5	472811479.2	1.4	112	118
85 5 15	472811473.4	0.7	149	154
85 7 6	472811472.3	1.0	156	174
85 7 20	472811473.4	0.8	162	181
85 7 27	472811470.6	1.0	183	210
85 8 10	472811478.2	0.7	179	189
85 9 30	472811468.1	0.7	131	150

Length:

Mean = 472811473.7 ± 1.0 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 3.4 cm

Slope = -3.3 ± 1.9 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 3.0 cm

Table 7.22

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO KWAJAL26

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 7 7	671967667.6	1.7	149	229
84 7 21	671967660.1	2.1	73	121
84 7 22	671967660.4	1.9	72	116
84 7 29	671967666.0	2.2	90	114
84 8 4	671967666.1	1.1	81	114
84 8 5	671967666.0	2.2	79	117
85 7 6	671967658.9	1.9	110	182
85 7 20	671967659.8	1.4	122	184
85 7 27	671967663.7	1.6	108	199
85 8 10	671967661.9	1.2	142	189

Length:

Mean = 671967663.2 $\pm$ 1.0 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.9 cm

Slope = -3.6 $\pm$ 1.5 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.3 cm

Table 7.23

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO MOJAVE12

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 7 7	381620919.7	0.8	224	235
84 7 21	381620923.2	0.8	114	129
84 7 22	381620917.2	0.7	112	127
84 7 29	381620922.4	0.9	79	84
84 8 4	381620922.1	0.9	88	90
84 8 5	381620914.1	1.2	82	89
84 8 30	381620920.8	0.7	100	106
84 9 2	381620918.7	0.8	95	104
85 5 7	381620916.1	0.7	77	79
85 5 15	381620917.9	0.5	132	141
85 6 19	381620918.1	0.6	100	105
85 7 6	381620916.7	0.7	192	201
85 7 20	381620918.7	0.6	116	131
85 7 27	381620917.6	0.7	166	182
85 8 10	381620919.7	0.5	124	129
85 8 24	381620916.4	0.7	146	153
85 9 30	381620918.4	0.4	121	144
85 11 21	381620917.2	0.6	97	106

Length:

Mean = 381620918.5 $\pm$ 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.8 cm

Slope = -1.8 $\pm$ 0.8 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.6 cm

Table 7.24

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO ONSALA60

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 6 19	606648812.8	1.6	44	47
85 11 21	606648810.8	1.3	32	48

Length:
Mean = 606648811.6 ± 1.0 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.0 cm

Table 7.25

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO OVRO 130

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 5 7	358405572.2	0.6	67	71

Table 7.26

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO PENTICTN(7283)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 24	237417571.6	1.7	125	166
85 9 4	237417572.7	.7	167	190

LENGTH:
Mean = 237417572.5 ± .4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = .4 cm

Table 7.27

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO PLATTVIL(7285)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 5 7	381042431.6	.8	61	73

Table 7.28

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO VNDNBERG

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 7 7	377585165.4	1.2	81	141
84 7 21	377585168.3	1.1	104	123
84 7 22	377585166.2	0.8	114	128
85 5 15	377585161.4	0.7	103	110
85 7 6	377585158.6	0.8	177	192
85 7 20	377585162.4	0.6	116	124
85 7 27	377585160.4	0.8	141	181
85 8 10	377585163.2	0.6	118	130
85 9 30	377585160.1	0.5	125	135

Length:

Mean = 377585162.0 ± 0.9 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.4 cm

Slope = -5.0 ± 1.2 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.4 cm

Table 7.29

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 28	504009985.9	0.8	118	167
85 5 7	504009983.7	0.6	51	55
85 6 19	504009987.1	1.0	75	85
85 8 24	504009988.5	0.7	148	157
85 11 21	504009988.7	0.9	74	87

Length:
Mean = 504009986.4 $\pm$ 1.0 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.0 cm

Table 7.30

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO WETTZELL

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 30	685677151.2	2.0	40	42
84 9 2	685677150.7	1.8	34	38
85 6 19	685677145.7	1.5	30	35
85 11 21	685677151.7	1.2	34	40

Length:
Mean = 685677149.9 ± 1.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.5 cm

Table 7.31

VLBI BASELINE LENGTH EVOLUTION
GILCREEK TO YELLOWKW(7285)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 24	163119364.8	.8	151	170
85 9 4	163119366.2	.6	172	185

LENGTH:
Mean = 163119365.7 ± .7 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = .7 cm

Table 7.32

VLBI BASELINE LENGTH EVOLUTION
HATCREEK TO HAYSTACK

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 6 6	403297673.6	0.6	32	52 *
83 6 9	403297674.3	1.4	42	94 *
84 4 26	403297673.2	0.6	70	83
85 5 7	403297668.3	1.0	0	0 *

Length:
Mean = 403297672.6 ± 1.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.9 cm

* WESTFORD - HATCREEK results mapped to HAYSTACK - HATCREEK

Table 7.33

VLBI BASELINE LENGTH EVOLUTION
HATCREEK TO HRAS 085

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 6 6	193347361.1	0.5	35	50
83 6 9	193347363.5	1.7	42	90
84 4 26	193347363.1	0.7	44	57
85 5 7	193347363.8	0.6	23	86

Length:
Mean = 193347362.4 $\pm$ 0.7 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.2 cm

Table 7.34

VLBI BASELINE LENGTH EVOLUTION
HATCREEK TO KASHIMA

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 2 24	755732823.9	2.0	107	115
85 5 15	755732827.3	1.0	86	98
85 9 30	755732828.6	1.0	77	92

Length:
Mean = 755732827.5 ± 1.0 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.4 cm

Table 7.35

VLBI BASELINE LENGTH EVOLUTION
HATCREEK TO KAUAI

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 5 15	406171860.2	0.6	109	122
85 9 30	406171858.4	0.6	79	117

Length:
Mean = 406171859.3 ± 0.9 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.9 cm

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Table 7.36

VLBI BASELINE LENGTH EVOLUTION
HATCREEK TO MOJAVE12

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 2 24	72914865.7	0.9	105	111
84 4 26	72914866.9	0.5	68	89
85 5 7	72914866.6	0.5	77	89
85 5 15	72914867.7	0.3	103	114
85 9 30	72914867.6	0.3	93	118

Length:
Mean = 72914867.3 $\pm$ 0.3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.5 cm

Table 7.37

VLBI BASELINE LENGTH EVOLUTION
HATCREEK TO OVRO 130

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 6 6	48432153.1	0.6	37	52
83 6 7	48432151.4	1.6	13	49
84 4 26	48432153.1	0.5	69	90
85 5 7	48432153.1	0.5	0	0

Length:
Mean = 48432153.0 $\pm$ 0.2 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.3 cm

Table 7.38

VLBI BASELINE LENGTH EVOLUTION
HATCREEK TO PLATTVIL(7258)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 6 6	141631409.1	2.1	9	20
83 6 7	141631403.9	.9	9	42
83 6 9	141631405.1	1.6	26	90
84 4 26	141631403.0	.7	58	76
85 5 7	141631404.2	.6	72	85

LENGTH:

Mean = 141631404.0 ± .5 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.1 cm
Slope = -.2 ± .7 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.1 cm

Table 7.39

VLBI BASELINE LENGTH EVOLUTION
HATCREEK TO VNDNBERG

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 5 15	69870683.9	0.4	78	88
85 9 30	69870683.7	0.3	94	112

Length:
Mean = 69870683.8 ± 0.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.1 cm

Table 7.40

VLBI BASELINE LENGTH EVOLUTION
HATCREEK TO WESTFORD

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
83	6	6	403281907.0	0.6	32	52
83	6	9	403281907.7	1.4	42	94
85	5	7	403281901.7	1.0	0	0

Length:

Mean = 403281905.7 $\pm$ 1.7 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.4 cm

Table 7.41

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO HRAS 085

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
80 4 11	313564101.4	1.1	194	216	
80 7 26	313564103.9	1.4	124	139	
80 7 27	313564107.8	1.7	92	109	
80 9 26	313564102.1	2.3	46	92	
80 9 27	313564108.8	2.0	33	87	
80 9 28	313564103.3	1.4	71	99	
80 9 29	313564098.2	1.8	84	104	
80 9 30	313564096.8	1.8	79	95	
80 10 1	313564099.7	2.0	32	51	
80 10 2	313564098.9	1.3	83	108	
80 10 16	313564100.2	1.1	79	104	
80 10 17	313564104.0	1.3	88	104	
80 10 18	313564103.3	1.4	83	96	
80 10 19	313564102.0	1.1	85	102	
80 10 20	313564100.0	1.0	63	91	
80 10 21	313564101.2	1.3	73	92	
80 10 22	313564101.7	0.8	91	97	
80 11 3	313564099.7	2.0	115	122	
80 12 1	313564100.5	1.8	92	103	
80 12 19	313564098.1	1.4	93	100	
81 1 7	313564100.2	1.0	149	189	
81 1 22	313564096.3	2.2	67	71	
81 2 12	313564097.8	0.9	103	127	
81 2 27	313564097.5	3.2	45	70	
81 3 16	313564099.5	1.0	165	188	
81 5 13	313564101.6	1.7	66	78	
81 5 13	313564100.7	1.7	93	134	*
81 6 16	313564098.7	1.2	142	167	
81 6 16	313564098.2	1.2	108	172	*
81 6 24	313564100.5	2.0	124	170	*
81 7 1	313564105.2	1.5	98	164	*
81 7 8	313564103.7	1.5	118	190	*
81 7 15	313564105.6	3.2	55	67	*
81 7 22	313564103.9	0.9	168	224	*
81 7 29	313564104.6	1.3	142	212	*
81 8 5	313564104.2	1.9	88	138	*
81 8 26	313564102.1	1.2	139	212	*
81 9 2	313564104.7	1.7	154	203	*
81 9 9	313564103.5	1.4	155	192	*
81 9 16	313564103.3	1.6	198	228	*
81 9 23	313564101.5	1.7	163	224	*
81 9 30	313564102.4	1.4	160	201	*
81 10 15	313564111.2	2.3	182	225	*
81 10 21	313564102.9	2.2	94	117	*
81 10 28	313564100.2	1.4	152	181	*
81 11 4	313564102.7	1.7	88	123	*
81 11 10	313564101.0	1.0	171	219	*

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
81 11 18	313564101.3	0.5	86	103	
81 11 18	313564101.0	0.6	89	123	*
81 11 19	313564100.1	1.0	132	147	
81 11 19	313564099.6	1.0	112	145	*
81 11 24	313564101.4	1.3	188	236	*
81 12 2	313564102.2	1.7	129	195	*
81 12 16	313564101.2	1.1	203	234	*
81 12 22	313564103.4	1.0	138	216	*
81 12 29	313564100.9	0.8	206	229	*
82 1 6	313564102.5	0.9	193	233	*
82 1 13	313564101.0	1.3	128	163	*
82 1 20	313564103.0	1.0	218	237	*
82 1 27	313564102.9	1.2	151	220	*
82 2 1	313564102.4	1.3	160	223	*
82 2 10	313564102.7	0.9	177	233	*
82 2 17	313564101.4	1.0	179	237	*
82 2 24	313564100.9	1.5	106	147	*
82 3 3	313564102.0	1.3	165	244	*
82 3 10	313564101.9	1.7	142	232	*
82 3 17	313564102.2	2.1	108	160	*
82 3 24	313564103.9	1.4	166	232	*
82 3 29	313564099.0	1.4	142	228	*
82 4 7	313564104.3	1.8	119	220	*
82 4 13	313564103.1	2.4	156	206	*
82 4 19	313564105.2	3.4	71	107	*
82 4 26	313564099.9	2.3	152	237	*
82 5 3	313564101.9	1.2	163	221	*
82 5 10	313564101.8	1.3	178	221	*
82 5 17	313564100.7	1.3	182	226	*
82 6 2	313564100.3	1.5	178	231	*
82 6 7	313564102.2	1.5	131	210	*
82 6 20	313564100.7	1.1	71	83	
82 6 20	313564100.4	1.1	59	93	*
82 6 21	313564103.1	1.4	76	99	*
82 6 28	313564100.6	1.5	134	188	*
82 7 6	313564104.6	1.6	187	228	*
82 7 12	313564100.9	2.1	124	196	*
82 7 19	313564100.6	1.8	186	231	*
82 7 26	313564103.0	1.8	177	223	*
82 8 4	313564099.9	1.8	174	220	*
82 8 9	313564097.7	1.7	175	230	*
82 8 16	313564092.9	4.2	68	85	*
82 8 23	313564103.9	2.5	93	122	*
82 8 30	313564101.6	1.7	167	226	*
82 9 7	313564101.9	1.8	160	233	*
82 9 13	313564102.3	4.1	71	112	*
82 9 20	313564105.2	9.7	50	111	*
82 9 27	313564105.6	1.5	158	235	*
82 10 4	313564100.7	2.0	133	221	*
82 10 13	313564101.2	1.6	128	215	*
82 10 18	313564100.3	1.0	70	108	*
82 10 25	313564100.2	1.8	116	221	*

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
82 11 1	313564101.5	1.4	186	227	*
82 11 8	313564099.5	1.3	183	221	*
82 11 15	313564101.8	2.4	75	97	*
82 11 22	313564101.4	1.2	202	227	*
82 11 29	313564102.1	1.1	193	228	*
82 12 6	313564098.2	1.3	202	226	*
82 12 15	313564100.0	0.9	92	105	*
82 12 16	313564099.1	0.9	106	117	*
82 12 20	313564099.8	1.0	197	224	*
82 12 27	313564101.9	1.2	164	181	*
83 1 3	313564099.6	0.8	215	235	*
83 1 10	313564098.8	1.0	188	221	*
83 1 17	313564102.0	0.9	94	115	*
83 1 24	313564100.2	0.8	212	229	*
83 1 31	313564100.1	0.9	188	214	*
83 2 7	313564103.0	0.8	118	138	*
83 2 14	313564102.0	0.9	217	235	*
83 2 28	313564102.9	1.3	118	132	*
83 3 7	313564100.1	0.7	212	237	*
83 3 14	313564102.8	2.0	102	111	*
83 3 21	313564100.9	2.4	182	217	*
83 3 28	313564098.3	1.2	198	222	*
83 4 4	313564100.5	1.2	205	236	*
83 4 11	313564099.3	1.0	198	227	*
83 4 25	313564100.1	0.8	220	238	*
83 5 2	313564100.6	1.2	205	229	*
83 5 5	313564097.9	1.1	44	62	
83 5 9	313564100.8	1.0	211	233	*
83 5 16	313564103.6	1.9	60	66	*
83 5 23	313564097.0	1.4	147	219	*
83 5 31	313564101.3	1.7	162	229	*
83 6 6	313564101.7	0.7	59	101	*
83 6 7	313564100.7	0.9	205	240	*
83 6 9	313564102.7	2.3	82	102	*
83 6 13	313564104.7	2.0	93	121	*
83 6 20	313564102.6	1.1	192	238	*
83 6 28	313564102.6	1.5	160	232	*
83 7 5	313564101.7	1.7	144	206	*
83 7 11	313564099.3	1.2	178	216	*
83 7 25	313564102.9	1.3	157	217	*
83 8 1	313564104.6	1.7	131	212	*
83 8 8	313564101.3	1.4	140	215	*
83 8 15	313564101.4	1.4	166	216	*
83 8 22	313564101.0	1.4	161	220	*
83 8 29	313564098.1	2.3	102	131	*
83 9 2	313564102.4	1.4	193	220	*
83 9 7	313564103.2	1.3	191	220	*
83 9 12	313564100.5	2.1	166	216	*
83 9 17	313564101.1	1.3	183	220	*
83 9 22	313564101.2	1.4	104	133	*
83 9 27	313564101.7	1.1	161	219	*
83 10 2	313564101.9	1.4	160	216	*

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 10 7	313564101.7	1.3	167	219 *
83 10 12	313564101.7	1.1	131	217 *
83 10 17	313564103.6	1.7	72	98 *
83 10 22	313564101.5	1.5	190	217 *
83 10 27	313564099.9	1.1	132	148 *
83 11 1	313564099.0	1.3	196	216 *
83 11 6	313564100.3	1.1	205	222 *
83 11 11	313564100.0	1.3	182	217 *
83 11 16	313564100.2	1.0	122	150 *
83 11 21	313564100.9	0.9	119	126 *
83 11 26	313564100.9	0.9	184	217 *
83 12 1	313564099.5	0.9	163	180 *
83 12 6	313564098.2	1.4	166	222 *
83 12 11	313564099.9	0.8	196	218 *
83 12 16	313564101.0	0.8	187	218 *
83 12 21	313564101.7	1.6	85	108 *
83 12 26	313564100.0	0.8	177	202 *
83 12 31	313564098.9	0.9	165	198 *
84 1 4	313564100.2	0.8	184	211 *
84 1 9	313564100.2	0.9	109	132 *
84 1 14	313564100.7	0.8	114	137 *
84 1 24	313564102.0	1.1	86	109 *
84 1 29	313564100.7	1.0	105	120 *
84 2 3	313564100.8	1.1	97	120 *
84 2 8	313564102.2	1.7	52	57 *
84 2 13	313564100.9	0.8	181	225 *
84 2 18	313564101.8	0.9	136	170 *
84 2 23	313564102.3	1.7	69	83 *
84 2 28	313564099.7	2.0	65	84 *
84 3 4	313564103.3	1.6	67	84 *
84 3 9	313564101.6	1.9	67	77 *
84 3 14	313564102.3	1.3	66	71 *
84 3 19	313564099.3	1.4	65	77 *
84 3 25	313564101.1	1.2	68	77 *
84 4 3	313564105.1	2.3	65	76 *
84 4 8	313564101.1	1.8	49	77 *
84 4 13	313564103.6	1.6	63	83 *
84 4 18	313564101.8	2.0	61	73 *
84 4 23	313564103.6	2.2	49	83 *
84 4 26	313564100.9	0.7	46	58
84 4 28	313564099.9	2.0	55	81 *
84 5 3	313564093.1	5.3	7	101 *
84 5 8	313564100.8	2.1	79	88 *
84 5 13	313564095.4	2.6	66	84 *
84 5 18	313564102.8	1.5	72	78 *
84 5 23	313564103.8	2.4	67	82 *
84 5 28	313564102.6	1.2	77	92 *
84 6 2	313564100.7	1.9	65	78 *
84 6 7	313564101.1	3.4	56	74 *
84 6 12	313564104.4	1.9	44	55 *
84 6 17	313564101.5	1.2	64	72 *
84 6 22	313564100.4	2.0	72	86 *

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
84 6 27	313564094.9	1.7	76	86	*
84 7 2	313564102.6	1.7	80	86	*
84 7 7	313564100.6	1.6	75	88	*
84 7 12	313564104.0	1.4	83	97	*
84 7 17	313564099.9	1.5	80	91	*
84 7 22	313564098.5	2.1	63	80	*
84 7 27	313564099.3	2.4	69	84	*
84 8 1	313564099.1	1.5	69	89	*
84 8 6	313564104.0	1.3	68	83	*
84 8 11	313564105.1	1.5	88	96	*
84 8 16	313564103.6	1.7	71	80	*
84 8 21	313564102.3	1.5	66	77	*
84 8 26	313564099.4	1.6	64	77	*
84 8 28	313564099.0	0.5	162	176	*
84 8 31	313564099.4	1.5	74	89	*
84 9 5	313564098.2	1.4	73	88	*
84 9 10	313564099.1	1.3	79	90	*
84 9 15	313564099.7	1.7	76	85	*
84 9 20	313564096.4	1.9	61	73	*
84 9 25	313564099.4	1.5	72	84	*
84 9 30	313564098.6	1.5	57	64	*
84 10 5	313564102.1	1.3	74	87	*
84 10 10	313564102.6	1.7	67	90	*
84 10 15	313564099.1	1.3	80	91	*
84 10 20	313564101.7	1.4	83	93	*
84 10 25	313564102.4	1.3	74	85	*
84 10 30	313564100.7	1.2	80	92	*
84 11 4	313564103.5	1.5	78	93	*
84 11 9	313564100.2	1.2	76	86	*
84 11 14	313564100.9	1.3	74	85	*
84 11 19	313564098.7	1.0	86	94	*
84 11 24	313564099.9	1.2	74	84	*
84 11 29	313564101.9	1.1	79	93	*
84 12 4	313564098.4	1.1	84	91	*
84 12 9	313564098.5	1.1	84	94	*
84 12 14	313564100.9	1.2	77	90	*
84 12 19	313564100.2	1.5	75	81	*
84 12 23	313564098.3	0.9	90	99	*
84 12 29	313564101.8	1.5	82	91	*
85 1 3	313564098.4	0.7	82	91	*
85 1 8	313564098.3	0.8	86	98	*
85 1 18	313564095.6	1.1	67	94	*
85 1 23	313564097.7	0.8	79	87	*
85 1 28	313564097.9	0.7	95	106	*
85 2 2	313564095.4	1.2	48	92	*
85 2 7	313564098.6	0.8	92	102	*
85 2 12	313564097.0	1.0	80	99	*
85 2 17	313564099.9	0.9	78	92	*
85 2 22	313564098.7	1.1	82	99	*
85 2 27	313564097.9	0.8	76	93	*
85 3 4	313564101.6	1.3	73	94	*
85 3 5	313564099.8	0.4	151	163	

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total	
85	3	14	313564096.1	1.1	79	97	*
85	3	19	313564098.9	1.2	86	99	*
85	3	24	313564097.7	0.9	102	105	*
85	3	29	313564099.8	0.9	83	96	*
85	4	3	313564096.9	0.7	91	98	*
85	4	8	313564098.7	0.7	89	94	*
85	4	13	313564099.5	1.1	82	97	*
85	4	18	313564103.1	0.9	77	88	*
85	4	23	313564099.0	0.8	84	93	*
85	4	28	313564097.8	1.0	63	77	*
85	5	3	313564096.8	1.2	76	88	*
85	5	7	313564097.3	0.8	0	0	*
85	5	8	313564096.4	1.5	68	78	*
85	5	9	313564099.6	0.7	108	117	*
85	5	13	313564099.1	1.3	54	64	*
85	5	18	313564099.4	1.0	56	70	*
85	5	23	313564101.5	1.2	70	85	*
85	5	28	313564098.8	1.0	67	70	*
85	6	2	313564097.3	1.2	56	70	*
85	6	7	313564097.8	0.9	82	94	*
85	6	17	313564095.5	1.4	54	75	*
85	6	22	313564098.9	1.1	80	94	*
85	6	27	313564096.7	1.0	88	92	*
85	7	2	313564099.7	0.8	71	88	*
85	7	7	313564098.1	1.2	52	73	*
85	7	12	313564098.3	1.1	74	88	*
85	7	17	313564097.7	0.9	71	83	*
85	7	22	313564098.1	1.1	59	79	*
85	7	27	313564098.9	1.1	74	90	*
85	8	1	313564099.1	0.9	63	86	*
85	8	6	313564100.5	1.0	72	85	*
85	8	11	313564100.0	1.5	35	87	*
85	8	16	313564098.3	1.0	78	80	*
85	8	21	313564099.4	1.0	71	78	*
85	8	24	313564099.8	0.8	122	127	*
85	8	26	313564098.8	1.0	81	91	*
85	8	31	313564100.5	0.9	86	90	*
85	9	5	313564099.3	1.2	82	88	*
85	9	10	313564098.7	1.0	73	79	*
85	9	15	313564099.1	0.9	74	82	*
85	9	20	313564101.3	1.1	87	91	*
85	9	25	313564101.6	1.1	86	93	*
85	9	30	313564102.9	1.0	85	90	*
85	10	5	313564099.8	1.0	83	92	*
85	10	10	313564095.6	1.1	86	93	*
85	10	15	313564101.0	1.0	84	93	*
85	10	20	313564096.5	0.9	83	89	*
85	10	25	313564097.3	0.6	78	85	*
85	10	29	313564100.8	0.7	42	44	*
85	10	30	313564096.9	1.1	88	90	*
85	11	4	313564099.3	1.2	83	93	*
85	11	9	313564097.8	0.7	89	94	*

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 11 14	313564101.2	1.0	85	92 *
85 11 19	313564099.1	0.8	77	85 *
85 11 24	313564097.4	0.7	90	90 *
85 11 29	313564097.0	0.8	82	91 *
85 12 4	313564099.2	0.9	75	82 *
85 12 9	313564100.7	0.8	47	78 *
85 12 14	313564096.7	0.8	50	90 *
85 12 19	313564098.3	0.6	86	91 *
85 12 29	313564098.9	0.8	75	86 *

Length:

Mean = 313564100.1 ± 0.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.0 cm

Slope = -.7 ± 0.1 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.7 cm

* WESTFORD - HRAS 085 results mapped to HAYSTACK - HRAS 085

Table 7.42

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO KASHIMA

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
84 8 30	950178016.6	2.6	39	42	
84 9 2	950178007.0	2.5	44	47	
85 6 19	950177993.1	2.8	45	46	*
85 11 21	950177994.8	2.1	40	48	*

Length:
Mean = 950178002.3 ± 5.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 9.3 cm

* WESTFORD - KASHIMA results mapped to HAYSTACK - KASHIMA

Table 7.43

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO MARPOINT

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
82 6 18	67729341.2	0.5	117	124	
82 6 18	67729341.9	0.6	95	131	*
82 6 19	67729340.2	0.8	136	142	
82 6 19	67729339.8	0.9	96	141	*
82 10 18	67729340.3	0.8	67	90	*
83 8 29	67729337.0	2.4	57	102	*

Length:
Mean = 67729340.9 $\pm$ 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.9 cm

* WESTFORD - MARPOINT results mapped to HAYSTACK - MARPOINT

Table 7.44

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO MOJAVE12

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
83 6 28	390414430.0	2.0	38	56	*
83 7 25	390414426.3	1.2	121	185	*
83 8 8	390414423.5	1.3	114	177	*
83 9 27	390414427.0	1.1	146	212	*
83 10 12	390414426.0	1.1	129	213	*
83 10 27	390414428.3	1.1	112	132	*
83 11 21	390414426.1	0.9	84	96	*
83 12 1	390414425.1	0.7	155	175	*
84 1 4	390414427.4	0.7	173	204	*
84 4 26	390414425.5	0.6	75	89	
84 8 30	390414429.7	0.9	80	83	
84 9 2	390414430.1	0.9	73	84	
85 3 5	390414425.4	0.5	176	202	
85 5 7	390414422.4	0.8	0	0	*
85 5 9	390414427.3	0.7	1	1	*
85 6 12	390414429.7	1.9	36	86	*
85 6 19	390414427.2	0.7	82	87	*
85 8 24	390414426.5	0.6	145	153	*
85 10 29	390414427.2	0.5	86	92	*
85 11 21	390414426.7	0.6	94	97	*

Length:

Mean = 390414426.5 $\pm$ 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.6 cm

Slope = 0.1 $\pm$ 0.5 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.6 cm

* WESTFORD - MOJAVE12 results mapped to HAYSTACK - MOJAVE12

Table 7.45

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO NRAO 140

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
79 8 3	84512987.0	0.7	179	190	
79 11 25	84512982.9	0.8	73	78	
80 4 11	84512985.3	0.3	207	216	
81 11 18	84512984.9	0.3	105	116	
81 11 18	84512984.6	0.3	97	103	*
81 11 19	84512986.0	0.5	106	125	
81 11 19	84512985.3	0.5	124	138	*
82 12 15	84512984.6	0.9	49	70	*
82 12 16	84512984.6	0.5	62	81	*

Length:

Mean = 84512985.1 $\pm$ 0.3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.7 cm

Slope = -.2 $\pm$ 0.3 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 0.7 cm

* WESTFORD - NRAO 140 results mapped to HAYSTACK - NRAO 140

Table 7.46

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO ONSALA60

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
80 7 26	559971455.1	1.6	111	144	
80 7 27	559971452.7	1.9	63	104	
80 9 26	559971443.7	1.3	71	117	
80 9 27	559971443.8	1.3	45	106	
80 9 28	559971450.1	1.0	71	105	
80 9 29	559971449.5	1.8	79	117	
80 9 30	559971446.4	1.5	69	116	
80 10 1	559971440.8	4.3	14	94	
80 10 2	559971445.9	1.4	30	38	
80 10 16	559971451.6	0.9	86	124	
80 10 17	559971451.1	1.4	94	118	
80 10 18	559971449.3	1.3	21	122	
80 10 19	559971447.5	0.7	90	115	
80 10 20	559971446.9	0.8	84	113	
80 10 21	559971452.9	1.5	70	87	
80 10 22	559971446.7	0.6	93	119	
80 12 1	559971449.5	1.3	98	111	
80 12 19	559971443.0	1.0	110	120	
81 1 22	559971448.9	1.1	102	118	
81 2 27	559971441.2	1.9	80	111	
81 10 21	559971450.6	2.3	91	142	*
81 11 18	559971450.2	2.4	12	150	
81 11 19	559971454.0	1.3	49	91	
82 3 17	559971451.0	1.4	85	136	*
82 4 19	559971449.6	2.2	47	114	*
82 6 16	559971455.1	2.2	50	123	*
82 6 18	559971453.6	1.1	155	176	
82 6 18	559971454.7	1.2	82	145	*
82 6 19	559971453.5	1.5	173	200	
82 6 19	559971453.6	1.8	57	169	*
82 6 20	559971453.9	1.3	75	90	
82 6 20	559971455.3	1.3	66	109	*
82 6 21	559971454.9	2.3	57	112	*
82 9 13	559971446.7	3.5	58	118	*
82 9 20	559971464.7	5.2	34	101	*
82 10 18	559971455.5	1.6	80	130	*
82 11 15	559971455.0	2.5	32	68	*
82 12 15	559971457.3	2.5	17	126	*
82 12 16	559971449.8	1.9	49	71	*
83 2 7	559971447.3	1.9	52	100	*
83 2 28	559971448.1	1.5	75	112	*
83 3 14	559971450.3	1.9	96	123	*
83 4 18	559971455.1	1.6	93	116	*
83 5 5	559971455.0	1.3	89	156	
83 5 16	559971453.7	3.7	47	63	*
83 6 13	559971454.5	3.2	47	125	*
83 8 29	559971442.7	4.9	33	84	*

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
83 8 30	559971453.9	1.5	165	205	
83 9 22	559971454.5	2.9	32	77	*
83 9 23	559971455.8	2.1	103	193	
83 10 27	559971448.6	3.0	35	54	*
83 10 28	559971449.9	1.4	163	198	
83 11 16	559971457.9	1.7	32	64	*
83 11 17	559971451.4	1.1	180	202	
83 12 21	559971452.2	2.5	48	122	*
83 12 22	559971453.6	1.5	157	191	
84 1 24	559971458.2	1.6	52	114	*
84 2 23	559971456.4	1.5	61	84	*
84 2 24	559971451.5	0.8	219	241	
84 3 14	559971450.0	1.4	44	65	*
84 4 18	559971456.1	1.6	54	78	*
84 4 19	559971453.5	0.8	231	235	
84 5 18	559971457.4	1.9	71	79	*
84 5 19	559971451.3	1.1	192	200	
84 6 12	559971461.0	2.6	27	33	*
84 10 25	559971454.4	1.9	48	79	*
84 11 14	559971458.5	1.9	65	83	*
84 11 15	559971454.4	1.2	185	201	
84 12 19	559971459.6	2.9	15	81	*
85 1 23	559971452.7	1.3	65	76	*
85 1 24	559971453.7	0.9	189	195	
85 2 27	559971454.7	1.1	66	88	*
85 3 4	559971458.4	1.6	52	91	*
85 3 5	559971455.5	0.5	171	199	
85 4 23	559971455.4	1.3	71	79	*
85 4 24	559971456.3	1.1	110	194	
85 5 8	559971451.9	1.3	65	79	*
85 5 9	559971458.1	0.8	172	179	*
85 6 17	559971454.5	2.3	43	78	*
85 6 18	559971454.9	1.0	137	154	*
85 6 19	559971458.3	1.3	69	74	*
85 8 16	559971455.4	2.9	52	73	*
85 9 10	559971462.3	2.2	29	82	*
85 9 11	559971456.0	0.9	155	165	*
85 10 25	559971454.2	0.9	85	92	*
85 10 29	559971457.5	0.8	67	71	*
85 11 19	559971454.0	1.1	73	87	*
85 11 20	559971458.9	1.0	145	160	*
85 11 21	559971455.7	0.9	69	79	*
85 12 9	559971455.0	0.9	81	90	*
85 12 10	559971455.8	0.7	139	159	*

Length:

Mean = 559971452.8 ± 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 4.1 cm

Slope = 1.6 ± 0.1 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.6 cm

* WESTFORD - ONSALA60 results mapped to HAYSTACK - ONSALA60

Table 7.47

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO OVRO 130

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
79 8 3	392888165.4	1.2	146	173	
79 11 25	392888162.0	1.7	59	68	
80 4 11	392888164.4	0.5	211	220	
80 7 26	392888168.0	1.1	111	134	
80 7 27	392888167.8	1.1	93	106	
80 9 26	392888163.8	1.6	42	102	
80 9 27	392888169.3	1.9	34	91	
80 9 28	392888163.7	0.8	71	101	
80 9 29	392888159.5	1.2	88	104	
80 9 30	392888158.6	0.9	92	107	
80 10 1	392888157.1	1.0	101	121	
80 10 2	392888161.2	0.9	76	87	
80 10 16	392888163.9	0.7	81	102	
80 10 17	392888163.1	1.0	84	100	
80 10 18	392888164.0	0.8	89	105	
80 10 19	392888166.9	2.3	24	84	
80 10 20	392888161.4	0.8	49	65	
80 10 21	392888164.1	0.9	77	94	
80 10 22	392888162.3	0.6	93	105	
81 6 16	392888161.9	0.8	144	166	
81 6 16	392888161.6	0.8	126	161	*
81 11 18	392888162.1	0.6	63	63	
81 11 18	392888162.0	0.6	79	91	*
81 11 19	392888164.3	0.6	107	138	
81 11 19	392888164.1	0.6	118	141	*
82 6 16	392888161.3	2.5	68	99	*
82 6 18	392888166.1	1.0	60	69	
82 6 18	392888167.1	1.0	57	71	*
82 6 19	392888161.7	1.4	21	76	
82 6 19	392888160.3	1.8	19	76	*
82 6 20	392888163.0	1.3	75	81	
82 6 20	392888163.1	1.3	75	86	*
82 6 21	392888163.5	2.0	58	86	*
82 10 18	392888164.1	1.3	87	99	*
82 10 25	392888161.8	1.5	79	102	*
82 12 15	392888164.1	1.1	75	89	*
82 12 16	392888163.0	0.7	93	113	*
83 6 6	392888165.2	0.9	57	99	*
84 4 19	392888161.3	0.9	150	157	
84 4 26	392888164.1	0.6	79	87	
84 10 26	392888162.6	1.0	134	139	
85 3 5	392888165.2	0.4	129	147	
85 5 7	392888161.8	0.6	63	69	*
85 5 9	392888164.2	0.7	104	129	*
85 10 29	392888167.1	0.5	74	78	*

Length:

Mean = 392888163.7 ± 0.3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.1 cm

Slope = 0.4 ± 0.2 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.0 cm

* WESTFORD - OVRO 130 results mapped to HAYSTACK - OVRO 130

Table 7.48

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO PLATTVIL(7258)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 4 26	275320535.7	1.3	54	80

Table 7.49

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO ROBLED32

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 5 5	529969925.5	2.4	20	57

Table 7.50

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
81 5 13	123939.7	0.5	65	111
81 6 16	123939.7	0.4	80	155
81 11 18	123939.5	0.3	74	161
81 11 19	123940.0	0.3	113	147
82 6 18	123938.2	0.3	109	159
82 6 19	123938.9	0.7	45	195
82 6 20	123939.8	0.3	83	128

Length:

Mean = 123939.5 $\pm$ 0.3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.6 cm

Table 7.51

VLBI BASELINE LENGTH EVOLUTION
HAYSTACK TO WETTZELL

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
83 11 16	599739071.2	1.7	39	65	*
83 12 21	599739065.9	2.5	21	67	*
84 1 9	599739070.0	1.8	93	143	*
84 1 24	599739072.8	1.4	71	110	*
84 1 29	599739072.1	1.7	67	133	*
84 2 3	599739071.6	2.9	47	144	*
84 2 8	599739070.1	2.2	50	63	*
84 2 18	599739075.5	1.4	26	28	*
84 2 23	599739072.8	1.5	63	81	*
84 2 28	599739071.9	2.2	64	91	*
84 3 4	599739071.6	2.0	72	85	*
84 3 9	599739073.0	2.2	76	85	*
84 3 14	599739065.7	1.4	59	70	*
84 3 19	599739070.7	1.4	70	83	*
84 3 25	599739071.9	1.5	80	88	*
84 4 3	599739071.4	2.1	64	74	*
84 4 8	599739069.4	2.7	28	52	*
84 4 13	599739072.3	1.7	78	89	*
84 4 18	599739071.2	1.6	50	60	*
84 4 23	599739069.3	2.7	74	93	*
84 4 28	599739069.4	2.1	78	93	*
84 5 3	599739070.2	2.6	75	93	*
84 5 8	599739073.2	2.5	86	93	*
84 5 13	599739070.6	2.7	82	97	*
84 5 18	599739072.9	1.8	75	78	*
84 5 23	599739077.2	2.6	75	91	*
84 5 28	599739073.8	1.6	81	93	*
84 6 2	599739070.5	2.2	86	91	*
84 6 7	599739072.4	2.8	72	82	*
84 6 12	599739073.3	2.3	66	74	*
84 6 17	599739075.4	1.6	93	95	*
84 6 22	599739068.3	2.5	77	89	*
84 6 27	599739069.8	2.2	87	94	*
84 7 2	599739068.9	2.1	84	91	*
84 7 7	599739073.4	3.2	75	90	*
84 7 12	599739075.1	2.5	84	93	*
84 7 17	599739075.9	2.6	91	96	*
84 8 1	599739064.6	2.7	80	93	*
84 8 6	599739079.2	2.9	59	77	*
84 8 11	599739073.6	2.4	85	87	*
84 8 16	599739069.0	2.3	88	96	*
84 8 21	599739079.6	2.5	65	68	*
84 8 26	599739073.3	2.6	77	91	*
84 8 30	599739076.5	1.7	75	75	
84 8 31	599739072.0	2.6	81	89	*
84 9 2	599739078.2	1.5	67	71	
84 9 5	599739070.9	2.4	86	99	*

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total	
84	9	10	599739076.2	2.3	85	96	*
84	9	15	599739070.7	2.7	90	96	*
84	9	20	599739069.3	3.0	65	73	*
84	9	25	599739072.7	2.6	78	91	*
84	9	30	599739072.8	2.6	57	62	*
84	10	5	599739070.3	2.3	82	97	*
84	10	10	599739070.6	2.3	71	96	*
84	10	15	599739067.8	2.3	90	101	*
84	10	20	599739071.9	2.3	90	99	*
84	10	25	599739073.9	1.9	71	79	*
84	10	30	599739074.4	1.9	81	93	*
84	11	4	599739079.7	2.2	92	100	*
84	11	9	599739074.1	2.0	88	95	*
84	11	14	599739077.5	1.9	69	78	*
84	11	19	599739068.4	1.7	90	95	*
84	11	24	599739074.4	2.1	79	88	*
84	11	29	599739074.6	1.8	91	100	*
84	12	4	599739073.0	1.7	90	95	*
84	12	9	599739071.0	2.2	91	99	*
84	12	14	599739070.5	2.2	72	84	*
84	12	19	599739076.7	2.5	62	74	*
84	12	23	599739076.7	1.6	95	101	*
84	12	29	599739073.4	2.4	87	96	*
85	1	3	599739072.7	1.2	85	92	*
85	1	8	599739069.9	1.5	89	98	*
85	1	13	599739069.6	1.9	67	73	*
85	1	18	599739072.7	1.5	86	97	*
85	1	23	599739069.6	1.3	70	78	*
85	1	24	599739071.1	0.9	166	171	
85	1	28	599739073.5	1.1	92	108	*
85	2	2	599739075.2	1.4	81	106	*
85	2	7	599739070.8	1.2	93	103	*
85	2	12	599739069.7	1.5	87	103	*
85	2	17	599739070.9	1.3	69	91	*
85	2	22	599739072.0	1.5	81	103	*
85	2	27	599739069.2	1.0	74	89	*
85	3	4	599739075.0	1.6	58	89	*
85	3	5	599739071.9	0.5	187	204	
85	3	14	599739072.6	1.1	93	103	*
85	3	19	599739073.8	1.5	90	103	*
85	3	24	599739071.5	1.0	101	107	*
85	3	29	599739070.3	1.4	94	101	*
85	4	3	599739071.2	1.3	98	105	*
85	4	8	599739071.4	1.4	93	100	*
85	4	13	599739074.1	1.5	92	105	*
85	4	18	599739076.3	1.6	94	105	*
85	4	23	599739070.7	1.4	72	77	*
85	4	24	599739073.7	1.1	129	145	
85	4	28	599739071.8	1.5	79	97	*
85	5	3	599739072.0	1.6	89	97	*
85	5	8	599739069.9	1.3	66	74	*
85	5	9	599739074.4	0.8	157	165	*

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total	
85 5 13	599739073.6	2.0	71	86	*
85 5 18	599739070.0	1.7	92	101	*
85 5 23	599739073.6	1.8	97	104	*
85 5 28	599739074.2	1.6	94	106	*
85 6 2	599739072.7	1.8	92	100	*
85 6 7	599739075.2	1.4	101	106	*
85 6 12	599739077.8	2.5	32	92	*
85 6 17	599739068.3	2.3	36	83	*
85 6 18	599739072.4	1.1	129	140	*
85 6 19	599739071.8	1.3	69	73	*
85 6 22	599739077.2	1.9	89	104	*
85 6 27	599739073.4	1.7	84	97	*
85 7 2	599739072.9	1.4	84	94	*
85 7 7	599739074.1	1.7	58	82	*
85 7 12	599739075.3	2.1	73	86	*
85 7 17	599739073.2	1.5	76	86	*
85 7 22	599739064.4	1.9	58	80	*
85 7 27	599739079.2	2.0	70	89	*
85 8 1	599739072.5	1.7	70	92	*
85 8 6	599739079.0	2.2	78	91	*
85 8 11	599739070.7	2.7	38	93	*
85 8 16	599739078.0	1.7	73	77	*
85 8 21	599739074.6	1.8	78	86	*
85 8 26	599739066.7	1.7	82	95	*
85 8 31	599739082.4	2.2	30	31	*
85 9 5	599739078.6	2.4	80	93	*
85 9 10	599739077.2	1.7	80	85	*
85 9 11	599739072.2	0.9	143	149	*
85 9 15	599739076.1	1.7	86	96	*
85 9 20	599739079.1	1.8	90	99	*
85 9 25	599739076.4	1.8	84	92	*
85 9 30	599739074.6	1.5	88	98	*
85 10 5	599739074.7	1.4	86	96	*
85 10 10	599739074.2	1.6	79	94	*
85 10 15	599739075.2	1.7	82	98	*
85 10 20	599739077.1	1.3	97	101	*
85 10 25	599739071.8	0.9	78	85	*
85 10 29	599739075.9	0.8	74	76	*
85 10 30	599739072.7	1.7	99	100	*
85 11 4	599739075.2	2.3	84	99	*
85 11 9	599739070.3	1.4	85	99	*
85 11 14	599739075.7	1.4	84	99	*
85 11 19	599739071.7	1.2	74	81	*
85 11 20	599739075.9	1.0	135	149	*
85 11 21	599739075.9	0.9	80	86	*
85 11 24	599739075.4	1.1	92	100	*
85 11 29	599739072.2	1.5	61	95	*
85 12 4	599739074.6	1.4	88	96	*
85 12 9	599739072.0	1.0	82	85	*
85 12 10	599739073.2	0.8	137	151	*
85 12 14	599739073.7	1.1	89	96	*
85 12 19	599739072.4	1.1	85	98	*

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 12 23	599739075.0	1.7	40	42 *
85 12 29	599739072.5	1.1	73	92 *

Length:

Mean = 599739073.0 ± 0.2 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.6 cm

Slope = 1.4 ± 0.4 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.5 cm

* WESTFORD - WETTZELL results mapped to HAYSTACK - WETTZELL

Table 7.52

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO MARPOINT

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
82 10 18	257081338.3	1.0	58	82
83 8 29	257081340.1	1.7	50	97

Length:
Mean = 257081338.8 ± 0.8 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.8 cm

Table 7.53

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO MOJAVE12

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 6 28	131336815.4	0.9	50	53
83 7 25	131336815.8	0.7	165	184
83 8 8	131336814.0	0.7	153	166
83 9 27	131336814.3	0.5	198	211
83 10 12	131336815.1	0.5	205	212
83 10 27	131336815.6	0.6	117	118
83 11 21	131336815.6	0.5	100	104
83 12 1	131336815.2	0.5	170	174
84 1 4	131336815.0	0.5	205	210
84 4 26	131336814.5	0.5	52	61
85 3 5	131336816.6	0.3	146	156
85 5 7	131336816.1	0.3	90	91
85 5 9	131336816.1	0.4	137	139
85 8 24	131336814.4	0.5	115	124
85 10 29	131336816.6	0.4	82	82

Length:

Mean = 131336815.6 ± 0.2 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.8 cm

Slope = 0.6 ± 0.2 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 0.7 cm

Table 7.54

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO NRAO 140

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
80 4 11	235463400.9	0.9	196	210
81 11 18	235463401.2	0.4	89	96
81 11 19	235463399.1	0.9	105	138
82 12 15	235463400.9	0.9	54	69
82 12 16	235463399.2	0.7	68	78

Length:

Mean = 235463400.5 ± 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.9 cm

Slope = -.5 ± 0.5 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 0.8 cm

Table 7.55

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO ONSALA60

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
80 7 26	794073222.3	3.2	69	136
80 7 27	794073220.7	3.9	42	106
80 9 26	794073219.7	5.2	52	88
80 9 27	794073222.2	3.9	44	74
80 9 28	794073228.3	3.4	42	73
80 9 29	794073213.7	4.7	48	85
80 9 30	794073218.1	4.5	40	85
80 10 1	794073214.1	5.6	11	88
80 10 2	794073220.9	2.9	20	35
80 10 16	794073218.0	2.7	54	91
80 10 17	794073236.7	3.1	49	85
80 10 18	794073226.5	3.3	14	83
80 10 19	794073214.4	2.5	48	71
80 10 20	794073221.4	2.5	50	78
80 10 21	794073226.3	3.3	45	71
80 10 22	794073221.8	1.9	49	83
80 12 1	794073230.3	4.6	43	81
80 12 19	794073215.4	3.6	47	71
81 1 22	794073221.1	5.5	28	58
81 2 27	794073212.3	7.9	13	52
81 10 21	794073225.7	5.2	36	69
81 11 18	794073239.5	5.5	4	70
81 11 19	794073222.1	2.6	24	88
82 3 17	794073226.2	5.2	20	78
82 4 19	794073228.2	8.4	23	59
82 6 20	794073224.1	2.8	15	55
82 6 21	794073228.9	3.3	21	52
82 9 13	794073236.9	11.	8	58
82 9 20	794073253.9	25.	5	54
82 10 18	794073221.9	2.4	36	66
82 11 15	794073242.7	7.1	10	33
82 12 15	794073234.2	3.9	12	87
82 12 16	794073220.6	2.7	47	65
83 2 7	794073227.3	3.2	25	50
83 2 28	794073219.7	3.3	42	57
83 3 14	794073218.8	5.1	42	59
83 5 5	794073229.2	1.7	36	73
83 5 16	794073219.1	7.0	18	35
83 6 13	794073235.1	6.4	18	62
83 8 29	794073189.3	6.6	27	53
83 9 22	794073229.4	5.1	22	48
83 10 27	794073218.5	4.2	17	34
83 11 16	794073223.9	2.5	12	27
83 12 21	794073223.9	4.5	22	57
84 1 24	794073229.6	2.9	20	54
84 2 23	794073220.7	3.9	29	39
84 3 14	794073226.0	3.3	25	31

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 4 18	794073229.1	5.0	16	37
84 5 18	794073228.2	4.1	36	41
84 6 12	794073239.2	5.5	11	16
84 10 25	794073229.6	3.6	28	41
84 11 14	794073230.3	3.7	38	42
84 12 19	794073224.8	5.3	5	40
85 1 23	794073222.0	2.3	44	50
85 2 27	794073224.5	2.1	36	47
85 3 4	794073222.2	2.7	42	49
85 3 5	794073226.9	0.9	87	108
85 4 23	794073228.0	2.2	17	50
85 5 8	794073219.4	3.8	33	40
85 5 9	794073225.2	1.2	95	110
85 6 17	794073224.9	3.1	29	44
85 8 16	794073224.3	4.6	24	41
85 9 10	794073232.5	3.4	21	45
85 10 25	794073218.3	1.4	40	48
85 10 29	794073226.8	1.5	56	68
85 11 19	794073229.1	2.2	37	48
85 12 9	794073231.5	1.9	24	43

Length:

Mean = 794073224.9 $\pm$ 0.6 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 5.0 cm

Slope = 0.7 $\pm$ 0.3 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 4.8 cm

Table 7.56

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO OVRO 130

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
80 4 11	150819536.9	0.6	195	221
80 7 26	150819536.4	1.2	98	113
80 7 27	150819535.2	1.1	107	122
80 9 26	150819537.3	1.5	62	104
80 9 27	150819538.5	1.1	69	89
80 9 28	150819537.2	0.8	69	86
80 9 29	150819534.6	1.2	67	92
80 9 30	150819535.4	1.1	30	42
80 10 1	150819536.6	1.2	87	120
80 10 2	150819537.1	0.8	75	88
80 10 16	150819537.2	0.7	87	102
80 10 17	150819539.5	0.8	79	95
80 10 18	150819538.4	0.9	90	97
80 10 19	150819535.5	1.9	26	100
80 10 20	150819535.6	0.7	91	95
80 10 21	150819537.3	0.8	87	99
80 10 22	150819537.2	0.6	90	101
81 6 16	150819537.1	0.7	155	168
81 11 18	150819538.5	0.4	92	95
81 11 19	150819537.5	0.6	118	144
82 6 20	150819537.6	0.8	70	80
82 6 21	150819538.2	1.0	57	72
82 10 18	150819538.3	0.7	88	90
82 10 25	150819539.3	1.2	91	96
82 12 15	150819539.4	0.6	119	124
82 12 16	150819537.6	0.6	101	101
83 6 6	150819536.9	0.4	76	99
84 4 26	150819538.4	0.5	50	60
85 3 5	150819541.1	0.3	106	114
85 5 7	150819540.5	0.3	85	90
85 5 9	150819539.1	0.4	102	104
85 10 29	150819541.4	0.4	64	64

Length:

Mean = 150819538.8 ± 0.3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.8 cm

Slope = 0.8 ± 0.1 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.0 cm

Table 7.57

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO PENTICTN(7283)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 24	244335456.9	1.4	84	170
85 9 4	244335456.7	.7	76	95

LENGTH:
Mean = 244335456.7 ± .1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = .1 cm

Table 7.58

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO PLATTVIL(7258)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 6 6	106049963.5	3.3	7	21
83 6 9	106049963.5	1.9	43	87
84 4 26	106049965.2	1.0	2	48
85 5 7	106049964.9	.8	81	87

LENGTH:
Mean = 106049964.8 ± .3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = .5 cm

Table 7.59

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO RICHMOND

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 12 21	236263259.8	6.9	17	22
84 1 4	236263281.8	1.0	67	79
84 1 14	236263282.8	1.2	93	113
84 1 24	236263282.1	1.5	37	57
84 2 3	236263284.9	2.1	44	58
84 2 13	236263282.8	1.7	78	96
84 2 18	236263288.5	1.3	51	70
84 3 4	236263284.0	1.4	49	71
84 3 19	236263282.0	1.4	45	69
84 3 25	236263282.5	1.3	36	60
84 4 3	236263288.6	2.3	55	68
84 4 8	236263282.7	1.7	36	56
84 4 13	236263287.6	1.6	30	63
84 4 18	236263282.3	1.7	48	71
84 4 23	236263283.9	1.9	45	68
84 4 28	236263280.0	1.8	49	78
84 5 28	236263282.0	1.2	61	71
84 6 2	236263284.3	1.6	58	69
84 6 7	236263276.7	3.3	29	50
84 6 12	236263282.4	1.9	44	57
84 6 17	236263283.9	1.1	46	65
84 6 22	236263285.1	2.0	49	70
84 6 27	236263280.4	1.5	58	73
84 7 2	236263280.0	1.5	59	72
84 7 7	236263283.0	1.3	51	76
84 7 12	236263282.8	1.3	61	79
84 7 17	236263279.8	1.3	66	77
84 7 22	236263278.3	1.8	51	73
84 7 27	236263280.8	2.8	5	74
84 8 1	236263282.6	1.5	57	75
84 8 6	236263282.4	1.2	62	74
84 8 11	236263285.9	1.5	71	80
84 8 16	236263285.6	1.4	56	67
84 8 21	236263282.4	1.4	63	74
84 8 26	236263282.2	1.4	60	65
84 8 31	236263282.1	1.4	68	75
84 9 5	236263281.9	1.3	57	73
84 9 10	236263280.5	1.0	68	77
84 9 15	236263282.7	3.5	10	13
84 9 25	236263283.2	1.4	55	73
84 9 30	236263283.2	1.2	69	76
84 10 5	236263284.7	1.3	48	71
84 10 10	236263285.2	1.7	55	78
84 10 15	236263279.6	1.3	67	81
84 10 20	236263283.8	1.2	52	74
84 10 25	236263283.3	1.2	57	67
84 10 30	236263283.7	1.2	54	75

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 11 9	236263281.9	1.2	53	70
84 11 19	236263284.0	0.9	69	80
84 11 24	236263281.2	1.0	69	81
84 11 29	236263284.1	1.0	69	82
84 12 4	236263284.3	1.1	59	77
84 12 9	236263281.5	1.0	66	80
84 12 14	236263283.5	1.2	67	81
84 12 19	236263282.7	1.6	12	48
84 12 23	236263280.2	1.0	47	78
85 1 3	236263283.8	0.8	52	77
85 1 8	236263281.9	0.7	52	69
85 1 18	236263283.0	1.1	46	76
85 1 28	236263281.6	0.7	84	85
85 2 2	236263281.2	1.0	62	67
85 2 7	236263280.5	0.8	75	87
85 2 12	236263281.1	0.7	76	79
85 2 17	236263282.6	0.7	75	83
85 2 22	236263281.1	0.9	68	86
85 2 27	236263281.5	0.7	63	81
85 3 24	236263281.6	0.9	76	78
85 3 29	236263283.1	0.8	57	78
85 4 3	236263281.2	0.6	65	70
85 4 8	236263282.8	0.8	71	81
85 4 13	236263282.1	1.0	70	82
85 4 18	236263284.5	0.8	56	76
85 4 23	236263282.4	0.7	58	69
85 4 28	236263281.8	1.0	48	60
85 5 13	236263282.7	1.0	42	54
85 5 18	236263282.0	1.1	39	56
85 5 23	236263284.0	1.1	38	62
85 5 28	236263281.6	0.9	52	59
85 6 2	236263282.5	1.1	38	58
85 6 7	236263280.5	0.8	67	74
85 6 17	236263281.6	1.0	45	65
85 6 22	236263283.8	1.1	63	80
85 6 27	236263283.7	1.1	56	72
85 7 2	236263282.9	0.8	59	74
85 7 7	236263282.0	1.1	53	68
85 7 12	236263281.3	1.0	60	73
85 7 17	236263281.1	0.8	60	70
85 7 22	236263281.9	1.8	28	54
85 7 27	236263282.9	0.9	58	71
85 8 1	236263283.7	0.8	49	64
85 8 6	236263281.2	0.9	52	63
85 8 11	236263282.2	1.2	50	74
85 8 16	236263280.2	0.9	65	71
85 8 21	236263282.0	1.2	54	72
85 8 26	236263285.2	0.8	71	80
85 8 31	236263284.2	1.0	62	75
85 9 5	236263280.4	1.1	67	72
85 9 10	236263280.0	1.0	65	67
85 9 15	236263280.3	0.9	56	69

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 9 20	236263283.1	1.0	67	72
85 9 25	236263282.4	0.9	72	78
85 9 30	236263284.1	0.9	68	75
85 10 5	236263280.1	1.0	58	73
85 10 10	236263281.9	1.1	70	78
85 10 15	236263284.0	0.8	73	78
85 10 20	236263280.5	1.1	51	59
85 10 25	236263281.6	0.6	67	70
85 11 9	236263282.2	0.7	70	76
85 11 14	236263282.6	0.9	62	68
85 11 29	236263281.5	0.9	36	37
85 12 4	236263282.1	0.9	32	36
85 12 9	236263283.5	1.1	20	34
85 12 14	236263279.6	0.9	25	35
85 12 19	236263282.0	0.5	36	37

Length:

Mean = 236263282.3 $\pm$ 0.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.5 cm

Slope = -.6 $\pm$ 0.3 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.5 cm

Table 7.60

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO ROBLED32

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 5 5	797553026.9	3.6	9	25

Table 7.61

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
81 5 13	313492801.8	1.7	93	134
81 6 16	313492799.4	1.2	108	172
81 6 24	313492801.6	2.0	124	170
81 7 1	313492806.3	1.5	98	164
81 7 8	313492804.8	1.5	118	190
81 7 15	313492806.7	3.2	55	67
81 7 22	313492805.0	0.9	168	224
81 7 29	313492805.7	1.3	142	212
81 8 5	313492805.3	1.9	88	138
81 8 26	313492803.2	1.2	139	212
81 9 2	313492805.8	1.7	154	203
81 9 9	313492804.6	1.4	155	192
81 9 16	313492804.3	1.6	198	228
81 9 23	313492802.6	1.7	163	224
81 9 30	313492803.5	1.4	160	201
81 10 15	313492812.3	2.3	182	225
81 10 21	313492804.0	2.2	94	117
81 10 28	313492801.3	1.4	152	181
81 11 4	313492803.8	1.7	88	123
81 11 10	313492802.1	1.0	171	219
81 11 18	313492802.1	0.6	89	123
81 11 19	313492800.7	1.0	112	145
81 11 24	313492802.5	1.3	188	236
81 12 2	313492803.3	1.7	129	195
81 12 16	313492802.3	1.1	203	234
81 12 22	313492804.5	1.0	138	216
81 12 29	313492802.0	0.8	206	229
82 1 6	313492803.6	0.9	193	233
82 1 13	313492802.1	1.3	128	163
82 1 20	313492804.1	1.0	218	237
82 1 27	313492804.0	1.2	151	220
82 2 1	313492803.4	1.3	160	223
82 2 10	313492803.7	0.9	177	233
82 2 17	313492802.4	1.0	179	237
82 2 24	313492802.0	1.5	106	147
82 3 3	313492803.1	1.3	165	244
82 3 10	313492803.0	1.7	142	232
82 3 17	313492803.3	2.1	108	160
82 3 24	313492805.0	1.4	166	232
82 3 29	313492800.1	1.4	142	228
82 4 7	313492805.4	1.8	119	220
82 4 13	313492804.2	2.4	156	206
82 4 19	313492806.3	3.4	71	107
82 4 26	313492801.0	2.3	152	237
82 5 3	313492803.0	1.2	163	221
82 5 10	313492802.9	1.3	178	221
82 5 17	313492801.8	1.3	182	226

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
82	6	2	313492801.5	1.5	178	231
82	6	7	313492803.3	1.5	131	210
82	6	20	313492801.5	1.1	59	93
82	6	21	313492804.2	1.4	76	99
82	6	28	313492801.7	1.5	134	188
82	7	6	313492805.8	1.6	187	228
82	7	12	313492802.0	2.1	124	196
82	7	19	313492801.7	1.8	186	231
82	7	26	313492804.1	1.8	177	223
82	8	4	313492801.0	1.8	174	220
82	8	9	313492798.8	1.7	175	230
82	8	16	313492794.0	4.2	68	85
82	8	23	313492805.0	2.5	93	122
82	8	30	313492802.7	1.7	167	226
82	9	7	313492803.0	1.8	160	233
82	9	13	313492803.4	4.1	71	112
82	9	20	313492806.3	9.7	50	111
82	9	27	313492806.7	1.5	158	235
82	10	4	313492801.8	2.0	133	221
82	10	13	313492802.3	1.6	128	215
82	10	18	313492801.4	1.0	70	108
82	10	25	313492801.3	1.8	116	221
82	11	1	313492802.6	1.4	186	227
82	11	8	313492800.6	1.3	183	221
82	11	15	313492802.9	2.4	75	97
82	11	22	313492802.5	1.2	202	227
82	11	29	313492803.2	1.1	193	228
82	12	6	313492799.3	1.3	202	226
82	12	15	313492801.1	0.9	92	105
82	12	16	313492800.2	0.9	106	117
82	12	20	313492800.9	1.0	197	224
82	12	27	313492803.0	1.2	164	181
83	1	3	313492800.7	0.8	215	235
83	1	10	313492799.9	1.0	188	221
83	1	17	313492803.1	0.9	94	115
83	1	24	313492801.3	0.8	212	229
83	1	31	313492801.2	0.9	188	214
83	2	7	313492804.1	0.8	118	138
83	2	14	313492803.1	0.9	217	235
83	2	28	313492804.0	1.3	118	132
83	3	7	313492801.2	0.7	212	237
83	3	14	313492803.9	2.0	102	111
83	3	21	313492802.0	2.4	182	217
83	3	28	313492799.4	1.2	198	222
83	4	4	313492801.6	1.2	205	236
83	4	11	313492800.4	1.0	198	227
83	4	25	313492801.2	0.8	220	238
83	5	2	313492801.7	1.2	205	229
83	5	5	313492811.7	2.2	21	27
83	5	16	313492804.7	1.9	60	66
83	5	23	313492798.1	1.4	147	219
83	5	31	313492802.4	1.7	162	229

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
83	6	6	313492802.8	0.7	59	101
83	6	7	313492801.8	0.9	205	240
83	6	9	313492803.8	2.3	82	102
83	6	13	313492805.8	2.0	93	121
83	6	20	313492803.7	1.1	192	238
83	6	28	313492803.7	1.5	160	232
83	7	5	313492802.8	1.7	144	206
83	7	11	313492800.4	1.2	178	216
83	7	25	313492804.0	1.3	157	217
83	8	1	313492805.7	1.7	131	212
83	8	8	313492802.4	1.4	140	215
83	8	15	313492802.6	1.4	166	216
83	8	22	313492802.1	1.4	161	220
83	8	29	313492799.2	2.3	102	131
83	9	2	313492803.5	1.4	193	220
83	9	7	313492804.3	1.3	191	220
83	9	12	313492801.6	2.1	166	216
83	9	17	313492802.2	1.3	183	220
83	9	22	313492802.3	1.4	104	133
83	9	27	313492802.8	1.1	161	219
83	10	2	313492803.1	1.4	160	216
83	10	7	313492802.8	1.3	167	219
83	10	12	313492802.8	1.1	131	217
83	10	17	313492804.7	1.7	72	98
83	10	22	313492802.6	1.5	190	217
83	10	27	313492801.0	1.1	132	148
83	11	1	313492800.1	1.3	196	216
83	11	6	313492801.4	1.1	205	222
83	11	11	313492801.1	1.3	182	217
83	11	16	313492801.3	1.0	122	150
83	11	21	313492802.0	0.9	119	126
83	11	26	313492802.0	0.9	184	217
83	12	1	313492800.6	0.9	163	180
83	12	6	313492799.3	1.4	166	222
83	12	11	313492801.0	0.8	196	218
83	12	16	313492802.1	0.8	187	218
83	12	21	313492802.8	1.6	85	108
83	12	26	313492801.1	0.8	177	202
83	12	31	313492800.0	0.9	165	198
84	1	4	313492801.3	0.8	184	211
84	1	9	313492801.3	0.9	109	132
84	1	14	313492801.8	0.8	114	137
84	1	24	313492803.1	1.1	86	109
84	1	29	313492801.8	1.0	105	120
84	2	3	313492801.9	1.1	97	120
84	2	8	313492803.3	1.7	52	57
84	2	13	313492802.0	0.8	181	225
84	2	18	313492802.9	0.9	136	170
84	2	23	313492803.4	1.7	69	83
84	2	28	313492800.8	2.0	65	84
84	3	4	313492804.5	1.6	67	84
84	3	9	313492802.7	1.9	67	77

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
84	3	14	313492803.4	1.3	66	71
84	3	19	313492800.4	1.4	65	77
84	3	25	313492802.2	1.2	68	77
84	4	3	313492806.2	2.3	65	76
84	4	8	313492802.1	1.8	49	77
84	4	13	313492804.7	1.6	63	83
84	4	18	313492802.9	2.0	61	73
84	4	23	313492804.7	2.2	49	83
84	4	28	313492801.0	2.0	55	81
84	5	3	313492794.2	5.3	7	101
84	5	8	313492801.9	2.1	79	88
84	5	13	313492796.5	2.6	66	84
84	5	18	313492803.9	1.5	72	78
84	5	23	313492804.9	2.4	67	82
84	5	28	313492803.7	1.2	77	92
84	6	2	313492801.8	1.9	65	78
84	6	7	313492802.2	3.4	56	74
84	6	12	313492805.4	1.9	44	55
84	6	17	313492802.6	1.2	64	72
84	6	22	313492801.5	2.0	72	86
84	6	27	313492796.0	1.7	76	86
84	7	2	313492803.7	1.7	80	86
84	7	7	313492801.7	1.6	75	88
84	7	12	313492805.1	1.4	83	97
84	7	17	313492801.0	1.5	80	91
84	7	22	313492799.6	2.1	63	80
84	7	27	313492800.4	2.4	69	84
84	8	1	313492800.2	1.5	69	89
84	8	6	313492805.1	1.3	68	83
84	8	11	313492806.2	1.5	88	96
84	8	16	313492804.7	1.7	71	80
84	8	21	313492803.4	1.5	66	77
84	8	26	313492800.4	1.6	64	77
84	8	28	313492800.1	0.5	162	176
84	8	31	313492800.4	1.5	74	89
84	9	5	313492799.3	1.4	73	88
84	9	10	313492800.2	1.3	79	90
84	9	15	313492800.8	1.7	76	85
84	9	20	313492797.5	1.9	61	73
84	9	25	313492800.5	1.5	72	84
84	9	30	313492799.7	1.5	57	64
84	10	5	313492803.2	1.3	74	87
84	10	10	313492803.7	1.7	67	90
84	10	15	313492800.2	1.3	80	91
84	10	20	313492802.8	1.4	83	93
84	10	25	313492803.5	1.3	74	85
84	10	30	313492801.8	1.2	80	92
84	11	4	313492804.6	1.5	78	93
84	11	9	313492801.3	1.2	76	86
84	11	14	313492802.0	1.3	74	85
84	11	19	313492799.8	1.0	86	94
84	11	24	313492801.0	1.2	74	84

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 11 29	313492803.0	1.1	79	93
84 12 4	313492799.5	1.1	84	91
84 12 9	313492799.6	1.1	84	94
84 12 14	313492802.0	1.2	77	90
84 12 19	313492801.3	1.5	75	81
84 12 23	313492799.4	0.9	90	99
84 12 29	313492802.9	1.5	82	91
85 1 3	313492799.5	0.7	82	91
85 1 8	313492799.4	0.8	86	98
85 1 18	313492796.7	1.1	67	94
85 1 23	313492798.8	0.8	79	87
85 1 28	313492799.0	0.7	95	106
85 2 2	313492796.5	1.2	48	92
85 2 7	313492799.7	0.8	92	102
85 2 12	313492798.1	1.0	80	99
85 2 17	313492801.0	0.9	78	92
85 2 22	313492799.8	1.1	82	99
85 2 27	313492799.0	0.8	76	93
85 3 4	313492802.7	1.3	73	94
85 3 14	313492797.2	1.1	79	97
85 3 19	313492800.0	1.2	86	99
85 3 24	313492798.8	0.9	102	105
85 3 29	313492800.9	0.9	83	96
85 4 3	313492798.0	0.7	91	98
85 4 8	313492799.8	0.7	89	94
85 4 13	313492800.6	1.1	82	97
85 4 18	313492804.2	0.9	77	88
85 4 23	313492800.1	0.8	84	93
85 4 28	313492798.9	1.0	63	77
85 5 3	313492797.9	1.2	76	88
85 5 7	313492798.4	0.8	0	0
85 5 8	313492797.5	1.5	68	78
85 5 9	313492800.7	0.7	108	117
85 5 13	313492800.2	1.3	54	64
85 5 18	313492800.5	1.0	56	70
85 5 23	313492802.6	1.2	70	85
85 5 28	313492799.9	1.0	67	70
85 6 2	313492798.4	1.2	56	70
85 6 7	313492798.9	0.9	82	94
85 6 17	313492796.6	1.4	54	75
85 6 22	313492800.0	1.1	80	94
85 6 27	313492797.8	1.0	88	92
85 7 2	313492800.8	0.8	71	88
85 7 7	313492799.2	1.2	52	73
85 7 12	313492799.4	1.1	74	88
85 7 17	313492798.8	0.9	71	83
85 7 22	313492799.2	1.1	59	79
85 7 27	313492800.0	1.1	74	90
85 8 1	313492800.2	0.9	63	86
85 8 6	313492801.6	1.0	72	85
85 8 11	313492801.1	1.5	35	87
85 8 16	313492799.4	1.0	78	80

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
85	8	21	313492800.5	1.0	71	78
85	8	24	313492800.9	0.8	122	127
85	8	26	313492799.9	1.0	81	91
85	8	31	313492801.6	0.9	86	90
85	9	5	313492800.4	1.2	82	88
85	9	10	313492799.8	1.0	73	79
85	9	15	313492800.2	0.9	74	82
85	9	20	313492802.4	1.1	87	91
85	9	25	313492802.7	1.1	86	93
85	9	30	313492804.0	1.0	85	90
85	10	5	313492800.9	1.0	83	92
85	10	10	313492796.7	1.1	86	93
85	10	15	313492802.1	1.0	84	93
85	10	20	313492797.6	0.9	83	89
85	10	25	313492798.4	0.6	78	85
85	10	29	313492801.9	0.7	42	44
85	10	30	313492798.0	1.1	88	90
85	11	4	313492800.4	1.2	83	93
85	11	9	313492798.9	0.7	89	94
85	11	14	313492802.3	1.0	85	92
85	11	19	313492800.2	0.8	77	85
85	11	24	313492798.5	0.7	90	90
85	11	29	313492798.1	0.8	82	91
85	12	4	313492800.3	0.9	75	82
85	12	9	313492801.8	0.8	47	78
85	12	14	313492797.8	0.8	50	90
85	12	19	313492799.4	0.6	86	91
85	12	29	313492800.0	0.8	75	86

Length:

Mean = 313492801.2 $\pm$ 0.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.0 cm

Slope = -.9 $\pm$ 0.1 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.7 cm

Table 7.62

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO WETTZELL

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 11 16	841756143.2	2.4	20	37
83 12 21	841756144.4	4.6	9	21
84 1 9	841756148.7	2.9	39	70
84 1 24	841756151.0	2.6	34	52
84 1 29	841756153.0	2.9	32	68
84 2 3	841756148.9	4.4	18	70
84 2 8	841756152.0	4.9	28	42
84 2 18	841756153.5	2.5	8	14
84 2 23	841756143.8	4.1	24	34
84 2 28	841756150.0	4.5	35	43
84 3 4	841756161.4	4.4	32	41
84 3 9	841756149.5	5.1	28	43
84 3 14	841756148.4	3.4	25	31
84 3 19	841756142.2	3.4	26	37
84 3 25	841756148.5	3.3	25	38
84 3 30	841756140.1	12.	29	39
84 4 3	841756158.3	5.9	29	39
84 4 8	841756146.6	5.3	15	24
84 4 13	841756155.1	4.1	22	43
84 4 18	841756151.1	5.2	21	28
84 4 23	841756148.0	5.3	22	45
84 4 28	841756140.1	5.2	24	47
84 5 3	841756139.3	13.	4	44
84 5 8	841756148.1	5.0	39	46
84 5 13	841756138.1	6.8	38	46
84 5 18	841756149.9	4.1	34	35
84 5 23	841756148.2	6.3	37	47
84 5 28	841756146.8	3.1	49	50
84 6 2	841756152.1	4.8	38	44
84 6 7	841756139.2	8.9	29	39
84 6 12	841756156.6	5.3	29	32
84 6 17	841756155.0	3.3	40	42
84 6 22	841756151.9	5.6	38	45
84 6 27	841756142.6	4.6	44	45
84 7 2	841756158.4	4.6	41	44
84 7 7	841756155.0	4.9	45	46
84 7 12	841756153.3	4.1	45	49
84 7 17	841756148.6	4.4	47	51
84 8 1	841756152.7	4.1	45	50
84 8 6	841756156.7	4.5	34	44
84 8 11	841756152.7	4.3	44	44
84 8 16	841756155.0	4.4	41	43
84 8 21	841756161.3	4.4	33	34
84 8 26	841756144.9	4.6	39	40
84 8 31	841756153.8	4.2	46	46
84 9 5	841756142.6	4.0	47	52
84 9 10	841756153.1	3.5	49	50

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
84	9	15	841756148.1	4.7	48	49
84	9	20	841756143.2	5.5	31	33
84	9	25	841756150.2	4.4	44	49
84	9	30	841756151.4	3.8	45	47
84	10	5	841756154.5	3.9	46	51
84	10	10	841756156.8	4.8	38	49
84	10	15	841756146.4	3.8	46	50
84	10	20	841756154.2	3.8	52	52
84	10	25	841756157.2	3.6	37	38
84	10	30	841756158.4	3.4	48	50
84	11	4	841756152.3	3.9	49	53
84	11	9	841756149.8	3.4	45	46
84	11	14	841756156.9	3.8	32	37
84	11	19	841756144.4	2.9	49	50
84	11	24	841756157.2	3.5	47	52
84	11	29	841756155.3	3.2	47	52
84	12	4	841756146.4	3.0	46	49
84	12	9	841756140.3	3.5	48	51
84	12	14	841756156.1	3.6	41	47
84	12	19	841756149.7	4.8	14	27
84	12	23	841756148.0	2.8	56	59
84	12	29	841756161.2	4.0	52	52
85	1	3	841756144.8	2.0	50	53
85	1	8	841756148.0	2.3	50	53
85	1	18	841756144.8	3.1	39	51
85	1	23	841756146.7	2.4	40	44
85	1	28	841756149.0	2.1	50	57
85	2	2	841756148.3	3.0	47	52
85	2	7	841756146.4	2.2	57	58
85	2	12	841756145.2	2.2	56	56
85	2	17	841756144.5	2.5	52	57
85	2	22	841756142.1	2.8	50	57
85	2	27	841756145.7	2.1	41	43
85	3	4	841756145.7	2.7	42	43
85	3	5	841756150.5	0.9	110	120
85	3	9	841756156.9	5.2	54	58
85	3	14	841756144.3	2.9	40	54
85	3	19	841756146.8	3.2	49	56
85	3	24	841756146.2	2.2	53	57
85	3	29	841756150.3	2.7	52	53
85	4	3	841756148.3	2.2	48	55
85	4	8	841756151.6	2.3	52	54
85	4	13	841756152.9	3.1	50	55
85	4	18	841756151.1	2.6	50	54
85	4	23	841756150.3	2.2	36	42
85	4	28	841756148.9	2.8	42	49
85	5	3	841756145.9	3.2	46	49
85	5	8	841756144.7	4.0	28	32
85	5	9	841756148.5	1.2	0	0
85	5	13	841756150.7	3.3	32	37
85	5	18	841756150.7	3.1	36	44
85	5	23	841756152.2	3.4	36	48

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 5 28	841756139.6	2.7	40	43
85 6 2	841756140.4	3.2	39	43
85 6 7	841756147.4	2.4	47	56
85 6 17	841756144.8	3.1	32	41
85 6 22	841756157.8	3.1	52	58
85 6 27	841756151.8	2.8	51	55
85 7 2	841756152.7	2.4	44	49
85 7 7	841756152.3	3.1	35	45
85 7 12	841756154.7	3.4	38	44
85 7 17	841756149.9	2.6	43	48
85 7 22	841756137.6	3.3	29	42
85 7 27	841756153.5	3.0	43	47
85 8 1	841756153.2	2.7	42	49
85 8 6	841756158.1	3.2	40	43
85 8 11	841756152.4	4.0	36	46
85 8 16	841756156.8	2.8	37	42
85 8 21	841756155.0	3.0	47	50
85 8 26	841756158.8	2.7	45	49
85 8 31	841756159.0	3.3	14	14
85 9 5	841756143.2	3.6	48	51
85 9 10	841756153.4	2.7	43	44
85 9 15	841756152.9	2.9	36	42
85 9 20	841756151.3	3.2	44	50
85 9 25	841756148.6	3.0	48	50
85 9 30	841756159.0	2.6	48	49
85 10 5	841756153.6	2.7	50	51
85 10 10	841756150.5	2.8	45	48
85 10 15	841756154.8	2.6	48	51
85 10 20	841756142.8	2.5	45	48
85 10 25	841756142.9	1.5	44	44
85 10 29	841756152.0	1.5	46	50
85 10 30	841756146.8	3.3	51	51
85 11 4	841756140.7	3.7	46	51
85 11 9	841756147.1	2.3	48	52
85 11 14	841756154.0	2.4	51	52
85 11 19	841756153.2	2.2	38	44
85 11 24	841756151.0	2.1	46	51
85 11 29	841756145.4	2.5	33	49
85 12 4	841756151.9	2.4	43	47
85 12 9	841756155.7	2.0	21	42
85 12 14	841756148.7	2.5	26	51
85 12 19	841756151.7	1.9	35	52
85 12 29	841756153.5	2.3	44	51

Length:

Mean = 841756149.8 ± 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 4.6 cm

Slope = 0.7 ± 0.7 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 4.5 cm

Table 7.63

VLBI BASELINE LENGTH EVOLUTION
HRAS 085 TO YELLOWKW(7285)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 24	357206988.4	1.4	127	175
85 9 4	357206987.7	1.1	80	93

LENGTH:
Mean = 357206988.0 ± .4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = .4 cm

Table 7.64

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO KAUAI

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 7 28	570936048.7	2.1	96	100
84 7 29	570936049.2	1.2	96	111
84 8 4	570936046.3	1.2	89	108
84 8 5	570936048.2	1.4	102	109
85 5 15	570936044.8	0.9	126	131
85 7 6	570936046.6	1.4	0	0
85 7 20	570936035.1	0.8	171	178
85 7 27	570936041.9	1.1	11	11
85 8 10	570936045.7	0.7	165	180
85 9 30	570936038.5	0.8	115	126

Length:

Mean = 570936042.8 $\pm$ 1.6 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 4.7 cm

Slope = -7.0 $\pm$ 2.9 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 3.6 cm

Table 7.65

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO KWAJAL26

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 7 28	393633075.0	1.8	86	119
84 7 29	393633077.7	1.4	83	104
84 8 4	393633077.8	1.0	93	117
84 8 5	393633077.8	1.3	99	115
85 7 6	393633073.2	1.7	77	121
85 7 20	393633064.4	0.9	163	180
85 7 27	393633070.6	1.3	120	163
85 8 10	393633069.4	0.9	160	185

Length:

Mean = 393633072.0 ± 1.9 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 5.1 cm

Slope = -9.2 ± 1.9 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.4 cm

Table 7.66

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO MOJAVE12

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 1 24	809182413.5	3.6	118	121
84 2 24	809182411.4	1.9	121	129
84 7 28	809182414.2	2.8	72	85
84 7 29	809182417.3	1.7	80	81
84 8 4	809182414.7	1.6	79	86
84 8 5	809182406.6	2.0	71	80
84 8 30	809182427.1	2.1	62	68
84 9 2	809182414.9	2.1	67	71
85 5 15	809182413.7	1.0	108	118
85 6 19	809182412.1	2.4	65	68
85 7 6	809182420.1	2.0	120	124
85 7 20	809182404.0	1.1	123	128
85 7 27	809182414.0	1.4	120	136
85 8 10	809182416.5	1.1	109	123
85 9 30	809182416.2	0.9	101	117
85 11 21	809182409.8	1.8	54	67

Length:

Mean = 809182413.8 $\pm$ 1.2 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 4.8 cm

Slope = -.8 $\pm$ 2.5 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 4.8 cm

Table 7.67

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO ONSALA60

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 6 19	796964308.9	2.8	69	72
85 11 21	796964306.0	1.8	62	72

Length:
Mean = 796964306.9 ± 1.3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.3 cm

Table 7.68

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO VNDNBERG

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 5 15	791389232.0	1.3	78	90
85 7 6	791389235.3	2.1	0	0
85 7 20	791389223.7	1.1	123	127
85 7 27	791389232.6	1.6	9	9
85 8 10	791389236.7	1.0	114	128
85 9 30	791389231.4	0.9	102	114

Length:
Mean = 791389231.4 $\pm$ 2.0 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 4.4 cm

Table 7.69

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 6 19	950231652.1	2.8	45	46
85 11 21	950231653.7	2.1	40	48

Length:
Mean = 950231653.1 ± 0.8 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.8 cm

Table 7.70

VLBI BASELINE LENGTH EVOLUTION
KASHIMA TO WETTZELL

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 30	847582715.2	3.0	61	70
84 9 2	847582710.8	2.6	57	68
85 6 19	847582691.7	2.7	59	61
85 11 21	847582698.3	1.8	61	64

Length:
Mean = 847582702.6 $\pm$ 4.9 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 8.5 cm

Table 7.71

VLBI BASELINE LENGTH EVOLUTION
KAUAI TO KWAJAL26

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
84	7	7	372519632.1	1.2	77	233
84	7	21	372519626.1	1.5	38	127
84	7	22	372519629.6	1.4	41	122
84	7	28	372519628.7	1.8	46	114
84	7	29	372519634.3	1.5	49	111
84	8	4	372519633.3	1.1	40	113
84	8	5	372519632.1	1.4	34	119
85	7	6	372519629.8	1.4	2	4
85	7	20	372519627.5	0.9	129	188
85	7	27	372519635.5	1.1	4	5
85	8	10	372519630.7	0.8	120	188

Length:

Mean = 372519630.8 $\pm$ 0.8 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.6 cm

Slope = -.7 $\pm$ 1.7 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.6 cm

Table 7.72

VLBI BASELINE LENGTH EVOLUTION
KAUAI TO MOJAVE12

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
84	7	7	430358123.2	0.8	227	238
84	7	21	430358118.4	0.8	115	136
84	7	22	430358123.0	0.7	118	135
84	7	28	430358124.4	1.6	76	85
84	7	29	430358124.5	1.1	76	86
84	8	4	430358125.0	1.1	76	89
84	8	5	430358122.7	1.3	85	91
85	5	15	430358125.9	0.6	126	138
85	7	6	430358126.8	0.6	149	172
85	7	20	430358122.8	0.9	0	0
85	7	27	430358126.5	0.7	133	177
85	8	10	430358128.8	0.8	0	0
85	9	30	430358124.2	0.6	107	143

Length:

Mean = 430358124.7 $\pm$ 0.7 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.4 cm

Slope = 3.0 $\pm$ 1.1 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.9 cm

Table 7.73

VLBI BASELINE LENGTH EVOLUTION
KAUAI TO VNDNBERG

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 7 7	397252457.2	1.1	27	146
84 7 21	397252452.3	0.9	65	133
84 7 22	397252455.0	0.8	92	134
85 5 15	397252455.0	0.8	67	107
85 7 6	397252455.2	0.7	127	165
85 7 20	397252451.0	0.9	0	0
85 7 27	397252456.0	0.8	111	199
85 8 10	397252458.1	0.8	0	0
85 9 30	397252451.7	0.6	105	137

Length:

Mean = 397252454.4 ± 0.8 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.2 cm

Slope = -.8 ± 1.7 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.2 cm

Table 7.74

VLBI BASELINE LENGTH EVOLUTION
KWAJAL26 TO MOJAVE12

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 7 7	757693864.8	1.6	37	225
84 7 21	757693854.9	1.9	23	122
84 7 22	757693859.3	1.8	22	116
84 7 28	757693853.9	2.9	25	86
84 7 29	757693862.6	2.3	24	83
84 8 4	757693862.5	1.5	31	91
84 8 5	757693855.2	2.3	19	89
85 7 6	757693859.3	1.8	67	173
85 7 20	757693852.4	1.6	0	0
85 7 27	757693866.0	1.5	44	170
85 8 10	757693856.8	1.4	0	0

Length:

Mean = 757693859.5 $\pm$ 1.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 4.5 cm

Slope = -1.5 $\pm$ 2.8 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 4.4 cm

Table 7.75

VLBI BASELINE LENGTH EVOLUTION
KWAJAL26 TO VNDNBERG

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 7 7	729810843.9	1.9	1	23
84 7 21	729810834.0	2.0	0	0
84 7 22	729810838.6	1.8	7	116
85 7 6	729810832.1	1.8	0	0
85 7 20	729810828.4	1.5	0	0
85 7 27	729810841.6	1.6	0	0
85 8 10	729810834.1	1.3	0	0

Length:

Mean = 729810835.6 ± 2.0 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 5.0 cm

Slope = -4.7 ± 3.8 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 4.5 cm

Table 7.76

VLBI BASELINE LENGTH EVOLUTION
MARPOINT TO ONSALA60

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
82 6 18	619844105.4	1.4	54	108
82 6 19	619844111.9	2.0	44	110
82 10 18	619844108.4	2.2	35	63
83 8 29	619844090.3	5.8	16	49

Length:

Mean = 619844107.1 $\pm$ 2.3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 4.0 cm

Table 7.77

VLBI BASELINE LENGTH EVOLUTION
MARPOINT TO OVRO 130

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
82 6 18	354082446.3	1.0	38	59
82 6 19	354082448.7	1.6	13	58
82 10 18	354082447.6	1.3	51	65

Length:

Mean = 354082447.2 ± 0.7 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.9 cm

Table 7.78

VLBI BASELINE LENGTH EVOLUTION
MARPOINT TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
82 6 18	67617892.8	0.6	95	131
82 6 19	67617890.7	0.9	96	141
82 10 18	67617891.3	0.8	67	90
83 8 29	67617887.9	2.4	57	102

Length:
Mean = 67617891.9 $\pm$ 0.6 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.1 cm

Table 7.79

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO ONSALA60

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 10 27	802111751.2	4.1	23	39
85 3 5	802111750.2	0.9	90	135
85 5 9	802111753.4	0.8	139	153
85 6 19	802111756.3	1.8	51	54
85 10 29	802111753.4	1.1	114	137
85 11 21	802111749.6	1.2	49	53

Length:

Mean = 802111752.2 ± 0.9 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.0 cm

Slope = 0.5 ± 2.6 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.0 cm

Table 7.80

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO OVRO 130

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 4 26	24527644.8	0.3	83	96
85 3 5	24527645.0	0.3	121	147
85 5 7	24527644.7	0.4	92	92
85 5 9	24527644.6	0.4	137	137
85 10 29	24527645.0	0.2	131	133

Length:
Mean = 24527644.9 $\pm$ 0.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.1 cm

Table 7.81

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO PLATTVIL(7258)

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 4 26	119631694.1	.7	48	83
85 5 7	119631694.8	.6	68	84

LENGTH:
Mean = 119631694.6 ± .3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = .3 cm

Table 7.82

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO RICHMOND

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 1 4	359469298.8	1.2	59	81
85 6 12	359469291.9	1.6	59	68

Length:
Mean = 359469296.4 ± 3.3 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 3.3 cm

Table 7.83

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO VNDNBERG

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 7 7	35128253.1	1.2	72	129
84 7 21	35128253.4	0.8	115	131
84 7 22	35128257.0	0.6	120	133
85 5 15	35128257.9	0.4	98	104
85 7 6	35128256.7	0.5	184	196
85 7 20	35128260.8	1.0	118	123
85 7 27	35128258.1	0.7	122	165
85 8 10	35128259.7	0.8	107	115
85 9 30	35128258.7	0.3	125	140

Length:
Mean = 35128257.9 $\pm$ 0.5 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.5 cm

Table 7.84

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 6 28	390376779.7	2.0	38	56
83 7 25	390376776.0	1.2	121	185
83 8 8	390376773.2	1.3	114	177
83 9 27	390376776.7	1.1	146	212
83 10 12	390376775.7	1.1	129	213
83 10 27	390376778.0	1.1	112	132
83 11 21	390376775.8	0.9	84	96
83 12 1	390376774.8	0.7	155	175
84 1 4	390376777.1	0.7	173	204
85 5 7	390376772.1	0.8	0	0
85 5 9	390376777.0	0.7	1	1
85 6 12	390376779.4	1.9	36	86
85 6 19	390376776.9	0.7	82	87
85 8 24	390376776.2	0.6	145	153
85 10 29	390376776.9	0.5	86	92
85 11 21	390376776.3	0.6	94	97

Length:

Mean = 390376776.2 ± 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.4 cm

Slope = 0.2 ± 0.4 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.4 cm

Table 7.85

VLBI BASELINE LENGTH EVOLUTION
MOJAVE12 TO WETTZELL

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 8 30	858897646.5	2.3	41	41
84 9 2	858897647.5	2.2	37	39
85 3 5	858897641.0	0.9	117	149
85 5 9	858897644.2	0.6	116	120
85 6 12	858897639.7	3.5	55	67
85 6 19	858897642.4	1.7	41	42
85 10 29	858897645.9	1.1	92	104
85 11 21	858897645.2	1.1	48	49

Length:
Mean = 858897644.0 $\pm$ 0.7 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.9 cm

Table 7.86

VLBI BASELINE LENGTH EVOLUTION
NRAO 140 TO ONSALA60

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
81 11 18	631931755.9	3.1	5	91
81 11 19	631931756.6	1.6	30	81
82 12 15	631931761.7	2.9	6	61
82 12 16	631931751.8	2.0	24	47

Length:
Mean = 631931755.8 $\pm$ 1.8 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 3.1 cm

Table 7.87

VLBI BASELINE LENGTH EVOLUTION
NRAO 140 TO OVRO 130

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
79 8 3	332424415.9	1.3	144	162
79 11 25	332424420.2	1.7	71	76
80 4 11	332424419.9	0.5	208	214
81 11 18	332424418.6	0.5	78	82
81 11 19	332424418.9	0.8	109	137
82 12 15	332424421.3	1.1	50	62
82 12 16	332424418.6	0.6	52	77

Length:

Mean = 332424419.1 ± 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.0 cm

Slope = -.1 ± 0.4 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.0 cm

Table 7.88

VLBI BASELINE LENGTH EVOLUTION
NRAO 140 TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
81 11 18	84414808.3	0.3	97	103
81 11 19	84414809.1	0.5	124	138
82 12 15	84414808.4	0.9	49	70
82 12 16	84414808.4	0.5	62	81

Length:

Mean = 84414808.5 $\pm$ 0.2 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.3 cm

Table 7.89

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO OVRO 130

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
80 7 26	791413103.5	2.2	84	126
80 7 27	791413095.3	2.2	61	105
80 9 26	791413095.8	2.7	48	98
80 9 27	791413095.1	2.6	51	79
80 9 28	791413102.7	1.7	57	81
80 9 29	791413088.1	3.1	56	83
80 9 30	791413097.4	2.4	52	88
80 10 1	791413081.5	3.5	12	89
80 10 2	791413097.8	1.7	29	38
80 10 16	791413097.8	1.6	58	93
80 10 17	791413107.0	2.2	60	85
80 10 18	791413099.9	1.8	22	92
80 10 19	791413100.9	4.4	44	80
80 10 20	791413100.3	1.6	68	89
80 10 21	791413103.9	2.4	58	77
80 10 22	791413096.1	1.4	64	91
81 11 18	791413121.6	7.2	3	65
81 11 19	791413103.7	1.7	30	89
82 6 16	791413092.6	4.9	44	66
82 6 18	791413100.9	1.8	54	76
82 6 19	791413103.1	3.1	11	55
82 6 20	791413098.2	2.8	45	60
82 6 21	791413100.3	4.0	36	59
82 10 18	791413099.8	2.8	53	70
82 12 15	791413113.0	4.3	14	88
82 12 16	791413099.5	2.2	44	68
84 4 19	791413102.0	1.8	107	126
85 3 5	791413104.3	0.6	68	84
85 5 9	791413102.1	1.1	103	107
85 10 29	791413106.1	1.0	98	100

Length:

Mean = 791413101.6 $\pm$ 0.8 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 4.2 cm

Slope = 1.2 $\pm$ 0.3 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 3.3 cm

Table 7.90

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO RICHMOND

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 12 21	730715259.1	16.	3	16
84 1 24	730715257.7	4.1	12	45
84 4 18	730715252.6	2.9	10	39
84 6 12	730715261.1	4.6	7	31
84 10 25	730715248.1	3.3	26	43
84 12 19	730715250.8	4.4	6	38
85 2 27	730715254.6	1.7	34	48
85 4 23	730715256.9	1.9	26	50
85 6 17	730715253.7	2.6	41	51
85 8 16	730715254.6	4.1	23	41
85 9 10	730715261.1	3.1	20	46
85 10 25	730715253.4	1.5	37	49
85 12 9	730715256.9	2.5	23	28

Length:

Mean = 730715254.8 $\pm$ 0.8 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.8 cm

Slope = 0.5 $\pm$ 1.6 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.8 cm

Table 7.91

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO ROBLED32

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 5 5	220478331.6	1.4	62	110

Table 7.92

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
81 10 21	560074144.7	2.3	91	142
81 11 18	560074144.7	2.4	6	122
81 11 19	560074148.9	1.3	50	88
82 3 17	560074145.2	1.4	85	136
82 4 19	560074143.7	2.2	47	114
82 6 16	560074149.2	2.2	50	123
82 6 18	560074148.9	1.2	82	145
82 6 19	560074147.8	1.8	57	169
82 6 20	560074149.5	1.3	66	109
82 6 21	560074149.0	2.3	57	112
82 9 13	560074140.9	3.5	58	118
82 9 20	560074158.9	5.2	34	101
82 10 18	560074149.6	1.6	80	130
82 11 15	560074149.1	2.5	32	68
82 12 15	560074151.4	2.5	17	126
82 12 16	560074143.9	1.9	49	71
83 2 7	560074141.4	1.9	52	100
83 2 28	560074142.2	1.5	75	112
83 3 14	560074144.4	1.9	96	123
83 4 18	560074149.3	1.6	93	116
83 5 5	560074142.9	1.8	76	110
83 5 16	560074147.8	3.7	47	63
83 6 13	560074148.6	3.2	47	125
83 8 29	560074136.8	4.9	33	84
83 9 22	560074148.7	2.9	32	77
83 10 27	560074142.7	3.0	35	54
83 11 16	560074152.0	1.7	32	64
83 12 21	560074146.4	2.5	48	122
84 1 24	560074152.4	1.6	52	114
84 2 23	560074150.5	1.5	61	84
84 3 14	560074144.2	1.4	44	65
84 4 18	560074150.2	1.6	54	78
84 5 18	560074151.6	1.9	71	79
84 6 12	560074155.2	2.6	27	33
84 10 25	560074148.5	1.9	48	79
84 11 14	560074152.6	1.9	65	83
84 12 19	560074153.8	2.9	15	81
85 1 23	560074146.9	1.3	65	76
85 2 27	560074148.8	1.1	66	88
85 3 4	560074152.5	1.6	52	91
85 4 23	560074149.5	1.3	71	79
85 5 8	560074146.0	1.3	65	79
85 5 9	560074152.2	0.8	172	179
85 6 17	560074148.6	2.3	43	78
85 6 18	560074149.0	1.0	137	154
85 6 19	560074152.4	1.3	69	74
85 8 16	560074149.6	2.9	52	73

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 9 10	560074156.4	2.2	29	82
85 9 11	560074150.1	0.9	155	165
85 10 25	560074148.4	0.9	85	92
85 10 29	560074151.6	0.8	67	71
85 11 19	560074148.2	1.1	73	87
85 11 20	560074153.0	1.0	145	160
85 11 21	560074149.8	0.9	69	79
85 12 9	560074149.1	0.9	81	90
85 12 10	560074149.9	0.7	139	159

Length:

Mean = 560074149.2 ± 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.8 cm

Slope = 0.9 ± 0.3 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.5 cm

Table 7.93

VLBI BASELINE LENGTH EVOLUTION
ONSALA60 TO WETTZELL

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 11 16	91966100.4	0.5	106	118
83 12 21	91966098.5	0.8	26	43
84 1 24	91966099.9	0.7	79	99
84 2 23	91966100.4	0.5	53	70
84 3 14	91966100.2	0.8	49	54
84 4 18	91966099.9	0.6	50	56
84 5 18	91966099.9	0.6	62	65
84 6 12	91966102.0	1.2	27	55
84 10 25	91966101.6	0.9	53	70
84 11 14	91966101.7	0.8	68	73
84 12 19	91966098.3	0.9	6	68
85 1 23	91966099.3	0.5	78	90
85 1 24	91966101.1	0.4	168	183
85 2 27	91966100.4	0.3	78	90
85 3 4	91966101.1	0.4	74	92
85 3 5	91966099.7	0.2	154	171
85 4 23	91966100.7	0.4	82	88
85 4 24	91966099.6	0.4	77	149
85 5 8	91966100.0	0.5	60	73
85 5 9	91966100.9	0.3	160	160
85 6 17	91966099.5	0.5	63	90
85 6 18	91966100.0	0.4	137	149
85 6 19	91966099.9	0.7	89	96
85 8 16	91966101.0	1.2	40	62
85 9 10	91966103.2	1.2	41	74
85 9 11	91966099.7	0.4	143	145
85 10 25	91966100.0	0.3	76	77
85 10 29	91966100.8	0.3	141	144
85 11 19	91966101.0	0.5	63	73
85 11 20	91966100.3	0.4	136	147
85 11 21	91966101.1	0.3	85	105
85 12 9	91966100.4	0.5	74	76
85 12 10	91966100.8	0.3	131	141

Length:

Mean = 91966100.4 $\pm$ 0.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 0.6 cm

Slope = 0.3 $\pm$ 0.2 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 0.6 cm

Table 7.94

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO PLATTVIL(7258)

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
83	6	6	122081878.8	2.3	9	20
83	6	7	122081874.5	1.5	36	66
84	4	26	122081873.4	.7	60	82
85	5	7	122081875.6	.5	82	87

LENGTH:
Mean = 122081874.9 ± .7 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.2 cm

Table 7.95

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
81 6 16	392857934.0	0.8	126	161
81 11 18	392857934.4	0.6	79	91
81 11 19	392857936.4	0.6	118	141
82 6 16	392857933.7	2.5	68	99
82 6 18	392857939.4	1.0	57	71
82 6 19	392857932.7	1.8	19	76
82 6 20	392857935.4	1.3	75	86
82 6 21	392857935.8	2.0	58	86
82 10 18	392857936.5	1.3	87	99
82 10 25	392857934.2	1.5	79	102
82 12 15	392857936.4	1.1	75	89
82 12 16	392857935.3	0.7	93	113
83 6 6	392857937.5	0.9	57	99
85 5 7	392857934.2	0.6	63	69
85 5 9	392857936.6	0.7	104	129
85 10 29	392857939.4	0.5	74	78

Length:

Mean = 392857936.2 $\pm$ 0.5 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.0 cm

Slope = 0.6 $\pm$ 0.3 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.7 cm

Table 7.96

VLBI BASELINE LENGTH EVOLUTION
OVRO 130 TO WETTZELL

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 3 5	850020501.8	0.6	96	107
85 5 9	850020499.4	1.1	0	0
85 10 29	850020505.3	1.0	82	85

Length:
Mean = 850020502.1 $\pm$ 1.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.0 cm

Table 7.97

VLBI BASELINE LENGTH EVOLUTION
PENTICTN(7283) TO YELLOWKW(7285)

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
DATE			(cm)	FORMAL ERR	WEIGHTED	TOTAL
84	8	24	149529292.7	1.6	0	0
85	9	4	149529293.0	.9	0	0

LENGTH:
Mean = 149529292.9 ± .1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = .1 cm

Table 7.98

VLBI BASELINE LENGTH EVOLUTION
PLATTVIL(7258) TO WESTFORD

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
83	6	6	275286267.9	3.4	4	20
83	6	9	275286268.8	2.4	23	90
85	5	7	275286264.8	.8	47	73

LENGTH:

Mean = 275286265.3 ± 1.0 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.4 cm

Table 7.99

VLBI BASELINE LENGTH EVOLUTION
RICHMOND TO WESTFORD

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 12 21	204450177.4	7.0	13	28
84 1 4	204450175.8	1.2	63	75
84 1 14	204450175.3	1.4	93	119
84 1 24	204450176.6	1.9	41	63
84 2 3	204450177.7	2.3	38	61
84 2 13	204450176.3	1.5	67	101
84 2 18	204450179.9	1.7	44	80
84 3 4	204450174.0	1.1	56	80
84 3 19	204450177.5	1.4	56	78
84 3 25	204450175.5	1.3	59	79
84 4 3	204450179.4	1.9	63	73
84 4 8	204450177.4	1.8	44	61
84 4 13	204450174.3	1.7	38	71
84 4 18	204450176.1	1.5	47	73
84 4 23	204450176.4	1.8	50	74
84 4 28	204450174.7	1.7	53	78
84 5 28	204450178.5	1.3	57	79
84 6 2	204450177.2	1.4	67	81
84 6 7	204450172.9	3.0	32	55
84 6 12	204450176.0	1.8	57	73
84 6 17	204450173.8	1.1	62	86
84 6 22	204450176.9	1.8	54	76
84 6 27	204450176.7	1.4	66	83
84 7 2	204450174.4	1.4	65	85
84 7 7	204450176.4	1.4	57	84
84 7 12	204450176.0	1.4	71	94
84 7 17	204450178.9	1.4	66	82
84 7 22	204450175.3	1.8	52	74
84 7 27	204450172.8	2.5	59	81
84 8 1	204450173.0	1.6	55	82
84 8 6	204450177.8	1.3	57	73
84 8 11	204450177.5	1.5	65	83
84 8 16	204450173.9	1.4	71	82
84 8 21	204450175.8	1.5	60	80
84 8 26	204450177.9	1.4	62	78
84 8 31	204450174.6	1.5	71	84
84 9 5	204450174.8	1.3	60	82
84 9 10	204450174.4	1.2	62	81
84 9 15	204450175.7	3.0	11	12
84 9 25	204450175.8	1.5	55	76
84 9 30	204450174.7	1.4	44	52
84 10 5	204450175.0	1.3	49	77
84 10 10	204450176.3	1.4	56	85
84 10 15	204450172.7	1.4	71	88
84 10 20	204450173.5	1.2	57	82
84 10 25	204450174.1	1.3	63	81
84 10 30	204450173.2	1.2	59	80

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
84	11	9	204450174.4	1.2	58	74
84	11	19	204450173.9	0.9	72	85
84	11	24	204450172.3	0.9	62	80
84	11	29	204450174.8	1.0	70	88
84	12	4	204450176.5	1.3	66	85
84	12	9	204450175.2	1.1	68	86
84	12	14	204450173.9	1.3	72	84
84	12	19	204450174.8	1.9	53	77
84	12	23	204450174.9	1.4	53	83
85	1	3	204450174.8	1.0	45	71
85	1	8	204450175.7	1.0	46	76
85	1	13	204450174.9	1.9	33	62
85	1	18	204450177.7	1.2	49	86
85	1	28	204450176.3	0.6	85	91
85	2	2	204450176.0	1.0	73	90
85	2	7	204450174.0	0.9	71	88
85	2	12	204450175.8	1.0	73	87
85	2	17	204450176.8	0.7	63	82
85	2	22	204450174.9	1.0	77	92
85	2	27	204450174.6	0.6	78	87
85	3	24	204450176.2	0.8	85	88
85	3	29	204450176.2	0.9	66	88
85	4	3	204450175.0	0.7	75	80
85	4	8	204450176.5	0.8	77	87
85	4	13	204450176.4	0.8	76	90
85	4	18	204450179.1	0.9	67	86
85	4	23	204450175.3	0.7	72	85
85	4	28	204450175.4	1.0	61	76
85	5	13	204450177.5	1.2	47	68
85	5	18	204450174.7	1.0	66	80
85	5	23	204450176.2	0.8	67	82
85	5	28	204450178.2	0.9	76	85
85	6	2	204450178.4	1.0	71	84
85	6	7	204450177.6	0.8	76	83
85	6	12	204450175.0	1.6	29	68
85	6	17	204450174.5	1.3	43	84
85	6	22	204450176.6	1.2	68	82
85	6	27	204450178.4	1.2	51	72
85	7	2	204450176.1	0.7	66	80
85	7	7	204450176.2	1.1	47	72
85	7	12	204450175.5	1.1	60	75
85	7	17	204450175.1	0.8	59	69
85	7	22	204450175.0	1.5	36	62
85	7	27	204450175.4	1.0	45	71
85	8	1	204450175.6	1.0	41	64
85	8	6	204450174.8	1.1	55	66
85	8	11	204450175.6	1.2	26	76
85	8	16	204450175.2	1.0	71	76
85	8	21	204450173.4	1.4	42	62
85	8	26	204450174.8	1.0	67	81
85	8	31	204450177.5	0.9	65	79
85	9	5	204450176.5	1.2	62	72

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 9 10	204450175.3	1.1	70	79
85 9 15	204450175.2	1.0	62	77
85 9 20	204450178.5	1.0	63	74
85 9 25	204450174.2	1.0	73	81
85 9 30	204450175.3	1.1	73	81
85 10 5	204450174.7	1.1	58	77
85 10 10	204450175.3	1.2	67	82
85 10 15	204450177.0	1.0	68	82
85 10 20	204450177.2	1.1	55	65
85 10 25	204450176.6	0.7	68	79
85 11 9	204450175.2	0.8	74	81
85 11 14	204450176.3	1.0	61	70
85 11 29	204450173.2	1.2	40	40
85 12 4	204450175.6	1.2	36	40
85 12 9	204450177.9	1.2	37	43
85 12 14	204450176.7	0.9	36	38
85 12 19	204450175.4	0.6	38	39

Length:

Mean = 204450175.8 $\pm$ 0.1 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 1.4 cm

Slope = 0.3 $\pm$ 0.3 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 1.4 cm

Table 7.100

VLBI BASELINE LENGTH EVOLUTION
RICHMOND TO WETTZELL

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 12 21	758839855.3	17.	0	0
84 1 24	758839852.3	4.0	13	39
84 2 3	758839856.3	6.1	5	36
84 2 18	758839862.7	3.3	3	7
84 3 4	758839852.1	2.7	26	44
84 3 19	758839851.5	2.6	22	41
84 3 25	758839852.1	3.0	24	47
84 4 3	758839853.9	3.7	23	44
84 4 8	758839848.0	4.3	17	34
84 4 13	758839854.9	3.3	16	45
84 4 18	758839847.4	2.8	18	34
84 4 23	758839848.5	4.3	22	49
84 4 28	758839845.9	3.3	31	50
84 5 28	758839852.2	2.8	32	46
84 6 2	758839856.9	3.0	40	52
84 6 7	758839837.1	6.9	25	40
84 6 12	758839851.9	4.2	27	40
84 6 17	758839854.3	2.6	37	56
84 6 22	758839856.7	4.3	30	48
84 6 27	758839857.2	3.5	34	52
84 7 2	758839847.0	3.2	30	53
84 7 7	758839854.4	4.0	33	52
84 7 12	758839848.8	3.8	30	53
84 7 17	758839857.2	3.8	40	53
84 8 1	758839841.9	3.8	33	51
84 8 6	758839852.3	4.0	31	47
84 8 11	758839850.8	3.9	33	47
84 8 16	758839844.2	3.3	38	49
84 8 21	758839857.9	3.5	31	41
84 8 26	758839853.6	3.5	38	48
84 8 31	758839849.3	3.6	44	51
84 9 5	758839851.5	3.4	20	52
84 9 10	758839851.4	2.9	36	52
84 9 15	758839852.0	5.1	6	8
84 9 25	758839854.2	3.8	31	51
84 9 30	758839854.6	3.3	40	53
84 10 5	758839852.4	3.7	28	53
84 10 10	758839846.6	3.5	21	57
84 10 15	758839836.9	3.4	42	58
84 10 20	758839849.1	3.3	35	50
84 10 25	758839847.8	3.3	34	41
84 10 30	758839853.5	3.0	39	53
84 11 9	758839849.1	2.7	36	47
84 11 19	758839849.6	2.4	41	49
84 11 24	758839846.6	2.8	40	54
84 11 29	758839854.7	2.7	36	52
84 12 4	758839856.2	2.7	42	50

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
84 12 9	758839849.4	2.9	43	52
84 12 14	758839848.5	3.4	41	51
84 12 19	758839848.4	3.9	17	38
84 12 23	758839855.9	2.6	45	55
85 1 3	758839851.2	2.0	41	48
85 1 8	758839850.0	2.1	38	46
85 1 13	758839853.1	3.3	28	39
85 1 18	758839860.1	2.8	43	52
85 1 28	758839856.3	1.7	52	55
85 2 2	758839857.9	2.2	50	54
85 2 7	758839846.2	2.1	48	55
85 2 12	758839849.9	1.7	51	57
85 2 17	758839849.4	1.8	47	56
85 2 22	758839845.4	2.3	56	58
85 2 27	758839848.8	1.6	40	46
85 3 24	758839851.0	1.8	50	53
85 3 29	758839847.6	2.1	46	53
85 4 3	758839849.9	1.9	40	50
85 4 8	758839853.7	2.3	46	54
85 4 13	758839854.2	2.4	51	56
85 4 18	758839855.3	2.3	46	55
85 4 23	758839852.1	1.9	38	46
85 4 28	758839851.0	2.2	43	52
85 5 13	758839854.0	2.6	34	44
85 5 18	758839847.8	2.9	41	52
85 5 23	758839851.9	2.7	41	51
85 5 28	758839853.0	2.4	49	57
85 6 2	758839854.1	2.7	52	54
85 6 7	758839854.5	2.1	46	52
85 6 12	758839840.9	3.4	39	46
85 6 17	758839846.8	2.6	40	48
85 6 22	758839860.5	3.1	47	54
85 6 27	758839862.1	3.3	38	49
85 7 2	758839853.6	1.9	42	48
85 7 7	758839854.9	2.4	37	46
85 7 12	758839857.9	2.7	10	37
85 7 17	758839852.2	2.0	31	39
85 7 22	758839844.1	4.8	17	32
85 7 27	758839856.3	2.5	31	39
85 8 1	758839855.5	2.3	26	34
85 8 6	758839857.0	2.7	27	35
85 8 11	758839852.9	3.1	37	47
85 8 16	758839859.2	2.6	39	45
85 8 21	758839853.6	2.9	33	44
85 8 26	758839857.7	2.2	40	46
85 8 31	758839865.2	3.3	11	11
85 9 5	758839850.1	3.1	45	47
85 9 10	758839855.0	2.5	44	47
85 9 15	758839854.8	2.4	36	46
85 9 20	758839857.7	2.4	37	44
85 9 25	758839845.7	2.3	43	46
85 9 30	758839850.2	2.4	41	48

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 10 5	758839849.5	2.3	38	45
85 10 10	758839857.0	2.6	37	45
85 10 15	758839855.0	2.0	42	48
85 10 20	758839855.0	2.5	35	42
85 10 25	758839851.1	1.5	44	46
85 11 9	758839849.9	2.0	43	47
85 11 14	758839850.0	2.1	37	44
85 11 29	758839853.5	2.4	19	25
85 12 4	758839854.4	2.4	25	27
85 12 9	758839853.9	2.5	26	29
85 12 14	758839857.8	2.0	25	27
85 12 19	758839850.6	1.4	24	27

Length:

Mean = 758839852.3 $\pm$ 0.4 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 4.1 cm

Slope = 1.3 $\pm$ 0.8 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 4.0 cm

Table 7.101

VLBI BASELINE LENGTH EVOLUTION
WESTFORD TO WETTZELL

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
83 11 16	599832535.0	1.7	39	65
83 12 21	599832529.7	2.5	21	67
84 1 9	599832533.8	1.8	93	143
84 1 24	599832536.7	1.4	71	110
84 1 29	599832536.0	1.7	67	133
84 2 3	599832535.5	2.9	47	144
84 2 8	599832533.9	2.2	50	63
84 2 18	599832539.3	1.4	26	28
84 2 23	599832536.7	1.5	63	81
84 2 28	599832535.8	2.2	64	91
84 3 4	599832535.4	2.0	72	85
84 3 9	599832536.9	2.2	76	85
84 3 14	599832529.6	1.4	59	70
84 3 19	599832534.5	1.4	70	83
84 3 25	599832535.8	1.5	80	88
84 4 3	599832535.2	2.1	64	74
84 4 8	599832533.3	2.7	28	52
84 4 13	599832536.2	1.7	78	89
84 4 18	599832535.1	1.6	50	60
84 4 23	599832533.1	2.7	74	93
84 4 28	599832533.3	2.1	78	93
84 5 3	599832534.0	2.6	75	93
84 5 8	599832537.1	2.5	86	93
84 5 13	599832534.4	2.7	82	97
84 5 18	599832536.8	1.8	75	78
84 5 23	599832541.0	2.6	75	91
84 5 28	599832537.7	1.6	81	93
84 6 2	599832534.3	2.2	86	91
84 6 7	599832536.2	2.8	72	82
84 6 12	599832537.1	2.3	66	74
84 6 17	599832539.3	1.6	93	95
84 6 22	599832532.2	2.5	77	89
84 6 27	599832533.6	2.2	87	94
84 7 2	599832532.8	2.1	84	91
84 7 7	599832537.3	3.2	75	90
84 7 12	599832539.0	2.5	84	93
84 7 17	599832539.7	2.6	91	96
84 8 1	599832528.4	2.7	80	93
84 8 6	599832543.1	2.9	59	77
84 8 11	599832537.4	2.4	85	87
84 8 16	599832532.9	2.3	88	96
84 8 21	599832543.5	2.5	65	68
84 8 26	599832537.2	2.6	77	91
84 8 31	599832535.8	2.6	81	89
84 9 5	599832534.7	2.4	86	99
84 9 10	599832540.0	2.3	85	96
84 9 15	599832534.6	2.7	90	96

Date			Length (cm) Value	Formal Error	# Observations Weighted	Total
84	9	20	599832533.2	3.0	65	73
84	9	25	599832536.5	2.6	78	91
84	9	30	599832536.7	2.6	57	62
84	10	5	599832534.2	2.3	82	97
84	10	10	599832534.4	2.3	71	96
84	10	15	599832531.6	2.3	90	101
84	10	20	599832535.8	2.3	90	99
84	10	25	599832537.7	1.9	71	79
84	10	30	599832538.3	1.9	81	93
84	11	4	599832543.6	2.2	92	100
84	11	9	599832537.9	2.0	88	95
84	11	14	599832541.4	1.9	69	78
84	11	19	599832532.3	1.7	90	95
84	11	24	599832538.2	2.1	79	88
84	11	29	599832538.4	1.8	91	100
84	12	4	599832536.8	1.7	90	95
84	12	9	599832534.8	2.2	91	99
84	12	14	599832534.3	2.2	72	84
84	12	19	599832540.5	2.5	62	74
84	12	23	599832540.6	1.6	95	101
84	12	29	599832537.3	2.4	87	96
85	1	3	599832536.6	1.2	85	92
85	1	8	599832533.7	1.5	89	98
85	1	13	599832533.5	1.9	67	73
85	1	18	599832536.6	1.5	86	97
85	1	23	599832533.4	1.3	70	78
85	1	28	599832537.4	1.1	92	108
85	2	2	599832539.0	1.4	81	106
85	2	7	599832534.7	1.2	93	103
85	2	12	599832533.5	1.5	87	103
85	2	17	599832534.8	1.3	69	91
85	2	22	599832535.9	1.5	81	103
85	2	27	599832533.0	1.0	74	89
85	3	4	599832538.9	1.6	58	89
85	3	14	599832536.5	1.1	93	103
85	3	19	599832537.7	1.5	90	103
85	3	24	599832535.4	1.0	101	107
85	3	29	599832534.1	1.4	94	101
85	4	3	599832535.0	1.3	98	105
85	4	8	599832535.3	1.4	93	100
85	4	13	599832537.9	1.5	92	105
85	4	18	599832540.1	1.6	94	105
85	4	23	599832534.5	1.4	72	77
85	4	28	599832535.7	1.5	79	97
85	5	3	599832535.8	1.6	89	97
85	5	8	599832533.7	1.3	66	74
85	5	9	599832538.2	0.8	157	165
85	5	13	599832537.4	2.0	71	86
85	5	18	599832533.9	1.7	92	101
85	5	23	599832537.5	1.8	97	104
85	5	28	599832538.1	1.6	94	106
85	6	2	599832536.5	1.8	92	100

Date	Length (cm) Value	Formal Error	# Observations Weighted	Total
85 6 7	599832539.1	1.4	101	106
85 6 12	599832541.7	2.5	32	92
85 6 17	599832532.1	2.3	36	83
85 6 18	599832536.3	1.1	129	140
85 6 19	599832535.6	1.3	69	73
85 6 22	599832541.1	1.9	89	104
85 6 27	599832537.2	1.7	84	97
85 7 2	599832536.8	1.4	84	94
85 7 7	599832537.9	1.7	58	82
85 7 12	599832539.1	2.1	73	86
85 7 17	599832537.0	1.5	76	86
85 7 22	599832528.3	1.9	58	80
85 7 27	599832543.0	2.0	70	89
85 8 1	599832536.4	1.7	70	92
85 8 6	599832542.8	2.2	78	91
85 8 11	599832534.6	2.7	38	93
85 8 16	599832541.8	1.7	73	77
85 8 21	599832538.4	1.8	78	86
85 8 26	599832530.5	1.7	82	95
85 8 31	599832546.2	2.2	30	31
85 9 5	599832542.4	2.4	80	93
85 9 10	599832541.0	1.7	80	85
85 9 11	599832536.1	0.9	143	149
85 9 15	599832539.9	1.7	86	96
85 9 20	599832542.9	1.8	90	99
85 9 25	599832540.2	1.8	84	92
85 9 30	599832538.4	1.5	88	98
85 10 5	599832538.5	1.4	86	96
85 10 10	599832538.0	1.6	79	94
85 10 15	599832539.0	1.7	82	98
85 10 20	599832541.0	1.3	97	101
85 10 25	599832535.6	0.9	78	85
85 10 29	599832539.7	0.8	74	76
85 10 30	599832536.6	1.7	99	100
85 11 4	599832539.0	2.3	84	99
85 11 9	599832534.1	1.4	85	99
85 11 14	599832539.5	1.4	84	99
85 11 19	599832535.5	1.2	74	81
85 11 20	599832539.8	1.0	135	149
85 11 21	599832539.8	0.9	80	86
85 11 24	599832539.2	1.1	92	100
85 11 29	599832536.0	1.5	61	95
85 12 4	599832538.5	1.4	88	96
85 12 9	599832535.9	1.0	82	85
85 12 10	599832537.0	0.8	137	151
85 12 14	599832537.5	1.1	89	96
85 12 19	599832536.3	1.1	85	98
85 12 23	599832538.9	1.7	40	42
85 12 29	599832536.4	1.1	73	92

Length:

Mean = 599832536.8 ± 0.2 cm (scaled 1 sigma)
Weighted RMS scatter about the mean = 2.6 cm

Slope = 1.5 ± 0.4 cm/yr (scaled 1 sigma)
Weighted RMS scatter about the line = 2.5 cm

Table 8

VLBI Earth Orientation

Date	Values * X-pole	Y-pole	UT1-TAI	Formal Errors X	Y	UT1	Correlations X-Y	X-U	Y-U
79 8 4	-361	3965	-1798500	15	59	11	-.12	.83	.31
79 11 26	1455	3158	-1826214	14	14	8	-.48	.87	-.65
80 4 12	59	1901	-1861219	7	22	5	.03	.79	.31
80 7 27	-261	3025	-1883585	8	8	4	-.01	.78	-.44
80 7 28	-270	3045	-1883743	8	9	4	-.01	.78	-.44
80 9 27	-153	3390	-1896066	10	9	4	.18	.75	-.31
80 9 28	-167	3388	-1896357	9	8	4	.11	.80	-.33
80 9 29	-131	3401	-1896636	7	7	3	.03	.78	-.34
80 9 30	-87	3363	-1896898	10	11	5	.02	.81	-.25
80 10 1	-156	3398	-1897092	8	10	4	-.09	.78	-.37
80 10 2	-207	3334	-1897268	13	25	8	-.34	.90	-.31
80 10 3	-134	3433	-1897517	9	10	4	-.29	.79	-.54
80 10 17	-40	3510	-1900810	Reference Day					
80 10 18	-34	3528	-1901043	8	8	3	.16	.79	-.24
80 10 19	-25	3555	-1901303	7	8	4	.09	.80	-.28
80 10 20	-45	3551	-1901564	8	7	3	.21	.75	-.26
80 10 21	-23	3542	-1901861	7	7	3	.10	.78	-.29
80 10 22	-49	3558	-1902162	8	9	4	.06	.79	-.25
80 10 23	-4	3537	-1902507	6	6	3	.16	.76	-.24
80 11 4	25		-1905687	16		11		.91	
80 12 2	462	3648	-1912605	11	9	5	.02	.79	-.36
80 12 20	678	3594	-1916981	9	8	4	.15	.74	-.31
81 1 8	847		-1921225	16		13		.93	
81 1 23	894	3309	-1925041	12	8	5	.14	.76	-.30
81 2 13	1040		-1929702	15		12		.93	
81 2 28	999	3017	-1933051	18	14	7	.09	.75	-.40
81 3 17	978		-1937925	19		15		.93	
81 6 17	847	2157	-1960729	9	23	7	-.06	.82	.19
81 6 25	786		-1961988	41		35		.96	
81 7 2	784		-1963130	31		27		.93	
81 7 9	792		-1964073	31		26		.96	
81 7 16	920		-1964805	90		53		.80	
81 7 23	703		-1965595	18		14		.95	
81 7 30	666		-1966749	25		21		.95	
81 8 6	522		-1967920	35		31		.95	
81 8 27	161		-1971126	27		22		.96	
81 9 3	-46		-1972092	35		29		.96	
81 9 10	-98		-1973120	26		20		.94	
81 9 17	-144		-1974591	28		22		.95	
81 9 24	-273		-1976123	32		25		.95	
81 10 1	-504		-1977785	28		19		.93	
81 10 16	-638		-1981270	27		21		.95	
81 10 22	-736	2302	-1982641	17	13	7	.09	.77	-.36
81 10 29	-745		-1984425	22		18		.95	
81 11 5	-774		-1985891	27		21		.93	
81 11 11	-940		-1987308	16		13		.93	
81 11 19	-1000	2719	-1989123	7	17	5	.20	.81	.36
81 11 20	-976	2776	-1989381	6	8	3	-.10	.80	-.38

Date	Values * X-pole	Y-pole	UT1-TAI	Formal Errors X	Y	UT1	Correlations X-Y	X-U	Y-U
81 11 25	-963		-1990510	28		23		.96	
81 12 3	-980		-1991989	31		25		.95	
81 12 17	-952		-1995273	21		17		.94	
81 12 23	-884		-1996713	20		16		.94	
81 12 30	-821		-1997957	15		12		.93	
82 1 7	-727		-1999851	17		13		.94	
82 1 14	-598		-2001361	22		16		.94	
82 1 21	-491		-2002839	17		14		.95	
82 1 28	-424		-2003935	26		21		.96	
82 2 2	-341		-2005015	28		24		.97	
82 2 11	-37		-2006922	17		13		.94	
82 2 18	43		-2008467	21		18		.96	
82 2 25	253		-2009931	29		25		.97	
82 3 4	481		-2011842	28		24		.97	
82 3 11	750		-2013530	34		29		.96	
82 3 18	858	4298	-2015050	11	10	5	.09	.77	-.33
82 3 25	1003		-2016600	25		20		.96	
82 3 30	1106		-2018014	34		29		.98	
82 4 8	1297		-2020396	33		27		.96	
82 4 14	1296		-2021876	45		38		.97	
82 4 20	1548	3994	-2023297	15	13	7	-.05	.80	-.44
82 4 27	1618		-2025286	46		40		.97	
82 5 4	1847		-2027212	22		18		.95	
82 5 11	1954		-2028942	25		20		.95	
82 5 18	2038		-2030209	23		19		.95	
82 6 3	2222		-2033957	27		22		.95	
82 6 8	2433		-2035067	27		23		.95	
82 6 17	2419	2698	-2036645	13	13	5	.13	.78	-.28
82 6 19	2414	2658	-2037083	10	8	4	-.13	.86	-.43
82 6 20	2367	2652	-2037270	14	11	6	.05	.71	-.49
82 6 21	2393	2595	-2037472	8	8	3	.05	.77	-.31
82 6 22	2392	2588	-2037633	10	11	5	-.06	.81	-.34
82 6 29	2406		-2038871	26		21		.96	
82 7 7	2301		-2039877	32		28		.97	
82 7 13	2255		-2040673	41		36		.97	
82 7 20	2288		-2041876	34		27		.96	
82 7 27	2203		-2042963	32		25		.95	
82 8 5	1983		-2043841	37		31		.97	
82 8 10	2006		-2044561	36		31		.98	
82 8 17	1749		-2045551	92		79		.92	
82 8 24	1682		-2047084	51		44		.95	
82 8 31	1438		-2048226	33		29		.97	
82 9 8	1212		-2049992	38		33		.97	
82 9 14	1160	866	-2051403	17	17	8	-.06	.75	-.53
82 9 21	936	820	-2053157	49	31	16	.05	.72	-.35
82 9 28	514		-2054466	27		21		.95	
82 10 5	308		-2056222	39		33		.97	
82 10 14	-103		-2058228	27		22		.96	
82 10 19	-231	711	-2059525	8	9	4	-.03	.80	-.31
82 10 26	-504	799	-2060834	17	52	14	.19	.91	.34
82 11 2	-726		-2062486	21		17		.95	
82 11 9	-944		-2064070	27		23		.97	

C-3

Date	Values * X-pole	Y-pole	UT1-TAI	Formal Errors X	Y	UT1	Correlations X-Y	X-U	Y-U
82 11 16	-1091	1093	-2065982	14	15	8	-.03	.85	-.27
82 11 23	-1317		-2067495	19		15		.94	
82 11 30	-1513		-2069355	25		21		.97	
82 12 7	-1725		-2071062	22		17		.94	
82 12 16	-1795	1905	-2073398	8	12	5	-.15	.81	-.22
82 12 17	-1810	1956	-2073606	7	10	4	-.21	.82	-.43
82 12 21	-1903		-2074432	19		16		.95	
82 12 28	-1899		-2076674	26		21		.96	
83 1 4	-2008		-2078136	16		13		.94	
83 1 11	-2025		-2080028	21		17		.95	
83 1 18	-1978		-2081685	17		14		.91	
83 1 25	-1915		-2083985	18		15		.95	
83 2 1	-1868		-2086112	19		16		.95	
83 2 8	-1781	3860	-2088358	9	11	5	-.09	.81	-.39
83 2 15	-1659		-2090176	19		15		.95	
83 3 1	-1508	4532	-2094390	10	10	5	.05	.80	-.34
83 3 8	-1428		-2096468	14		11		.93	
83 3 15	-1195	4924	-2098391	11	11	5	.05	.77	-.35
83 3 22	-1008		-2100462	48		38		.95	
83 3 29	-681		-2102666	25		21		.96	
83 4 5	-400		-2104785	24		20		.96	
83 4 12	-69		-2106724	22		18		.96	
83 4 19		5488	-2108664		18	6			-.89
83 4 26	468		-2110680	16		13		.95	
83 5 3	773		-2112356	24		20		.96	
83 5 6	864	5489	-2112967	8	8	4	-.03	.73	-.54
83 5 10	1091		-2114043	19		16		.96	
83 5 17	1251	5438	-2115711	14	18	7	-.13	.70	-.25
83 5 24	1671		-2117591	30		26		.97	
83 6 1	1973		-2119253	37		32		.97	
83 6 7	2139	4906	-2120546	8	14	6	-.14	.71	.09
83 6 8	2126		-2120743	17		14		.94	
83 6 10	2174	4839	-2121205	13	30	11	-.02	.78	.28
83 6 14	2298	4731	-2121994	13	13	7	.01	.78	-.32
83 6 21	2618		-2123691	21		17		.95	
83 6 29	2720	4299	-2124810	22	47	18	.15	.91	.25
83 7 6	2978		-2126001	34		27		.95	
83 7 12	3044		-2126658	23		17		.93	
83 7 26	3217	3267	-2128534	14	35	11	-.03	.85	.23
83 8 2	3323		-2129663	36		30		.94	
83 8 9	3348	2536	-2130707	13	30	11	-.03	.85	.23
83 8 16	3380		-2132176	27		23		.95	
83 8 23	3260		-2133081	29		24		.95	
83 8 30	3135	1829	-2134358	22	28	14	-.19	.81	-.55
83 8 31		1774	-2134559		17	6			-.90
83 9 3	3149		-2135119	24		19		.94	
83 9 8	2993		-2135994	23		18		.94	
83 9 13	2787		-2136981	38		31		.96	
83 9 18	2710		-2137752	22		17		.93	
83 9 23	2536	835	-2138631	15	21	9	-.23	.82	-.56
83 9 24		787	-2138871		20	8			-.89
83 9 28	2376	607	-2139641	12	29	9	-.14	.80	.16

Date	Values * X-pole	Y-pole	UT1-TAI	Formal Errors X	Y	UT1	Correlations X-Y	X-U	Y-U
83 10 3	2231		-2140621	25		19		.93	
83 10 8	2068		-2141940	25		20		.94	
83 10 13	1826	289	-2142913	11	28	9	-.12	.80	.18
83 10 18	1637		-2143833	38		23		.79	
83 10 23	1446		-2144982	26		19		.92	
83 10 28	1144	163	-2145941	10	16	6	-.13	.83	-.31
83 10 29		165	-2146159		16	6			-.90
83 11 2	1031		-2147305	22		17		.92	
83 11 7	738		-2148722	19		14		.93	
83 11 12	491		-2149754	22		17		.92	
83 11 17	304	109	-2150984	9	11	4	-.11	.72	-.47
83 11 18		121	-2151247		13	5			-.87
83 11 22	63	113	-2152192	13	29	9	.07	.80	.27
83 11 27	-102		-2153261	17		13		.93	
83 12 2	-354	230	-2154514	10	28	7	.15	.84	.37
83 12 7	-511		-2155488	23		19		.92	
83 12 12	-685		-2156342	15		11		.92	
83 12 17	-818		-2157434	14		11		.91	
83 12 22	-983	613	-2158341	14	13	6	.05	.73	-.38
83 12 23		736	-2158480		15	6			-.87
83 12 27	-1134		-2159421	15		12		.93	
84 1 1	-1233		-2160558	16		12		.90	
84 1 5	-1382	963	-2161148	10	24	7	.09	.83	.25
84 1 10	-1497	1105	-2162022	10	10	5	.11	.72	-.32
84 1 15	-1582	1288	-2162902	18	38	14	.64	.94	.60
84 1 25		1560	-2164326		13	7			.77
84 1 25	-1833	1578	-2164531	10	9	4	.18	.70	-.37
84 1 30	-1946	1730	-2165189	11	11	4	.12	.72	-.33
84 2 4	-2058	1888	-2165733	11	13	6	.07	.70	-.34
84 2 9	-2096	2047	-2166571	12	12	6	.03	.79	-.33
84 2 14	-2160	2451	-2167348	22	53	17	.73	.96	.73
84 2 19	-2257	2410	-2168207	9	11	5	.07	.79	-.20
84 2 24	-2292	2551	-2169282	13	10	5	.12	.74	-.38
84 2 25		2586	-2169404		9	3			-.83
84 2 25	-2385	2624	-2169398	32	11	5	-.55	.05	.50
84 2 29	-2342	2809	-2169854	17	14	7	.12	.77	-.37
84 3 5	-2396	2992	-2170742	10	11	5	.08	.74	-.37
84 3 10	-2360	3210	-2171736	13	13	7	-.04	.77	-.41
84 3 15	-2299	3413	-2172573	9	8	4	.03	.78	-.39
84 3 20	-2244	3626	-2173868	10	9	5	.09	.75	-.37
84 3 26	-2182	3815	-2174863	9	9	4	.06	.75	-.38
84 3 31		3914	-2175716		56	13			-.90
84 4 4	-1997	4181	-2176775	12	11	6	.10	.75	-.40
84 4 9	-1847	4334	-2177602	13	14	7	.01	.79	-.34
84 4 14	-1749	4552	-2178634	11	10	5	.07	.75	-.40
84 4 19	-1604	4727	-2179848	10	9	5	.11	.73	-.38
84 4 20	-1605	4734	-2180017	8	7	3	.02	.80	-.34
84 4 24	-1474	4831	-2180700	13	13	6	.12	.66	-.48
84 4 27	-1351	4924	-2181298	7	20	4	-.10	.61	.36
84 4 29	-1319	4990	-2181704	12	11	5	.20	.68	-.40
84 5 4	-1073	5150	-2182679	41	22	9	.66	.61	-.11
84 5 9	-895	5233	-2183419	17	14	7	.14	.75	-.40

Date	Values * X-pole	Y-pole	UT1-TAI	Formal Errors X	Y	UT1	Correlations X-Y	X-U	Y-U
84 5 14	-766	5335	-2184541	16	14	7	.17	.75	-.38
84 5 19	-550	5409	-2185286	12	10	5	.06	.77	-.41
84 5 20		5410	-2185396		12	5			-.89
84 5 24	-348	5492	-2185942	16	13	6	.18	.77	-.34
84 5 29	-149	5531	-2186725	9	8	4	.18	.71	-.38
84 6 3	87	5553	-2187269	11	11	6	.13	.69	-.46
84 6 8	290	5553	-2187958	17	13	7	.08	.72	-.50
84 6 13	524	5522	-2188652	11	10	5	.10	.72	-.44
84 6 18	709	5505	-2189004	8	8	4	.09	.72	-.43
84 6 23	896	5484	-2189572	11	11	6	.06	.71	-.47
84 6 28	1099	5432	-2190102	10	10	5	.08	.72	-.47
84 7 3	1335	5366	-2190435	10	10	5	.07	.72	-.47
84 7 8	1527	5302	-2190963	8	8	5	.04	.49	.48
84 7 8	1555	5283	-2190975	11	12	6	.03	.70	-.52
84 7 13	1747	5149	-2191174	10	10	5	.02	.73	-.48
84 7 18	1944	5042	-2191394	11	11	6	.00	.75	-.48
84 7 22	2063	4981	-2191731	9	9	5	-.07	.39	.53
84 7 23	2032	4879	-2191737	30	50	26	.45	.95	.35
84 7 23	2097	4957	-2191806	8	8	4	-.01	.49	.41
84 7 28	2346	4779	-2192090	51	82	41	.72	.97	.66
84 7 29	2348	4767	-2192159	12	10	8	.17	.42	.68
84 7 30	2386	4742	-2192256	8	8	5	.07	.39	.51
84 8 2	2486	4636	-2192716	10	11	5	.02	.73	-.49
84 8 5	2594	4551	-2193115	8	7	4	.02	.33	.42
84 8 6	2625	4525	-2193189	9	8	5	.11	.39	.53
84 8 7	2656	4471	-2193257	10	10	5	.02	.75	-.45
84 8 12	2787	4299	-2193542	10	10	5	.05	.74	-.44
84 8 17	2926	4126	-2194209	11	11	5	.13	.68	-.48
84 8 22	3023	3947	-2194818	11	11	5	.09	.72	-.45
84 8 25	2989	3831	-2195036	12	8	5	-.34	.89	-.26
84 8 27	3051	3766	-2195343	11	11	5	.10	.70	-.45
84 8 29	3069	3693	-2195756	9	8	4	-.20	.85	-.18
84 8 31	3064	3604	-2196149	6	6	2	.14	.74	-.20
84 9 1	3098	3570	-2196347	11	11	6	.02	.73	-.49
84 9 3	3076	3502	-2196622	6	6	2	.15	.73	-.21
84 9 6	3118	3384	-2196943	10	10	5	.07	.70	-.49
84 9 11	3173	3196	-2197543	9	10	5	.05	.71	-.47
84 9 16	3193	2979	-2198323	12	12	6	.03	.73	-.50
84 9 21	3218	2818	-2198909	15	13	7	-.09	.79	-.52
84 9 26	3227	2597	-2199884	10	10	5	.06	.72	-.48
84 10 1	3221	2405	-2200860	10	10	5	.17	.73	-.39
84 10 6	3152	2235	-2201574	10	10	5	.00	.74	-.49
84 10 11	3085	2022	-2202528	11	10	5	.05	.72	-.49
84 10 16	2958	1839	-2203309	10	10	6	.04	.74	-.45
84 10 21	2900	1706	-2204065	10	10	5	.08	.70	-.48
84 10 26	2837	1529	-2205305	10	9	5	.12	.74	-.41
84 10 27	2768		-2205502	15		9		.87	
84 10 31	2694	1391	-2206071	9	9	5	.06	.73	-.46
84 11 5	2585	1229	-2206932	13	11	6	.06	.76	-.44
84 11 10	2476	1079	-2207854	10	9	5	.09	.74	-.42
84 11 15	2339	948	-2208443	11	9	5	.03	.79	-.38
84 11 16		913	-2208584		14	5			-.90

Date	Values * X-pole	Y-pole	UT1-TAI	Formal Errors X	Y	UT1	Correlations X-Y	X-U	Y-U
84 11 20	2224	846	-2209446	8	9	4	.09	.73	-.40
84 11 25	2062	749	-2210423	9	9	5	.06	.73	-.45
84 11 30	1868	630	-2211112	9	9	4	.08	.74	-.40
84 12 5	1697	503	-2212011	10	10	5	.11	.72	-.42
84 12 10	1505	409	-2212728	9	10	5	.03	.73	-.46
84 12 15	1270	360	-2213425	9	10	5	.03	.73	-.46
84 12 20	1013	279	-2214352	12	12	6	-.03	.78	-.46
84 12 24	848	227	-2214683	9	9	5	.04	.79	-.32
84 12 30	553	175	-2215593	14	13	7	.05	.76	-.44
85 1 4	427	191	-2216491	7	7	4	.11	.75	-.38
85 1 9	191	223	-2217164	8	8	4	.09	.73	-.40
85 1 14	-18	257	-2218211	16	13	7	.21	.59	-.56
85 1 19	-129	322	-2219040	9	9	4	.11	.72	-.42
85 1 24	-311	394	-2219664	8	8	4	.02	.79	-.38
85 1 25	-310	417	-2219826	31	15	5	.79	.71	.21
85 1 29	-499	481	-2220454	7	7	3	.08	.75	-.37
85 2 3	-622	545	-2220987	8	8	4	.16	.71	-.37
85 2 8	-729	625	-2221595	7	7	4	.10	.76	-.35
85 2 13	-864	756	-2222477	8	8	4	.16	.73	-.37
85 2 18	-1020	863	-2223069	7	8	4	.07	.74	-.40
85 2 23	-1196	958	-2223959	8	8	4	.14	.71	-.41
85 2 28	-1365	1072	-2224790	7	7	3	.15	.74	-.33
85 3 5	-1504	1188	-2225413	11	9	4	.22	.76	-.30
85 3 6	-1532	1251	-2225580	5	5	2	.14	.77	-.26
85 3 15	-1767	1532	-2227564	8	7	3	.13	.72	-.37
85 3 20	-1868	1739	-2228491	9	8	4	.09	.77	-.36
85 3 25	-1893	1942	-2229566	7	7	3	.12	.74	-.36
85 3 30	-1913	2161	-2230377	8	8	4	.08	.74	-.39
85 4 4	-1936	2337	-2231309	7	7	3	.09	.73	-.38
85 4 9	-1920	2531	-2232440	7	7	3	.08	.75	-.36
85 4 14	-1902	2737	-2233163	8	8	4	.14	.70	-.42
85 4 19	-1894	2898	-2234192	8	8	4	.14	.74	-.36
85 4 24	-1860	3087	-2235140	7	7	3	.09	.73	-.41
85 4 25	-1869	3138	-2235284	32	16	6	.78	.64	.10
85 4 29	-1864	3266	-2235856	8	7	4	.15	.73	-.34
85 5 4	-1802	3437	-2237029	9	8	4	.06	.77	-.40
85 5 8	-1743	3586	-2237798	8	8	4	-.08	.81	-.02
85 5 9	-1714	3631	-2237928	8	7	4	.05	.77	-.39
85 5 10	-1703	3646	-2238069	6	6	3	.25	.77	-.16
85 5 14	-1607	3806	-2238694	9	8	4	.10	.74	-.42
85 5 16	-1605	3849	-2239053	7	6	3	.12	.63	.14
85 5 19	-1532	3940	-2239549	8	8	4	.10	.73	-.40
85 5 24	-1342	4075	-2240091	8	8	4	.06	.72	-.45
85 5 29	-1216	4200	-2240828	8	8	4	.15	.70	-.41
85 6 3	-1092	4315	-2241843	9	9	4	.11	.70	-.45
85 6 8	-974	4426	-2242425	7	7	4	.11	.72	-.41
85 6 13	-887	4519	-2243169	9	9	4	.06	.78	-.39
85 6 18	-762	4630	-2243695	9	9	4	.22	.69	-.39
85 6 19	-752	4629	-2243771	24	13	5	.70	.63	-.00
85 6 20	-717	4634	-2243841	6	6	2	.15	.75	-.21
85 6 23	-624	4686	-2244098	9	9	4	.12	.73	-.41
85 6 28	-474	4745	-2244919	8	8	4	.14	.74	-.38

Date	Values * X-pole	Y-pole	UT1-TAI	Formal Errors X	Y	UT1	Correlations X-Y	X-U	Y-U
85 7 3	-327	4791	-2245353	7	7	4	.11	.72	-.39
85 7 7	-239	4797	-2245537	8	7	4	.07	.58	.34
85 7 8	-170	4833	-2245635	9	8	4	.12	.73	-.39
85 7 13	25	4849	-2245959	9	9	5	.12	.72	-.40
85 7 18	207	4884	-2246058	8	8	4	.09	.73	-.40
85 7 21	285	4904	-2246226	7	6	3	.10	.53	.22
85 7 23	348	4930	-2246453	8	9	4	.06	.72	-.45
85 7 28	527	4923	-2246921	9	9	4	.12	.74	-.38
85 7 28	499	4886	-2246911	8	7	4	.10	.59	.29
85 8 2	662	4930	-2247083	8	8	4	.11	.74	-.38
85 8 7	844	4885	-2247548	9	10	5	.04	.75	-.39
85 8 11	974	4867	-2247770	7	7	3	.11	.54	.23
85 8 12	1027	4864	-2247781	10	10	5	.13	.71	-.41
85 8 17	1175	4803	-2247986	9	8	4	.14	.73	-.37
85 8 22	1327	4763	-2248672	9	9	4	.12	.74	-.39
85 8 25	1424	4717	-2248918	7	8	4	-.02	.82	.03
85 8 27	1480	4729	-2248997	8	8	4	.13	.72	-.39
85 9 1	1624	4605	-2249461	8	10	5	.01	.77	-.34
85 9 5	1699	4545	-2249982	12	10	6	-.18	.88	-.01
85 9 6	1755	4533	-2250088	10	10	5	.07	.74	-.44
85 9 11	1900	4449	-2250431	9	9	4	.14	.71	-.42
85 9 12	1903	4445	-2250504	28	14	5	.79	.66	.15
85 9 16	1962	4342	-2251149	8	8	4	.10	.72	-.39
85 9 21	2040	4214	-2251966	9	8	4	.12	.72	-.40
85 9 26	2141	4111	-2252538	9	9	4	.17	.70	-.40
85 10 1	2186	3971	-2253444	7	6	3	.13	.65	.12
85 10 1	2195	3981	-2253445	9	8	4	.14	.71	-.39
85 10 6	2255	3810	-2254167	9	8	4	.12	.70	-.43
85 10 11	2338	3716	-2254904	9	8	4	.16	.71	-.40
85 10 16	2325	3542	-2256116	8	9	4	.08	.71	-.46
85 10 21	2372	3400	-2256935	8	8	4	.20	.72	-.34
85 10 26	2390	3251	-2257943	6	6	3	.14	.75	-.34
85 10 30	2406	3117	-2258808	6	6	3	.15	.79	-.24
85 10 31	2377	3130	-2258961	10	9	5	.04	.77	-.39
85 11 5	2376	2969	-2259635	11	10	5	-.03	.77	-.48
85 11 10	2370	2862	-2260593	7	7	3	.12	.74	-.36
85 11 15	2358	2731	-2261591	8	8	4	.21	.69	-.38
85 11 20	2352	2609	-2262371	9	7	4	.07	.76	-.40
85 11 21	2345	2567	-2262582	26	14	5	.73	.61	-.01
85 11 22	2367	2526	-2262802	5	6	2	.16	.76	-.23
85 11 25	2375	2470	-2263403	8	7	3	.08	.76	-.35
85 11 30	2344	2369	-2264116	8	7	4	.15	.74	-.32
85 12 5	2275	2250	-2264847	8	8	4	.19	.72	-.35
85 12 10	2236	2148	-2265963	8	7	4	.06	.76	-.43
85 12 11	2202	2099	-2266148	24	12	4	.74	.66	.09
85 12 15	2151	2025	-2266669	7	7	3	.14	.70	-.40
85 12 20	2134	1928	-2267494	6	6	3	.12	.75	-.32
85 12 30	1986	1723	-2268605	8	7	3	.07	.76	-.38

* Units are 0".0001 for x- and y-pole, and 0.00001 seconds for UT1.

Table 9

Nutation Adjustments
from GLB027 Solution

DATE	Nutation in Longitude		Nutation in Obliquity	
	Value	Formal Error	Value	Formal Error
	(milliarcseconds)		(milliarcseconds)	
79 8 4	4.1 ±	1.8	-1.8 ±	.7
79 11 26	6.0 ±	1.4	.8 ±	.5
80 4 12	10.5 ±	1.1	-2.1 ±	.4
80 7 27	-1.3 ±	1.0	-.0 ±	.3
80 7 28	4.3 ±	1.1	.1 ±	.3
80 9 27	2.6 ±	1.0	1.5 ±	.3
80 9 28	-.8 ±	1.0	-.9 ±	.3
80 9 29	2.1 ±	1.0	-1.2 ±	.3
80 9 30	2.6 ±	1.2	4.0 ±	.4
80 10 1	-4.4 ±	1.4	-.6 ±	.5
80 10 2	1.6 ±	1.8	-3.5 ±	.6
80 10 3	-1.4 ±	1.3	-.1 ±	.5
80 10 17	0.0	Reference Day	0.0	
80 10 18	6.8 ±	1.1	-.9 ±	.3
80 10 19	6.1 ±	1.1	-.9 ±	.4
80 10 20	.7 ±	1.0	-.2 ±	.3
80 10 21	3.5 ±	1.0	-.3 ±	.3
80 10 22	3.8 ±	1.2	.1 ±	.3
80 10 23	.7 ±	.9	.2 ±	.3
80 11 4	-1.7 ±	2.1	.3 ±	.7
80 12 2	5.8 ±	1.5	-1.3 ±	.5
80 12 20	4.3 ±	1.2	.9 ±	.4
81 1 8	4.4 ±	1.9	1.2 ±	.6
81 1 23	3.4 ±	1.6	2.1 ±	.5
81 2 13	3.2 ±	1.9	1.7 ±	.7
81 2 28	4.7 ±	1.8	.6 ±	.7
81 3 17	5.5 ±	2.1	-.4 ±	.8
81 5 14	6.4 ±	2.9	-1.8 ±	1.2
81 6 17	.5 ±	1.4	-2.3 ±	.5
81 6 25	3.1 ±	4.0	-4.1 ±	1.4
81 7 2	-1.3 ±	3.2	-4.4 ±	1.4
81 7 9	-3.4 ±	3.5	-2.2 ±	1.1
81 7 16	-7.6 ±	6.6	-14.4 ±	6.2
81 7 23	-.2 ±	1.9	.3 ±	.7
81 7 30	-6.6 ±	3.0	-1.9 ±	1.0
81 8 6	-6.2 ±	4.6	-1.1 ±	1.6
81 8 27	-2.4 ±	2.8	-3.0 ±	.9
81 9 3	-4.8 ±	3.8	-2.2 ±	1.2
81 9 10	-3.1 ±	2.9	-1.4 ±	1.1
81 9 17	-12.2 ±	3.0	-.5 ±	1.1
81 9 24	-3.3 ±	3.6	.0 ±	1.3
81 10 1	-4.6 ±	2.9	-2.0 ±	1.5
81 10 16	-10.9 ±	3.2	-2.3 ±	1.1
81 10 22	-4.1 ±	2.0	-1.2 ±	.6
81 10 29	-5.4 ±	2.4	1.1 ±	.8
81 11 5	9.6 ±	3.4	2.8 ±	1.4

DATE	Nutation in Longitude		Nutation in Obliquity	
	Value	Formal Error	Value	Formal Error
	(milliarcseconds)		(milliarcseconds)	
81 11 11	1.2 ±	2.0	1.3 ±	.7
81 11 19	-1.3 ±	1.1	2.4 ±	.4
81 11 20	-1.4 ±	1.0	2.1 ±	.3
81 11 25	.8 ±	2.5	2.4 ±	.8
81 12 3	-3.8 ±	3.6	.8 ±	1.3
81 12 17	-.5 ±	2.4	2.4 ±	.8
81 12 23	-4.6 ±	2.1	2.1 ±	.9
81 12 30	4.7 ±	1.9	2.0 ±	.6
82 1 7	1.5 ±	1.9	3.2 ±	.7
82 1 14	2.5 ±	2.7	4.8 ±	.9
82 1 21	-1.7 ±	1.9	1.7 ±	.7
82 1 28	1.4 ±	2.1	4.2 ±	.8
82 2 2	.5 ±	2.4	3.6 ±	.8
82 2 11	-.4 ±	1.9	3.4 ±	.7
82 2 18	-1.9 ±	2.0	1.5 ±	.7
82 2 25	-3.7 ±	2.4	5.3 ±	.9
82 3 4	-.9 ±	2.3	2.1 ±	.8
82 3 11	3.5 ±	3.1	.7 ±	1.3
82 3 18	.6 ±	1.5	1.9 ±	.5
82 3 25	-.8 ±	2.5	.1 ±	1.0
82 3 30	-2.8 ±	2.4	3.3 ±	.9
82 4 8	.3 ±	2.8	-1.2 ±	1.2
82 4 14	3.5 ±	3.7	.2 ±	1.3
82 4 20	-1.9 ±	2.4	-1.7 ±	.7
82 4 27	16.8 ±	4.1	-2.5 ±	1.5
82 5 4	1.5 ±	1.3	.2 ±	.6
82 5 11	-8.7 ±	2.6	-1.6 ±	1.0
82 5 18	2.3 ±	2.4	-1.5 ±	.9
82 6 3	-3.5 ±	2.1	.5 ±	.8
82 6 8	-1.5 ±	2.9	-2.4 ±	1.1
82 6 17	-4.8 ±	2.3	-.0 ±	.7
82 6 19	-2.7 ±	1.0	-.2 ±	.4
82 6 20	3.2 ±	1.8	-.8 ±	.5
82 6 21	-5.1 ±	1.2	-.9 ±	.4
82 6 22	-2.0 ±	1.8	-.7 ±	.6
82 6 29	-1.2 ±	2.5	2.8 ±	.9
82 7 7	-9.7 ±	2.6	-.7 ±	1.0
82 7 13	-5.5 ±	3.6	.1 ±	1.3
82 7 20	.5 ±	3.5	-1.4 ±	1.3
82 7 27	-13.0 ±	3.5	.8 ±	1.3
82 8 5	-9.5 ±	3.4	.3 ±	1.1
82 8 10	-13.0 ±	2.8	2.1 ±	1.0
82 8 17	-11.2 ±	10.2	-4.8 ±	4.2
82 8 24	-16.5 ±	5.8	3.5 ±	1.4
82 8 31	-.3 ±	1.7	-2.7 ±	.9
82 9 8	-8.0 ±	3.0	-.0 ±	1.1
82 9 14	-5.4 ±	1.8	-1.0 ±	.8
82 9 21	-20.5 ±	6.4	4.8 ±	2.1
82 9 28	-8.2 ±	2.3	1.0 ±	1.0
82 10 5	-8.9 ±	2.7	2.7 ±	1.1
82 10 14	-3.9 ±	2.2	3.6 ±	.9

DATE	Nutation in Longitude		Nutation in Obliquity	
	Value	Formal Error	Value	Formal Error
	(milliarcseconds)		(milliarcseconds)	
82 10 19	-5.1	± 1.2	2.6	± .4
82 10 26	-2.6	± 2.2	2.9	± .8
82 11 2	-2.7	± 2.2	2.3	± .8
82 11 9	-6.2	± 2.1	5.1	± .8
82 11 16	-2.8	± 2.2	2.1	± .9
82 11 23	1.0	± 2.1	4.3	± .8
82 11 30	-8.6	± 2.0	2.3	± .8
82 12 7	2.6	± 2.5	4.6	± .9
82 12 16	.5	± 1.3	4.2	± .5
82 12 17	-1.0	± 1.0	2.6	± .3
82 12 21	-5.0	± 1.9	5.1	± .7
82 12 28	-1.7	± 2.1	2.3	± .9
83 1 4	-.3	± 1.6	5.5	± .6
83 1 11	1.0	± 2.0	3.2	± .8
83 1 18	.1	± 2.3	2.5	± .8
83 1 25	-1.7	± 1.6	3.9	± .6
83 2 1	.9	± 1.9	4.0	± .7
83 2 8	-.4	± 1.5	3.1	± .5
83 2 15	-.8	± 1.7	4.2	± .6
83 3 1	2.5	± 1.5	2.4	± .5
83 3 8	-1.8	± 1.4	1.5	± .5
83 3 15	1.5	± 1.4	2.4	± .5
83 3 22	.8	± 4.8	3.9	± 1.9
83 3 29	-1.7	± 2.3	2.1	± .8
83 4 5	1.2	± 2.3	1.8	± .9
83 4 12	1.8	± 1.9	1.7	± .7
83 4 19	6.8	± 2.1	.5	± .8
83 4 26	-.1	± 1.5	.2	± .6
83 5 3	3.1	± 2.0	-.5	± .8
83 5 6	1.7	± .8	.4	± .3
83 5 10	5.3	± 1.6	.1	± .6
83 5 17	1.2	± 2.1	-4.3	± 1.1
83 5 24	-5.0	± 2.1	-.5	± .7
83 6 1	2.7	± 2.8	-.6	± 1.0
83 6 7	-1.4	± 1.5	.2	± .4
83 6 8	-23.2	± 10.1	-16.9	± 8.3
83 6 8	-3.8	± 1.8	1.0	± .6
83 6 10	-10.9	± 2.4	1.7	± .8
83 6 14	2.6	± 1.7	-1.0	± .8
83 6 21	-2.0	± 2.2	-.1	± .8
83 6 29	-.3	± 3.4	-.1	± 1.2
83 7 6	-12.4	± 3.8	.2	± 1.4
83 7 12	-9.5	± 2.9	-1.9	± 1.0
83 7 26	-13.1	± 2.3	.9	± .7
83 8 2	-26.4	± 3.8	1.6	± 1.3
83 8 9	-5.1	± 2.0	-.1	± .7
83 8 16	-4.9	± 1.7	-1.2	± .9
83 8 23	-8.4	± 2.8	1.0	± 1.1
83 8 30	-4.0	± 3.1	-1.1	± 1.1
83 8 31	-9.2	± 1.8	.5	± .6
83 9 3	-2.0	± 1.8	-.7	± .9

DATE	Nutation in Longitude		Nutation in Obliquity	
	Value	Formal Error	Value	Formal Error
	(milliarcseconds)		(milliarcseconds)	
83 9 8	-6.4 ±	2.6	1.5 ±	1.0
83 9 13	-20.2 ±	3.8	.2 ±	1.4
83 9 18	-7.7 ±	2.7	1.6 ±	1.0
83 9 23	-10.7 ±	1.9	2.6 ±	.7
83 9 24	-7.3 ±	2.3	2.7 ±	.7
83 9 28	-9.3 ±	1.9	1.0 ±	.7
83 10 3	-2.1 ±	2.3	.8 ±	1.0
83 10 8	-13.5 ±	2.5	3.6 ±	1.0
83 10 13	-1.4 ±	1.6	1.2 ±	.6
83 10 18	-12.3 ±	7.7	1.7 ±	1.6
83 10 23	-12.2 ±	3.5	3.5 ±	1.3
83 10 28	-2.3 ±	1.2	.9 ±	.4
83 10 29	-2.7 ±	1.7	2.7 ±	.5
83 11 2	-6.4 ±	2.9	3.3 ±	1.1
83 11 7	-7.3 ±	2.2	3.2 ±	.8
83 11 12	-11.7 ±	2.5	2.1 ±	.7
83 11 17	-6.2 ±	1.5	3.1 ±	.5
83 11 18	-7.6 ±	1.5	4.5 ±	.5
83 11 22	-3.7 ±	2.6	3.1 ±	.6
83 11 27	-.4 ±	2.0	5.9 ±	.8
83 12 2	-2.7 ±	1.5	4.1 ±	.5
83 12 7	-2.1 ±	3.0	3.0 ±	1.2
83 12 12	-1.0 ±	1.9	4.6 ±	.7
83 12 17	-3.1 ±	1.9	6.2 ±	.7
83 12 22	-.1 ±	1.4	4.3 ±	.5
83 12 23	3.8 ±	1.3	3.9 ±	.5
83 12 27	-.5 ±	1.7	3.9 ±	.7
84 1 1	.8 ±	1.4	.8 ±	.5
84 1 5	1.1 ±	1.3	5.3 ±	.4
84 1 10	-.8 ±	1.3	3.6 ±	.5
84 1 15	-.8 ±	1.5	5.6 ±	.6
84 1 25	.9 ±	1.5	5.0 ±	.5
84 1 25	2.3 ±	1.3	4.8 ±	.6
84 1 30	-1.1 ±	1.8	5.0 ±	.6
84 2 4	4.0 ±	2.2	5.0 ±	.7
84 2 9	-2.1 ±	1.7	4.3 ±	.8
84 2 14	1.9 ±	1.9	4.4 ±	.6
84 2 19	3.1 ±	1.5	4.2 ±	.6
84 2 24	-2.4 ±	1.6	3.1 ±	.5
84 2 25	2.2 ±	1.2	3.2 ±	.4
84 2 25	1.1 ±	1.1	4.3 ±	.4
84 2 29	.6 ±	1.6	1.7 ±	.5
84 3 5	4.5 ±	1.4	4.0 ±	.5
84 3 10	1.6 ±	1.6	3.3 ±	.6
84 3 15	-.8 ±	1.3	2.6 ±	.4
84 3 20	1.2 ±	1.2	1.1 ±	.4
84 3 26	-.6 ±	1.2	1.6 ±	.4
84 3 31	3.8 ±	2.9	1.1 ±	1.5
84 4 4	-2.8 ±	1.5	2.3 ±	.4
84 4 9	5.7 ±	1.2	2.0 ±	.5
84 4 14	7.6 ±	1.3	1.0 ±	.4

DATE			Nutation in Longitude		Nutation in Obliquity	
			Value	Formal Error	Value	Formal Error
			(milliarcseconds)		(milliarcseconds)	
84	4	19	3.0 ±	1.0	1.6 ±	.4
84	4	20	3.1 ±	1.1	1.1 ±	.4
84	4	24	8.5 ±	1.6	-.0 ±	.4
84	4	27	2.0 ±	1.2	1.2 ±	.4
84	4	29	5.8 ±	1.3	1.2 ±	.4
84	5	4	6.4 ±	2.0	1.9 ±	.6
84	5	9	.2 ±	1.2	.5 ±	.6
84	5	14	2.2 ±	1.5	.9 ±	.5
84	5	19	3.3 ±	1.2	1.1 ±	.4
84	5	20	1.2 ±	1.0	.7 ±	.4
84	5	24	1.1 ±	1.4	.0 ±	.5
84	5	29	2.1 ±	1.1	.4 ±	.4
84	6	3	-.4 ±	1.2	1.7 ±	.4
84	6	8	-2.1 ±	1.6	-.4 ±	.6
84	6	13	-1.5 ±	1.2	.7 ±	.4
84	6	18	.5 ±	1.1	-.0 ±	.4
84	6	23	-3.9 ±	1.5	1.4 ±	.5
84	6	28	-2.9 ±	1.3	.3 ±	.5
84	7	3	.2 ±	1.1	1.2 ±	.4
84	7	8	-2.8 ±	.8	1.5 ±	.3
84	7	8	-6.1 ±	1.2	.8 ±	.5
84	7	13	-4.2 ±	1.2	-.2 ±	.5
84	7	18	-6.5 ±	1.1	1.3 ±	.5
84	7	22	-7.8 ±	.9	.5 ±	.3
84	7	23	-6.1 ±	2.2	-.8 ±	.9
84	7	23	-8.7 ±	.8	2.3 ±	.3
84	7	28	-1.4 ±	2.6	.6 ±	1.0
84	7	29	-8.1 ±	1.5	.6 ±	.5
84	7	30	-4.9 ±	1.0	-.0 ±	.3
84	8	2	-5.2 ±	1.4	1.0 ±	.5
84	8	5	-5.5 ±	.9	.7 ±	.3
84	8	6	-11.3 ±	1.1	1.7 ±	.3
84	8	7	-7.5 ±	1.4	1.4 ±	.5
84	8	12	-7.4 ±	1.3	1.1 ±	.5
84	8	17	-8.1 ±	1.4	.8 ±	.5
84	8	22	-5.5 ±	1.3	.9 ±	.4
84	8	25	-5.2 ±	.9	.8 ±	.3
84	8	27	-9.9 ±	1.6	1.8 ±	.5
84	8	29	-10.7 ±	1.0	.7 ±	.3
84	8	31	-11.3 ±	.8	1.4 ±	.3
84	9	1	-13.1 ±	1.4	1.2 ±	.5
84	9	3	-10.9 ±	.9	.5 ±	.3
84	9	6	-8.8 ±	1.2	.9 ±	.4
84	9	11	-9.0 ±	1.2	1.6 ±	.4
84	9	16	-11.1 ±	1.5	2.4 ±	.5
84	9	21	-5.7 ±	1.6	1.4 ±	.7
84	9	26	-9.7 ±	1.2	2.1 ±	.4
84	10	1	-6.3 ±	1.1	2.1 ±	.4
84	10	6	-9.2 ±	1.3	2.6 ±	.5
84	10	11	-6.5 ±	1.3	2.3 ±	.4
84	10	16	-8.2 ±	1.4	1.7 ±	.4

DATE	Nutation in Longitude		Nutation in Obliquity	
	Value	Formal Error	Value	Formal Error
	(milliarcseconds)		(milliarcseconds)	
84 10 21	-5.9 ±	1.3	3.0 ±	.4
84 10 26	-10.2 ±	1.3	2.6 ±	.3
84 10 27	-12.7 ±	2.0	.9 ±	.8
84 10 31	-6.0 ±	1.3	2.8 ±	.4
84 11 5	-6.9 ±	1.5	3.2 ±	.5
84 11 10	-4.4 ±	1.2	2.5 ±	.4
84 11 15	-4.2 ±	1.3	2.9 ±	.5
84 11 16	-3.4 ±	1.3	3.2 ±	.5
84 11 20	-4.6 ±	1.2	3.6 ±	.4
84 11 25	-5.8 ±	1.2	3.6 ±	.4
84 11 30	-2.6 ±	1.2	5.3 ±	.4
84 12 5	-6.5 ±	1.3	4.7 ±	.4
84 12 10	-6.6 ±	1.3	2.9 ±	.4
84 12 15	-4.2 ±	1.4	4.4 ±	.5
84 12 20	-3.8 ±	1.5	3.7 ±	.6
84 12 24	-3.4 ±	1.2	3.5 ±	.4
84 12 30	-2.2 ±	1.3	4.9 ±	.5
85 1 4	-1.3 ±	1.0	4.0 ±	.3
85 1 9	.0 ±	.9	4.4 ±	.4
85 1 14	-4.0 ±	1.1	5.4 ±	.5
85 1 19	-3.5 ±	.9	4.6 ±	.4
85 1 24	-1.7 ±	.9	5.2 ±	.3
85 1 25	-2.2 ±	1.3	5.7 ±	.4
85 1 29	-1.0 ±	1.0	4.3 ±	.3
85 2 3	-.4 ±	.9	4.0 ±	.4
85 2 8	-1.8 ±	1.0	4.2 ±	.3
85 2 13	-2.3 ±	1.0	3.5 ±	.4
85 2 18	1.0 ±	1.0	4.3 ±	.4
85 2 23	.1 ±	1.0	3.9 ±	.4
85 2 28	-.9 ±	.8	3.0 ±	.3
85 3 5	-1.2 ±	1.1	2.5 ±	.3
85 3 6	.8 ±	.8	3.1 ±	.2
85 3 10	2.5 ±	1.6	2.6 ±	.6
85 3 15	2.2 ±	1.0	3.3 ±	.3
85 3 20	1.5 ±	1.1	2.4 ±	.4
85 3 25	-.1 ±	.9	1.8 ±	.3
85 3 30	3.3 ±	1.0	1.6 ±	.4
85 4 4	2.0 ±	1.0	1.7 ±	.3
85 4 9	2.0 ±	1.0	.7 ±	.4
85 4 14	3.0 ±	1.0	1.7 ±	.3
85 4 19	2.6 ±	1.0	1.6 ±	.3
85 4 24	1.5 ±	.9	1.5 ±	.3
85 4 25	9.2 ±	1.2	.9 ±	.4
85 4 29	1.0 ±	1.0	.1 ±	.4
85 5 4	2.7 ±	1.1	1.2 ±	.4
85 5 8	-1.0 ±	1.0	-.1 ±	.3
85 5 9	2.5 ±	1.0	1.0 ±	.3
85 5 10	1.5 ±	.9	.4 ±	.3
85 5 14	2.5 ±	1.2	1.4 ±	.4
85 5 16	.1 ±	.7	1.7 ±	.2
85 5 19	.8 ±	1.0	.3 ±	.3

DATE	Nutation in Longitude		Nutation in Obliquity	
	Value	Formal Error	Value	Formal Error
	(milliarcseconds)		(milliarcseconds)	
85 5 24	1.3 ±	1.1	.7 ±	.4
85 5 29	2.2 ±	1.0	.4 ±	.3
85 6 3	1.5 ±	1.1	.7 ±	.4
85 6 8	-.1 ±	.9	.6 ±	.3
85 6 13	-1.5 ±	.9	.8 ±	.3
85 6 18	-1.3 ±	.9	-.5 ±	.3
85 6 19	-2.2 ±	.9	-.5 ±	.4
85 6 20	-1.9 ±	.8	.3 ±	.2
85 6 23	.2 ±	.9	1.7 ±	.4
85 6 28	-4.0 ±	1.0	1.2 ±	.3
85 7 3	-1.3 ±	1.0	.9 ±	.3
85 7 7	-2.5 ±	.8	1.8 ±	.3
85 7 8	-1.9 ±	1.1	-.3 ±	.4
85 7 13	-6.2 ±	1.1	1.2 ±	.4
85 7 18	-2.9 ±	1.1	.4 ±	.4
85 7 21	-3.3 ±	.8	.2 ±	.3
85 7 23	-3.6 ±	1.1	-.4 ±	.4
85 7 28	-8.3 ±	.8	.7 ±	.3
85 7 28	-7.4 ±	1.1	.5 ±	.4
85 8 2	-5.2 ±	1.1	1.0 ±	.4
85 8 7	-10.1 ±	1.3	.0 ±	.5
85 8 11	-6.0 ±	.8	1.5 ±	.2
85 8 12	-7.8 ±	1.3	1.1 ±	.5
85 8 17	-5.7 ±	1.1	.7 ±	.4
85 8 22	-7.5 ±	1.2	.4 ±	.4
85 8 25	-8.0 ±	.9	.5 ±	.3
85 8 27	-6.8 ±	1.1	1.5 ±	.4
85 8 29	-14.7 ±	2.2	1.8 ±	.8
85 9 1	-3.8 ±	1.3	1.7 ±	.4
85 9 5	-7.8 ±	.9	1.9 ±	.3
85 9 6	-10.8 ±	1.1	1.6 ±	.4
85 9 11	-5.2 ±	1.1	1.3 ±	.4
85 9 12	-5.5 ±	.9	2.0 ±	.3
85 9 16	-9.5 ±	1.1	.9 ±	.4
85 9 21	-10.5 ±	1.1	1.6 ±	.3
85 9 26	-6.6 ±	1.1	1.2 ±	.4
85 10 1	-12.4 ±	.8	2.4 ±	.2
85 10 1	-9.4 ±	1.1	2.1 ±	.4
85 10 6	-5.6 ±	1.1	1.6 ±	.4
85 10 11	-5.4 ±	1.1	1.8 ±	.4
85 10 16	-8.3 ±	1.1	1.0 ±	.4
85 10 21	-4.8 ±	1.0	.2 ±	.3
85 10 26	-5.7 ±	.9	1.9 ±	.3
85 10 30	-8.6 ±	.8	3.5 ±	.2
85 10 31	-3.9 ±	1.3	.8 ±	.4
85 11 5	-6.7 ±	1.4	2.9 ±	.5
85 11 10	-5.5 ±	1.0	2.9 ±	.3
85 11 15	-5.8 ±	1.1	2.3 ±	.3
85 11 20	-4.1 ±	.9	3.9 ±	.3
85 11 21	-3.2 ±	1.0	2.8 ±	.3
85 11 22	-5.0 ±	.8	3.8 ±	.2

DATE	Nutation in Longitude		Nutation in Obliquity	
	Value	Formal Error	Value	Formal Error
	(milliarcseconds)		(milliarcseconds)	
85 11 25	-5.5 ±	1.0	3.5 ±	.3
85 11 30	-4.4 ±	1.1	4.0 ±	.3
85 12 5	-1.5 ±	1.0	3.6 ±	.3
85 12 10	-2.7 ±	.9	3.6 ±	.3
85 12 11	-2.0 ±	1.1	5.1 ±	.4
85 12 15	-2.9 ±	1.0	4.1 ±	.3
85 12 20	-4.2 ±	.9	4.6 ±	.3
85 12 24	-4.3 ±	1.8	1.4 ±	1.3
85 12 30	-2.0 ±	1.0	4.6 ±	.3

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16. Abstract

The Goddard VLBI group reports the results of analyzing 361 Mark III VLBI data sets from fixed observatories through the end of 1985 which are available to the Crustal Dynamics Project. All POLARIS/IRIS full-day data sets are included. The mobile VLBI sites at Platteville, Colorado; Penticton, British Columbia; and Yellowknife, Northwest Territories are also included since these occupations bear on the study of plate stability. Two large solutions, GLB027 and GLB028, were used to obtain site/baseline evolutions and earth rotation parameters, respectively. Source positions and nutation offsets were also adjusted in each solution. The results include 23 sites and 101 baselines.

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