

LIDAR MAPPING REPORT

OVERVIEW

Client: Earth Data

Project. Number: A06_EART_001; **Project. Name:** Sacramento-San Joaquin Delta, CA

County: Sacramento, Yolo, Solano, Contra Costa, Alameda, San Joaquin, Stanislaus; **State:** California

Total Area (Acres): 1,024,204; **Number of Sites:** 1

Purpose: Create a digital elevation map for analysis of terrain.

Vertical Accuracy Intended Suitability (feet): 95% at 0.6' (<18.5cm) and 90 % at .5' (15cm)

Horizontal Accuracy: Estimated at 1/3000 of flight height based on Calibration Surveys

PROJECT DATUMS, REFERENCE SYSTEM

Horizontal Datum: North American Datum of 1983 (NAD83);

Reference Network: NGS Network

Vertical Datum: North American Vertical Datum of 1988 (NAVD88);

Reference Network: NGS Network

Geoid Model: Geoid03 Continental US

Ellipsoid: GRS-80

DATA COLLECTION: AIRBORNE & FIELD SURVEYS

Lidar System: Optech ALTM-3100; **Serial number:** 04SEN163

Airborne GPS: Trimble with Novatel 512 Antenna Ht=0.00m

Mirror Scan Angle +/- (degrees): 12

Swath Overlap (%): 40

Swath Width (mtrs): 711.44

Mirror Scanner Frequency (Hz): 39

Laser Pulse Rate (khz): 70

Posting Interval (Spot Spacing) (square mtrs): 0.787

IMU Positioning: 200 hertz adjusted to the 1 hertz GPS positions

Airport of Operations: Stockton, CA. and Sacramento Executive Airport

Boulder K Index: 0-4 all days

Comments/Problems/Failures: none

Altitude: 5500 ft

Airspeed: 120 kts

Full View:

The screenshot displays the ALTM-NAV Planner 2.0.58 interface. The main window is titled "ALTM-NAV Planner 2.0.58 - [Sac_Areas_1_5_100K_5500apl.pln]". The interface is divided into several sections:

- GPS Data:** A table showing real-time GPS information.

GMT	11	:	16	:	30	
LAT	37	:	52.6932	:		
LNG	-121	:	43.6916	:		
ALT	4000					
POS	N/A					
ROLL	0	:	PITCH	0	:	
CRS	81	:	CRAB	0	:	
PDOP	99.00	:	SVT	0	:	
- LIDAR Controls:** A section with various control buttons and indicators.
 - COLLECT ON (with a warning icon)
 - COLLECT OFF
 - OFF
 - PW (with a green dot)
 - TX (with a red dot)
 - RX (with a red dot)
 - EM (with a green dot)
 - SCNW: 12.00
 - SCNF: 39.00
 - Disk: (empty)
 - No ALTM Msg Received
- Flight Plan:** A section with flight parameters.

Auto	Reverse
Passes	360
Current	1
HDG	81
LEN	40.04 km
- Map:** A large map area showing a flight path overlaid on a terrain map. The path is a complex, multi-looped shape. The map includes labels for various locations like Sacramento, Yuba City, and others. The map is centered on the flight path.

North View:

ALTM-NAV Planner 2.0.58 - [Sac_Areas_1_5_100K_5500agl.pln]

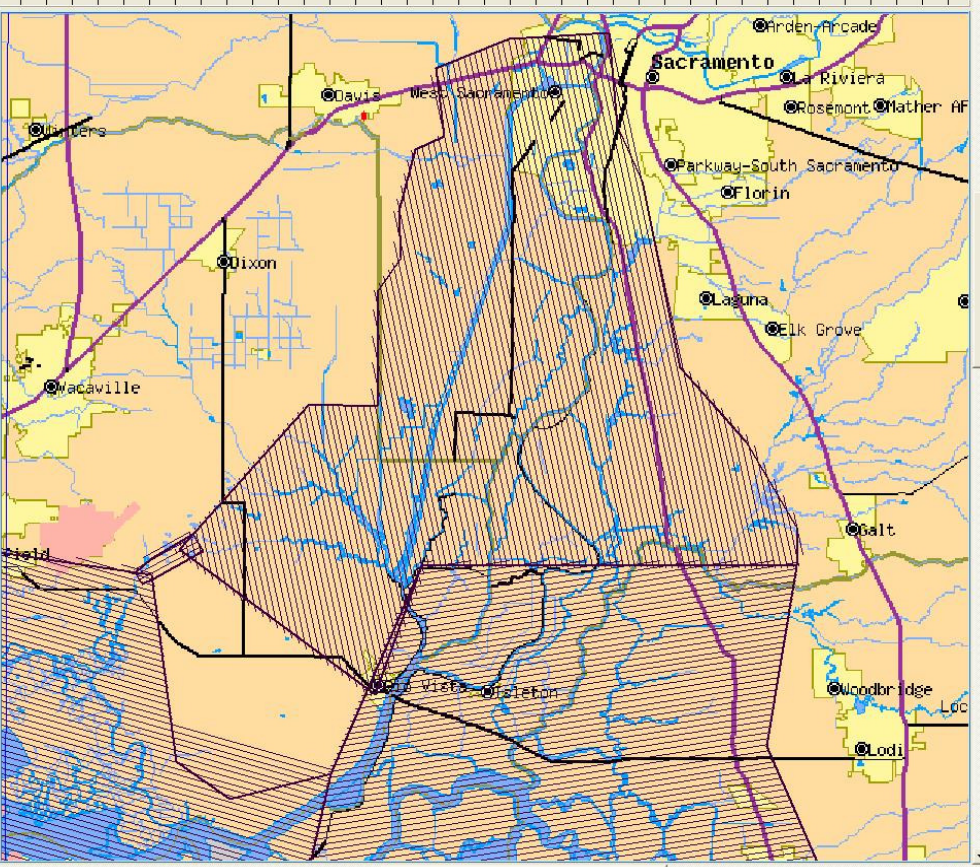
ALTM-NAV Flight Log Flight Plan GPS LIDAR Pilot Display Help

GPS Data			
GMT	11	:	16 : 30
LAT	37	:	52.6932
LNG	-121	:	43.6516
ALT	4000		
POS	N/A		
ROLL	0	PITCH	0
CRS	81	CRAB	0
PDOP	99.00	SVT	0

LIDAR Controls			
	COLLECT ON	COLLECT OFF	OFF
Pw	TX	RX	EM
SCNW	12.00	SCNF	39.00
Disk	No ALTH Mag Received		

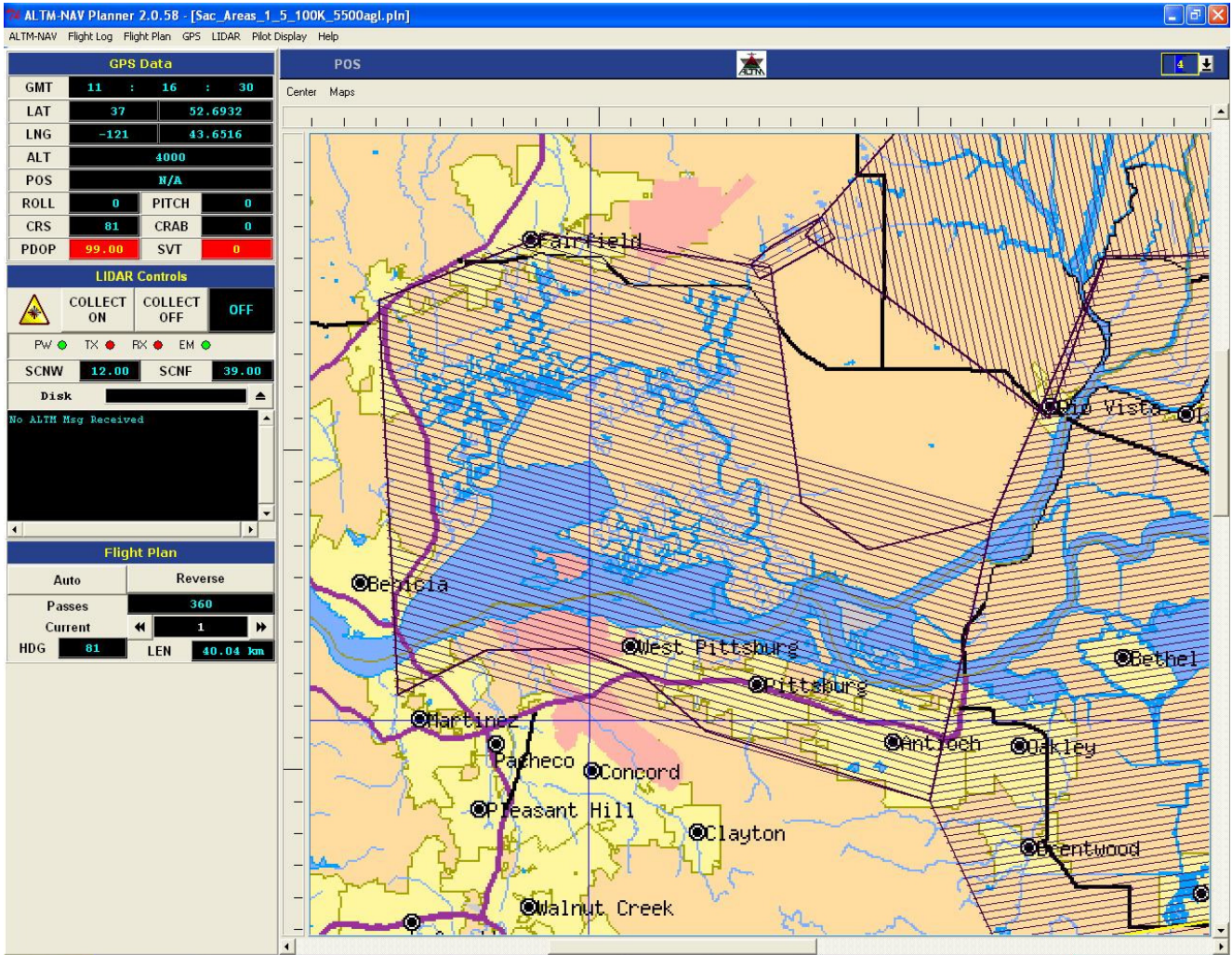
Flight Plan			
Auto	Reverse		
Passes	360		
Current	1		
HDG	81	LEN	40.04 km

POS Center Maps



The map displays a flight path (hatched area) over the Sacramento region. Key locations labeled include Sacramento, West Sacramento, Davis, Dixon, Yuba City, Marysville, Yuba, Florin, Elk Grove, Salt Lake, Woodbridge, and Lodi. The path starts near Yuba City and extends north towards Sacramento, with a loop around the Sacramento area.

West View:



Central View:

ALTM-NAV Planner 2.0.58 - [Sac_Areas_1_5_100K_5500agl.pln]

ALTM-NAV Flight Log Flight Plan GPS LIDAR Pilot Display Help

GPS Data		
GMT	11	16 : 30
LAT	37	52.6932
LNG	-121	43.6516
ALT	4000	
POS	N/A	
ROLL	0	PITCH 0
CRS	81	CRAB 0
PDOP	99.00	SVT 0

LIDAR Controls

COLLECT ON COLLECT OFF OFF

PW TX RX EM

SCNW 12.00 SCNF 39.00

Disk

No ALTM Msg Received

Flight Plan	
Auto	Reverse
Passes	360
Current	1
HDG 81	LEN 40.04 km

POS

Center Maps

The map displays a flight path (yellow line) over a geographical area. Key locations labeled include Bethel Island, Discovery Bay, Antioch, Oakley, Kentwood, Country Club, Stockton, Lincolnville, Lodi, Woodbridge, and Balt. The map also shows a grid, terrain shading, and various geographical features like rivers and roads.

South View:

ALTM-NAV Planner 2.0.58 - [Sac_Areas_1_5_100K_5500agl.pln]

ALTM-NAV Flight Log Flight Plan GPS LIDAR Pilot Display Help

GPS Data			
GMT	11	:	16
LAT	37	:	52.6932
LNG	-121	:	43.6516
ALT	4000		
POS	N/A		
ROLL	0	PITCH	0
CRS	81	CRAB	0
PDOP	99.00	SVT	0

LIDAR Controls

COLLECT ON COLLECT OFF OFF

Pw TX RX EM

SCNW 12.00 SCNF 39.00

Disk

No ALTH Msg Received

Flight Plan	
Auto	Reverse
Passes	360
Current	1
HDG	81
LEN	40.04 km

POS

Center Maps

GPS Survey Criteria: (standard unless otherwise noted)

GPS Observables: *L1 & L2 Carrier wave, C/A Code and P-Code;*

Epoch Rate (seconds): *1; Minimum Satellites: 5; Elevation Mask (degrees): 15;*

GPS Ground Receivers (Base Stations): *2 Minimum:*

Base Stations Occupied by: *Airborne 1*

Criteria Exceeded: *no*; Equipment Failures: *none*

Static GPS Network Established by Towill Inc.

Adjusted Positions and Ellipsoid Heights (Meters)

Station	Latitude	Longitude	Ellip Ht	Geoid Ht
704	38-12-54.519402	122-08-12.646495	-24.3316	-31.8073
710	38-20-44.197405	121-32-35.776383	-22.6483	-31.4221
711	38-29-40.919422	121-28-57.857217	-26.3118	-30.9217
714	38-20-41.426229	121-25-02.931635	-23.2919	-31.0505
723	38-01-25.749915	121-19-13.712790	-27.2414	-31.6928
724	37-49-58.923062	121-15-46.836153	-24.8774	-32.0165
AC9892	38-05-13.641860	122-06-42.210180	-4.9111	-32.0648
AE9887	37-58-32.218950	121-28-26.363330	-28.6200	-32.1194
AE9889*	37-48-19.679740	121-27-02.214560	-29.9700	-32.2121
AE9891	38-01-00.378010	121-27-23.653800	-28.9200	-32.0094
CMOD	37-38-28.799500	120-59-59.862820	28.6520	-31.9313
DE8502*	38-01-18.817100	122-01-40.827530	-22.6100	-32.1277
HS0455*	37-44-43.517070	121-27-52.678200	-20.6900	-32.1615
HS0512	37-47-15.845848	121-18-25.733486	-23.4232	-32.1232
JS0755	38-47-09.874500	121-14-32.097030	47.3663	-29.8812
JS1011	38-34-48.821522	121-29-38.037327	42.7335	-30.7894
JS1193	38-24-32.026630	121-19-29.688830	-11.3012	-30.6117
JS1244*	38-13-31.375744	121-29-32.157034	-25.1500	-31.6053
JS1617	38-26-04.042145	121-50-07.262767	-12.9138	-31.6938
JS3889	38-05-09.262950	121-16-30.650780	-19.0300	-31.4157
JT0185	38-13-38.752550	122-07-07.770260	-17.4900	-31.7974
JT0221*	38-18-41.158210	122-01-58.035900	40.3100	-31.6346
JT9527*	38-09-23.349678	122-12-52.470546	91.1878	-31.8688
JT9536	38-06-04.937980	122-15-50.142040	-28.8900	-32.1017
P256	37-55-55.057863	121-36-17.368519	-30.1554	-32.3300
P257	37-45-19.032380	121-27-50.472645	-24.1416	-32.1753
P261	38-09-10.643083	122-13-03.088971	118.6927	-31.8816
P262	38-01-30.520128	122-05-46.064094	-8.0380	-32.1171
P266	38-11-02.271324	121-50-36.641849	22.9954	-32.2587
P267	38-22-49.193753	121-49-23.590429	-16.9492	-31.8704
P268	38-28-24.680525	121-38-47.026235	-23.4015	-31.3125
P271	38-39-26.447765	121-42-52.325132	-17.6678	-30.7248
P273	38-06-56.910332	121-23-17.026738	-25.8469	-31.5974
S300	37-39-59.412687	121-33-29.712440	496.3043	-31.7514
UCD1	38-32-10.449181	121-45-04.379122	0.1520	-31.2477

Average: -31.6665

*denotes as base station control for flights

Station Coordinate Standard Deviations (Meters)
Standard Deviations are Scaled by Total Error Factor

Station	N	E	Elev
704	0.008589	0.008911	0.011678
710	0.011868	0.012025	0.016845
711	0.007293	0.007342	0.010964
714	0.010987	0.011194	0.018935
723	0.006135	0.006027	0.008779
724	0.010565	0.010613	0.013609
AC9892	0.000000	0.000000	0.010897
AE9887	0.000000	0.000000	0.000000
AE9889	0.000000	0.000000	0.000000
AE9891	0.000000	0.000000	0.000000
CMOD	0.000000	0.000000	0.000000
DE8502	0.000000	0.000000	0.000000
HS0455	0.000000	0.000000	0.000000
HS0512	0.010167	0.010280	0.000000
JS0755	0.000000	0.000000	0.010730
JS1011	0.007426	0.007446	0.014907
JS1193	0.000000	0.000000	0.012093
JS1244	0.006121	0.006127	0.000000
JS1617	0.007525	0.007574	0.000000
JS3889	0.000000	0.000000	0.000000
JT0185	0.000000	0.000000	0.000000
JT0221	0.000000	0.000000	0.000000
JT9527	0.008191	0.008266	0.010566
JT9536	0.000000	0.000000	0.000000
P256	0.000000	0.000000	0.000000
P257	0.000000	0.000000	0.000000
P261	0.000000	0.000000	0.000000
P262	0.000000	0.000000	0.000000
P266	0.000000	0.000000	0.000000
P267	0.000000	0.000000	0.000000
P268	0.000000	0.000000	0.000000
P271	0.000000	0.000000	0.000000
P273	0.000000	0.000000	0.000000
UCD1	0.000000	0.000000	0.000000

Entire GPS Static Network can be found at end of report:

Oceanit - US Army Corps of Engineers Dam Breach Analysis Flight Report

Flight ID	Mission Date	Time (GMT)	Altitude (agl_ft)	Airspeed (kts)	Scan Angle	Scan Rate (Hz)	Pulse Rate (kHz)	PID Base 1	PID Base 2
CA01407_1	14-Jan-07	23:23:02-00:15:41	5500	120	12	39	70	AE9889	HS0455
CA01407_2	14-Jan-07	02:09:11-04:49:50	5500	120	12	39	70	AE9889	HS0455
CA01407_3	14-Jan-07	05:48:01-09:54:46	5500	120	12	39	70	AE9889	HS0455
CA01507_1	15-Jan-07	16:21:47-17:08:55	5500	120	12	39	70	AE9889	HS0455
CA01507_2	15-Jan-07	19:04:26-22:39:26	5500	120	12	39	70	AE9889	HS0455
CA01507_3	15-Jan-07	00:19:52-03:43:35	5500	120	12	39	70	AE9889	HS0455
CA01507_4	15-Jan-07	05:28:49-08:48:42	5500	120	12	39	70	AE9889	HS0455
CA01607_1	16-Jan-07	16:23:25-20:06:00	5500	120	12	39	70	AE9889	HS0455
CA01607_2	16-Jan-07	00:29:28-04:22:53	5500	120	12	39	70	AE9889	AE9887
CA01707_1	17-Jan-07	13:48:42-17:01:16	5500	120	12	39	70	JS1244	AE9887
CA01707_2	17-Jan-07	19:24:24-22:43:05	5500	120	12	39	70	JS1244	AE9887
CA01707_3	17-Nov-07	00:42:14-03:30:10	5500	120	12	39	70	JS1244	AE9887
CA01707_4	17-Jan-07	05:44:08-09:10:21	5500	120	12	39	70	JS1244	AE9887
CA01807_1	18-Jan-07	21:44:34-01:13:58	5500	120	12	39	70	JS1244	AE9887
CA01907_1	19-Jan-07	21:25:02-00:36:10	5500	120	12	39	70	JS1244	AE9887
CA01907_2	19-Jan-07	04:31:15-06:25:50	5500	120	12	39	70	JS1244	AE9887
CA02007_1	20-Jan-07	22:25:15-02:06:56	5500	120	12	39	70	JS1244	JS1193
CA02107_1	21-Jan-07	22:23:36-23:12:29	5500	120	12	39	70	JS1244	JS1193
CA02107_2	21-Jan-07	23:42:57-00:47:05	5500	120	12	39	70	JS1244	JS1193
CA02207_1	22-Jan-07	20:14:10-23:07:07	5500	120	12	39	70	JS1244	JS1193
CA02207_2	22-Jan-07	01:16:34-04:21:01	5500	120	12	39	70	JS1244	JS1193
CA02307_1	23-Jan-07	18:28:17-21:34:36	5500	120	12	39	70	JS1244	JT0221
CA02307_2	23-Jan-07	23:48:58-03:01:23	5500	120	12	39	70	JS1244	JT0221
CA02507_1	25-Jan-07	22:28:16-01:37:51	5500	120	12	39	70	JT9527	DE8502
CA02507_2	25-Jan-07	04:08:56-05:23:33	5500	120	12	39	70	JT9527	DE8502
CA02607_1	26-Jan-07	22:32:10-00:20:37	5500	120	12	39	70	JT9527	DE8502
CA02807_1	28-Jan-07	02:07:23-04:46:30	5500	120	12	39	70	JT9527	DE8502
CA02807_2	28-Jan-07	07:05:03-09:25:27	5500	120	12	39	70	JT9527	DE8502
CA03007_1	30-Jan-07	01:00:26-02:23:52	5500	120	12	39	70	JT9527	DE8502
CA03407_1	3-Feb-07	18:57:51-21:41:04	5500	120	12	39	70	JT9527	DE8502

POST PROCESSING - KINEMATIC SOLUTIONS

Processing Software: *Applanix Pos-GPS*; Laser Point Computation Software: *Optech's REALM*

Ephemeris used: *Broadcast*

Ionosphere: *Ionospheric modeled*

Note: The flight name contains the Julian day of the year, e.g. CA02007_1 was collected on Julian day 020 in the year 2007.

Flight ID	Mission Date	Scanner Scale	Sensor Calibration			Flight edge mismatches
			Roll	Pitch	Heading	
CA01407_1	14-Jan-07	1.0107	-0.054	0.167	0.169	+/- 10 cm
CA01407_2	14-Jan-07	1.0098	-0.054	0.167	0.169	+/- 10 cm
CA01407_3	14-Jan-07	1.0098	-0.054	0.167	0.169	+/- 10 cm
CA01507_1	15-Jan-07	1.0095	-0.059	0.159	0.159	+/- 10 cm
CA01507_2	15-Jan-07	1.0115	-0.051	0.167	0.111	+/- 10 cm
CA01507_3	15-Jan-07	1.0115	-0.057	0.161	0.145	+/- 10 cm
CA01507_4	15-Jan-07	1.0092	-0.057	0.161	0.145	+/- 10 cm
CA01607_1	16-Jan-07	1.0111	-0.054	0.167	0.169	+/- 10 cm
CA01607_2	16-Jan-07	1.0095	-0.059	0.159	0.159	+/- 10 cm
CA01707_1	17-Jan-07	1.0095	-0.059	0.159	0.159	+/- 10 cm
CA01707_2	17-Jan-07	1.0095	-0.059	0.159	0.159	+/- 10 cm
CA01707_3	17-Nov-07	1.0095	-0.059	0.159	0.159	+/- 10 cm
CA01707_4	17-Jan-07	1.0095	-0.059	0.159	0.159	+/- 10 cm
CA01807_1	18-Jan-07	1.0096	-0.051	0.167	0.181	+/- 10 cm
CA01907_1	19-Jan-07	1.0096	-0.051	0.167	0.181	+/- 10 cm
CA01907_2	19-Jan-07	1.0095	-0.059	0.159	0.159	+/- 10 cm
CA02007_1	20-Jan-07	1.0095	-0.059	0.159	0.159	+/- 10 cm
CA02107_1	21-Jan-07	1.0095	-0.059	0.159	0.159	+/- 10 cm
CA02107_2	21-Jan-07	1.0096	-0.051	0.167	0.181	+/- 10 cm
CA02207_1	22-Jan-07	1.0088	-0.051	0.159	0.159	+/- 10 cm
CA02207_2	22-Jan-07	1.0095	-0.059	0.159	0.159	+/- 10 cm
CA02307_1	23-Jan-07	1.0115	-0.049	0.164	0.176	+/- 10 cm
CA02307_2	23-Jan-07	1.0115	-0.049	0.164	0.176	+/- 10 cm
CA02507_1	25-Jan-07	1.0115	-0.049	0.164	0.176	+/- 10 cm
CA02507_2	25-Jan-07	1.0094	-0.065	0.167	0.181	+/- 10 cm
CA02607_1	26-Jan-07	1.0095	-0.051	0.167	0.181	+/- 10 cm
CA02807_1	28-Jan-07	1.0097	-0.051	0.147	0.121	+/- 10 cm
CA02807_2	28-Jan-07	1.0097	-0.051	0.147	0.121	+/- 10 cm
CA03007_1	30-Jan-07	1.0109	-0.042	0.171	0.148	+/- 10 cm
CA03407_1	3-Feb-07	1.0109	-0.042	0.171	0.148	+/- 10 cm

Sensor Calibration Description:

Flight line mismatches are measured visually by the Airborne 1 team of Data Analysts. Calibration parameters are adjusted as necessary on a flight by flight basis. All flight lines from each flight are checked in multiple locations. Visual checks are done using Terrascan software. Terramatch software is also used to supplement visual checks; Terramatch performs an automated statistical analysis of all calibration parameters.

DELIVERABLES

Projection: UTM Zone 10

Units: Meters

Data format: LAS Binary, one file per flight. Terrascan Project (with flightline overlap cut) in client desired tiling scheme

Data Delivered via: Hard Drive

Delivery Date: 3/29/07

Containing: All points first and last returns

NGS Datasheets (flight control stations)

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

```
DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.42
1 National Geodetic Survey, Retrieval Date = MARCH 29, 2007
AE9889 *****
AE9889 HT_MOD - This is a Height Modernization Survey Station.
AE9889 DESIGNATION - FINCK
AE9889 PID - AE9889
AE9889 STATE/COUNTY- CA/SAN JOAQUIN
AE9889 USGS QUAD - UNION ISLAND (1978)
AE9889
AE9889 *CURRENT SURVEY CONTROL
AE9889
AE9889* NAD 83(1998)- 37 48 19.67937(N) 121 27 02.21264(W) ADJUSTED
AE9889* NAVD 88 - 2.23 (meters) 7.3 (feet) GPS OBS
AE9889
AE9889 EPOCH DATE - 2002.86
AE9889 X - -2,632,646.284 (meters) COMP
AE9889 Y - -4,304,411.846 (meters) COMP
AE9889 Z - 3,888,388.196 (meters) COMP
AE9889 LAPLACE CORR- 0.81 (seconds) DEFLEC99
AE9889 ELLIP HEIGHT- -29.97 (meters) (10/28/05) GPS OBS
AE9889 GEOID HEIGHT- -32.21 (meters) GEOID03
AE9889
AE9889 HORZ ORDER - FIRST
AE9889 ELLP ORDER - FOURTH CLASS I
AE9889
AE9889.The horizontal coordinates were established by GPS observations
AE9889.and adjusted by the National Geodetic Survey in October 2005..
AE9889.This is a SPECIAL STATUS position. See SPECIAL STATUS under the
AE9889.DATUM ITEM on the data sheet items page.
AE9889.The horizontal coordinates are valid at the epoch date displayed above.
AE9889.The epoch date for horizontal control is a decimal equivalence
AE9889.of Year/Month/Day.
AE9889
AE9889.The orthometric height was determined by GPS observations and a
AE9889.high-resolution geoid model using precise GPS observation and
AE9889.processing techniques.
AE9889
AE9889.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AE9889
AE9889.The Laplace correction was computed from DEFLEC99 derived deflections.
AE9889
```

AE9889.The ellipsoidal height was determined by GPS observations
 AE9889.and is referenced to NAD 83.
 AE9889
 AE9889.The geoid height was determined by GEOID03.
 AE9889
 AE9889;

	North	East	Units	Scale	Factor	Converg.
AE9889;SPC CA 3	- 645,307.175	1,916,292.432	MT	0.99992963		-0 34 55.2
AE9889;SPC CA 3	- 2,117,145.29	6,287,036.09	sFT	0.99992963		-0 34 55.2
AE9889;UTM 10	- 4,185,362.089	636,394.625	MT	0.99982914		+0 56 59.6

AE9889
 AE9889!

	Elev Factor	x	Scale Factor	=	Combined Factor
AE9889!SPC CA 3	- 1.00000470	x	0.99992963	=	0.99993433
AE9889!UTM 10	- 1.00000470	x	0.99982914	=	0.99983384

AE9889 SUPERSEDED SURVEY CONTROL

AE9889 NAD 83(1992)- 37 48 19.67730(N) 121 27 02.20958(W) AD(1997.30) 1
 AE9889 ELLIP H (07/10/98) -29.98 (m) GP(1997.30) 4 1
 AE9889 NAD 83(1992)- 37 48 19.67697(N) 121 27 02.20995(W) AD(1997.30) 1
 AE9889 ELLIP H (05/14/98) -29.89 (m) GP(1997.30) 3 1
 AE9889

AE9889.Superseded values are not recommended for survey control.
 AE9889.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AE9889.[See file dsdata.txt](#) to determine how the superseded data were derived.
 AE9889

AE9889_U.S. NATIONAL GRID SPATIAL ADDRESS: 10SFG3639585362(NAD 83)

AE9889_MARKER: DD = SURVEY DISK

AE9889_SETTING: 50 = ALUMINUM ALLOY ROD W/O SLEEVE (10 FT.+)

AE9889_STAMPING: FINCK 1997

AE9889_MARK LOGO: BOR

AE9889_PROJECTION: FLUSH

AE9889_MAGNETIC: N = NO MAGNETIC MATERIAL

AE9889_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AE9889_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AE9889+SATELLITE: SATELLITE OBSERVATIONS - November 01, 2002

AE9889_ROD/PIPE-DEPTH: 3.05 meters

AE9889

HISTORY	- Date	Condition	Report By
AE9889	HISTORY - 1997	MONUMENTED	BOR
AE9889	HISTORY - 20021101	GOOD	CADWR

AE9889

AE9889 STATION DESCRIPTION

AE9889

AE9889'DESCRIBED BY US BUREAU OF RECLAMATION 1997 (DWS)

AE9889'THE STATION IS ABOUT 4.4 MI (7.1 KM) NORTH-NORTHWEST OF TRACY AND NEAR

AE9889'THE TRACY BOULEVARD CROSSING OF THE OLD RIVER BRIDGE. TO REACH THE

AE9889'STATION FROM THE INTERSECTION OF INTERSTATE HIGHWAY 205 AND TRACY BLVD

AE9889'ON THE NORTH SIDE OF TRACY, GO NORTH ON TRACY BLVD FOR 3.5 MI (5.6 KM)

AE9889'TO THE OLD RIVER CROSSING. CONTINUE NORTH ON TRACY BLVD 0.05 MI (0.08

AE9889'KM) TO THE T-INTERSECTION OF FINCK ROAD, A SIDE ROAD LEFT. TURN LEFT

AE9889'(WEST) AND GO 0.05 MI (0.08 KM) , PASSING SAMS MARKET ON THE LEFT

AE9889'(SOUTH) SIDE OF THE ROAD, TO THE STATION ON THE RIGHT (NORTH) SIDE OF

AE9889'THE ROAD. THE STATION IS A 2 1/2 INCH DIAMETER ALUMINUM ALLOY DOMED

AE9889'CAP WITH MAGNET, SET 0.2 FT (0.1 M) BELOW GROUND, ATTACHED TO AN

AE9889'ALUMINUM ALLOY ROD DRIVEN 10.0 FT (3.0 M) TO REFUSAL, ENCASED IN A

AE9889'SAND FILLED 4-INCH DIAMETER PVC PIPE SET TO A DEPTH OF 4 FT (1.2 M) IN

AE9889'A 1 FT (0.3 M) DIAMETER CONCRETE-FILLED HOLE 4 FT (1.2 M) DEEP. THE

AE9889'STATION IS 286 FT (87.2 M) WEST OF THE CENTERLINE OF TRACY BLVD, 69.9

AE9889'FT (21.3 M) NORTHWEST OF AND ACROSS THE ROAD FROM A FADED ORANGE PIPE

AE9889'WITNESS POST MARKING A REBAR PROPERTY CORNER MARKER, 20.3 FT (6.2 M)

AE9889'NORTH OF THE CENTERLINE OF FINCK ROAD, 5.7 FT (1.7 M) SOUTH OF POWER

AE9889'POLE 591 WHICH IS EAST OF A DIRT TRACK ROAD GOING NORTH FROM FINCK

AE9889'ROAD TO THE NORTH SIDE OF A DRAINAGE CANAL PARALLELING THE ROAD. THE
 AE9889'STATION IS 2.0 FT (0.6 M) SOUTH OF A CARSONITE WITNESS POST. THE
 AE9889'STATION WAS OCCUPIED AS PART OF THE SAN JOAQUIN-SACRAMENTO RIVER DELTA
 AE9889'GPS/VERTICAL PROJECT. (RWK)
 AE9889
 AE9889 STATION RECOVERY (2002)
 AE9889
 AE9889'RECOVERY NOTE BY CA DEPT OF WATER RES 2002 (WLB)
 AE9889'RECOVERED AS DESCRIBED. THE STATION WAS OBSERVED AS PART OF THE DWR
 AE9889'DELTA 2002 SUBSIDENCE NETWORK HEIGHT MODERNIZATION SURVEY.

*** retrieval complete.
 Elapsed Time = 00:00:00

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.42

1 National Geodetic Survey, Retrieval Date = MARCH 29, 2007

AE9887 *****

AE9887 HT_MOD - This is a Height Modernization Survey Station.
 AE9887 DESIGNATION - MARTI
 AE9887 PID - AE9887
 AE9887 STATE/COUNTY- CA/SAN JOAQUIN
 AE9887 USGS QUAD - HOLT (1994)

AE9887
 AE9887 *CURRENT SURVEY CONTROL

AE9887*	NAD 83(1998)-	37 58 32.21892(N)	121 28 26.36097(W)	ADJUSTED
AE9887*	NAVD 88	- 3.49 (meters)	11.5 (feet)	GPS OBS

AE9887	EPOCH DATE	- 2002.86		
AE9887	X	- -2,628,346.857 (meters)		COMP
AE9887	Y	- -4,293,446.126 (meters)		COMP
AE9887	Z	- 3,903,293.259 (meters)		COMP
AE9887	LAPLACE CORR-	3.70 (seconds)		DEFLEC99
AE9887	ELLIP HEIGHT-	-28.62 (meters)	(10/28/05)	GPS OBS
AE9887	GEOID HEIGHT-	-32.12 (meters)		GEOID03

AE9887
 AE9887 HORZ ORDER - FIRST
 AE9887 ELLP ORDER - FOURTH CLASS I
 AE9887

AE9887.The horizontal coordinates were established by GPS observations
 AE9887.and adjusted by the National Geodetic Survey in October 2005..
 AE9887.This is a SPECIAL STATUS position. See SPECIAL STATUS under the
 AE9887.DATUM ITEM on the data sheet items page.
 AE9887.The horizontal coordinates are valid at the epoch date displayed above.
 AE9887.The epoch date for horizontal control is a decimal equivalence
 AE9887.of Year/Month/Day.

AE9887
 AE9887.The orthometric height was determined by GPS observations and a
 AE9887.high-resolution geoid model using precise GPS observation and
 AE9887.processing techniques.

AE9887
 AE9887.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AE9887

AE9887.The Laplace correction was computed from DEFLEC99 derived deflections.
 AE9887

AE9887.The ellipsoidal height was determined by GPS observations
 AE9887.and is referenced to NAD 83.

AE9887
 AE9887.The geoid height was determined by GEOID03.
 AE9887

	North	East	Units	Scale Factor	Converg.
AE9887;					
AE9887;SPC CA 3	- 664,211.726	1,914,430.768	MT	0.99993683	-0 35 46.7
AE9887;SPC CA 3	- 2,179,167.97	6,280,928.28	sFT	0.99993683	-0 35 46.7
AE9887;UTM 10	- 4,204,208.018	634,027.911	MT	0.99982125	+0 56 20.9

AE9887!
 AE9887!SPC CA 3 - Elev Factor x Scale Factor = Combined Factor
 AE9887!UTM 10 - 1.00000449 x 0.99993683 = 0.99994132
 AE9887!UTM 10 - 1.00000449 x 0.99982125 = 0.99982574

AE9887

AE9887 SUPERSEDED SURVEY CONTROL

AE9887

AE9887	NAD 83(1992)-	37 58 32.21670(N)	121 28 26.35829(W)	AD(1997.30)	1
AE9887	ELLIP H (07/10/98)	-28.64 (m)		GP(1997.30)	4 1
AE9887	NAD 83(1992)-	37 58 32.21629(N)	121 28 26.35858(W)	AD(1997.30)	1
AE9887	ELLIP H (05/14/98)	-28.55 (m)		GP(1997.30)	3 1

AE9887

AE9887.Superseded values are not recommended for survey control.

AE9887.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AE9887.[See file dsdata.txt](#) to determine how the superseded data were derived.

AE9887

AE9887_U.S. NATIONAL GRID SPATIAL ADDRESS: 10SFH3402804208(NAD 83)

AE9887_MARKER: DD = SURVEY DISK

AE9887_SETTING: 50 = ALUMINUM ALLOY ROD W/O SLEEVE (10 FT.+)

AE9887_STAMPING: MARTI 1997

AE9887_MARK LOGO: BOR

AE9887_PROJECTION: FLUSH

AE9887_MAGNETIC: N = NO MAGNETIC MATERIAL

AE9887_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AE9887_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AE9887+SATELLITE: SATELLITE OBSERVATIONS - December 02, 2002

AE9887_ROD/PIPE-DEPTH: 5.80 meters

AE9887

AE9887	HISTORY	- Date	Condition	Report By
AE9887	HISTORY	- 1997	MONUMENTED	BOR
AE9887	HISTORY	- 20021202	GOOD	CADWR

AE9887 HISTORY - 1997 MONUMENTED BOR

AE9887 HISTORY - 20021202 GOOD CADWR

AE9887

AE9887 STATION DESCRIPTION

AE9887

AE9887'DESCRIBED BY US BUREAU OF RECLAMATION 1997 (DWS)

AE9887'THE STATION IS LOCATED ABOUT 10.5 MI (16.9 KM) WEST OF STOCKTON ON THE

AE9887'NORTHWEST CORNER OF ROBERTS ISLAND, NEAR THE BRIDGE OVER TURNER CUT TO

AE9887'MACDONALD ISLAND. TO REACH THE STATION FROM THE INTERSECTION OF

AE9887'INTERSTATE HIGHWAY 5 AND STATE HIGHWAY 4 AT STOCKTON, GO WEST ON

AE9887'HIGHWAY 4 FOR 5.5 MI (8.9 KM) TO THE INTERSECTION OF INLAND DRIVE.

AE9887'TURN RIGHT AND GO NORTH ON INLAND DRIVE FOR 2.1 MI (3.4 KM) TO WHERE

AE9887'THE ROAD MAKES A 90-DEGREE TURN WEST. TURN LEFT AND GO WEST ON

AE9887'MACDONALD ROAD FOR 4.5 MI (7.2 KM) TO THE BRIDGE GOING TO MACDONALD

AE9887'ISLAND AND THE STATION ON THE LEFT. THE STATION IS A 2.5 INCH

AE9887'ALUMINUM ALLOY DOMED CAP WITH MAGNET, SET 0.2 FT (0.1 M) BELOW GROUND,

AE9887'ATTACHED TO A ALUMINUM ALLOY ROD DRIVEN 19 FT (5.8 M) TO REFUSAL,

AE9887'ENCASED IN A 4 INCH DIAMETER PVC PIPE SET TO A DEPTH OF 4 FT (1.2 M)

AE9887'IN A 1 FT (0.3 M) DIAMETER CONCRETE-FILLED HOLE 4 FT (1.2 M) DEEP.

AE9887'THE STATION IS 62.5 FT (19.1 M) SOUTHEAST OF A CHISELED CROSS ON THE

AE9887'CONCRETE CURB AT THE SOUTHEAST END OF THE BRIDGE, 50 FT (15.2 M)

AE9887'SOUTHWEST OF THE STOP SIGN AT THE INTERSECTION TO THE BRIDGE ACCESS

AE9887'ROAD, 21.7 FT (6.6 M) NORTH OF THE EAST (PAINTED WHITE) LEVEE ROAD

AE9887'GATEPOST, AND 1.2 FT (0.4 M) SOUTH OF A CARSONITE WITNESS POST. THE

AE9887'STATION WAS OCCUPIED AS PART OF THE SAN JOAQUIN-SACRAMENTO RIVER DELTA

AE9887'GPS/VERTICAL PROJECT.

AE9887

AE9887 STATION RECOVERY (2002)

AE9887

AE9887'RECOVERY NOTE BY CA DEPT OF WATER RES 2002 (WLB)
 AE9887'RECOVERED AS DESCRIBED WITH THE FOLLOWING ADDITIONAL NOTES. ADJACENT
 AE9887'THE BRIDGE TO MACDONALD ISLAND IS A LARGE SIGN FOR ZUCKERMAN HERITAGE,
 AE9887'INC PACKING SHED AND DELTA BLUEGRASS COMPANY. THE ROADWAY TO THE
 AE9887'BRIDGE IS 0.3 MI SOUTH OF THE ACCESS ROAD TO THE LAUNCH RAMP OF THE
 AE9887'TIKI LAGUN (SIC) RESORT AND MARINA. THE STATION WAS OBSERVED AS PART
 AE9887'OF THE DWR DELTA 2002 SUBSIDENCE NETWORK HEIGHT MODERNIZATION SURVEY.

*** retrieval complete.
 Elapsed Time = 00:00:00

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.42
 1 National Geodetic Survey, Retrieval Date = MARCH 29, 2007
 HS0455 *****
 HS0455 HT_MOD - This is a Height Modernization Survey Station.
 HS0455 DESIGNATION - F 192 RESET 1939
 HS0455 PID - HS0455
 HS0455 STATE/COUNTY- CA/SAN JOAQUIN
 HS0455 USGS QUAD - TRACY (1981)
 HS0455
 HS0455 *CURRENT SURVEY CONTROL
 HS0455

HS0455*	NAD 83(1998)-	37 44	43.51665(N)	121 27	52.67640(W)	ADJUSTED
HS0455*	NAVD 88	-	11.46 (meters)	37.6	(feet)	GPS OBS

 HS0455 EPOCH DATE - 2002.86
 HS0455 X - -2,635,834.070 (meters) COMP
 HS0455 Y - -4,307,256.083 (meters) COMP
 HS0455 Z - 3,883,126.123 (meters) COMP
 HS0455 LAPLACE CORR- -1.31 (seconds) DEFLEC99
 HS0455 ELLIP HEIGHT- -20.69 (meters) (10/28/05) GPS OBS
 HS0455 GEOID HEIGHT- -32.16 (meters) GEOID03
 HS0455
 HS0455 HORZ ORDER - FIRST
 HS0455 VERT ORDER - FIRST CLASS II (See Below)
 HS0455 ELLP ORDER - FOURTH CLASS I
 HS0455
 HS0455.The horizontal coordinates were established by GPS observations
 HS0455.and adjusted by the National Geodetic Survey in October 2005..
 HS0455.This is a SPECIAL STATUS position. See SPECIAL STATUS under the
 HS0455.DATUM ITEM on the data sheet items page.
 HS0455.The horizontal coordinates are valid at the epoch date displayed above.
 HS0455.The epoch date for horizontal control is a decimal equivalence
 HS0455.of Year/Month/Day.
 HS0455
 HS0455.The orthometric height was determined by GPS observations and a
 HS0455.high-resolution geoid model using precise GPS observation and
 HS0455.processing techniques.
 HS0455.The vertical order pertains to the NGVD 29 superseded value.
 HS0455
 HS0455.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 HS0455
 HS0455.The Laplace correction was computed from DEFLEC99 derived deflections.
 HS0455
 HS0455.The ellipsoidal height was determined by GPS observations
 HS0455.and is referenced to NAD 83.
 HS0455
 HS0455.The geoid height was determined by GEOID03.
 HS0455
 HS0455;
 North East Units Scale Factor Converg.

HS0455;SPC CA 3 - 638,656.080 1,914,989.439 MT 0.99992918 -0 35 26.1
 HS0455;SPC CA 3 - 2,095,324.16 6,282,761.18 sFT 0.99992918 -0 35 26.1
 HS0455;UTM 10 - 4,178,679.232 635,269.943 MT 0.99982538 +0 56 24.1
 HS0455
 HS0455! - Elev Factor x Scale Factor = Combined Factor
 HS0455!SPC CA 3 - 1.00000325 x 0.99992918 = 0.99993243
 HS0455!UTM 10 - 1.00000325 x 0.99982538 = 0.99982863

HS0455

HS0455 SUPERSEDED SURVEY CONTROL

HS0455

HS0455 NAD 83(1992)- 37 44 43.51505(N) 121 27 52.67384(W) AD(1997.30) 1
 HS0455 ELLIP H (07/10/98) -20.69 (m) GP(1997.30) 4 1
 HS0455 NAD 83(1992)- 37 44 43.51472(N) 121 27 52.67421(W) AD(1997.30) 1
 HS0455 ELLIP H (05/14/98) -20.60 (m) GP(1997.30) 3 1
 HS0455 NGVD 29 (??/??/92) 10.671 (m) 35.01 (f) ADJ UNCH 1 2

HS0455

HS0455.Superseded values are not recommended for survey control.

HS0455.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

HS0455.[See file dsdata.txt](#) to determine how the superseded data were derived.

HS0455

HS0455_U.S. NATIONAL GRID SPATIAL ADDRESS: 10SFG3527078679(NAD 83)

HS0455_MARKER: DB = BENCH MARK DISK

HS0455_SETTING: 30 = SET IN A LIGHT STRUCTURE

HS0455_SP_SET: CULVERT HEADWALL

HS0455_STAMPING: F 192 1935 RESET 1939

HS0455_MARK LOGO: CGS

HS0455_MAGNETIC: N = NO MAGNETIC MATERIAL

HS0455_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

HS0455_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

HS0455+SATELLITE: SATELLITE OBSERVATIONS - November 01, 2002

HS0455

HS0455	HISTORY	- Date	Condition	Report By
HS0455	HISTORY	- 1939	MONUMENTED	CGS
HS0455	HISTORY	- 1958	GOOD	NGS
HS0455	HISTORY	- 1967	GOOD	NGS
HS0455	HISTORY	- 19970912	GOOD	BOR
HS0455	HISTORY	- 20021101	GOOD	CADWR

HS0455

HS0455 STATION DESCRIPTION

HS0455

HS0455'DESCRIBED BY NATIONAL GEODETIC SURVEY 1958

HS0455'2.2 MI NW FROM TRACY.

HS0455'2.3 MILES NORTHWEST ALONG THE SOUTHERN PACIFIC COMPANY RAILROAD
 HS0455'FROM THE STATION AT TRACY, 112 FEET WEST AND ACROSS THE TRACK FROM
 HS0455'MILEPOLE 80, AT 24-INCH VITRIFIED CLAY PIPE CULVERT 79.96,
 HS0455'IN THE TOP OF THE SOUTHEAST END OF THE SOUTHWEST CONCRETE HEAD
 HS0455'WALL, 7.5 FEET SOUTHWEST OF THE SOUTHWEST RAIL, AND ABOUT 2 FEET
 HS0455'LOWER THAN THE TRACK.

HS0455

HS0455 STATION RECOVERY (1967)

HS0455

HS0455'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1967

HS0455'RECOVERED IN GOOD CONDITION.

HS0455

HS0455 STATION RECOVERY (1997)

HS0455

HS0455'RECOVERY NOTE BY US BUREAU OF RECLAMATION 1997 (DWS)

HS0455'THE STATION WAS RECOVERED 2.2 MI (3.5 KM) NORTHWEST OF TRACY. A
 HS0455'COMPLETE NEW DESCRIPTION FOLLOWS. TO REACH THE STATION FROM THE
 HS0455'CENTERLINE INTERSECTION OF INTERSTATE HIGHWAY 205 AND GRANT LINE ROAD
 HS0455'IN TRACY, GO WEST ON GRANT LINE ROAD FOR 1.2 MI (1.9 KM) TO THE
 HS0455'DIAGONAL INTERSECTION OF THE BYRON HIGHWAY. MAKE A SHARP LEFT TURN

HS0455'ONTO THE BYRON HIGHWAY AND GO SOUTHEAST FOR 1.2 MI (1.9 KM) TO
 HS0455'CALDRONS GENERAL STORE ON THE RIGHT AT 2650 BYRON HIGHWAY, AND THE
 HS0455'STATION ON THE LEFT. ALTERNATE ROUTE-- TO REACH FROM THE INTERSTATE
 HS0455'HIGHWAY 205/TRACY BOULEVARD INTERCHANGE, TRAVEL SOUTH ON TRACY BLVD
 HS0455'FOR 1.6 MI (2.6 KM) TO THE INTERSECTION OF 11TH STREET. TURN RIGHT
 HS0455'AND GO WEST ON 11TH STREET FOR ABOUT 0.68 MI (1.09 KM) TO THE
 HS0455'INTERSECTION OF BYRON ROAD ON THE RIGHT. BEAR RIGHT AND GO NORTHWEST
 HS0455'FOR ABOUT 1.05 MI (1.69 KM) TO THE STATION ON THE RIGHT OPPOSITE
 HS0455'CALDRONS GENERAL STORE. THE STATION IS A BENCH MARK DISK SET IN THE
 HS0455'TOP OF THE SOUTHEAST END OF THE SOUTHWEST CONCRETE HEADWALL OF A
 HS0455'24-INCH CONCRETE PIPE CULVERT UNDER THE RAILROAD TRACKS, 7.5 FT (2.3
 HS0455'M) SOUTHWEST OF THE SOUTHWEST RAIL, 1 FT (0.3 M) FROM THE END OF THE
 HS0455'HEADWALL, AND ABOUT 2 FT (0.6 M) LOWER THAN THE TRACKS. THE STATION
 HS0455'WAS OCCUPIED AS PART OF THE SAN JOAQUIN-SACRAMENTO RIVER DELTA
 HS0455'GPS/VERTICAL PROJECT. (RWK)

HS0455

STATION RECOVERY (2002)

HS0455

HS0455'RECOVERY NOTE BY CA DEPT OF WATER RES 2002 (WLB)

HS0455'RECOVERED AS DESCRIBED. THE STATION WAS OBSERVED AS PART OF THE DWR
 HS0455'DELTA 2002 SUBSIDENCE NETWORK HEIGHT MODERNIZATION SURVEY.

*** retrieval complete.

Elapsed Time = 00:00:00

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.42

1 National Geodetic Survey, Retrieval Date = MARCH 29, 2007

JS1244 *****

JS1244 HT_MOD - This is a Height Modernization Survey Station.

JS1244 TIDAL BM - This is a Tidal Bench Mark.

JS1244 DESIGNATION - HOPE RM 3

JS1244 PID - JS1244

JS1244 STATE/COUNTY- CA/SAN JOAQUIN

JS1244 USGS QUAD - THORNTON (1978)

JS1244

JS1244 *CURRENT SURVEY CONTROL

JS1244

JS1244* NAD 83(1998)- 38 13 31.37221(N) 121 29 32.15645(W) ADJUSTED

JS1244* NAVD 88 - 6.44 (meters) 21.1 (feet) GPS OBS

JS1244

JS1244 EPOCH DATE - 2002.86

JS1244 X - -2,620,781.549 (meters) COMP

JS1244 Y - -4,278,022.944 (meters) COMP

JS1244 Z - 3,925,111.725 (meters) COMP

JS1244 LAPLACE CORR- 5.37 (seconds) DEFLEC99

JS1244 ELLIP HEIGHT- -25.15 (meters) (10/28/05) GPS OBS

JS1244 GEOID HEIGHT- -31.61 (meters) GEOID03

JS1244

JS1244 HORZ ORDER - FIRST

JS1244 VERT ORDER - FIRST CLASS II (See Below)

JS1244 ELLP ORDER - FOURTH CLASS I

JS1244

JS1244.The horizontal coordinates were established by GPS observations

JS1244.and adjusted by the National Geodetic Survey in October 2005..

JS1244.This is a SPECIAL STATUS position. See SPECIAL STATUS under the
 JS1244.DATUM ITEM on the data sheet items page.

JS1244.The horizontal coordinates are valid at the epoch date displayed above.

JS1244.The epoch date for horizontal control is a decimal equivalence

JS1244.of Year/Month/Day.

JS1244

JS1244.The orthometric height was determined by GPS observations and a JS1244.high-resolution geoid model using precise GPS observation and JS1244.processing techniques.

JS1244.The vertical order pertains to the NGVD 29 superseded value.

JS1244

JS1244.This Tidal Bench Mark is designated as VM 8685

JS1244.by the [Center for Operational Oceanographic Products and Services.](#)

JS1244

JS1244.The X, Y, and Z were computed from the position and the ellipsoidal ht.

JS1244

JS1244.The Laplace correction was computed from DEFLEC99 derived deflections.

JS1244

JS1244.The ellipsoidal height was determined by GPS observations

JS1244.and is referenced to NAD 83.

JS1244

JS1244.The geoid height was determined by GEOID03.

JS1244

JS1244;		North	East	Units	Scale	Factor	Converg.
JS1244;SPC CA 3	-	691,949.097	1,913,119.081	MT	0.99996337	-0 36 27.0	
JS1244;SPC CA 3	-	2,270,169.66	6,276,624.85	sFT	0.99996337	-0 36 27.0	
JS1244;UTM 10	-	4,231,896.573	631,972.492	MT	0.99981450	+0 55 59.0	

JS1244

JS1244! - Elev Factor x Scale Factor = Combined Factor

JS1244!SPC CA 3 - 1.00000395 x 0.99996337 = 0.99996732

JS1244!UTM 10 - 1.00000395 x 0.99981450 = 0.99981845

JS1244

JS1244:		Primary Azimuth Mark	Grid Az
JS1244:SPC CA 3	-	THORNTON CANNING CO TANK	090 50 37.6
JS1244:UTM 10	-	THORNTON CANNING CO TANK	089 18 11.6

JS1244

JS1244	PID	Reference Object	Distance	Geod. Az
JS1244				dddmmss.s
JS1244	JS4235	THORNTON CANNING CO TANK	APPROX. 6.7 KM	0901410.6
JS1244	DB3791	HOPE AZ MK 2		2225608.6
JS1244	JS1243	HOPE	28.419 METERS	33435
JS1244	JS1242	TIDAL 11		35611

JS1244

JS1244

JS1244

SUPERSEDED SURVEY CONTROL							
JS1244	NAD 83(1992)-	38 13 31.37035(N)	121 29 32.14909(W)	AD(1997.30)	1		
JS1244	ELLIP H (07/10/98)	-25.31 (m)		GP(1997.30)	4 1		
JS1244	NAD 83(1992)-	38 13 31.36994(N)	121 29 32.14943(W)	AD(1997.30)	1		
JS1244	ELLIP H (05/14/98)	-25.22 (m)		GP(1997.30)	3 1		
JS1244	NAD 83(1992)-	38 13 31.36849(N)	121 29 32.14562(W)	AD(1991.35)	1		
JS1244	ELLIP H (10/14/94)	-25.23 (m)		GP(1991.35)	4 2		
JS1244	NAD 83(1992)-	38 13 31.36694(N)	121 29 32.14258(W)	AD(1991.35)	3		
JS1244	NAD 83(1986)-	38 13 31.36293(N)	121 29 32.14558(W)	AD(1984.00)	3		
JS1244	NAD 27	- 38 13 31.66656(N)	121 29 28.31639(W)	AD()	3		
JS1244	NGVD 29 (??/??/92)	5.576 (m)	18.29 (f)	ADJ UNCH	1 2		

JS1244

JS1244.Superseded values are not recommended for survey control.

JS1244.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

JS1244.[See file dsdata.txt](#) to determine how the superseded data were derived.

JS1244

JS1244_U.S. NATIONAL GRID SPATIAL ADDRESS: 10SFH3197231897(NAD 83)

JS1244_MARKER: DR = REFERENCE MARK DISK

JS1244_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JS1244_SP_SET: SET IN TOP OF CONCRETE MONUMENT

JS1244_STAMPING: HOPE NO 3 1931
 JS1244_MARK LOGO: CGS
 JS1244_MAGNETIC: N = NO MAGNETIC MATERIAL
 JS1244_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 JS1244+STABILITY: SURFACE MOTION
 JS1244_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 JS1244+SATELLITE: SATELLITE OBSERVATIONS - November 20, 2002

JS1244

HISTORY	- Date	Condition	Report By
JS1244 HISTORY	- 1954	MONUMENTED	CGS
JS1244 HISTORY	- 1970	GOOD	NGS
JS1244 HISTORY	- 19940112	GOOD	CADT
JS1244 HISTORY	- 19970829	GOOD	BOR
JS1244 HISTORY	- 20021120	POOR	CADWR
JS1244 HISTORY	- 20040810	POOR	BESTOR

JS1244
 JS1244 STATION DESCRIPTION

JS1244'DESCRIBED BY COAST AND GEODETIC SURVEY 1954
 JS1244'REFERENCE MARK 3 IS A C AND GS REFERENCE MARK DISK STAMPED HOPE
 JS1244'NO 3 1931 SET IN THE TOP OF A 12-INCH CONCRETE CYLINDER PROJECTING
 JS1244'0.8 FOOT ABOVE THE GROUND AND IS 87.5 FEET SOUTH OF THE
 JS1244'CENTERLINE OF WALNUT GROVE--THORNTON ROAD, 70.8 FEET SOUTH OF THE
 JS1244'SOUTHWEST CORNER OF THE WEST CONCRETE ABUTMENT OF THE BRIDGE, 22
 JS1244'FEET EAST OF THE CENTERLINE OF A LEVEE ROAD, 1.3 FEET NORTHWEST
 JS1244'OF A METAL WITNESS POST, AND ABOUT 1 FOOT HIGHER THAN THE
 JS1244'STATION MARK.

JS1244
 JS1244 STATION RECOVERY (1970)

JS1244'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970
 JS1244'2.4 MI SE FROM WALNUT GROVE.
 JS1244'2.4 MILES SOUTHEAST ALONG WALNUT GROVE--THORNTON ROAD FROM THE
 JS1244'POST OFFICE AT WALNUT GROVE, AT THE WEST END OF CONCRETE BRIDGE
 JS1244'NO. 1473 OVER THE SOUTH FORK MOKELUMNE RIVER, AT THE NORTH END
 JS1244'OF STATEN ISLAND, 93.2 FEET SOUTH--SOUTHEAST OF TRIANGULATION
 JS1244'STATION HOPE 1931 = TIDAL 7, 87.5 FEET SOUTH OF THE CENTERLINE
 JS1244'OF WALNUT GROVE--THORNTON ROAD, 70.8 FEET SOUTH OF THE SOUTHWEST
 JS1244'CORNER OF THE WEST CONCRETE ABUTMENT OF THE BRIDGE, 22 FEET EAST
 JS1244'OF THE CENTERLINE OF A LEVEE ROAD, 1.3 FEET NORTHWEST OF A
 JS1244'METAL WITNESS POST, AND SET IN THE TOP OF A CONCRETE POST
 JS1244'PROJECTING 0.8 FOOT ABOVE THE GROUND.

JS1244
 JS1244 STATION RECOVERY (1994)

JS1244'RECOVERY NOTE BY CALTRANS 1994 (DBS)
 JS1244'THE STATION WAS RECOVERED. A COMPLETE NEW DESCRIPTION FOLLOWS.
 JS1244'
 JS1244'THE STATION IS LOCATED AT THE WEST END OF THE WALNUT GROVE ROAD BRIDGE
 JS1244'(NO. 1473) OVER THE SOUTH FORK OF THE MOKELUMNE RIVER, ABOUT 23 MI
 JS1244'(37.0 KM) NORTHWEST OF STOCKTON, ABOUT 3.5 MI (5.6 KM) WEST OF
 JS1244'THORNTON AND ABOUT 2 MI (3.2 KM) SOUTHEAST OF WALNUT GROVE.
 JS1244'
 JS1244'TO REACH THE STATION FROM THE INTERSECTION OF INTERSTATE HIGHWAY 5 AND
 JS1244'WALNUT GROVE ROAD (THORNTON/WALNUT GROVE EXIT), ABOUT 21 MI (33.8 KM)
 JS1244'NORTH--NORTHWEST OF STOCKTON, GO WEST ON WALNUT GROVE ROAD FOR 3.35 MI
 JS1244'(5.39 KM) TO THE WEST END OF THE BRIDGE (NO. 1473) OVER THE SOUTH FORK
 JS1244'OF THE MOKELUMNE RIVER AND THE STATION ON THE LEFT.
 JS1244'
 JS1244'THE STATION IS IN THE TOP OF THE RIVER LEVEE, 87.5 FT (26.7 M) SOUTH
 JS1244'OF THE CENTERLINE OF WALNUT GROVE ROAD, 70.8 FT (21.6 M) SOUTH OF THE
 JS1244'SOUTHWEST CORNER OF THE WEST CONCRETE ABUTMENT OF THE BRIDGE, AND

JS1244'PROJECTS 0.8 FT (0.2 M) ABOVE THE GROUND.
 JS1244'
 JS1244'THE STATION WAS OCCUPIED AS PART OF A CALIFORNIA HPGN DENSIFICATION
 JS1244'SURVEY.
 JS1244
 JS1244
 JS1244 STATION RECOVERY (1997)
 JS1244
 JS1244'RECOVERY NOTE BY US BUREAU OF RECLAMATION 1997 (DWS)
 JS1244'THE STATION WAS RECOVERED AND IS ABOUT 24.25 MI (39.03 KM) SOUTH OF
 JS1244'THE STATE CAPITOL IN SACRAMENTO. THE STATION IS NOW 2.4 FT (0.7 M)
 JS1244'NORTH-NORTHWEST OF A CARSONITE WITNESS POST, 4.4 FT (1.3 M)
 JS1244'NORTH-NORTHWEST OF A METAL T FENCE POST, AND PROJECTING 1.0 FT (0.3 M)
 JS1244'ABOVE THE GROUND. THE STATION WAS OCCUPIED AS PART OF THE SAN
 JS1244'JOAQUIN-SACRAMENTO RIVER DELTA GPS/VERTICAL PROJECT.
 JS1244
 JS1244
 JS1244 STATION RECOVERY (2002)
 JS1244
 JS1244'RECOVERY NOTE BY CA DEPT OF WATER RES 2002
 JS1244'RECOVERED AS DESCRIBED IN POOR CONDITION. STATION WAS INCLUDED THIS
 JS1244'TIME TO ACQUIRE DATA FOR COMPARISON WITH PREVIOUS (1997) HT MOD
 JS1244'SURVEY. THE STATION WAS OBSERVED AS PART OF THE DWR DELTA 2002
 JS1244'SUBSIDENCE NETWORK HEIGHT MODERNIZATION SURVEY.
 JS1244
 JS1244
 JS1244 STATION RECOVERY (2004)
 JS1244
 JS1244'RECOVERY NOTE BY BESTOR ENGINEERS INCORPORATED 2004 (SDT)
 JS1244'POINT FOUND UNSTABLE AND PROJECTING APPROXIMATELY 2 FEET ABOVE GROUND.
 JS1244'

*** retrieval complete.
 Elapsed Time = 00:00:00

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.42

1 National Geodetic Survey, Retrieval Date = MARCH 29, 2007

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JS1193 *****
JS1193 DESIGNATION - M 953
JS1193 PID - JS1193
JS1193 STATE/COUNTY- CA/SACRAMENTO
JS1193 USGS QUAD - ELK GROVE (1979)
JS1193
JS1193 *CURRENT SURVEY CONTROL
JS1193
JS1193* NAD 83(1998)- 38 24 32.02629(N) 121 19 29.68762(W) ADJUSTED
JS1193* NAVD 88 - 19.413 (meters) 63.69 (feet) ADJUSTED
JS1193
JS1193 EPOCH DATE - 2004.69
JS1193 X - -2,601,714.373 (meters) COMP
JS1193 Y - -4,274,879.958 (meters) COMP
JS1193 Z - 3,941,102.922 (meters) COMP
JS1193 LAPLACE CORR- 5.97 (seconds) DEFLECN99
JS1193 ELLIP HEIGHT- -11.21 (meters) (10/28/05) GPS OBS
JS1193 GEOID HEIGHT- -30.61 (meters) GEOID03
JS1193 DYNAMIC HT - 19.400 (meters) 63.65 (feet) COMP
JS1193 MODELED GRAV- 980,002.6 (mgal) NAVD 88
JS1193
JS1193 HORZ ORDER - B
JS1193 VERT ORDER - FIRST CLASS II
JS1193 ELLP ORDER - FOURTH CLASS I
JS1193
JS1193.The horizontal coordinates were established by GPS observations
  
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JS1193.and adjusted by the National Geodetic Survey in September 2005..
JS1193.This is a SPECIAL STATUS position. See SPECIAL STATUS under the
JS1193.DATUM ITEM on the data sheet items page.
JS1193.The horizontal coordinates are valid at the epoch date displayed above.
JS1193.The epoch date for horizontal control is a decimal equivalence
JS1193.of Year/Month/Day.

JS1193
JS1193.The orthometric height was determined by differential leveling
JS1193.and adjusted by the National Geodetic Survey in June 1991..
JS1193
JS1193.The X, Y, and Z were computed from the position and the ellipsoidal ht.
JS1193
JS1193.The Laplace correction was computed from DEFLEC99 derived deflections.
JS1193
JS1193.The ellipsoidal height was determined by GPS observations
JS1193.and is referenced to NAD 83.

JS1193
JS1193.The geoid height was determined by GEOID03.
JS1193

JS1193.The dynamic height is computed by dividing the NAVD 88
JS1193.geopotential number by the normal gravity value computed on the
JS1193.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
JS1193.degrees latitude (g = 980.6199 gals.).

JS1193
JS1193.The modeled gravity was interpolated from observed gravity values.
JS1193

JS1193;		North	East	Units	Scale	Factor	Converg.
JS1193;SPC CA 2	-	582,611.562	2,058,962.287	MT	0.99998372		+0 25 32.2
JS1193;SPC CA 2	-	1,911,451.43	6,755,112.10	sFT	0.99998372		+0 25 32.2
JS1193;UTM 10	-	4,252,512.912	646,252.602	MT	0.99986342		+1 02 27.1

JS1193
JS1193!
JS1193!SPC CA 2
JS1193!UTM 10

-	Elev Factor	x	Scale Factor	=	Combined Factor
-	1.00000176	x	0.99998372	=	0.99998548
-	1.00000176	x	0.99986342	=	0.99986518

JS1193

SUPERSEDED SURVEY CONTROL

JS1193
JS1193
JS1193 NAD 83(1998)- 38 24 32.02591(N) 121 19 29.68663(W) AD(2002.86) 1
JS1193 NAD 83(1992)- 38 24 32.02447(N) 121 19 29.68413(W) AD(1997.30) 1
JS1193 ELLIP H (07/10/98) -11.21 (m) GP(1997.30) 4 1
JS1193 NAD 83(1992)- 38 24 32.02410(N) 121 19 29.68449(W) AD(1997.30) 1
JS1193 ELLIP H (05/14/98) -11.12 (m) GP(1997.30) 3 1
JS1193 NAD 83(1992)- 38 24 32.02206(N) 121 19 29.67990(W) AD(1991.35) 1
JS1193 ELLIP H (06/13/97) -11.15 (m) GP(1991.35) 4 2
JS1193 NAVD 88 (06/13/97) 19.41 (m) 63.7 (f) LEVELING 3
JS1193 NGVD 29 (??/??/92) 18.676 (m) 61.27 (f) ADJ UNCH 1 2

JS1193

JS1193.Superseded values are not recommended for survey control.
JS1193.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
JS1193.[See file dsdata.txt](#) to determine how the superseded data were derived.

JS1193

JS1193_U.S. NATIONAL GRID SPATIAL ADDRESS: 10SFH4625352513(NAD 83)

JS1193_MARKER: DB = BENCH MARK DISK

JS1193_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

JS1193_SP_SET: CONCRETE POST

JS1193_STAMPING: M 953 1962

JS1193_MARK LOGO: CGS

JS1193_MAGNETIC: N = NO MAGNETIC MATERIAL

JS1193_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

JS1193+STABILITY: SURFACE MOTION

JS1193_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

JS1193+SATELLITE: SATELLITE OBSERVATIONS - October 05, 2004

JS1193	HISTORY	- Date	Condition	Report By
JS1193	HISTORY	- 1962	MONUMENTED	CGS
JS1193	HISTORY	- 1987	GOOD	NGS
JS1193	HISTORY	- 19940201	GOOD	CADT
JS1193	HISTORY	- 19970827	GOOD	BOR
JS1193	HISTORY	- 20021105	GOOD	CADWR
JS1193	HISTORY	- 20040408	GOOD	CADT
JS1193	HISTORY	- 20040727	POOR	WOOROD
JS1193	HISTORY	- 20040810	GOOD	BESTOR
JS1193	HISTORY	- 20041005	GOOD	CADT

JS1193

JS1193 STATION DESCRIPTION

JS1193

JS1193'DESCRIBED BY COAST AND GEODETIC SURVEY 1962

JS1193'2 MI SW FROM SHELDON.

JS1193'2.05 MILES SOUTHWEST ALONG GRANT LINE ROAD FROM THE JUNCTION
 JS1193'OF WILTON ROAD AT SHELDON, AT THE JUNCTION OF ELK GROVE BOULEVARD,
 JS1193'40 FEET NORTHWEST OF THE CENTER LINE OF THE ROAD, 104 FEET
 JS1193'SOUTH OF THE CENTER LINE OF THE BOULEVARD, 17 FEET SOUTHWEST OF
 JS1193'A FENCE CORNER, 2 1/2 FEET NORTHEAST OF TELEPHONE POLE 20/1 WITH
 JS1193'A GUY WIRE, 5.0 FEET SOUTHWEST OF A FENCE, 1.3 FEET SOUTHWEST
 JS1193'OF A WITNESS POST, ABOUT 1 FOOT HIGHER THAN THE ROAD, AND SET
 JS1193'IN THE TOP OF A CONCRETE POST PROJECTING 0.4 FOOT ABOVE THE
 JS1193'GROUND.

JS1193

JS1193 STATION RECOVERY (1987)

JS1193

JS1193'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1987

JS1193'RECOVERED IN GOOD CONDITION.

JS1193

JS1193 STATION RECOVERY (1994)

JS1193

JS1193'RECOVERY NOTE BY CALTRANS 1994 (JCB)

JS1193'THE STATION WAS RECOVERED. A COMPLETE NEW DESCRIPTION FOLLOWS. THE
 JS1193'STATION IS LOCATED AT THE INTERSECTION OF GRANT LINE ROAD AND ELK
 JS1193'GROVE BLVD, ABOUT 15 MI (24.1 KM) SOUTHEAST OF SACRAMENTO AND 2 MI
 JS1193'(3.2 KM) EAST OF ELK GROVE. TO REACH THE STATION FROM THE STATE
 JS1193'HIGHWAY 99/GRANT LINE ROAD INTERCHANGE, ABOUT 2 MI (3.2 KM) SOUTH OF
 JS1193'ELK GROVE, GO NORTHEAST ON GRANT LINE ROAD FOR 3.1 MI (5.0 KM) TO A
 JS1193'SIDE ROAD LEFT, ELK GROVE BLVD AND THE STATION ON THE LEFT. THE
 JS1193'STATION IS LOCATED WEST OF THE CENTERLINE INTERSECTION OF ELK GROVE
 JS1193'BLVD AND GRANT LINE ROAD, 89.0 FT (27.1 M) SOUTH OF THE CENTERLINE OF
 JS1193'ELK GROVE BLVD, 40.5 FT (12.3 M) NORTHWEST OF THE CENTERLINE OF GRANT
 JS1193'LINE ROAD, 3.8 FT (1.2 M) EAST OF A GUYED TELEPHONE POLE, 1.5 FT (0.5
 JS1193'M) WEST OF A METAL WITNESS POST, LEVEL WITH GRANT LINE ROAD AND
 JS1193'PROJECTS 0.2 FT (0.1 M) ABOVE GROUND. THIS STATION WAS OCCUPIED AS
 JS1193'PART OF A CALIFORNIA HPGN DENSIFICATION SURVEY.

JS1193

JS1193 STATION RECOVERY (1997)

JS1193

JS1193'RECOVERY NOTE BY US BUREAU OF RECLAMATION 1997 (DWS)

JS1193'THE STATION WAS RECOVERED. TO REACH THE STATION FROM THE INTERSECTION
 JS1193'OF STATE HIGHWAY 99 AND ELK GROVE BOULEVARD, GO EAST ON ELK GROVE
 JS1193'BOULEVARD FOR 0.7 MI (1.1 KM) TO WILLIAMSON DRIVE. CONTINUE EAST ON
 JS1193'ELK GROVE BOULEVARD FOR 2.75 MI (4.43 KM) TO A T-INTERSECTION WITH
 JS1193'GRANT LINE ROAD AND THE STATION ON THE RIGHT (SOUTH) , JUST NORTH OF A
 JS1193'TELEPHONE POLE ON THE WEST SIDE OF GRANT LINE ROAD. THE STATION WAS
 JS1193'OCCUPIED AS PART OF THE SAN JOAQUIN-SACRAMENTO RIVER DELTA
 JS1193'GPS/VERTICAL PROJECT.

JS1193

JS1193 STATION RECOVERY (2002)

JS1193
 JS1193'RECOVERY NOTE BY CA DEPT OF WATER RES 2002 (WLB)
 JS1193'RECOVERED AS DESCRIBED. THE STATION WAS OBSERVED AS PART OF THE DWR
 JS1193'DELTA 2002 SUBSIDENCE NETWORK HEIGHT MODERNIZATION SURVEY.
 JS1193
 JS1193 STATION RECOVERY (2004)
 JS1193
 JS1193'RECOVERY NOTE BY CALTRANS 2004 (RLM)
 JS1193'RECOVERED IN GOOD CONDITION.
 JS1193
 JS1193 STATION RECOVERY (2004)
 JS1193
 JS1193'RECOVERY NOTE BY WOOD RODGERS INC 2004 (MJS)
 JS1193'APPEARS DISTURBED
 JS1193'DID NOT FIT DATASHEET POSITION
 JS1193
 JS1193 STATION RECOVERY (2004)
 JS1193
 JS1193'RECOVERY NOTE BY BESTOR ENGINEERS INCORPORATED 2004 (SDT)
 JS1193'RECOVERED IN GOOD CONDITION.
 JS1193
 JS1193 STATION RECOVERY (2004)
 JS1193
 JS1193'RECOVERY NOTE BY CALTRANS 2004 (DWM)
 JS1193'THE STATION WAS RECOVERED AS DESCRIBED. THIS STATION WAS OCCUPIED AS
 JS1193'PART OF A CALTRANS NORTH REGION OFFICE OF SURVEYORS GPS HEIGHT
 JS1193'MODERNIZATION PROJECT.

 *** retrieval complete.
 Elapsed Time = 00:00:00

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.42
 1 National Geodetic Survey, Retrieval Date = MARCH 29, 2007
 JT0221 *****
 JT0221 FBN - This is a Federal Base Network Control Station.
 JT0221 DESIGNATION - N 935 RESET
 JT0221 PID - JT0221
 JT0221 STATE/COUNTY- CA/SOLANO
 JT0221 USGS QUAD - FAIRFIELD NORTH (1980)
 JT0221
 JT0221 *CURRENT SURVEY CONTROL
 JT0221

JT0221*	NAD 83(1998)-	38 18 41.15729(N)	122 01 58.03461(W)	ADJUSTED
JT0221*	NAVD 88	- 71.945 (meters)	236.04 (feet)	ADJUSTED

JT0221	EPOCH DATE	-	2002.86	
JT0221	X	-	-2,657,912.137 (meters)	COMP
JT0221	Y	-	-4,248,137.189 (meters)	COMP
JT0221	Z	-	3,932,651.598 (meters)	COMP
JT0221	LAPLACE CORR-		-4.69 (seconds)	DEFLEC99
JT0221	ELLIP HEIGHT-		40.31 (meters)	(10/28/05) GPS OBS
JT0221	GEOID HEIGHT-		-31.64 (meters)	GEOID03
JT0221	DYNAMIC HT	-	71.899 (meters)	235.89 (feet) COMP
JT0221	MODELED GRAV-		979,982.5 (mgal)	NAVD 88

JT0221
 JT0221 HORZ ORDER - FIRST
 JT0221 VERT ORDER - FIRST CLASS I
 JT0221 ELLP ORDER - FOURTH CLASS I
 JT0221
 JT0221.[ITRF positions](#) are available for this station.

JT0221.The horizontal coordinates were established by GPS observations
 JT0221.and adjusted by the National Geodetic Survey in October 2005..
 JT0221.This is a SPECIAL STATUS position. See SPECIAL STATUS under the
 JT0221.DATUM ITEM on the data sheet items page.
 JT0221.The horizontal coordinates are valid at the epoch date displayed above.
 JT0221.The epoch date for horizontal control is a decimal equivalence
 JT0221.of Year/Month/Day.

JT0221
 JT0221.The orthometric height was determined by differential leveling
 JT0221.and adjusted by the National Geodetic Survey in June 1991..
 JT0221
 JT0221.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 JT0221
 JT0221.The Laplace correction was computed from DEFLEC99 derived deflections.
 JT0221
 JT0221.The ellipsoidal height was determined by GPS observations
 JT0221.and is referenced to NAD 83.

JT0221
 JT0221.The geoid height was determined by GEOID03.
 JT0221
 JT0221.The dynamic height is computed by dividing the NAVD 88
 JT0221.geopotential number by the normal gravity value computed on the
 JT0221.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 JT0221.degrees latitude (g = 980.6199 gals.).
 JT0221
 JT0221.The modeled gravity was interpolated from observed gravity values.

JT0221

JT0221;		North	East	Units	Scale Factor	Converg.
JT0221;SPC CA 2	-	571,574.359	1,997,132.410	MT	1.00000504	-0 01 14.4
JT0221;SPC CA 2	-	1,875,240.21	6,552,258.58	sFT	1.00000504	-0 01 14.4
JT0221;UTM 10	-	4,240,812.517	584,559.244	MT	0.99968806	+0 35 58.7

JT0221

JT0221!		Elev Factor	x	Scale Factor	=	Combined Factor
JT0221!SPC CA 2	-	0.99999368	x	1.00000504	=	0.99999872
JT0221!UTM 10	-	0.99999368	x	0.99968806	=	0.99968174

JT0221

SUPERSEDED SURVEY CONTROL

JT0221

JT0221	NAD 83(1998)-	38 18	41.15617(N)	122 01	58.03292(W)	AD(1998.50)	A
JT0221	ELLIP H (04/06/00)		40.29 (m)			GP(1998.50)	3 1
JT0221	NAD 83(1992)-	38 18	41.15531(N)	122 01	58.03161(W)	AD(1997.30)	1
JT0221	ELLIP H (07/10/98)		40.26 (m)			GP(1997.30)	4 1
JT0221	NAD 83(1992)-	38 18	41.15513(N)	122 01	58.03237(W)	AD(1997.30)	1
JT0221	ELLIP H (05/14/98)		40.36 (m)			GP(1997.30)	3 1
JT0221	NAD 83(1992)-	38 18	41.15192(N)	122 01	58.02778(W)	AD(1991.35)	1
JT0221	ELLIP H (06/20/97)		40.43 (m)			GP(1991.35)	4 2
JT0221	NAVD 88 (10/28/05)		71.94 (m)		236.0 (f)	LEVELING	3
JT0221	NAVD 88 (04/06/00)		71.94 (m)		236.0 (f)	LEVELING	3
JT0221	NAVD 88 (10/29/98)		71.94 (m)		236.0 (f)	LEVELING	3
JT0221	NAVD 88 (06/20/97)		71.94 (m)		236.0 (f)	LEVELING	3
JT0221	NGVD 29 (??/??/??)		71.15 (m)		233.4 (f)	RESET	3

JT0221
 JT0221.Superseded values are not recommended for survey control.
 JT0221.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 JT0221.[See file dsdata.txt](#) to determine how the superseded data were derived.

JT0221
 JT0221_U.S. NATIONAL GRID SPATIAL ADDRESS: 10SEH8455940813(NAD 83)
 JT0221_MARKER: DB = BENCH MARK DISK
 JT0221_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 JT0221_SP_SET: SET IN TOP OF CONCRETE MONUMENT
 JT0221_STAMPING: N 935 RESET 1965
 JT0221_MARK LOGO: CGS

JT0221_PROJECTION: FLUSH
 JT0221_MAGNETIC: N = NO MAGNETIC MATERIAL
 JT0221_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 JT0221+STABILITY: SURFACE MOTION
 JT0221_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 JT0221+SATELLITE: SATELLITE OBSERVATIONS - October 06, 2004

JT0221
 JT0221 HISTORY - Date Condition Report By
 JT0221 HISTORY - 1965 MONUMENTED CGS
 JT0221 HISTORY - 1967 GOOD NGS
 JT0221 HISTORY - 1988 GOOD USPSQD
 JT0221 HISTORY - 19960514 GOOD CADT
 JT0221 HISTORY - 19970716 GOOD NGS
 JT0221 HISTORY - 19971112 GOOD LOCSUR
 JT0221 HISTORY - 19980507 GOOD NGS
 JT0221 HISTORY - 19980709 GOOD GEOMET
 JT0221 HISTORY - 20021126 GOOD CADWR
 JT0221 HISTORY - 20041006 GOOD DEWDAV

JT0221
 JT0221 STATION DESCRIPTION

JT0221
 JT0221'DESCRIBED BY NATIONAL GEODETIC SURVEY 1967
 JT0221'3.8 MI SW FROM VACAVILLE.
 JT0221'0.8 MILE SOUTHWEST ALONG MERCHANT STREET FROM THE BANK OF
 JT0221'AMERICA AT VACAVILLE, THENCE 2.95 MILES SOUTHWEST ALONG
 JT0221'INTERSTATE HIGHWAY 80, 195 FEET EAST AND ACROSS THE HIGHWAY FROM
 JT0221'BENCH MARK D 1070, 0.1 MILE SOUTH OF THE CROSSING OF LAUREL
 JT0221'CREEK, 51 FEET EAST OF THE SOUTH END OF THE STEEL GUARDRAIL
 JT0221'BETWEEN HIGHWAY LANES, 22 FEET WEST OF THE CENTER LINE OF A
 JT0221'FRONTAGE ROAD, 2.1 FEET EAST OF A FENCE, 1.6 FEET NORTH OF A
 JT0221'WITNESS POST, ABOUT LEVEL WITH THE HIGHWAY, AND SET IN THE TOP
 JT0221'OF A CONCRETE POST FLUSH WITH THE GROUND.

JT0221
 JT0221 STATION RECOVERY (1988)

JT0221
 JT0221'RECOVERY NOTE BY US POWER SQUADRON 1988 (TM)
 JT0221'RECOVERED IN GOOD CONDITION.

JT0221
 JT0221 STATION RECOVERY (1996)

JT0221
 JT0221'RECOVERY NOTE BY CALTRANS 1996 (JDD)
 JT0221'THE STATION WAS RECOVERED. A COMPLETE NEW DESCRIPTION FOLLOWS. THE
 JT0221'STATION IS LOCATED ON THE SOUTHEAST SIDE OF INTERSTATE HIGHWAY 80,
 JT0221'ABOUT 4 MI (6.4 KM) NORTH OF FAIRFIELD AND 4 MI (6.4 KM) SOUTHWEST OF
 JT0221'VACAVILLE. TO REACH THE STATION FROM THE INTERSTATE 80/AIR BASE
 JT0221'PARKWAY-WATERMAN BLVD INTERCHANGE IN FAIRFIELD, GO NORTHEASTERLY ON
 JT0221'INTERSTATE 80 FOR 3.9 MI (6.3 KM) TO THE CHERRY GLEN/LAGOON VALLEY
 JT0221'ROADS OFF-RAMP. TAKE THE OFF-RAMP NORTHEAST FOR 0.15 MI (0.24 KM) TO
 JT0221'LAGOON VALLEY ROAD. BEAR RIGHT AND GO EAST ON LAGOON VALLEY ROAD FOR
 JT0221'0.1 MI (0.2 KM) TO THE INTERSECTION WITH NELSON ROAD ON THE RIGHT AND
 JT0221'RIVIERA ROAD ON THE LEFT. TURN RIGHT AND GO SOUTH ON NELSON ROAD FOR
 JT0221'1.15 MI (1.85 KM) TO THE STATION ON THE RIGHT, 0.25 MI (0.40 KM) NORTH
 JT0221'OF THE END OF NELSON ROAD. THE STATION IS 44.0 FT (13.4 M)
 JT0221'SOUTH-SOUTHWEST OF A METAL SIGN POST ON THE WEST SIDE OF NELSON ROAD,
 JT0221'19.8 FT (6.0 M) WEST OF THE CENTERLINE OF NELSON ROAD, 2.1 FT (0.6 M)
 JT0221'NORTHEAST OF A CARSONITE WITNESS POST AND A METAL WITNESS POST BENT 45
 JT0221'DEGREES TO THE NORTH, 1.8 FT (0.5 M) EAST OF THE FREEWAY RIGHT-OF-WAY
 JT0221'FENCE, 0.5 FT (0.2 M) LOWER THAN NELSON ROAD AND RECESSED 0.2 FT (0.1
 JT0221'M) BELOW GROUND. THE STATION WAS OCCUPIED AS PART OF A CALIFORNIA
 JT0221'HPGN DENSIFICATION SURVEY.

JT0221
 JT0221 STATION RECOVERY (1997)

JT0221
 JT0221'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1997 (JDD)
 JT0221'THE STATION WAS RECOVERED AND OCCUPIED AS PART OF THE SAN
 JT0221'JOAQUIN-SACRAMENTO RIVER DELTA GPS/VERTICAL PROJECT.
 JT0221
 JT0221
 JT0221 STATION RECOVERY (1997)
 JT0221
 JT0221'RECOVERY NOTE BY LOCAL SURVEYOR (INDIVIDUAL OR FIRM) 1997 (GLD)
 JT0221'RECOVERED AS DESCRIBED.
 JT0221
 JT0221
 JT0221 STATION RECOVERY (1998)
 JT0221
 JT0221'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1998 (CSM)
 JT0221'THE STATION IS LOCATED ABOUT 6.1 KM (3.80 MI) SOUTHWEST OF VACAVILLE,
 JT0221'ON THE WEST SIDE OF A DEAD END FRONTAGE ROAD (NELSON RD), ON THE
 JT0221'EAST-SOUTHEAST SIDE OF INTERSTATE HIGHWAY 80. OWNERSHIP--CALIFORNIA
 JT0221'DEPARTMENT OF TRANSPORTATION. TO REACH THE STATION FROM THE OVERPASS
 JT0221'JUNCTION OF INTERSTATE HIGHWAY 80 AND LAGOON VALLEY RD ABOUT 4.3 KM
 JT0221'(2.65 MI) SOUTHWEST OF VACAVILLE, GO EAST FOR 0.17 KM (0.10 MI) ON
 JT0221'LAGOON VALLEY RD TO NELSON RD ON THE RIGHT. TURN RIGHT, SOUTHWESTERLY
 JT0221'FOR 1.85 KM (1.15 MI) ON THE FRONTAGE ROAD TO THE STATION ON THE
 JT0221'RIGHT. LOCATED 12.6 M (41.3 FT) WEST-NORTHWEST OF A 40 MPH SIGNPOST,
 JT0221'6.0 M (19.7 FT) WEST OF THE CENTER OF NELSON RD, 0.6 M (2.0 FT)
 JT0221'NORTH-NORTHEAST OF A FIBERGLASS WITNESS POST, 0.5 M (1.6 FT) EAST OF A
 JT0221'RIGHT-OF-WAY FENCE, 0.4 M (1.3 FT) NORTH-NORTHWEST OF A METAL WITNESS
 JT0221'POST, ABOUT 0.1 M (0.3 FT) BELOW THE ROAD LEVEL AND RECESSED 5 CM
 JT0221'BELOW GROUND.
 JT0221
 JT0221
 JT0221 STATION RECOVERY (1998)
 JT0221
 JT0221'RECOVERY NOTE BY GEOMETRICS GPS INCORPORATED 1998 (GLD)
 JT0221'RECOVERED AS DESCRIBED.
 JT0221
 JT0221
 JT0221 STATION RECOVERY (2002)
 JT0221
 JT0221'RECOVERY NOTE BY CA DEPT OF WATER RES 2002 (WLB)
 JT0221'RECOVERED AS DESCRIBED. THE STATION WAS OBSERVED AS PART OF THE DWR
 JT0221'DELTA 2002 SUBSIDENCE NETWORK HEIGHT MODERNIZATION SURVEY.
 JT0221
 JT0221
 JT0221 STATION RECOVERY (2004)
 JT0221
 JT0221'RECOVERY NOTE BY DEWBERRY DAVIS 2004 (KEC)
 JT0221'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
 Elapsed Time = 00:00:00

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.42
 1 National Geodetic Survey, Retrieval Date = MARCH 29, 2007
 JT9527 *****
 JT9527 DESIGNATION - E 1394
 JT9527 PID - JT9527
 JT9527 STATE/COUNTY- CA/SOLANO
 JT9527 USGS QUAD - CORDELIA (1980)
 JT9527
 JT9527 *CURRENT SURVEY CONTROL
 JT9527
 JT9527* NAD 83(1992)- 38 09 23.34383(N) 122 12 52.46371(W) ADJUSTED
 JT9527* NAVD 88 - 123.013 (meters) 403.59 (feet) ADJUSTED
 JT9527

JT9527 EPOCH DATE - 1997.30
 JT9527 X - -2,677,072.776 (meters) COMP
 JT9527 Y - -4,248,722.437 (meters) COMP
 JT9527 Z - 3,919,172.980 (meters) COMP
 JT9527 LAPLACE CORR- 2.49 (seconds) DEFLEC99
 JT9527 ELLIP HEIGHT- 91.16 (meters) (07/10/98) GPS OBS
 JT9527 GEOID HEIGHT- -31.87 (meters) GEOID03
 JT9527 DYNAMIC HT - 122.933 (meters) 403.32 (feet) COMP
 JT9527 MODELED GRAV- 979,984.1 (mgal) NAVD 88

JT9527
 JT9527 HORZ ORDER - FIRST
 JT9527 VERT ORDER - FIRST CLASS II
 JT9527 ELLP ORDER - FOURTH CLASS I
 JT9527

JT9527.The horizontal coordinates were established by GPS observations
 JT9527.and adjusted by the National Geodetic Survey in July 1998..
 JT9527.The horizontal coordinates are valid at the epoch date displayed above.
 JT9527.The epoch date for horizontal control is a decimal equivalence
 JT9527.of Year/Month/Day.

JT9527
 JT9527.The orthometric height was determined by differential leveling
 JT9527.and adjusted by the National Geodetic Survey in June 1991..
 JT9527

JT9527.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 JT9527

JT9527.The Laplace correction was computed from DEFLEC99 derived deflections.
 JT9527

JT9527.The ellipsoidal height was determined by GPS observations
 JT9527.and is referenced to NAD 83.

JT9527
 JT9527.The geoid height was determined by GEOID03.
 JT9527

JT9527.The dynamic height is computed by dividing the NAVD 88
 JT9527.geopotential number by the normal gravity value computed on the
 JT9527.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 JT9527.degrees latitude (g = 980.6199 gals.).
 JT9527

JT9527.The modeled gravity was interpolated from observed gravity values.
 JT9527

JT9527;		North	East	Units	Scale	Factor	Converg.
JT9527;SPC CA 2	-	554,396.237	1,981,192.796	MT	1.00004479	-0 08 07.0	
JT9527;SPC CA 2	-	1,818,881.65	6,499,963.36	sFT	1.00004479	-0 08 07.0	
JT9527;UTM 10	-	4,223,468.920	568,812.096	MT	0.99965832	+0 29 07.0	

JT9527!
 JT9527! - Elev Factor x Scale Factor = Combined Factor
 JT9527!SPC CA 2 - 0.99998570 x 1.00004479 = 1.00003049
 JT9527!UTM 10 - 0.99998570 x 0.99965832 = 0.99964402

JT9527
 JT9527 SUPERSEDED SURVEY CONTROL
 JT9527

JT9527	NAD 83(1992)-	38 09 23.34348(N)	122 12 52.46370(W)	AD(1997.30)	1
JT9527	ELLIP H (03/20/98)	91.25 (m)		GP(1997.30)	3 2
JT9527	NAVD 88 (03/20/98)	123.01 (m)	403.6 (f)	LEVELING	3

JT9527
 JT9527.Superseded values are not recommended for survey control.
 JT9527.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 JT9527.[See file dsdata.txt](#) to determine how the superseded data were derived.
 JT9527

JT9527_U.S. NATIONAL GRID SPATIAL ADDRESS: 10SEH6881223469(NAD 83)
 JT9527_MARKER: I = METAL ROD
 JT9527_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
 JT9527_SP_SET: STAINLESS STEEL ROD

JT9527_STAMPING: E 1394 1987
 JT9527_MARK LOGO: NGS
 JT9527_PROJECTION: FLUSH
 JT9527_MAGNETIC: N = NO MAGNETIC MATERIAL
 JT9527_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
 JT9527+STABILITY: POSITION/ELEVATION WELL
 JT9527_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 JT9527+SATELLITE: SATELLITE OBSERVATIONS - April 04, 1997
 JT9527_ROD/PIPE-DEPTH: 3.3 meters

JT9527
 JT9527 HISTORY - Date Condition Report By
 JT9527 HISTORY - 1987 MONUMENTED NGS
 JT9527 HISTORY - 19970404 GOOD NGS

JT9527 STATION DESCRIPTION

JT9527'DESCRIBED BY NATIONAL GEODETIC SURVEY 1987
 JT9527'2.0 KM (1.25 MI) NE FROM VALLEJO.
 JT9527'2.0 KM (1.25 MI) NORTHEASTERLY ALONG INTERSTATE HIGHWAY 80 FROM THE
 JT9527'JUNCTION OF STATE HIGHWAY 37 IN VALLEJO, 49.1 M (161.1 FT) NORTHWEST
 JT9527'OF THE CENTER OF THE MOST NORTHWESTERLY WESTBOUND LANE OF THE
 JT9527'HIGHWAY, AND 37.5 M (123.0 FT) NORTHWEST OF THE NORTHWEST LEG OF A
 JT9527'HIGHWAY INFORMATION SIGN (REST AREA). NOTE--ACCESS TO DATUM POINT IS
 JT9527'HAD THROUGH A 5-INCH LOGO CAP.
 JT9527'THE MARK IS 0.4 METERS SE FROM A WITNESS POST AND FENCE
 JT9527'THE MARK IS 1.0 M ABOVE THE HIGHWAY.

JT9527 STATION RECOVERY (1997)

JT9527'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1997 (JDD)
 JT9527'THE STATION WAS RECOVERED. A COMPLETE NEW DESCRIPTION FOLLOWS. THE
 JT9527'STATION IS LOCATED ABOUT 3.5 MI (5.6 KM) NORTHEAST OF DOWNTOWN
 JT9527'VALLEJO, AT THE NORTH END OF A HIGHWAY REST AREA. TO REACH THE
 JT9527'STATION FROM THE INTERSECTION OF INTERSTATE HIGHWAY 80 AND AMERICAN
 JT9527'CANYON ROAD, ABOUT 5 1/2 MI FROM DOWNTOWN VALLEJO, GO SOUTHWEST ON
 JT9527'HIGHWAY I-80 FOR 1.25 MI (2.01 KM) TO THE STATION ON THE RIGHT AT THE
 JT9527'NORTHERNMOST POINT OF THE EXIT TO A HIGHWAY REST AREA. NOTE--THE
 JT9527'STATION CAN ONLY BE REACHED BY TRAVELING SOUTHWEST FROM THE AMERICAN
 JT9527'CANYON ROAD EXIT. THE STATION IS ABOUT 250 FT (76.2 M) NORTH OF THE
 JT9527'NORTHERNMOST POINT OF THE EXIT TO THE REST AREA, ABOUT 150 FT (45.7 M)
 JT9527'WEST OF THE WEST EDGE OF PAVEMENT OF WESTBOUND I-80, 124 FT (37.8 M)
 JT9527'WEST OF THE WEST SUPPORT OF THE SIGN READING, REST AREA TOURIST INFO,
 JT9527'AND 1.5 FT (0.5 M) EAST OF A CARSONITE WITNESS POST AND WIRE FENCE.

*** retrieval complete.
 Elapsed Time = 00:00:00

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.42
 1 National Geodetic Survey, Retrieval Date = MARCH 29, 2007
 DE8502 *****
 DE8502 HT_MOD - This is a Height Modernization Survey Station.
 DE8502 DESIGNATION - GPS CONTROL PT 51
 DE8502 PID - DE8502
 DE8502 STATE/COUNTY- CA/CONTRA COSTA
 DE8502 USGS QUAD - VINE HILL (1980)
 DE8502
 DE8502 *CURRENT SURVEY CONTROL
 DE8502
 DE8502* NAD 83(1998)- 38 01 18.81380(N) 122 01 40.82524(W) ADJUSTED
 DE8502* NAVD 88 - 9.44 (meters) 31.0 (feet) GPS OBS

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DE8502
DE8502 EPOCH DATE - 2000.86
DE8502 X - -2,668,064.003 (meters) COMP
DE8502 Y - -4,265,154.272 (meters) COMP
DE8502 Z - 3,907,344.637 (meters) COMP
DE8502 LAPLACE CORR- 0.74 (seconds) DEFLEC99
DE8502 ELLIP HEIGHT- -22.61 (meters) (11/27/02) GPS OBS
DE8502 GEOID HEIGHT- -32.13 (meters) GEOID03
DE8502
DE8502 HORZ ORDER - B
DE8502 ELLP ORDER - FOURTH CLASS I
DE8502
DE8502.The horizontal coordinates were established by GPS observations
DE8502.and adjusted by the National Geodetic Survey in November 2002..
DE8502.This is a SPECIAL STATUS position. See SPECIAL STATUS under the
DE8502.DATUM ITEM on the data sheet items page.
DE8502.The horizontal coordinates are valid at the epoch date displayed above.
DE8502.The epoch date for horizontal control is a decimal equivalence
DE8502.of Year/Month/Day.
DE8502
DE8502.The orthometric height was determined by GPS observations and a
DE8502.high-resolution geoid model using precise GPS observation and
DE8502.processing techniques.
DE8502
DE8502.The X, Y, and Z were computed from the position and the ellipsoidal ht.
DE8502
DE8502.The Laplace correction was computed from DEFLEC99 derived deflections.
DE8502
DE8502.The ellipsoidal height was determined by GPS observations
DE8502.and is referenced to NAD 83.
DE8502
DE8502.The geoid height was determined by GEOID03.
DE8502
DE8502; North East Units Scale Factor Converg.
DE8502;SPC CA 3 - 669,997.864 1,865,845.260 MT 0.99994032 -0 56 07.8
DE8502;SPC CA 3 - 2,198,151.33 6,121,527.32 sFT 0.99994032 -0 56 07.8
DE8502;UTM 10 - 4,208,689.835 585,314.009 MT 0.99968964 +0 35 55.5
DE8502
DE8502! - Elev Factor x Scale Factor = Combined Factor
DE8502!SPC CA 3 - 1.00000355 x 0.99994032 = 0.99994387
DE8502!UTM 10 - 1.00000355 x 0.99968964 = 0.99969319
DE8502
DE8502 SUPERSEDED SURVEY CONTROL
DE8502
DE8502.No superseded survey control is available for this station.
DE8502
DE8502_U.S. NATIONAL GRID SPATIAL ADDRESS: 10SEH8531408690 (NAD 83)
DE8502_MARKER: DD = SURVEY DISK
DE8502_SETTING: 50 = ALUMINUM ALLOY ROD W/O SLEEVE (10 FT.+)
DE8502_STAMPING: PT 51 LS 5672 1990
DE8502_MARK LOGO: CA-013
DE8502_PROJECTION: RECESSED 35 CENTIMETERS
DE8502_MAGNETIC: N = NO MAGNETIC MATERIAL
DE8502_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
DE8502_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DE8502+SATELLITE: SATELLITE OBSERVATIONS - 1990
DE8502_ROD/PIPE-DEPTH: 31 meters
DE8502
DE8502 HISTORY - Date Condition Report By
DE8502 HISTORY - 1990 MONUMENTED LOCSUR
DE8502
DE8502 STATION DESCRIPTION

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DE8502

DE8502'DESCRIBED BY LOCAL SURVEYOR (INDIVIDUAL OR FIRM) 1990 (RZ)
DE8502'THE STATION IS LOCATED ABOUT 5.7 MI (9.2 KM) EAST SOUTHEAST OF
DE8502'MARTINEZ, 4.3 MI (6.9 KM) NORTHEAST OF CONCORD AND NEAR AN ENTRANCE
DE8502'GATE TO THE U.S. NAVAL WEAPONS STATION CONCORD. TO REACH THE STATION
DE8502'FROM THE INTERSECTION OF STATE HIGHWAY 4 AND PORT CHICAGO HIGHWAY, GO
DE8502'NORTH ON PORT CHICAGO HIGHWAY FOR 0.75 MI (1.21 KM) TO A RAILROAD
DE8502'TRACK, AND TO THE NORTH OF THE TRACK, MEDBURN STREET. CONTINUE NORTH
DE8502'ON PORT CHICAGO HIGHWAY FOR 0.05 MI (0.08 KM) AND THE STATION ON THE
DE8502'RIGHT ATOP A SMALL BERM. IT IS ACROSS PORT CHICAGO HIGHWAY FROM A
DE8502'SMALL GUARD SHACK AT THE ENTRANCE TO THE NAVAL WEAPONS STATION. THE
DE8502'STATION IS ABOUT 55 M (180.4 FT) NORTH OF THE CENTERLINE OF MEDBURN
DE8502'STREET, 20.4 M (66.9 FT) NORTH-NORTHEAST OF A POWER LINE POLE AND
DE8502'ABOUT 18 M (59.1 FT) EAST OF THE CENTERLINE OF PORT CHICAGO HIGHWAY.
DE8502'THE STATION IS SET ATOP THE BERM INSIDE AN 8 IN PVC PIPE WITH CAP
DE8502'WHICH IS ITSELF INSIDE A PLASTIC MONUMENT HOUSING. IT IS ABOUT 0.35 M
DE8502'(1.15 FT) BELOW THE TOP OF THE HOUSING. THE AREA IS COVERED WITH BARK
DE8502'MULCH AND THE STATION MAY BE OBSCURED.

*** retrieval complete.

Elapsed Time = 00:00:00

GPS Network Report

STAR*NET-PRO Version 6.0.22
Copyright 1988-2001 Starplus Software, Inc.
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Run Date: Thu Feb 22 2007 12:17:59

Summary of Files Used and Option Settings

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Project Folder and Data Files

Project Name 3738
Project Folder J:\12204 EARTHDATA DELTA LIDAR\STARNET
Data File List 3738.gps
3738.dat

Project Option Settings

STAR*NET Run Mode : Adjust with Error Propagation
Type of Adjustment : 3D
Project Units : Meters; DMS
Coordinate System : UTM; Zone 0010
Ellipsoid : GRS-80
Major Axis; 1 / Flattening : 6378137.000; 298.257222101000
Geoid Height Model : USA03.GHT
Vertical Deflection : N=0.00 E=0.00 (Defaults, Seconds)
Longitude Sign Convention : Positive West
Input/Output Coordinate Order : North-East
Angle Data Station Order : At-From-To
Distance/Vertical Data Type : Slope/Zenith
Convergence Limit; Max Iterations : 0.010000; 10
Default Coefficient of Refraction : 0.070000
Create Coordinate File : No
Create Geodetic Position File : No
Create Ground Scale Coordinate File : No
Create Dump File : No
GPS Vector Standard Error Factors : 4.0000
GPS Vector Centering (Meters) : 0.00500
GPS Vector Transformations : None

Inline Option Usage Notes

GPS Vectors Ignored by Inline Option:

From	To	Vector ID
P267	JS1193	V31 Postprocessed 07-FEB-2007 15:03:12.0
OHLN	JT9527	V70 Postprocessed 06-FEB-2007 16:49:02.0
P261	OHLN	V71 Postprocessed 05-FEB-2007 23:59:47.0
OHLN	AC9892	V72 Postprocessed 07-FEB-2007 20:33:22.0
JT9536	DE8502	V75 Postprocessed 07-FEB-2007 21:40:22.0
OHLN	704	V76 Postprocessed 06-FEB-2007 16:38:17.0
OHLN	JT0185	V77 Postprocessed 06-FEB-2007 16:52:42.0
DE8502	OHLN	V78 Postprocessed 07-FEB-2007 21:40:22.0
OHLN	JT0221	V81 Postprocessed 06-FEB-2007 18:08:32.0
OHLN	JT0221	V82 Postprocessed 06-FEB-2007 17:00:17.0

AC9892	JS3889	V87 Postprocessed 07-FEB-2007 20:55:02.0
OHLN	P257	V115 Postprocessed 15-FEB-2007 23:59:47.
OHLN	P261	V116 Postprocessed 15-FEB-2007 23:59:47.
OHLN	P262	V117 Postprocessed 15-FEB-2007 23:59:47.

Summary of Unadjusted Input Observations

Number of Entered Stations (Meters) = 27
(Elevations Marked with (*) are Ellipsoid Heights)

Fixed Stations	Latitude	Longitude	Elev	Description
AE9887	37-58-32.218950	121-28-26.363330	-28.6200*	
AE9889	37-48-19.679740	121-27-02.214560	-29.9700*	
AE9891	38-01-00.378010	121-27-23.653800	-28.9200*	
CMOD	37-38-28.799500	120-59-59.862820	28.6520*	
DE8502	38-01-18.817100	122-01-40.827530	-22.6100*	
HS0455	37-44-43.517070	121-27-52.678200	-20.6900*	
JS3889	38-05-09.262950	121-16-30.650780	-19.0300*	
JT0185	38-13-38.752550	122-07-07.770260	-17.4900*	
JT0221	38-18-41.158210	122-01-58.035900	40.3100*	
JT9536	38-06-04.937980	122-15-50.142040	-28.8900*	
P256	37-55-55.057863	121-36-17.368519	-30.1554*	
P257	37-45-19.032380	121-27-50.472645	-24.1416*	
P261	38-09-10.643083	122-13-03.088971	118.6927*	
P262	38-01-30.520128	122-05-46.064094	-8.0380*	
P266	38-11-02.271324	121-50-36.641849	22.9954*	
P267	38-22-49.193753	121-49-23.590429	-16.9492*	
P268	38-28-24.680525	121-38-47.026235	-23.4015*	
P271	38-39-26.447765	121-42-52.325132	-17.6678*	
P273	38-06-56.910332	121-23-17.026738	-25.8469*	
UCD1	38-32-10.449181	121-45-04.379122	0.1520*	

Partially Fixed	Latitude	Longitude	Elev	Description
N-StdErr	E-StdErr	StdErr		
AC9892	38-05-13.641860	122-06-42.210180	-4.9700*	
FIXED	FIXED	FREE		
HS0512	37-47-15.845210	121-18-25.729610	8.7000	
FREE	FREE	FIXED		
JS0755	38-47-09.874500	121-14-32.097030	47.4300*	
FIXED	FIXED	FREE		
JS1193	38-24-32.026630	121-19-29.688830	-11.2100*	
FIXED	FIXED	FREE		
JS1244	38-13-31.372270	121-29-32.158760	-25.1500*	
FREE	FREE	FIXED		
JS1617	n/a	n/a	18.7800	
FREE	FREE	FIXED		

Unused Stations	Latitude	Longitude	Elev	Description
S300	37-39-59.412687	121-33-29.712440	496.3043*	

Number of GPS Vector Observations (Meters) = 117

From	DeltaX	StdErrX	CorrelXY
To	DeltaY	StdErrY	CorrelXZ
DeltaZ	StdErrZ	CorrelYZ	
(V1 Postprocessed 06-FEB-2007 19:20:32.0 037 038.asc)			
P271	39669.1323	0.0079	0.1882
JS0755	-13866.6034	0.0092	-0.1350
11189.9036	0.0080	-0.2066	
(V2 Postprocessed 06-FEB-2007 21:00:32.0 037 038.asc)			

P271	39669.1082	0.0095	0.5318
JS0755	-13866.6448	0.0128	-0.5029
11189.9483	0.0116	-0.6359	
(V3 Postprocessed 06-FEB-2007 21:50:32.0 037 038.asc)			
JS0755	-19694.0988	0.0086	0.1915
JS1193	-18544.0672	0.0104	-0.1817
-32759.9597	0.0097	-0.2813	
(V4 Postprocessed 07-FEB-2007 20:55:02.0 037 038.asc)			
P273	7389.5446	0.0088	0.2002
JS3889	-6902.4185	0.0106	-0.1535
-2607.6383	0.0114	-0.3182	
(V5 Postprocessed 07-FEB-2007 15:09:52.0 037 038.asc)			
JS3889	7807.5190	0.0105	0.4455
JS1193	21220.7584	0.0124	-0.4301
28161.1212	0.0142	-0.5739	
(V6 Postprocessed 07-FEB-2007 15:09:52.0 037 038.asc)			
723	5600.3209	0.0088	0.3046
JS3889	1559.1440	0.0097	-0.3081
5431.5602	0.0108	-0.4203	
(V7 Postprocessed 07-FEB-2007 15:02:12.0 037 038.asc)			
P273	1789.1837	0.0106	0.4673
723	-8461.5465	0.0124	-0.4465
-8039.2102	0.0140	-0.5820	
(V8 Postprocessed 07-FEB-2007 16:30:07.0 037 038.asc)			
P273	1789.1814	0.0086	0.1868
723	-8461.5573	0.0090	-0.1767
-8039.1869	0.0087	-0.1985	
(V9 Postprocessed 07-FEB-2007 19:20:02.0 037 038.asc)			
JS1011	-2231.6085	0.0122	0.5048
711	-5506.3616	0.0169	-0.4446
-7469.4134	0.0132	-0.6074	
(V10 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)			
P268	-15449.7000	0.0083	0.2608
JS1617	6376.3980	0.0106	-0.1801
-3389.4525	0.0082	-0.2633	
(V11 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)			
JS1617	30615.0663	0.0096	0.3818
JS1011	-7096.3059	0.0139	-0.2935
12697.2097	0.0095	-0.3940	
(V12 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)			
P271	-17074.6110	0.0083	0.2688
JS1617	-7564.1048	0.0106	-0.1879
-19348.2167	0.0083	-0.2698	
(V13 Postprocessed 06-FEB-2007 21:33:27.0 037 038.asc)			
P271	11308.8525	0.0080	0.1494
711	-20166.7597	0.0113	-0.1609
-14120.4157	0.0097	-0.3348	
(V14 Postprocessed 07-FEB-2007 18:31:02.0 037 038.asc)			
P271	11308.8334	0.0080	0.1784
711	-20166.7962	0.0089	-0.1505
-14120.3944	0.0087	-0.2799	
(V15 Postprocessed 06-FEB-2007 18:39:32.0 037 038.asc)			
P271	13540.4175	0.0104	0.5869
JS1011	-14660.4633	0.0141	-0.5736
-6650.9594	0.0134	-0.7002	
(V16 Postprocessed 07-FEB-2007 19:20:02.0 037 038.asc)			
P271	13540.4391	0.0113	0.4764
JS1011	-14660.4440	0.0150	-0.4123
-6650.9780	0.0120	-0.5668	
(V17 Postprocessed 06-FEB-2007 21:33:27.0 037 038.asc)			
P268	12933.7563	0.0078	0.1340

711	-6226.2827	0.0107	-0.1426
1838.3638	0.0093	-0.3020	
(V18 Postprocessed 07-FEB-2007 18:31:02.0 037 038.asc)			
P268	12933.7499	0.0079	0.1730
711	-6226.2926	0.0089	-0.1470
1838.3652	0.0086	-0.2739	
(V19 Postprocessed 07-FEB-2007 19:20:02.0 037 038.asc)			
P268	15165.3562	0.0115	0.4868
JS1011	-719.9323	0.0155	-0.4238
9307.7784	0.0123	-0.5783	
(V20 Postprocessed 06-FEB-2007 18:39:32.0 037 038.asc)			
P268	15165.3381	0.0108	0.6157
JS1011	-719.9546	0.0149	-0.6044
9307.7942	0.0141	-0.7253	
(V21 Postprocessed 07-FEB-2007 19:21:12.0 037 038.asc)			
714	533.1180	0.0109	0.4490
711	11794.1035	0.0146	-0.3886
13031.2609	0.0115	-0.5419	
(V22 Postprocessed 06-FEB-2007 22:01:32.0 037 038.asc)			
714	9199.3126	0.0091	0.2241
JS1193	-449.7690	0.0122	-0.2220
5581.6094	0.0106	-0.3629	
(V23 Postprocessed 06-FEB-2007 22:24:02.0 037 038.asc)			
714	-9350.5696	0.0088	0.1663
710	5787.1503	0.0120	-0.1809
67.4349	0.0097	-0.3311	
(V24 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)			
P267	1066.5693	0.0081	0.2354
JS1617	3727.3595	0.0102	-0.1620
4710.4756	0.0081	-0.2451	
(V25 Postprocessed 06-FEB-2007 22:24:02.0 037 038.asc)			
P267	19566.3577	0.0085	0.1651
710	-14882.2297	0.0100	-0.1607
-3025.5701	0.0089	-0.2172	
(V26 Postprocessed 06-FEB-2007 21:33:27.0 037 038.asc)			
JS0755	-28360.3036	0.0079	0.1373
711	-6300.2015	0.0111	-0.1539
-25310.2914	0.0096	-0.3179	
(V27 Postprocessed 06-FEB-2007 19:20:32.0 037 038.asc)			
JS0755	-26128.6910	0.0086	0.2795
JS1011	-793.8145	0.0109	-0.2067
-17840.9019	0.0087	-0.3060	
(V28 Postprocessed 06-FEB-2007 21:50:32.0 037 038.asc)			
P271	19975.0610	0.0088	0.2036
JS1193	-32410.6276	0.0109	-0.1885
-21570.0787	0.0098	-0.3063	
(V29 Postprocessed 06-FEB-2007 19:20:32.0 037 038.asc)			
P268	41294.0496	0.0077	0.1599
JS0755	73.9003	0.0088	-0.1114
27148.6672	0.0078	-0.1770	
(V30 Postprocessed 06-FEB-2007 21:00:32.0 037 038.asc)			
P268	41294.0302	0.0095	0.5293
JS0755	73.8632	0.0127	-0.4990
27148.7026	0.0116	-0.6333	
(V32 Postprocessed 06-FEB-2007 21:50:32.0 037 038.asc)			
P267	38116.2387	0.0089	0.2123
JS1193	-21119.1629	0.0111	-0.1972
2488.6082	0.0099	-0.3115	
(V33 Postprocessed 07-FEB-2007 15:03:12.0 037 038.asc)			
JS1193	-21599.9147	0.0106	0.4796
P268	18470.1979	0.0128	-0.4513

5611.2556	0.0142	-0.5900	
(V34 Postprocessed 06-FEB-2007 21:50:32.0 037 038.asc)			
JS1193	-21599.9626	0.0087	0.2019
P268	18470.1446	0.0108	-0.1856
5611.3035	0.0097	-0.2979	
(V35 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)			
JS1617	-19148.2096	0.0099	0.4250
JT0221	1896.1565	0.0135	-0.3390
-10673.1013	0.0097	-0.4418	
(V36 Postprocessed 06-FEB-2007 18:08:32.0 037 038.asc)			
P267	-18081.6380	0.0108	0.6379
JT0221	5623.5253	0.0152	-0.6215
-5962.6341	0.0142	-0.7478	
(V37 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)			
P267	-18081.6642	0.0143	0.4049
JT0221	5623.5124	0.0154	-0.3809
-5962.6007	0.0133	-0.3779	
(V38 Postprocessed 06-FEB-2007 18:08:32.0 037 038.asc)			
P271	-36222.8161	0.0107	0.6297
JT0221	-5667.9435	0.0150	-0.6140
-30021.3229	0.0141	-0.7435	
(V39 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)			
P271	-36222.8444	0.0139	0.3956
JT0221	-5667.9759	0.0149	-0.3814
-30021.2664	0.0131	-0.3758	
(V40 Postprocessed 07-FEB-2007 20:30:22.0 037 038.asc)			
P273	-3870.1281	0.0082	0.1594
JS1244	11175.4037	0.0097	-0.1318
9562.3532	0.0094	-0.2093	
(V41 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)			
P273	-3870.1392	0.0177	0.6288
JS1244	11175.3648	0.0280	-0.5888
9562.3645	0.0175	-0.6861	
(V42 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)			
714	-9867.8416	0.0113	0.4797
JS1244	-3592.7209	0.0166	-0.4118
-10409.5111	0.0113	-0.5383	
(V43 Postprocessed 07-FEB-2007 14:58:02.0 037 038.asc)			
P273	-8662.3624	0.0098	0.3980
AE9891	-2647.6070	0.0113	-0.3271
-8656.4903	0.0118	-0.4752	
(V44 Postprocessed 07-FEB-2007 15:00:17.0 037 038.asc)			
AE9891	-2773.0932	0.0075	0.0920
AE9887	-1600.1802	0.0077	-0.0723
-3599.6903	0.0077	-0.1161	
(V45 Postprocessed 07-FEB-2007 15:02:12.0 037 038.asc)			
723	-13224.6424	0.0103	0.4215
AE9887	4213.7807	0.0117	-0.3470
-4216.9817	0.0120	-0.4798	
(V46 Postprocessed 07-FEB-2007 14:58:02.0 037 038.asc)			
P256	14131.4912	0.0081	0.1990
AE9891	-1875.6936	0.0086	-0.1652
7421.4523	0.0087	-0.2476	
(V47 Postprocessed 07-FEB-2007 15:00:17.0 037 038.asc)			
P256	11358.3890	0.0091	0.3395
AE9887	-3475.8615	0.0103	-0.2751
3821.7606	0.0104	-0.4096	
(V48 Postprocessed 07-FEB-2007 20:30:22.0 037 038.asc)			
P256	18923.7428	0.0075	0.0823
JS1244	11947.3382	0.0083	-0.0663
25640.2592	0.0080	-0.1114	

(V49 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)
P256 18923.7413 0.0093 0.3785
JS1244 11947.3333 0.0124 -0.2945
25640.2669 0.0093 -0.4110
(V50 Postprocessed 07-FEB-2007 20:30:22.0 037 038.asc)
P268 2532.7719 0.0076 0.0862
JS1244 -21613.1377 0.0083 -0.0706
-21602.3915 0.0081 -0.1190
(V51 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)
P268 2532.7852 0.0094 0.3851
JS1244 -21613.1234 0.0125 -0.3027
-21602.4047 0.0093 -0.4167
(V52 Postprocessed 06-FEB-2007 18:08:32.0 037 038.asc)
P266 -9433.9725 0.0109 0.6461
JT0221 16186.5598 0.0155 -0.6315
11122.7027 0.0145 -0.7569
(V53 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)
P266 -9433.9886 0.0122 0.3562
JT0221 16186.5613 0.0131 -0.3380
11122.7214 0.0116 -0.3355
(V54 Postprocessed 06-FEB-2007 16:52:42.0 037 038.asc)
JT0185 -1782.2865 0.0077 0.0885
704 129.1999 0.0077 -0.1031
-1075.7414 0.0076 -0.0892
(V55 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)
704 11204.8210 0.0151 0.4074
JT0221 727.6118 0.0170 -0.4684
8432.0990 0.0141 -0.4364
(V56 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)
JT0185 9422.5132 0.0126 0.3486
JT0221 856.8194 0.0135 -0.3854
7356.3629 0.0124 -0.3461
(V57 Postprocessed 06-FEB-2007 16:49:02.0 037 038.asc)
P261 359.2976 0.0074 0.0577
JT9527 85.2816 0.0075 -0.0524
291.0941 0.0074 -0.0579
(V58 Postprocessed 05-FEB-2007 21:54:02.0 037 038.asc)
JT9527 -5624.7076 0.0081 0.1683
JT9536 -806.5675 0.0095 -0.1547
-4886.3917 0.0094 -0.2799
(V59 Postprocessed 07-FEB-2007 21:34:02.0 037 038.asc)
AC9892 -10769.3778 0.0082 0.1676
JT9536 7953.9070 0.0115 -0.1884
1229.9533 0.0102 -0.2951
(V60 Postprocessed 06-FEB-2007 16:49:02.0 037 038.asc)
JT9527 7955.8899 0.0094 0.2511
704 -142.4925 0.0098 -0.2781
5046.3678 0.0092 -0.2652
(V61 Postprocessed 06-FEB-2007 16:38:17.0 037 038.asc)
P261 8315.1796 0.0087 0.2085
704 -57.2289 0.0091 -0.2213
5337.4755 0.0086 -0.2259
(V62 Postprocessed 07-FEB-2007 20:33:22.0 037 038.asc)
AC9892 -5503.9572 0.0074 0.0770
P261 8675.2564 0.0087 -0.0600
5825.2390 0.0079 -0.1330
(V63 Postprocessed 06-FEB-2007 18:08:32.0 037 038.asc)
P261 19519.9753 0.0103 0.6031
JT0221 670.3632 0.0142 -0.5881
13769.5736 0.0134 -0.7195
(V64 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)

P261	19519.9861	0.0128	0.3712
JT0221	670.3861	0.0138	-0.3527
13769.5752	0.0121	-0.3501	
(V65 Postprocessed 06-FEB-2007 16:38:17.0 037 038.asc)			
P266	-20638.7996	0.0094	0.2680
704	15458.9445	0.0097	-0.2936
2690.6256	0.0093	-0.2848	
(V66 Postprocessed 07-FEB-2007 20:33:22.0 037 038.asc)			
P266	-23449.9991	0.0075	0.0882
AC9892	6840.9264	0.0090	-0.0689
-8472.0988	0.0081	-0.1527	
(V67 Postprocessed 06-FEB-2007 16:52:42.0 037 038.asc)			
P266	-18856.5011	0.0086	0.1798
JT0185	15329.7432	0.0089	-0.1970
3766.3584	0.0087	-0.1892	
(V68 Postprocessed 06-FEB-2007 16:49:02.0 037 038.asc)			
P266	-28594.6873	0.0093	0.2537
JT9527	15601.4361	0.0096	-0.2533
-2355.7460	0.0093	-0.2756	
(V69 Postprocessed 07-FEB-2007 20:33:22.0 037 038.asc)			
P262	1092.9451	0.0074	0.0668
AC9892	4317.6593	0.0085	-0.0530
5418.8625	0.0078	-0.1168	
(V73 Postprocessed 07-FEB-2007 21:34:02.0 037 038.asc)			
P262	-9676.4319	0.0077	0.1184
JT9536	12271.5671	0.0086	-0.1090
6648.8109	0.0086	-0.2076	
(V74 Postprocessed 06-FEB-2007 16:49:02.0 037 038.asc)			
P262	-4051.7245	0.0087	0.2053
JT9527	13078.1746	0.0089	-0.2006
11535.2073	0.0086	-0.2182	
(V79 Postprocessed 07-FEB-2007 21:40:22.0 037 038.asc)			
P261	9368.0864	0.0180	0.5771
DE8502	-16346.6649	0.0193	-0.4573
-11537.3517	0.0176	-0.5890	
(V80 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)			
P261	38668.2034	0.0083	0.2560
JS1617	-1225.7664	0.0106	-0.1780
24442.6531	0.0082	-0.2630	
(V83 Postprocessed 07-FEB-2007 20:30:22.0 037 038.asc)			
JS1244	-27696.6804	0.0080	0.1383
P266	13699.1531	0.0093	-0.1112
-3582.8905	0.0088	-0.1813	
(V84 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)			
JS1244	-27696.6933	0.0097	0.4091
P266	13699.1472	0.0132	-0.3277
-3582.8827	0.0096	-0.4457	
(V85 Postprocessed 06-FEB-2007 22:24:02.0 037 038.asc)			
P266	28214.0251	0.0092	0.2128
710	-4319.1855	0.0113	-0.2101
14059.7634	0.0098	-0.2747	
(V86 Postprocessed 07-FEB-2007 21:40:22.0 037 038.asc)			
P256	-28358.8218	0.0196	0.5685
DE8502	24816.0000	0.0222	-0.4545
7873.1667	0.0205	-0.6037	
(V88 Postprocessed 05-FEB-2007 23:59:47.0 037 038.asc)			
P271	-55742.7823	0.0073	0.1021
P261	-6338.3078	0.0077	-0.0917
-43790.8972	0.0076	-0.1395	
(V89 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)			
P271	907.8673	0.0100	0.4304

JS1244	-35553.6354	0.0136	-0.3475
-37561.1573	0.0098	-0.4621	
(V90 Postprocessed 07-FEB-2007 17:20:42.0 037 038.asc)			
HS0512	4922.7829	0.0104	0.2639
724	616.7585	0.0114	-0.2269
3971.3649	0.0098	-0.2232	
(V91 Postprocessed 07-FEB-2007 16:39:02.0 037 038.asc)			
723	-7367.1540	0.0093	0.2355
HS0512	-14365.4750	0.0100	-0.2228
-20673.2105	0.0093	-0.2400	
(V92 Postprocessed 07-FEB-2007 17:20:42.0 037 038.asc)			
723	-2444.3790	0.0097	0.2313
724	-13748.7199	0.0107	-0.2000
-16701.8438	0.0093	-0.2059	
(V93 Postprocessed 07-FEB-2007 17:20:42.0 037 038.asc)			
CMOD	-13092.5400	0.0100	0.2462
724	23170.6654	0.0109	-0.2072
16793.7730	0.0095	-0.2048	
(V94 Postprocessed 07-FEB-2007 15:09:52.0 037 038.asc)			
CMOD	-5047.8427	0.0093	0.3545
JS3889	38478.5317	0.0106	-0.3515
38927.1675	0.0118	-0.4821	
(V95 Postprocessed 07-FEB-2007 15:02:12.0 037 038.asc)			
CMOD	-10648.1598	0.0094	0.3764
723	36919.3900	0.0108	-0.3608
33495.6046	0.0117	-0.4888	
(V96 Postprocessed 07-FEB-2007 16:30:07.0 037 038.asc)			
CMOD	-10648.1663	0.0084	0.1722
723	36919.3748	0.0088	-0.1630
33495.6124	0.0085	-0.1850	
(V97 Postprocessed 07-FEB-2007 20:55:02.0 037 038.asc)			
CMOD	-5047.7823	0.0085	0.1760
JS3889	38478.5450	0.0100	-0.1305
38927.1389	0.0101	-0.2560	
(V98 Postprocessed 07-FEB-2007 16:49:17.0 037 038.asc)			
P257	-397.3616	0.0073	0.0412
HS0455	-545.9247	0.0074	-0.0358
-863.6552	0.0073	-0.0384	
(V99 Postprocessed 07-FEB-2007 17:19:37.0 037 038.asc)			
AE9889	-3187.7997	0.0105	0.2741
HS0455	-2844.2221	0.0122	-0.2302
-5262.0584	0.0104	-0.2856	
(V100 Postprocessed 07-FEB-2007 17:19:37.0 037 038.asc)			
P257	2790.4266	0.0103	0.2651
AE9889	2298.2734	0.0118	-0.2258
4398.4208	0.0102	-0.2672	
(V101 Postprocessed 07-FEB-2007 16:49:17.0 037 038.asc)			
HS0455	13344.7193	0.0093	0.2290
HS0512	-4769.2485	0.0099	-0.2131
3710.8936	0.0091	-0.2196	
(V102 Postprocessed 07-FEB-2007 16:39:02.0 037 038.asc)			
P257	12947.3448	0.0089	0.2159
HS0512	-5315.1968	0.0094	-0.1992
2847.2561	0.0089	-0.2135	
(V103 Postprocessed 07-FEB-2007 17:19:37.0 037 038.asc)			
P256	7058.9656	0.0105	0.2721
AE9889	-14441.6287	0.0121	-0.2300
-11083.3170	0.0103	-0.2748	
(V104 Postprocessed 07-FEB-2007 15:02:12.0 037 038.asc)			
P257	20314.4904	0.0087	0.2979
723	9050.2642	0.0096	-0.2905

23520.4779	0.0103	-0.3997	
(V105 Postprocessed 07-FEB-2007 16:30:07.0 037 038.asc)			
P257	20314.5004	0.0081	0.1375
723	9050.2757	0.0084	-0.1293
23520.4629	0.0081	-0.1458	
(V106 Postprocessed 07-FEB-2007 17:20:42.0 037 038.asc)			
P257	17870.1282	0.0088	0.1827
724	-4698.4374	0.0094	-0.1502
6818.6226	0.0085	-0.1493	
(V107 Postprocessed 06-FEB-2007 23:59:47.0 037 038.asc)			
P257	-4268.5422	0.0073	0.0840
P256	16739.9061	0.0076	-0.0762
15481.7355	0.0075	-0.1153	
(V108 Postprocessed 07-FEB-2007 20:55:02.0 037 038.asc)			
P257	25914.8789	0.0081	0.1388
JS3889	10609.4277	0.0091	-0.1045
28952.0040	0.0093	-0.2093	
(V109 Postprocessed 06-FEB-2007 23:59:47.0 037 038.asc)			
P257	30962.6650	0.0075	0.1551
CMOD	-27869.1039	0.0081	-0.1400
-9975.1497	0.0079	-0.2115	
(V110 Postprocessed 16-FEB-2007 00:00:02.0 cors047.asc)			
UCD1	-11004.7782	0.0080	0.2866
P267	-5827.1279	0.0092	-0.2653
-13562.4213	0.0088	-0.3649	
(V111 Postprocessed 16-FEB-2007 00:00:02.0 cors047.asc)			
UCD1	5511.4768	0.0079	0.2511
P268	-8476.1748	0.0089	-0.2323
-5462.4838	0.0086	-0.3283	
(V112 Postprocessed 16-FEB-2007 00:00:02.0 cors047.asc)			
UCD1	7136.3943	0.0079	0.2658
P271	5464.3313	0.0090	-0.2479
10496.2743	0.0087	-0.3454	
(V113 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)			
CMOD	-30962.6774	0.0088	0.4240
P257	27869.0864	0.0109	-0.3922
9975.1604	0.0101	-0.5136	
(V114 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)			
P273	12437.3578	0.0119	0.6966
CMOD	-45380.9271	0.0172	-0.6643
-41534.8194	0.0151	-0.7648	
(V118 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)			
P256	4268.5436	0.0079	0.2596
P257	-16739.9053	0.0090	-0.2328
-15481.7361	0.0086	-0.3303	
(V119 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)			
P262	33315.8769	0.0079	0.2624
P256	-28169.7741	0.0090	-0.2380
-8166.4044	0.0086	-0.3375	
(V120 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)			
P266	8772.9475	0.0080	0.2913
P256	-25646.4846	0.0093	-0.2647
-22057.3834	0.0088	-0.3686	
(V121 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)			
P273	-22793.8629	0.0117	0.6806
P256	-771.9308	0.0164	-0.6499
-16077.9246	0.0146	-0.7488	
(V122 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)			
P257	18525.3215	0.0116	0.6781
P273	17511.8401	0.0164	-0.6487
31559.6578	0.0147	-0.7495	

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(V123 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P262      -4411.0239      0.0079      0.2498
P261      12992.8993      0.0089      -0.2272
11244.1132  0.0085      -0.3199
(V124 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P261      28953.9525      0.0081      0.3123
P266      -15516.1897      0.0095      -0.2860
2646.8667  0.0090      -0.3939
(V125 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P261      37601.6167      0.0079      0.2575
P267      -4953.1476      0.0090      -0.2357
19732.2024  0.0086      -0.3350
(V126 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P262      24542.9295      0.0081      0.3129
P266      -2523.2891      0.0095      -0.2866
13890.9790  0.0090      -0.3946
(V127 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P266      8647.6638      0.0080      0.2934
P267      10563.0412      0.0093      -0.2695
17085.3364  0.0089      -0.3725
(V128 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P273      -31566.8125      0.0117      0.6845
P266      24874.5489      0.0164      -0.6544
5979.4662  0.0148      -0.7509
(V129 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P267      16516.2517      0.0072      0.0455
P268      -2649.0495      0.0073      -0.0426
8099.9400  0.0073      -0.0655
(V130 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P267      22919.1526      0.0116      0.6783
P273      -35437.5860      0.0164      -0.6484
-23064.8054  0.0146      -0.7498
(V131 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P268      6402.8983      0.0117      0.6844
P273      -32788.5335      0.0166      -0.6542
-31164.7508  0.0148      -0.7543

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Adjustment Statistical Summary

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Convergence Iterations = 3

Number of Stations = 34

Number of Observations = 351

Number of Unknowns = 33

Number of Redundant Obs = 318

Observation of StdRes	Count Factor	Sum Squares	Error
GPS Deltas	351	1700.81	2.31

Total	351	1700.81	2.31
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Adjustment Failed Upper Bound of Chi Square Test at 5.00% Level

Adjusted Station Information

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Coordinate Changes from Entered Provisionals (Meters)
(Elevations Marked with (*) are Ellipsoid Heights)

Station	dN	dE	dZ
AC9892	0.0000	0.0000	0.0589*
AE9887	0.0000	0.0000	0.0000*
AE9889	0.0000	0.0000	0.0000*
AE9891	0.0000	0.0000	0.0000*
CMOD	0.0000	0.0000	0.0000*
DE8502	0.0000	0.0000	0.0000*
HS0455	0.0000	0.0000	0.0000*
HS0512	0.0180	-0.0952	0.0000
JS0755	0.0000	0.0000	-0.0637*
JS1193	0.0000	0.0000	-0.0912*
JS1244	0.1078	0.0402	0.0000*
JS1617	n/a	n/a	0.0000
JS3889	0.0000	0.0000	0.0000*
JT0185	0.0000	0.0000	0.0000*
JT0221	0.0000	0.0000	0.0000*
JT9536	0.0000	0.0000	0.0000*
P256	0.0000	0.0000	0.0000*
P257	0.0000	0.0000	0.0000*
P261	0.0000	0.0000	0.0000*
P262	0.0000	0.0000	0.0000*
P266	0.0000	0.0000	0.0000*
P267	0.0000	0.0000	0.0000*
P268	0.0000	0.0000	0.0000*
P271	0.0000	0.0000	0.0000*
P273	0.0000	0.0000	0.0000*
UCD1	0.0000	0.0000	0.0000*

Adjusted Coordinates (Meters)

Station	N	E	Elev	Description
704	4230038.2698	575561.3378	7.4757	
710	4245166.4323	627297.5209	8.7738	
711	4261795.9337	632315.2230	4.6100	
714	4245261.9390	638291.8969	7.7585	
723	4209788.9652	647415.1745	4.4514	
724	4188711.4723	652854.0463	7.1391	
AC9892	4215854.0340	577896.5661	27.1537	
AE9887	4204208.0184	634027.8531	3.4994	
AE9889	4185362.0993	636394.5775	2.2421	
AE9891	4208799.9098	635482.1146	3.0894	
CMOD	4167902.7566	676458.9706	60.5833	
DE8502	4208689.9363	585313.9517	9.5177	
HS0455	4178679.2445	635269.8986	11.4715	
HS0512	4183613.7074	649060.7011	8.7000	
JS0755	4294504.8863	652669.1973	77.2475	
JS1011	4271271.1070	631186.3727	73.5229	
JS1193	4252512.9224	646252.5720	19.3105	
JS1244	4231896.6812	631972.4756	6.4553	
JS1617	4254662.8660	601648.5062	18.7800	
JS3889	4216751.2445	651263.2119	12.3857	
JT0185	4231416.4832	577125.9850	14.3074	
JT0221	4240812.5447	584559.2123	71.9446	
JT9527	4223469.0991	568811.9278	123.0567	
JT9536	4217318.3191	564536.4918	3.2117	
P256	4199183.6977	622608.7500	2.1746	
P257	4179774.7659	635305.9084	8.0337	
P261	4223075.2779	568556.8140	150.5743	
P262	4208990.3399	579331.1643	24.0791	
P266	4226858.5083	601284.0559	55.2541	
P267	4248670.3749	602783.9746	14.9212	

P268	4259223.2889	618077.0781	7.9110
P271	4279536.9126	611847.6476	13.0570
P273	4219891.4380	641305.3980	5.7505
S300	4169791.6585	627156.0097	528.0557
UCD1	4266053.2402	608838.6452	31.3997

Adjusted Positions and Ellipsoid Heights (Meters)

Station	Latitude	Longitude	Ellip Ht	Geoid Ht
704	38-12-54.519402	122-08-12.646495	-24.3316	-31.8073
710	38-20-44.197405	121-32-35.776383	-22.6483	-31.4221
711	38-29-40.919422	121-28-57.857217	-26.3118	-30.9217
714	38-20-41.426229	121-25-02.931635	-23.2919	-31.0505
723	38-01-25.749915	121-19-13.712790	-27.2414	-31.6928
724	37-49-58.923062	121-15-46.836153	-24.8774	-32.0165
AC9892	38-05-13.641860	122-06-42.210180	-4.9111	-32.0648
AE9887	37-58-32.218950	121-28-26.363330	-28.6200	-32.1194
AE9889	37-48-19.679740	121-27-02.214560	-29.9700	-32.2121
AE9891	38-01-00.378010	121-27-23.653800	-28.9200	-32.0094
CMOD	37-38-28.799500	120-59-59.862820	28.6520	-31.9313
DE8502	38-01-18.817100	122-01-40.827530	-22.6100	-32.1277
HS0455	37-44-43.517070	121-27-52.678200	-20.6900	-32.1615
HS0512	37-47-15.845848	121-18-25.733486	-23.4232	-32.1232
JS0755	38-47-09.874500	121-14-32.097030	47.3663	-29.8812
JS1011	38-34-48.821522	121-29-38.037327	42.7335	-30.7894
JS1193	38-24-32.026630	121-19-29.688830	-11.3012	-30.6117
JS1244	38-13-31.375744	121-29-32.157034	-25.1500	-31.6053
JS1617	38-26-04.042145	121-50-07.262767	-12.9138	-31.6938
JS3889	38-05-09.262950	121-16-30.650780	-19.0300	-31.4157
JT0185	38-13-38.752550	122-07-07.770260	-17.4900	-31.7974
JT0221	38-18-41.158210	122-01-58.035900	40.3100	-31.6346
JT9527	38-09-23.349678	122-12-52.470546	91.1878	-31.8688
JT9536	38-06-04.937980	122-15-50.142040	-28.8900	-32.1017
P256	37-55-55.057863	121-36-17.368519	-30.1554	-32.3300
P257	37-45-19.032380	121-27-50.472645	-24.1416	-32.1753
P261	38-09-10.643083	122-13-03.088971	118.6927	-31.8816
P262	38-01-30.520128	122-05-46.064094	-8.0380	-32.1171
P266	38-11-02.271324	121-50-36.641849	22.9954	-32.2587
P267	38-22-49.193753	121-49-23.590429	-16.9492	-31.8704
P268	38-28-24.680525	121-38-47.026235	-23.4015	-31.3125
P271	38-39-26.447765	121-42-52.325132	-17.6678	-30.7248
P273	38-06-56.910332	121-23-17.026738	-25.8469	-31.5974
S300	37-39-59.412687	121-33-29.712440	496.3043	-31.7514
UCD1	38-32-10.449181	121-45-04.379122	0.1520	-31.2477
Average:			-31.6665	

Convergence Angles (DMS) and Grid Factors at Stations
(Grid Azimuth = Geodetic Azimuth - Convergence)
(Elevation Factor Includes a Geoid Height Correction at Each Station))

Convergence	-----	Factors	-----
Station	Angle	Scale x	Elevation = Combined
704	0-32-02.35	0.99967032	1.00000382 0.99967413
710	0-54-13.97	0.99979957	1.00000355 0.99980312
711	0-56-40.36	0.99981560	1.00000413 0.99981973
714	0-58-54.98	0.99983553	1.00000365 0.99983918
723	1-02-05.12	0.99986765	1.00000427 0.99987192
724	1-03-56.20	0.99988778	1.00000390 0.99989168
AC9892	0-32-52.68	0.99967473	1.00000077 0.99967550
AE9887	0-56-20.88	0.99982125	1.00000449 0.99982574
AE9889	0-56-59.61	0.99982914	1.00000470 0.99983384

AE9891	0-57-02.63	0.99982607	1.00000454	0.99983061
CMOD	1-13-18.38	0.99998354	0.99999550	0.99997905
DE8502	0-35-55.49	0.99968964	1.00000355	0.99969319
HS0455	0-56-24.09	0.99982538	1.00000325	0.99982862
HS0512	1-02-14.88	0.99987367	1.00000368	0.99987735
JS0755	1-06-04.65	0.99988702	0.99999257	0.99987959
JS1011	0-56-21.67	0.99981193	0.99999330	0.99980523
JS1193	1-02-27.11	0.99986342	1.00000177	0.99986519
JS1244	0-55-59.00	0.99981450	1.00000395	0.99981844
JS1617	0-43-26.51	0.99972724	1.00000203	0.99972927
JS3889	1-03-50.92	0.99988180	1.00000299	0.99988479
JT0185	0-32-43.02	0.99967326	1.00000274	0.99967600
JT0221	0-35-58.72	0.99968806	0.99999368	0.99968173
JT9527	0-29-06.95	0.99965832	0.99998569	0.99964401
JT9536	0-27-15.16	0.99965129	1.00000453	0.99965583
P256	0-51-27.92	0.99978515	1.00000473	0.99978988
P257	0-56-26.19	0.99982550	1.00000379	0.99982928
P261	0-29-00.25	0.99965788	0.99998138	0.99963927
P262	0-33-24.55	0.99967751	1.00000126	0.99967877
P266	0-42-53.96	0.99972634	0.99999639	0.99972273
P267	0-43-50.53	0.99973010	1.00000266	0.99973276
P268	0-50-32.08	0.99977170	1.00000367	0.99977537
P271	0-48-11.03	0.99975405	1.00000277	0.99975682
P273	0-59-42.49	0.99984592	1.00000406	0.99984997
S300	0-52-52.02	0.99979915	0.99992213	0.99972129
UCD1	0-46-41.09	0.99974588	0.99999998	0.99974585
Project Averages:	0-49-55.36	0.99978217	0.99999857	0.99978074

Adjusted Observations and Residuals

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Adjusted GPS Vector Observations Sorted by Lengths (Meters)

From To	Component	Adj Value	Residual	StdErr	StdRes
(V88 Postprocessed 05-FEB-2007 23:59:47.0 037 038.asc)					
P271	Delta-N	-55868.8471	-0.0081	0.0071	1.1
P261	Delta-E	-44087.1804	-0.0031	0.0071	0.4
Delta-U		-261.2014	0.0025	0.0084	0.3
Length		71169.3458			
(V114 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)					
P273	Delta-N	-52592.0181	-0.0214	0.0078	2.7
CMOD	Delta-E	34253.1158	0.0198	0.0075	2.6
Delta-U		-254.8295	-0.0061	0.0234	0.3
Length		62763.5344			
(V94 Postprocessed 07-FEB-2007 15:09:52.0 037 038.asc)					
CMOD	Delta-N	49379.6830	0.0007	0.0083	0.1
JS3889	Delta-E	-24144.7604	-0.0260	0.0079	3.3*
Delta-U		-285.0420	0.0302	0.0144	2.1
Length		54967.2975			
(V97 Postprocessed 07-FEB-2007 20:55:02.0 037 038.asc)					
CMOD	Delta-N	49379.6830	-0.0026	0.0087	0.3
JS3889	Delta-E	-24144.7604	-0.0709	0.0081	8.7*
Delta-U		-285.0420	0.0813	0.0114	7.1*
Length		54967.2975			
(V89 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)					
P271	Delta-N	-47925.9222	-0.0085	0.0086	1.0
JS1244	Delta-E	19462.4006	-0.0025	0.0084	0.3
Delta-U		-217.7105	0.0392	0.0154	2.5
Length		51727.4246			
(V95 Postprocessed 07-FEB-2007 15:02:12.0 037 038.asc)					
CMOD	Delta-N	42500.9879	0.0089	0.0083	1.1

723	Delta-E	-28142.1481	-0.0196	0.0079	2.5
Delta-U	-259.9255	0.0395	0.0146	2.7	
Length	50974.3272				
(V96 Postprocessed 07-FEB-2007 16:30:07.0 037 038.asc)					
CMOD	Delta-N	42500.9879	0.0127	0.0078	1.6
723	Delta-E	-28142.1481	-0.0218	0.0078	2.8
Delta-U	-259.9255	0.0217	0.0100	2.2	
Length	50974.3272				
(V30 Postprocessed 06-FEB-2007 21:00:32.0 037 038.asc)					
P268	Delta-N	34773.2523	-0.0146	0.0073	2.0
JS0755	Delta-E	35114.9474	-0.0033	0.0073	0.5
Delta-U	-120.8270	-0.0524	0.0167	3.1*	
Length	49419.1582				
(V29 Postprocessed 06-FEB-2007 19:20:32.0 037 038.asc)					
P268	Delta-N	34773.2523	-0.0129	0.0075	1.7
JS0755	Delta-E	35114.9474	-0.0004	0.0074	0.1
Delta-U	-120.8270	0.0023	0.0094	0.3	
Length	49419.1582				
(V130 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)					
P267	Delta-N	-29272.1868	-0.0063	0.0077	0.8
P273	Delta-E	38160.1683	-0.0013	0.0075	0.2
Delta-U	-190.2747	0.0184	0.0224	0.8	
Length	48094.6522				
(V38 Postprocessed 06-FEB-2007 18:08:32.0 037 038.asc)					
P271	Delta-N	-38350.1082	0.0057	0.0074	0.8
JT0221	Delta-E	-27834.3492	0.0288	0.0074	3.9*
Delta-U	-118.2998	-0.0183	0.0207	0.9	
Length	47386.6625				
(V39 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)					
P271	Delta-N	-38350.1082	-0.0119	0.0110	1.1
JT0221	Delta-E	-27834.3492	0.0358	0.0113	3.2*
Delta-U	-118.2998	-0.0867	0.0184	4.7*	
Length	47386.6625				
(V80 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)					
P261	Delta-N	31315.6051	0.0002	0.0079	0.0
JS1617	Delta-E	33367.9647	0.0001	0.0078	0.0
Delta-U	-295.8779	0.0660	0.0112	5.9*	
Length	45762.1649				
(V131 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)					
P268	Delta-N	-39674.7914	-0.0014	0.0078	0.2
P273	Delta-E	22654.1433	0.0028	0.0075	0.4
Delta-U	-166.3777	0.0223	0.0227	1.0	
Length	45687.2735				
(V119 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)					
P262	Delta-N	-10228.9264	0.0049	0.0072	0.7
P256	Delta-E	43191.5737	0.0024	0.0071	0.3
Delta-U	-176.4038	-0.0081	0.0108	0.8	
Length	44386.6432				
(V28 Postprocessed 06-FEB-2007 21:50:32.0 037 038.asc)					
P271	Delta-N	-27507.2095	-0.0313	0.0085	3.7*
JS1193	Delta-E	34030.1796	-0.0217	0.0084	2.6
Delta-U	-143.7835	0.0431	0.0122	3.5*	
Length	43757.5179				
(V32 Postprocessed 06-FEB-2007 21:50:32.0 037 038.asc)					
P267	Delta-N	3288.2960	-0.0305	0.0085	3.6*
JS1193	Delta-E	43522.6826	-0.0260	0.0085	3.1*
Delta-U	-143.5056	0.0534	0.0124	4.3*	
Length	43646.9630				
(V2 Postprocessed 06-FEB-2007 21:00:32.0 037 038.asc)					
P271	Delta-N	14396.0420	-0.0155	0.0073	2.1
JS0755	Delta-E	41035.1508	0.0005	0.0073	0.1

Delta-U	-83.0893	-0.0518	0.0168	3.1*
Length	43487.1996			
(V1 Postprocessed 06-FEB-2007 19:20:32.0 037 038.asc)				
P271	Delta-N	14396.0420	-0.0105	0.0075 1.4
JS0755	Delta-E	41035.1508	0.0017	0.0075 0.2
Delta-U	-83.0893	0.0135	0.0098	1.4
Length	43487.1996			
(V113 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)				
CMOD	Delta-N	12748.8789	0.0260	0.0073 3.6*
P257	Delta-E	-40893.8497	-0.0198	0.0072 2.7
Delta-U	-196.5072	-0.0010	0.0138	0.1
Length	42835.4931			
(V109 Postprocessed 06-FEB-2007 23:59:47.0 037 038.asc)				
P257	Delta-N	-12546.2885	-0.0212	0.0071 3.0
CMOD	Delta-E	40956.8291	0.0213	0.0071 3.0*
Delta-U	-90.9203	-0.0227	0.0092	2.5
Length	42835.4931			
(V125 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)				
P261	Delta-N	25312.0963	0.0047	0.0072 0.7
P267	Delta-E	34452.7998	0.0021	0.0071 0.3
Delta-U	-278.9463	0.0035	0.0107	0.3
Length	42752.4905			
(V3 Postprocessed 06-FEB-2007 21:50:32.0 037 038.asc)				
JS0755	Delta-N	-41866.2836	-0.0065	0.0084 0.8
JS1193	Delta-E	-7220.1018	-0.0225	0.0082 2.7
Delta-U	-200.5408	-0.0245	0.0117	2.1
Length	42484.7713			
(V128 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)				
P273	Delta-N	7663.1699	0.0018	0.0078 0.2
P266	Delta-E	-39902.7605	-0.0007	0.0075 0.1
Delta-U	-80.4350	-0.0071	0.0226	0.3
Length	40632.0187			
(V122 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)				
P257	Delta-N	40018.4707	-0.0037	0.0077 0.5
P273	Delta-E	6660.9734	-0.0019	0.0075 0.2
Delta-U	-131.0932	0.0079	0.0224	0.4
Length	40569.2464			
(V108 Postprocessed 07-FEB-2007 20:55:02.0 037 038.asc)				
P257	Delta-N	36713.5173	-0.0278	0.0083 3.4*
JS3889	Delta-E	16566.7833	-0.0528	0.0078 6.8*
Delta-U	-122.3524	0.0394	0.0103	3.8*
Length	40278.4761			
(V26 Postprocessed 06-FEB-2007 21:33:27.0 037 038.asc)				
JS0755	Delta-N	-32317.4418	0.0102	0.0082 1.2
711	Delta-E	-20979.9047	-0.0019	0.0082 0.2
Delta-U	-190.2433	-0.0278	0.0119	2.3
Length	38530.6325			
(V86 Postprocessed 07-FEB-2007 21:40:22.0 037 038.asc)				
P256	Delta-N	10066.5351	0.0391	0.0142 2.8
DE8502	Delta-E	-37157.6871	0.0479	0.0139 3.4*
Delta-U	-108.5221	-0.0273	0.0301	0.9
Length	38497.2806			
(V5 Postprocessed 07-FEB-2007 15:09:52.0 037 038.asc)				
JS3889	Delta-N	35853.1654	0.0018	0.0091 0.2
JS1193	Delta-E	-4343.7798	-0.0057	0.0084 0.7
Delta-U	-94.8094	-0.0853	0.0177	4.8*
Length	36115.4660			
(V120 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)				
P266	Delta-N	-27944.5613	0.0015	0.0072 0.2
P256	Delta-E	20983.6647	0.0009	0.0071 0.1
Delta-U	-149.0197	-0.0030	0.0112	0.3

Length 34946.1714
 (V49 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)
 P256 Delta-N 32574.8847 -0.0014 0.0082 0.2
 JS1244 Delta-E 9855.9327 -0.0013 0.0081 0.2
 Delta-U -86.0269 0.0135 0.0139 1.0
 Length 34033.3649
 (V48 Postprocessed 07-FEB-2007 20:30:22.0 037 038.asc)
 P256 Delta-N 32574.8847 0.0016 0.0076 0.2
 JS1244 Delta-E 9855.9327 -0.0000 0.0074 0.0
 Delta-U -86.0269 0.0222 0.0087 2.5
 Length 34033.3649
 (V11 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)
 JS1617 Delta-N 16236.7875 -0.0011 0.0089 0.1
 JS1011 Delta-E 29752.7143 -0.0081 0.0086 0.9
 Delta-U -34.3829 0.0238 0.0149 1.6
 Length 33894.8147
 (V124 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
 P261 Delta-N 3507.9435 0.0015 0.0072 0.2
 P266 Delta-E 32768.1423 0.0010 0.0072 0.1
 Delta-U -180.7316 0.0075 0.0116 0.6
 Length 32955.8718
 (V68 Postprocessed 06-FEB-2007 16:49:02.0 037 038.asc)
 P266 Delta-N -2985.0167 -0.0122 0.0080 1.5
 JT9527 Delta-E -32522.2827 0.0174 0.0082 2.1
 Delta-U -15.3174 -0.0420 0.0115 3.6*
 Length 32658.9870
 (V104 Postprocessed 07-FEB-2007 15:02:12.0 037 038.asc)
 P257 Delta-N 29815.0472 -0.0145 0.0079 1.8
 723 Delta-E 12603.7123 0.0032 0.0076 0.4
 Delta-U -85.4288 -0.0180 0.0124 1.5
 Length 32369.7065
 (V105 Postprocessed 07-FEB-2007 16:30:07.0 037 038.asc)
 P257 Delta-N 29815.0472 -0.0118 0.0076 1.6
 723 Delta-E 12603.7123 0.0006 0.0076 0.1
 Delta-U -85.4288 0.0031 0.0092 0.3
 Length 32369.7065
 (V85 Postprocessed 06-FEB-2007 22:24:02.0 037 038.asc)
 P266 Delta-N 17985.3862 -0.0028 0.0087 0.3
 710 Delta-E 26246.3988 -0.0042 0.0088 0.5
 Delta-U -125.0084 0.0196 0.0125 1.6
 Length 31817.6554
 (V27 Postprocessed 06-FEB-2007 19:20:32.0 037 038.asc)
 JS0755 Delta-N -22821.0167 0.0079 0.0080 1.0
 JS1011 Delta-E -21927.8375 0.0061 0.0079 0.8
 Delta-U -83.2179 0.0122 0.0118 1.0
 Length 31648.6301
 (V93 Postprocessed 07-FEB-2007 17:20:42.0 037 038.asc)
 CMOD Delta-N 21309.5225 0.0083 0.0089 0.9
 724 Delta-E -23156.2793 -0.0159 0.0090 1.8
 Delta-U -131.2157 0.0242 0.0121 2.0
 Length 31469.4493
 (V84 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)
 JS1244 Delta-N -4539.0516 0.0030 0.0084 0.4
 P266 Delta-E -30773.4723 0.0021 0.0083 0.3
 Delta-U -27.6180 -0.0156 0.0149 1.0
 Length 31106.4358
 (V83 Postprocessed 07-FEB-2007 20:30:22.0 037 038.asc)
 JS1244 Delta-N -4539.0516 0.0018 0.0081 0.2
 P266 Delta-E -30773.4723 -0.0058 0.0078 0.7
 Delta-U -27.6180 -0.0015 0.0101 0.1
 Length 31106.4358

(V51 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)
P268 Delta-N -27532.8445 -0.0068 0.0083 0.8
JS1244 Delta-E 13496.0401 -0.0008 0.0082 0.1
Delta-U -75.6048 0.0407 0.0140 2.9
Length 30662.7843

(V50 Postprocessed 07-FEB-2007 20:30:22.0 037 038.asc)
P268 Delta-N -27532.8445 -0.0053 0.0077 0.7
JS1244 Delta-E 13496.0401 0.0030 0.0075 0.4
Delta-U -75.6048 0.0175 0.0088 2.0
Length 30662.7843

(V34 Postprocessed 06-FEB-2007 21:50:32.0 037 038.asc)
JS1193 Delta-N 7222.6766 0.0266 0.0084 3.1*
P268 Delta-E -28053.8308 0.0214 0.0084 2.6
Delta-U -77.8185 -0.0045 0.0121 0.4
Length 28968.7855

(V33 Postprocessed 07-FEB-2007 15:03:12.0 037 038.asc)
JS1193 Delta-N 7222.6766 0.0203 0.0090 2.3
P268 Delta-E -28053.8308 0.0082 0.0083 1.0
Delta-U -77.8185 0.0805 0.0181 4.4*
Length 28968.7855

(V126 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P262 Delta-N 17658.8469 0.0032 0.0072 0.4
P266 Delta-E 22132.4642 0.0016 0.0071 0.2
Delta-U -31.8343 -0.0047 0.0116 0.4
Length 28313.9869

(V121 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P273 Delta-N -20384.1715 0.0058 0.0078 0.8
P256 Delta-E -19056.1466 0.0009 0.0075 0.1
Delta-U -65.4082 -0.0014 0.0224 0.1
Length 27904.3984

(V14 Postprocessed 07-FEB-2007 18:31:02.0 037 038.asc)
P271 Delta-N -18029.3445 -0.0014 0.0075 0.2
711 Delta-E 20221.6055 0.0002 0.0075 0.0
Delta-U -66.2124 -0.0025 0.0103 0.2
Length 27091.9726

(V13 Postprocessed 06-FEB-2007 21:33:27.0 037 038.asc)
P271 Delta-N -18029.3445 -0.0104 0.0083 1.3
711 Delta-E 20221.6055 0.0031 0.0083 0.4
Delta-U -66.2124 0.0429 0.0122 3.5*
Length 27091.9726

(V12 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)
P271 Delta-N -24735.3028 -0.0030 0.0079 0.4
JS1617 Delta-E -10548.6292 0.0079 0.0078 1.0
Delta-U -52.0564 0.0178 0.0113 1.6
Length 26890.7325

(V91 Postprocessed 07-FEB-2007 16:39:02.0 037 038.asc)
723 Delta-N -26203.8682 0.0007 0.0083 0.1
HS0512 Delta-E 1173.9563 -0.0071 0.0084 0.8
Delta-U -50.2751 0.0321 0.0116 2.8
Length 26230.2003

(V65 Postprocessed 06-FEB-2007 16:38:17.0 037 038.asc)
P266 Delta-N 3501.6282 -0.0050 0.0079 0.6
704 Delta-E -25688.6398 0.0165 0.0083 2.0
Delta-U -99.9570 -0.0474 0.0118 4.0*
Length 25926.3882

(V66 Postprocessed 07-FEB-2007 20:33:22.0 037 038.asc)
P266 Delta-N -10715.2562 -0.0415 0.0077 5.4*
AC9892 Delta-E -23529.8436 0.0293 0.0076 3.9*
Delta-U -80.2807 -0.0151 0.0092 1.6
Length 25854.9164

(V25 Postprocessed 06-FEB-2007 22:24:02.0 037 038.asc)

P267 Delta-N -3817.0363 -0.0057 0.0082 0.7
710 Delta-E 24472.5232 -0.0038 0.0082 0.5
Delta-U -53.7342 0.0195 0.0108 1.8
Length 24768.4688
(V67 Postprocessed 06-FEB-2007 16:52:42.0 037 038.asc)
P266 Delta-N 4860.6441 -0.0066 0.0078 0.8
JT0185 Delta-E -24106.4276 0.0132 0.0080 1.7
Delta-U -87.8403 -0.0700 0.0102 6.9*
Length 24591.7349
(V64 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)
P261 Delta-N 17607.2020 -0.0049 0.0103 0.5
JT0221 Delta-E 16157.1166 0.0264 0.0106 2.5
Delta-U -123.1936 0.0012 0.0168 0.1
Length 23897.3044
(V63 Postprocessed 06-FEB-2007 18:08:32.0 037 038.asc)
P261 Delta-N 17607.2020 0.0119 0.0073 1.6
JT0221 Delta-E 16157.1166 0.0233 0.0073 3.2*
Delta-U -123.1936 -0.0175 0.0195 0.9
Length 23897.3044
(V118 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P256 Delta-N -19600.1629 -0.0026 0.0072 0.4
P257 Delta-E 12408.1214 0.0012 0.0071 0.2
Delta-U -36.2450 -0.0010 0.0107 0.1
Length 23197.6114
(V107 Postprocessed 06-FEB-2007 23:59:47.0 037 038.asc)
P257 Delta-N 19618.8298 0.0022 0.0071 0.3
P256 Delta-E -12378.5444 -0.0019 0.0071 0.3
Delta-U -48.2730 0.0025 0.0081 0.3
Length 23197.6114
(V79 Postprocessed 07-FEB-2007 21:40:22.0 037 038.asc)
P261 Delta-N -14530.6569 0.0362 0.0126 2.9
DE8502 Delta-E 16640.7112 0.0474 0.0126 3.8*
Delta-U -179.5831 -0.0123 0.0263 0.5
Length 22092.6574
(V35 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)
JS1617 Delta-N -13637.6059 0.0088 0.0086 1.0
JT0221 Delta-E -17267.8574 0.0222 0.0084 2.6
Delta-U 15.2576 -0.0443 0.0151 2.9
Length 22003.7139
(V127 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)
P266 Delta-N 21797.2262 0.0033 0.0072 0.5
P267 Delta-E 1773.0527 0.0011 0.0071 0.1
Delta-U -77.5437 -0.0052 0.0113 0.5
Length 21869.3575
(V53 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)
P266 Delta-N 14166.1426 -0.0018 0.0100 0.2
JT0221 Delta-E -16554.1108 0.0367 0.0102 3.6*
Delta-U -19.9173 -0.0330 0.0159 2.1
Length 21788.0375
(V52 Postprocessed 06-FEB-2007 18:08:32.0 037 038.asc)
P266 Delta-N 14166.1426 0.0085 0.0074 1.1
JT0221 Delta-E -16554.1108 0.0222 0.0074 3.0
Delta-U -19.9173 -0.0158 0.0214 0.7
Length 21788.0375
(V92 Postprocessed 07-FEB-2007 17:20:42.0 037 038.asc)
723 Delta-N -21174.5462 0.0063 0.0088 0.7
724 Delta-E 5058.7583 0.0050 0.0089 0.6
Delta-U -34.8907 -0.0041 0.0118 0.3
Length 21770.4768
(V16 Postprocessed 07-FEB-2007 19:20:02.0 037 038.asc)
P271 Delta-N -8537.7083 -0.0038 0.0089 0.4

JS1011	Delta-E	19225.3584	-0.0040	0.0091	0.4
Delta-U	25.7339	-0.0053	0.0183	0.3	
Length	21035.8629				
(V15 Postprocessed 06-FEB-2007 18:39:32.0 037 038.asc)					
P271	Delta-N	-8537.7083	-0.0010	0.0075	0.1
JS1011	Delta-E	19225.3584	0.0043	0.0075	0.6
Delta-U	25.7339	-0.0386	0.0193	2.0	
Length	21035.8629				
(V37 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)					
P267	Delta-N	-7627.2060	-0.0083	0.0112	0.7
JT0221	Delta-E	-18328.8491	0.0416	0.0116	3.6*
Delta-U	26.3840	-0.0467	0.0189	2.5	
Length	19852.4980				
(V36 Postprocessed 06-FEB-2007 18:08:32.0 037 038.asc)					
P267	Delta-N	-7627.2060	0.0025	0.0074	0.3
JT0221	Delta-E	-18328.8491	0.0261	0.0074	3.5*
Delta-U	26.3840	-0.0065	0.0210	0.3	
Length	19852.4980				
(V106 Postprocessed 07-FEB-2007 17:20:42.0 037 038.asc)					
P257	Delta-N	8648.3551	-0.0141	0.0082	1.7
724	Delta-E	17695.0634	0.0034	0.0082	0.4
Delta-U	-31.1317	0.0042	0.0102	0.4	
Length	19695.4382				
(V103 Postprocessed 07-FEB-2007 17:19:37.0 037 038.asc)					
P256	Delta-N	-14028.7538	-0.0117	0.0094	1.2
AE9889	Delta-E	13580.2149	-0.0303	0.0095	3.2*
Delta-U	-29.7273	-0.0090	0.0136	0.7	
Length	19525.0879				
(V129 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)					
P267	Delta-N	10359.3421	-0.0015	0.0071	0.2
P268	Delta-E	15430.3572	-0.0005	0.0071	0.1
Delta-U	-33.5300	0.0003	0.0077	0.0	
Length	18585.2903				
(V110 Postprocessed 16-FEB-2007 00:00:02.0 cors047.asc)					
UCD1	Delta-N	-17303.6508	-0.0013	0.0072	0.2
P267	Delta-E	-6291.3932	0.0005	0.0071	0.1
Delta-U	-43.7387	0.0155	0.0111	1.4	
Length	18411.9492				
(V74 Postprocessed 06-FEB-2007 16:49:02.0 037 038.asc)					
P262	Delta-N	14585.4806	-0.0142	0.0077	1.8
JT9527	Delta-E	-10381.4196	0.0054	0.0079	0.7
Delta-U	74.0629	0.0015	0.0104	0.1	
Length	17902.9496				
(V19 Postprocessed 07-FEB-2007 19:20:02.0 037 038.asc)					
P268	Delta-N	11856.1124	-0.0048	0.0091	0.5
JS1011	Delta-E	13288.0325	-0.0017	0.0092	0.2
Delta-U	41.2607	-0.0067	0.0189	0.4	
Length	17808.4505				
(V20 Postprocessed 06-FEB-2007 18:39:32.0 037 038.asc)					
P268	Delta-N	11856.1124	0.0005	0.0076	0.1
JS1011	Delta-E	13288.0325	0.0020	0.0076	0.3
Delta-U	41.2607	-0.0388	0.0206	1.9	
Length	17808.4505				
(V123 Postprocessed 15-FEB-2007 23:59:47.0 cors047.asc)					
P262	Delta-N	14194.0864	0.0019	0.0072	0.3
P261	Delta-E	-10640.4973	0.0007	0.0071	0.1
Delta-U	102.0271	-0.0141	0.0105	1.3	
Length	17739.8614				
(V21 Postprocessed 07-FEB-2007 19:21:12.0 037 038.asc)					
714	Delta-N	16636.9616	0.0034	0.0088	0.4
711	Delta-E	-5692.9503	0.0038	0.0090	0.4

Delta-U	-27.3173	0.0155	0.0175	0.9
Length	17584.0530			
(V10 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)				
P268	Delta-N	-4319.6145	-0.0034	0.0079 0.4
JS1617	Delta-E	-16497.8947	0.0106	0.0078 1.4
Delta-U	-12.2886	0.0031	0.0112	0.3
Length	17054.0244			
(V73 Postprocessed 07-FEB-2007 21:34:02.0 037 038.asc)				
P262	Delta-N	8474.2749	-0.0516	0.0077 6.7*
JT9536	Delta-E	-14717.8383	0.0177	0.0075 2.4
Delta-U	-43.4575	-0.0177	0.0096	1.8
Length	16983.2266			
(V46 Postprocessed 07-FEB-2007 14:58:02.0 037 038.asc)				
P256	Delta-N	9424.0054	-0.0600	0.0076 7.9*
AE9891	Delta-E	13018.4818	-0.0378	0.0074 5.1*
Delta-U	-19.0164	0.0121	0.0101	1.2
Length	16071.4999			
(V40 Postprocessed 07-FEB-2007 20:30:22.0 037 038.asc)				
P273	Delta-N	12167.7174	-0.0027	0.0084 0.3
JS1244	Delta-E	-9124.2707	0.0057	0.0079 0.7
Delta-U	-17.4610	0.0035	0.0107	0.3
Length	15208.7464			
(V41 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)				
P273	Delta-N	12167.7174	0.0124	0.0132 0.9
JS1244	Delta-E	-9124.2707	-0.0051	0.0128 0.4
Delta-U	-17.4610	-0.0342	0.0326	1.0
Length	15208.7464			
(V42 Postprocessed 07-FEB-2007 19:38:57.0 037 038.asc)				
714	Delta-N	-13257.4011	-0.0064	0.0095 0.7
JS1244	Delta-E	-6548.3543	0.0030	0.0094 0.3
Delta-U	-19.0330	0.0754	0.0188	4.0*
Length	14786.4800			
(V101 Postprocessed 07-FEB-2007 16:49:17.0 037 038.asc)				
HS0455	Delta-N	4708.1209	0.0080	0.0083 1.0
HS0512	Delta-E	13871.9700	0.0096	0.0084 1.1
Delta-U	-19.5424	0.0482	0.0113	4.3*
Length	14649.1752			
(V45 Postprocessed 07-FEB-2007 15:02:12.0 037 038.asc)				
723	Delta-N	-5339.2128	-0.0415	0.0088 4.7*
AE9887	Delta-E	-13487.9026	-0.0199	0.0083 2.4
Delta-U	-17.8633	0.0334	0.0154	2.2
Length	14506.2410			
(V17 Postprocessed 06-FEB-2007 21:33:27.0 037 038.asc)				
P268	Delta-N	2363.4955	-0.0066	0.0081 0.8
711	Delta-E	14277.3132	-0.0015	0.0081 0.2
Delta-U	-19.3085	-0.0015	0.0114	0.1
Length	14471.6328			
(V18 Postprocessed 07-FEB-2007 18:31:02.0 037 038.asc)				
P268	Delta-N	2363.4955	-0.0004	0.0075 0.1
711	Delta-E	14277.3132	-0.0013	0.0075 0.2
Delta-U	-19.3085	-0.0116	0.0102	1.1
Length	14471.6328			
(V102 Postprocessed 07-FEB-2007 16:39:02.0 037 038.asc)				
P257	Delta-N	3613.0630	-0.0148	0.0080 1.8
HS0512	Delta-E	13818.0047	-0.0037	0.0081 0.5
Delta-U	-15.2573	0.0339	0.0108	3.2*
Length	14282.5667			
(V55 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)				
704	Delta-N	10693.3462	0.0001	0.0112 0.0
JT0221	Delta-E	9100.9793	0.0090	0.0123 0.7
Delta-U	49.1672	0.0132	0.0210	0.6

Length 14042.0046
 (V112 Postprocessed 16-FEB-2007 00:00:02.0 cors047.asc)
 UCD1 Delta-N 13444.8237 -0.0029 0.0072 0.4
 P271 Delta-E 3192.8607 -0.0025 0.0071 0.3
 Delta-U -32.8284 0.0142 0.0109 1.3
 Length 13818.7814
 (V59 Postprocessed 07-FEB-2007 21:34:02.0 037 038.asc)
 AC9892 Delta-N 1592.5363 -0.0140 0.0087 1.6
 JT9536 Delta-E -13349.8907 -0.0123 0.0084 1.5
 Delta-U -38.1317 -0.0336 0.0125 2.7
 Length 13444.5977
 (V43 Postprocessed 07-FEB-2007 14:58:02.0 037 038.asc)
 P273 Delta-N -10990.5799 -0.0521 0.0086 6.0*
 AE9891 Delta-E -6015.7845 -0.0360 0.0081 4.4*
 Delta-U -15.4033 0.0369 0.0149 2.5
 Length 12529.2756
 (V47 Postprocessed 07-FEB-2007 15:00:17.0 037 038.asc)
 P256 Delta-N 4853.6540 -0.0575 0.0081 7.1*
 AE9887 Delta-E 11495.2827 -0.0137 0.0078 1.8
 Delta-U -10.6626 0.0123 0.0130 0.9
 Length 12477.9644
 (V56 Postprocessed 06-FEB-2007 17:00:17.0 037 038.asc)
 JT0185 Delta-N 9327.8591 0.0041 0.0102 0.4
 JT0221 Delta-E 7524.8445 0.0237 0.0106 2.2
 Delta-U 46.5265 0.0381 0.0167 2.3
 Length 11984.7572
 (V62 Postprocessed 07-FEB-2007 20:33:22.0 037 038.asc)
 AC9892 Delta-N 7312.8717 0.0394 0.0076 5.2*
 P261 Delta-E -9273.4777 -0.0308 0.0075 4.1*
 Delta-U 112.6666 -0.0028 0.0089 0.3
 Length 11810.5112
 (V7 Postprocessed 07-FEB-2007 15:02:12.0 037 038.asc)
 P273 Delta-N -10208.3684 -0.0070 0.0089 0.8
 723 Delta-E 5934.4035 0.0077 0.0083 0.9
 Delta-U -12.3449 0.0185 0.0177 1.0
 Length 11807.9669
 (V8 Postprocessed 07-FEB-2007 16:30:07.0 037 038.asc)
 P273 Delta-N -10208.3684 -0.0189 0.0079 2.4
 723 Delta-E 5934.4035 0.0041 0.0079 0.5
 Delta-U -12.3449 -0.0041 0.0102 0.4
 Length 11807.9669
 (V111 Postprocessed 16-FEB-2007 00:00:02.0 cors047.asc)
 UCD1 Delta-N -6956.3400 -0.0033 0.0072 0.5
 P268 Delta-E 9147.0678 -0.0014 0.0071 0.2
 Delta-U -33.9083 0.0203 0.0106 1.9
 Length 11491.7651
 (V23 Postprocessed 06-FEB-2007 22:24:02.0 037 038.asc)
 714 Delta-N 92.9354 0.0098 0.0085 1.1
 710 Delta-E -10996.3627 0.0047 0.0090 0.5
 Delta-U -8.8241 -0.0461 0.0128 3.6*
 Length 10996.7590
 (V22 Postprocessed 06-FEB-2007 22:01:32.0 037 038.asc)
 714 Delta-N 7114.4487 -0.0196 0.0089 2.2
 JS1193 Delta-E 8085.0574 -0.0116 0.0089 1.3
 Delta-U 2.8937 -0.0002 0.0137 0.0
 Length 10769.5655
 (V4 Postprocessed 07-FEB-2007 20:55:02.0 037 038.asc)
 P273 Delta-N -3313.0477 -0.0291 0.0093 3.1*
 JS3889 Delta-E 9903.1094 -0.0433 0.0084 5.2*
 Delta-U -1.7244 0.0124 0.0128 1.0
 Length 10442.5985

(V61 Postprocessed 06-FEB-2007 16:38:17.0 037 038.asc)
P261 Delta-N 6905.8961 -0.0076 0.0077 1.0
704 Delta-E 7065.4067 0.0034 0.0079 0.4
Delta-U -150.6821 -0.0076 0.0105 0.7
Length 9880.9957

(V9 Postprocessed 07-FEB-2007 19:20:02.0 037 038.asc)
JS1011 Delta-N -9494.1167 0.0060 0.0095 0.6
711 Delta-E 973.6846 0.0017 0.0097 0.2
Delta-U -76.2057 -0.0065 0.0206 0.3
Length 9544.2193

(V60 Postprocessed 06-FEB-2007 16:49:02.0 037 038.asc)
JT9527 Delta-N 6513.8928 0.0100 0.0080 1.2
704 Delta-E 6807.0993 -0.0033 0.0083 0.4
Delta-U -122.4831 -0.0027 0.0116 0.2
Length 9422.4414

(V6 Postprocessed 07-FEB-2007 15:09:52.0 037 038.asc)
723 Delta-N 6892.4432 -0.0085 0.0080 1.1
JS3889 Delta-E 3973.7139 -0.0085 0.0077 1.1
Delta-U 3.2402 -0.0046 0.0128 0.4
Length 7955.8900

(V58 Postprocessed 05-FEB-2007 21:54:02.0 037 038.asc)
JT9527 Delta-N -6116.4538 -0.0618 0.0080 7.7*
JT9536 Delta-E -4328.8184 0.0338 0.0078 4.3*
Delta-U -124.4862 0.0043 0.0109 0.4
Length 7494.3427

(V69 Postprocessed 07-FEB-2007 20:33:22.0 037 038.asc)
P262 Delta-N 6879.5423 -0.0407 0.0075 5.4*
AC9892 Delta-E -1368.2237 0.0302 0.0074 4.1*
Delta-U -0.7406 0.0119 0.0086 1.4
Length 7014.2810

(V99 Postprocessed 07-FEB-2007 17:19:37.0 037 038.asc)
AE9889 Delta-N -6664.4337 -0.0126 0.0094 1.3
HS0455 Delta-E -1235.4472 0.0224 0.0095 2.4
Delta-U 5.6684 -0.0047 0.0138 0.3
Length 6777.9818

(V90 Postprocessed 07-FEB-2007 17:20:42.0 037 038.asc)
HS0512 Delta-N 5028.7889 0.0026 0.0092 0.3
724 Delta-E 3885.5197 0.0071 0.0093 0.8
Delta-U -4.6246 -0.0296 0.0128 2.3
Length 6354.9983

(V24 Postprocessed 06-FEB-2007 19:35:52.0 037 038.asc)
P267 Delta-N 6008.1093 -0.0071 0.0078 0.9
JS1617 Delta-E -1059.1947 0.0010 0.0077 0.1
Delta-U 1.1098 0.0254 0.0108 2.4
Length 6100.7599

(V100 Postprocessed 07-FEB-2007 17:19:37.0 037 038.asc)
P257 Delta-N 5569.6327 -0.0103 0.0093 1.1
AE9889 Delta-E 1180.4941 -0.0371 0.0093 4.0*
Delta-U -8.3765 -0.0092 0.0133 0.7
Length 5693.3685

(V44 Postprocessed 07-FEB-2007 15:00:17.0 037 038.asc)
AE9891 Delta-N -4567.9255 0.0050 0.0073 0.7
AE9887 Delta-E -1530.4808 0.0100 0.0072 1.4
Delta-U -1.5239 -0.0052 0.0083 0.6
Length 4817.5011

(V54 Postprocessed 06-FEB-2007 16:52:42.0 037 038.asc)
JT0185 Delta-N -1363.7048 0.0052 0.0073 0.7
704 Delta-E -1578.2028 -0.0075 0.0074 1.0
Delta-U -7.1828 0.0320 0.0083 3.8*
Length 2085.7772

(V98 Postprocessed 07-FEB-2007 16:49:17.0 037 038.asc)

P257	Delta-N	-1094.9703	-0.0252	0.0072	3.5*
HS0455	Delta-E	-53.9962	-0.0120	0.0072	1.7
Delta-U	3.3571	0.0178	0.0076	2.3	
Length	1096.3060				
(V57 Postprocessed 06-FEB-2007 16:49:02.0 037 038.asc)					
P261	Delta-N	391.7943	-0.0189	0.0072	2.6
JT9527	Delta-E	258.5196	0.0096	0.0072	1.3
Delta-U	-27.5222	0.0189	0.0078	2.4	
Length	470.2049				

GPS Vector Residual Summary (Meters)
(Sorted by 2D Residual Length)

From	To	N	E	Up	2D	3D	Length	VectID
CMOD	JS3889	-0.003	-0.071	0.081	0.071	0.108	0.108	54967 97
P256	AE9891	-0.060	-0.038	0.012	0.071	0.072	0.072	16071 46
JT9527	JT9536	-0.062	0.034	0.004	0.070	0.071	0.071	7494 58
P273	AE9891	-0.052	-0.036	0.037	0.063	0.073	0.073	12529 43
P256	DE8502	0.039	0.048	-0.027	0.062	0.068	0.068	38497 86
P257	JS3889	-0.028	-0.053	0.039	0.060	0.072	0.072	40278 108
P261	DE8502	0.036	0.047	-0.012	0.060	0.061	0.061	22093 79
P256	AE9887	-0.057	-0.014	0.012	0.059	0.060	0.060	12478 47
P262	JT9536	-0.052	0.018	-0.018	0.055	0.057	0.057	16983 73
P273	JS3889	-0.029	-0.043	0.012	0.052	0.054	0.054	10443 4
P266	AC9892	-0.042	0.029	-0.015	0.051	0.053	0.053	25855 66
P262	AC9892	-0.041	0.030	0.012	0.051	0.052	0.052	7014 69
AC9892	P261	0.039	-0.031	-0.003	0.050	0.050	0.050	11811 62
723	AE9887	-0.041	-0.020	0.033	0.046	0.057	0.057	14506 45
P267	JT0221	-0.008	0.042	-0.047	0.042	0.063	0.063	19852 37
P267	JS1193	-0.030	-0.026	0.053	0.040	0.067	0.067	43647 32
P257	AE9889	-0.010	-0.037	-0.009	0.038	0.040	0.040	5693 100
P271	JS1193	-0.031	-0.022	0.043	0.038	0.058	0.058	43758 28
P271	JT0221	-0.012	0.036	-0.087	0.038	0.095	0.095	47387 39
P266	JT0221	-0.002	0.037	-0.033	0.037	0.049	0.049	21788 53
JS1193	P268	0.027	0.021	-0.004	0.034	0.034	0.034	28969 34
CMOD	P257	0.026	-0.020	-0.001	0.033	0.033	0.033	42835 113
P256	AE9889	-0.012	-0.030	-0.009	0.033	0.034	0.034	19525 103
P257	CMOD	-0.021	0.021	-0.023	0.030	0.038	0.038	42835 109
P271	JT0221	0.006	0.029	-0.018	0.029	0.035	0.035	47387 38
P273	CMOD	-0.021	0.020	-0.006	0.029	0.030	0.030	62764 114
P257	HS0455	-0.025	-0.012	0.018	0.028	0.033	0.033	1096 98
P261	JT0221	-0.005	0.026	0.001	0.027	0.027	0.027	23897 64
P267	JT0221	0.003	0.026	-0.007	0.026	0.027	0.027	19852 36
P261	JT0221	0.012	0.023	-0.018	0.026	0.032	0.032	23897 63
CMOD	JS3889	0.001	-0.026	0.030	0.026	0.040	0.040	54967 94
AE9889	HS0455	-0.013	0.022	-0.005	0.026	0.026	0.026	6778 99
CMOD	723	0.013	-0.022	0.022	0.025	0.033	0.033	50974 96
JT0185	JT0221	0.004	0.024	0.038	0.024	0.045	0.045	11985 56
JS1617	JT0221	0.009	0.022	-0.044	0.024	0.050	0.050	22004 35
P266	JT0221	0.008	0.022	-0.016	0.024	0.029	0.029	21788 52
JS0755	JS1193	-0.006	-0.022	-0.025	0.023	0.034	0.034	42485 3
714	JS1193	-0.020	-0.012	-0.000	0.023	0.023	0.023	10770 22
JS1193	P268	0.020	0.008	0.080	0.022	0.083	0.083	28969 33
CMOD	723	0.009	-0.020	0.039	0.021	0.045	0.045	50974 95
P266	JT9527	-0.012	0.017	-0.042	0.021	0.047	0.047	32659 68
P261	JT9527	-0.019	0.010	0.019	0.021	0.028	0.028	470 57
P273	723	-0.019	0.004	-0.004	0.019	0.020	0.020	11808 8
AC9892	JT9536	-0.014	-0.012	-0.034	0.019	0.038	0.038	13445 59
CMOD	724	0.008	-0.016	0.024	0.018	0.030	0.030	31469 93
P266	704	-0.005	0.017	-0.047	0.017	0.050	0.050	25926 65
P271	JS0755	-0.015	0.000	-0.052	0.015	0.054	0.054	43487 2

P262	JT9527	-0.014	0.005	0.001	0.015	0.015	17903	74
P257	HS0512	-0.015	-0.004	0.034	0.015	0.037	14283	102
P268	JS0755	-0.015	-0.003	-0.052	0.015	0.054	49419	30
P257	723	-0.015	0.003	-0.018	0.015	0.023	32370	104
P266	JT0185	-0.007	0.013	-0.070	0.015	0.072	24592	67
P257	724	-0.014	0.003	0.004	0.014	0.015	19695	106
P273	JS1244	0.012	-0.005	-0.034	0.013	0.037	15209	41
P268	JS0755	-0.013	-0.000	0.002	0.013	0.013	49419	29
HS0455	HS0512	0.008	0.010	0.048	0.012	0.050	14649	101
723	JS3889	-0.008	-0.009	-0.005	0.012	0.013	7956	6
P257	723	-0.012	0.001	0.003	0.012	0.012	32370	105
AE9891	AE9887	0.005	0.010	-0.005	0.011	0.012	4818	44
P268	JS1617	-0.003	0.011	0.003	0.011	0.012	17054	10
P271	711	-0.010	0.003	0.043	0.011	0.044	27092	13
714	710	0.010	0.005	-0.046	0.011	0.047	10997	23
P271	JS0755	-0.010	0.002	0.013	0.011	0.017	43487	1
JT9527	704	0.010	-0.003	-0.003	0.010	0.011	9422	60
P273	723	-0.007	0.008	0.019	0.010	0.021	11808	7
JS0755	711	0.010	-0.002	-0.028	0.010	0.030	38531	26
JS0755	JS1011	0.008	0.006	0.012	0.010	0.016	31649	27
JT0185	704	0.005	-0.007	0.032	0.009	0.033	2086	54
704	JT0221	0.000	0.009	0.013	0.009	0.016	14042	55
P271	JS1244	-0.009	-0.003	0.039	0.009	0.040	51727	89
P271	P261	-0.008	-0.003	0.002	0.009	0.009	71169	88
P271	JS1617	-0.003	0.008	0.018	0.008	0.020	26891	12
P261	704	-0.008	0.003	-0.008	0.008	0.011	9881	61
JS1617	JS1011	-0.001	-0.008	0.024	0.008	0.025	33895	11
723	724	0.006	0.005	-0.004	0.008	0.009	21770	92
HS0512	724	0.003	0.007	-0.030	0.008	0.031	6355	90
P267	JS1617	-0.007	0.001	0.025	0.007	0.026	6101	24
723	HS0512	0.001	-0.007	0.032	0.007	0.033	26230	91
714	JS1244	-0.006	0.003	0.075	0.007	0.076	14786	42
P268	JS1244	-0.007	-0.001	0.041	0.007	0.041	30663	51
P267	710	-0.006	-0.004	0.020	0.007	0.021	24768	25
P268	711	-0.007	-0.002	-0.001	0.007	0.007	14472	17
P267	P273	-0.006	-0.001	0.018	0.006	0.019	48095	130
P273	JS1244	-0.003	0.006	0.003	0.006	0.007	15209	40
JS1011	711	0.006	0.002	-0.006	0.006	0.009	9544	9
JS1244	P266	0.002	-0.006	-0.001	0.006	0.006	31106	83
P268	JS1244	-0.005	0.003	0.017	0.006	0.018	30663	50
JS3889	JS1193	0.002	-0.006	-0.085	0.006	0.086	36115	5
P273	P256	0.006	0.001	-0.001	0.006	0.006	27904	121
P271	JS1011	-0.004	-0.004	-0.005	0.005	0.008	21036	16
P262	P256	0.005	0.002	-0.008	0.005	0.010	44387	119
P261	P267	0.005	0.002	0.004	0.005	0.006	42752	125
P268	JS1011	-0.005	-0.002	-0.007	0.005	0.008	17808	19
P266	710	-0.003	-0.004	0.020	0.005	0.020	31818	85
714	711	0.003	0.004	0.015	0.005	0.016	17584	21
P271	JS1011	-0.001	0.004	-0.039	0.004	0.039	21036	15
P257	P273	-0.004	-0.002	0.008	0.004	0.009	40569	122
UCD1	P271	-0.003	-0.002	0.014	0.004	0.015	13819	112
JS1244	P266	0.003	0.002	-0.016	0.004	0.016	31106	84
UCD1	P268	-0.003	-0.001	0.020	0.004	0.021	11492	111
P262	P266	0.003	0.002	-0.005	0.004	0.006	28314	126
P266	P267	0.003	0.001	-0.005	0.003	0.006	21869	127
P268	P273	-0.001	0.003	0.022	0.003	0.023	45687	131
P257	P256	0.002	-0.002	0.003	0.003	0.004	23198	107
P256	P257	-0.003	0.001	-0.001	0.003	0.003	23198	118
P268	JS1011	0.001	0.002	-0.039	0.002	0.039	17808	20
P262	P261	0.002	0.001	-0.014	0.002	0.014	17740	123
P273	P266	0.002	-0.001	-0.007	0.002	0.007	40632	128

P256	JS1244	-0.001	-0.001	0.014	0.002	0.014	34033	49
P261	P266	0.001	0.001	0.007	0.002	0.008	32956	124
P266	P256	0.001	0.001	-0.003	0.002	0.003	34946	120
P267	P268	-0.002	-0.000	0.000	0.002	0.002	18585	129
P256	JS1244	0.002	-0.000	0.022	0.002	0.022	34033	48
UCD1	P267	-0.001	0.000	0.015	0.001	0.016	18412	110
P271	711	-0.001	0.000	-0.002	0.001	0.003	27092	14
P268	711	-0.000	-0.001	-0.012	0.001	0.012	14472	18
P261	JS1617	0.000	0.000	0.066	0.000	0.066	45762	80

Adjusted Bearings (DMS) and Horizontal Distances (Meters)

(Relative Confidence of Bearing is in Seconds)

NOTE - Adjustment Failed the Chi-Square Test

Angular and Distance Errors are Scaled by Total Error Factor

From Grnd	To Dist	Bearing Brg	Grid Dist	Grid Dist	95% RelConfidence		
704	JT0185	N48-37-29.69E	2085.0882	2085.7660	2.14	0.0212	10.1582
704	JT0221	N39-51-58.06E	14037.3339	14041.8559	0.32	0.0211	1.5004
704	JT9527	S45-46-31.20W	9418.5211	9421.7332	0.58	0.0261	2.7733
704	P261	S45-10-13.32W	9876.5688	9879.9606	0.45	0.0211	2.1395
704	P266	S82-57-10.89E	25918.5090	25926.3450	0.17	0.0219	0.8438
710	714	N89-30-08.25E	10994.7907	10996.7589	0.62	0.0339	3.0838
710	P266	S54-51-45.49W	31810.0683	31817.6226	0.20	0.0283	0.8889
710	P267	N81-51-55.08W	24762.7052	24768.4681	0.24	0.0297	1.2004
711	714	S19-52-25.69E	17581.0583	17584.0528	0.34	0.0299	1.7033
711	JS0755	N31-53-34.75E	38524.7953	38530.5620	0.10	0.0175	0.4551
711	JS1011	N06-47-38.63W	9542.1807	9543.9695	0.52	0.0241	2.5231
711	P268	S79-45-28.49W	14468.6997	14471.6325	0.26	0.0178	1.2325
711	P271	N49-04-54.33W	27086.2322	27091.9712	0.13	0.0183	0.6755
714	JS1193	N47-40-16.20E	10767.9668	10769.5588	0.54	0.0262	2.4316
714	JS1244	S25-18-21.35W	14783.9508	14786.4798	0.42	0.0281	1.8980
723	724	S14-28-08.64E	21767.9129	21770.4766	0.26	0.0275	1.2638
723	AE9887	S67-22-10.47W	14504.0457	14506.2409	0.21	0.0149	1.0243
723	CMOD	S34-44-14.44E	50970.5460	50974.2966	0.06	0.0148	0.2913
723	HS0512	S03-35-49.94E	26226.9304	26230.2000	0.21	0.0265	1.0087
723	JS3889	N28-55-45.62E	7954.9183	7955.8858	0.38	0.0150	1.8895
723	P257	S21-58-18.02W	32364.8958	32369.7064	0.09	0.0150	0.4648
723	P273	N31-09-53.00W	11806.3257		0.26	0.0149	1.2593

11807.9668							
724	CMOD	S48-36-08.97E	31467.3656	0.17	0.0262	0.8339	
31469.4037							
724	HS0512	S36-39-13.13W	6354.2643	1.03	0.0309	4.8565	
6354.9981							
724	P257	S63-00-42.15W	19692.6856	0.27	0.0257	1.3048	
19695.4382							
AC9892	JT9536	N83-44-42.93W	13440.0788	0.00	0.0000	0.0001	
13444.5763							
AC9892	P261	N52-17-23.19W	11805.8178	0.00	0.0000	0.0001	
11809.8644							
AC9892	P262	S11-48-20.09E	7012.0160	0.00	0.0000	0.0001	
7014.2803							
AC9892	P266	N64-48-06.09E	25847.1107	0.00	0.0000	0.0000	
25854.9013							
AE9887	AE9891	N17-34-23.17E	4816.6734	0.00	0.0000	0.0002	
4817.5011							
AE9887	P256	S66-15-03.10W	12475.5647	0.00	0.0000	0.0001	
12477.9643							
AE9889	HS0455	S09-33-10.70W	6776.8319	0.00	0.0000	0.0001	
6777.9755							
AE9889	P256	N44-55-32.74W	19521.4144	0.00	0.0000	0.0000	
19525.0879							
AE9889	P257	S11-01-32.53W	5692.4068	0.00	0.0000	0.0001	
5693.3655							
AE9891	P256	S53-14-26.93W	16068.4489	0.00	0.0000	0.0000	
16071.4998							
AE9891	P273	N27-42-01.47E	12527.2754	0.00	0.0000	0.0001	
12529.2752							
CMOD	JS3889	N27-17-03.89W	54963.6336	0.00	0.0000	0.0000	
54967.2769							
CMOD	P257	N73-54-28.74W	42831.2868	0.00	0.0000	0.0000	
42835.4605							
CMOD	P273	N34-03-56.41W	62758.2398	0.00	0.0000	0.0000	
62763.5107							
DE8502	P256	S75-42-00.45E	38487.2777	0.00	0.0000	0.0000	
38497.2798							
DE8502	P261	N49-21-18.76W	22084.8301	0.00	0.0000	0.0000	
22092.2055							
HS0455	HS0512	N70-18-44.54E	14647.0187	0.35	0.0250	1.7044	
14649.1750							
HS0455	P257	N01-52-57.48E	1096.1131	0.00	0.0000	0.0007	
1096.3006							
HS0512	P257	S74-24-20.39W	14280.4690	0.36	0.0250	1.7511	
14282.5667							
JS0755	JS1011	S42-45-27.47W	31643.6448	0.12	0.0180	0.5679	
31648.6298							
JS0755	JS1193	S08-41-16.57W	42479.3846	0.00	0.0000	0.0000	
42484.7308							
JS0755	P268	S44-26-04.75W	49410.5841	0.00	0.0000	0.0000	
49419.1075							
JS0755	P271	S69-51-48.99W	43479.1807	0.00	0.0000	0.0000	
43487.1509							
JS1011	JS1617	S60-39-08.21W	33886.8592	0.15	0.0236	0.6950	
33894.7690							
JS1011	P268	S47-24-57.96W	17804.5928	0.21	0.0180	1.0095	
17808.3277							
JS1011	P271	N66-51-25.37W	21031.1634	0.18	0.0184	0.8742	
21035.7762							
JS1193	JS3889	S07-58-33.25E	36110.9972	0.00	0.0000	0.0000	
36115.4652							

JS1193	P267	S84-56-53.83W	43638.1041	0.00	0.0000	0.0000
43646.9626						
JS1193	P268	N76-36-13.74W	28963.5542	0.00	0.0000	0.0000
28968.7830						
JS1193	P271	N51-51-05.31W	43749.2271	0.00	0.0000	0.0000
43757.5174						
JS1244	P256	S15-58-23.44W	34026.7343	0.09	0.0148	0.4358
34033.3645						
JS1244	P266	S80-40-36.54W	31099.2329	0.10	0.0149	0.4793
31106.3985						
JS1244	P268	N26-57-10.92W	30656.5745	0.10	0.0152	0.4964
30662.7843						
JS1244	P271	N22-54-02.96W	51716.5385	0.06	0.0152	0.2937
51727.4241						
JS1244	P273	S37-51-41.88E	15206.2258	0.20	0.0153	1.0038
15208.7464						
JS1617	JT0221	S50-58-34.86W	21997.1672	0.18	0.0180	0.8183
22003.6495						
JS1617	P261	S46-19-55.78W	45747.5225	0.09	0.0180	0.3930
45761.9756						
JS1617	P267	S10-43-45.52E	6099.1178	0.62	0.0186	3.0504
6100.7586						
JS1617	P268	N74-29-08.98E	17049.7927	0.23	0.0183	1.0718
17054.0212						
JS1617	P271	N22-17-42.62E	26883.8368	0.14	0.0181	0.6727
26890.7321						
JS3889	P257	S23-20-33.90W	40272.7638	0.00	0.0000	0.0000
40278.4758						
JS3889	P273	N72-29-50.45W	10441.2103	0.00	0.0000	0.0001
10442.5963						
JT0185	JT0221	N38-20-51.12E	11980.7696	0.00	0.0000	0.0001
11984.6178						
JT0185	P266	S79-18-55.57E	24584.2943	0.00	0.0000	0.0000
24591.7016						
JT0221	P261	S42-03-23.35W	23889.0641	0.00	0.0000	0.0000
23897.1758						
JT0221	P266	S50-09-38.70E	21781.5409	0.00	0.0000	0.0000
21788.0306						
JT0221	P267	N66-40-34.02E	19846.5982	0.00	0.0000	0.0000
19852.4155						
JT0221	P271	N35-10-18.24E	47373.3614	0.00	0.0000	0.0000
47386.6270						
JT9527	JT9536	S34-48-12.04W	7490.7575	0.56	0.0200	2.6735
7493.3807						
JT9527	P261	S32-56-05.28W	469.2315	8.91	0.0200	42.6728
469.3997						
JT9527	P262	S35-59-58.16E	17896.6143	0.23	0.0202	1.1285
17902.6746						
JT9527	P266	N84-02-27.96E	32648.5406	0.13	0.0202	0.6191
32658.9158						
JT9536	P262	S60-37-28.81E	16977.5608	0.00	0.0000	0.0000
16983.2138						
P256	P257	S33-11-32.54E	23193.1987	0.00	0.0000	0.0000
23197.6107						
P256	P262	N77-13-56.87W	44374.7638	0.00	0.0000	0.0000
44386.6377						
P256	P266	N37-36-57.16W	34937.6261	0.00	0.0000	0.0000
34946.1310						
P256	P273	N42-04-41.93E	27899.3755	0.00	0.0000	0.0000
27904.3980						
P257	P273	N08-30-20.18E	40562.8063	0.00	0.0000	0.0000

40569.2464
P261 P262 S37-24-51.76E 17733.3613 0.00 0.0000 0.0000
17739.4087
P261 P266 N83-24-21.40E 32945.1847 0.00 0.0000 0.0000
32955.7328
P261 P267 N53-12-38.99E 42738.8292 0.00 0.0000 0.0000
42752.2753
P261 P271 N37-28-42.48E 71147.8213 0.00 0.0000 0.0000
71169.2151
P262 P266 N50-51-24.27E 28305.4923 0.00 0.0000 0.0000
28313.9699
P266 P267 N03-56-01.75E 21863.3777 0.00 0.0000 0.0000
21869.3210
P266 P273 S80-07-28.89E 40623.2432 0.00 0.0000 0.0000
40631.9893
P267 P268 N55-23-33.42E 18580.7160 0.00 0.0000 0.0000
18585.2891
P267 P273 S53-14-13.17E 48084.5845 0.00 0.0000 0.0000
48094.6513
P267 UCD1 N19-12-13.93E 18407.1465 0.00 0.0000 0.0000
18411.9413
P268 P273 S30-33-53.79E 45678.7624 0.00 0.0000 0.0000
45687.2735
P268 UCD1 N53-31-28.46W 11488.9895 0.00 0.0000 0.0001
11491.7409
P271 UCD1 S12-34-47.80W 13815.3363 0.00 0.0000 0.0001
13818.7700

Error Propagation

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Station Coordinate Standard Deviations (Meters)
NOTE - Adjustment Failed the Chi-Square Test
Standard Deviations are Scaled by Total Error Factor

Station	N	E	Elev
704	0.008589	0.008911	0.011678
710	0.011868	0.012025	0.016845
711	0.007293	0.007342	0.010964
714	0.010987	0.011194	0.018935
723	0.006135	0.006027	0.008779
724	0.010565	0.010613	0.013609
AC9892	0.000000	0.000000	0.010897
AE9887	0.000000	0.000000	0.000000
AE9889	0.000000	0.000000	0.000000
AE9891	0.000000	0.000000	0.000000
CMOD	0.000000	0.000000	0.000000
DE8502	0.000000	0.000000	0.000000
HS0455	0.000000	0.000000	0.000000
HS0512	0.010167	0.010280	0.000000
JS0755	0.000000	0.000000	0.010730
JS1011	0.007426	0.007446	0.014907
JS1193	0.000000	0.000000	0.012093
JS1244	0.006121	0.006127	0.000000
JS1617	0.007525	0.007574	0.000000
JS3889	0.000000	0.000000	0.000000
JT0185	0.000000	0.000000	0.000000
JT0221	0.000000	0.000000	0.000000
JT9527	0.008191	0.008266	0.010566
JT9536	0.000000	0.000000	0.000000
P256	0.000000	0.000000	0.000000
P257	0.000000	0.000000	0.000000

P261	0.000000	0.000000	0.000000
P262	0.000000	0.000000	0.000000
P266	0.000000	0.000000	0.000000
P267	0.000000	0.000000	0.000000
P268	0.000000	0.000000	0.000000
P271	0.000000	0.000000	0.000000
P273	0.000000	0.000000	0.000000
UCD1	0.000000	0.000000	0.000000

Station Coordinate Error Ellipses (Meters)

NOTE - Adjustment Failed the Chi-Square Test

Error Ellipses are Scaled by Total Error Factor

Confidence Region = 95%

Station	Semi-Major	Semi-Minor	Azimuth of	Elev
Axis	Axis	Major Axis		
704	0.021906	0.020925	108-13	0.022889
710	0.030317	0.028127	129-57	0.033015
711	0.018297	0.017516	130-33	0.021489
714	0.028137	0.026121	127-44	0.037112
723	0.015044	0.014725	17-07	0.017206
724	0.026242	0.025593	129-50	0.026673
AC9892	0.000001	0.000001	0-00	0.021358
AE9887	0.000001	0.000001	0-00	0.000000
AE9889	0.000001	0.000001	0-00	0.000000
AE9891	0.000001	0.000001	0-00	0.000000
CMOD	0.000001	0.000001	0-00	0.000000
DE8502	0.000001	0.000001	0-00	0.000000
HS0455	0.000001	0.000001	0-00	0.000000
HS0512	0.025319	0.024727	121-08	0.000000
JS0755	0.000001	0.000001	0-00	0.021031
JS1011	0.018432	0.017970	131-57	0.029217
JS1193	0.000001	0.000001	0-00	0.023702
JS1244	0.015275	0.014699	134-14	0.000000
JS1617	0.018972	0.017972	131-34	0.000000
JS3889	0.000001	0.000001	0-00	0.000000
JT0185	0.000001	0.000001	0-00	0.000000
JT0221	0.000001	0.000001	0-00	0.000000
JT9527	0.020268	0.020014	111-54	0.020709
JT9536	0.000001	0.000001	0-00	0.000000
P256	0.000001	0.000001	0-00	0.000000
P257	0.000001	0.000001	0-00	0.000000
P261	0.000001	0.000001	0-00	0.000000
P262	0.000001	0.000001	0-00	0.000000
P266	0.000001	0.000001	0-00	0.000000
P267	0.000001	0.000001	0-00	0.000000
P268	0.000001	0.000001	0-00	0.000000
P271	0.000001	0.000001	0-00	0.000000
P273	0.000001	0.000001	0-00	0.000000
UCD1	0.000001	0.000001	0-00	0.000000

Relative Error Ellipses (Meters)

NOTE - Adjustment Failed the Chi-Square Test

Relative Error Ellipses are Scaled by Total Error Factor

Confidence Region = 95%

Stations	Semi-Major	Semi-Minor	Azimuth of	Vertical
From	To	Axis	Axis	Major Axis
704	JT0185	0.021906	0.020925	108-13 0.022889
704	JT0221	0.021906	0.020925	108-13 0.022889
704	JT9527	0.026856	0.025923	108-35 0.028196

704	P261	0.021906	0.020925	108-13	0.022889
704	P266	0.021906	0.020925	108-13	0.022889
710	714	0.034956	0.031974	126-31	0.040811
710	P266	0.030317	0.028127	129-57	0.033015
710	P267	0.030317	0.028127	129-57	0.033015
711	714	0.030487	0.028706	126-17	0.040358
711	JS0755	0.018297	0.017516	130-33	0.027342
711	JS1011	0.024460	0.023698	127-43	0.034412
711	P268	0.018297	0.017516	130-33	0.021489
711	P271	0.018297	0.017516	130-33	0.021489
714	JS1193	0.028137	0.026121	127-44	0.039393
714	JS1244	0.030054	0.027959	127-47	0.037112
723	724	0.027700	0.027101	131-04	0.029396
723	AE9887	0.015044	0.014725	17-07	0.017206
723	CMOD	0.015044	0.014725	17-07	0.017206
723	HS0512	0.026803	0.026276	121-56	0.017206
723	JS3889	0.015044	0.014725	17-07	0.017206
723	P257	0.015044	0.014725	17-07	0.017206
723	P273	0.015044	0.014725	17-07	0.017206
724	CMOD	0.026242	0.025593	129-50	0.026673
724	HS0512	0.031741	0.030859	126-12	0.026673
724	P257	0.026242	0.025593	129-50	0.026673
AC9892	JT9536	0.000001	0.000001	0-00	0.021358
AC9892	P261	0.000001	0.000001	0-00	0.021358
AC9892	P262	0.000001	0.000001	0-00	0.021358
AC9892	P266	0.000001	0.000001	0-00	0.021358
AE9887	AE9891	0.000001	0.000001	0-00	0.000001
AE9887	P256	0.000001	0.000001	0-00	0.000001
AE9889	HS0455	0.000001	0.000001	0-00	0.000001
AE9889	P256	0.000001	0.000001	0-00	0.000001
AE9889	P257	0.000001	0.000001	0-00	0.000001
AE9891	P256	0.000001	0.000001	0-00	0.000001
AE9891	P273	0.000001	0.000001	0-00	0.000001
CMOD	JS3889	0.000001	0.000001	0-00	0.000001
CMOD	P257	0.000001	0.000001	0-00	0.000001
CMOD	P273	0.000001	0.000001	0-00	0.000001
DE8502	P256	0.000001	0.000001	0-00	0.000001
DE8502	P261	0.000001	0.000001	0-00	0.000001
HS0455	HS0512	0.025319	0.024727	121-08	0.000001
HS0455	P257	0.000001	0.000001	0-00	0.000001
HS0512	P257	0.025319	0.024727	121-08	0.000001
JS0755	JS1011	0.018432	0.017970	131-57	0.032057
JS0755	JS1193	0.000001	0.000001	0-00	0.028772
JS0755	P268	0.000001	0.000001	0-00	0.021031
JS0755	P271	0.000001	0.000001	0-00	0.021031
JS1011	JS1617	0.024697	0.023450	134-21	0.029217
JS1011	P268	0.018432	0.017970	131-57	0.029217
JS1011	P271	0.018432	0.017970	131-57	0.029217
JS1193	JS3889	0.000001	0.000001	0-00	0.023702
JS1193	P267	0.000001	0.000001	0-00	0.023702
JS1193	P268	0.000001	0.000001	0-00	0.023702
JS1193	P271	0.000001	0.000001	0-00	0.023702
JS1244	P256	0.015275	0.014699	134-14	0.000001
JS1244	P266	0.015275	0.014699	134-14	0.000001
JS1244	P268	0.015275	0.014699	134-14	0.000001
JS1244	P271	0.015275	0.014699	134-14	0.000001
JS1244	P273	0.015275	0.014699	134-14	0.000001
JS1617	JT0221	0.018972	0.017972	131-34	0.000001
JS1617	P261	0.018972	0.017972	131-34	0.000001
JS1617	P267	0.018972	0.017972	131-34	0.000001
JS1617	P268	0.018972	0.017972	131-34	0.000001

JS1617	P271	0.018972	0.017972	131-34	0.000001
JS3889	P257	0.000001	0.000001	0-00	0.000001
JS3889	P273	0.000001	0.000001	0-00	0.000001
JT0185	JT0221	0.000001	0.000001	0-00	0.000001
JT0185	P266	0.000001	0.000001	0-00	0.000001
JT0221	P261	0.000001	0.000001	0-00	0.000001
JT0221	P266	0.000001	0.000001	0-00	0.000001
JT0221	P267	0.000001	0.000001	0-00	0.000001
JT0221	P271	0.000001	0.000001	0-00	0.000001
JT9527	JT9536	0.020268	0.020014	111-54	0.020709
JT9527	P261	0.020268	0.020014	111-54	0.020709
JT9527	P262	0.020268	0.020014	111-54	0.020709
JT9527	P266	0.020268	0.020014	111-54	0.020709
JT9536	P262	0.000001	0.000001	0-00	0.000001
P256	P257	0.000001	0.000001	0-00	0.000001
P256	P262	0.000001	0.000001	0-00	0.000001
P256	P266	0.000001	0.000001	0-00	0.000001
P256	P273	0.000001	0.000001	0-00	0.000001
P257	P273	0.000001	0.000001	0-00	0.000001
P261	P262	0.000001	0.000001	0-00	0.000001
P261	P266	0.000001	0.000001	0-00	0.000001
P261	P267	0.000001	0.000001	0-00	0.000001
P261	P271	0.000001	0.000001	0-00	0.000001
P262	P266	0.000001	0.000001	0-00	0.000001
P266	P267	0.000001	0.000001	0-00	0.000001
P266	P273	0.000001	0.000001	0-00	0.000001
P267	P268	0.000001	0.000001	0-00	0.000001
P267	P273	0.000001	0.000001	0-00	0.000001
P267	UCD1	0.000001	0.000001	0-00	0.000001
P268	P273	0.000001	0.000001	0-00	0.000001
P268	UCD1	0.000001	0.000001	0-00	0.000001
P271	UCD1	0.000001	0.000001	0-00	0.000001

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01 00000000 Top of File
01 00000006 Summary of Files Used and Option Settings
02 00000009 Project Folder and Data Files
02 00000016 Project Option Settings
02 00000040 Inline Option Usage Notes
01 00000060 Summary of Unadjusted Input Observations
02 00000063 Entered Stations
03 00000066 Fixed Positions
03 00000088 Partially Fixed Positions
03 00000103 Unused Positions
02 00000106 GPS Vector Observations
01 00000580 Adjustment Statistical Summary
01 00000599 Adjusted Station Information
02 00000602 Coordinate Changes from Entered Provisionals
02 00000633 Adjusted Coordinates
02 00000672 Adjusted Positions and Ellipsoid Heights
02 00000712 Convergence Angles and Grid Factors at Stations
01 00000755 Adjusted Observations and Residuals
02 00000758 Adjusted GPS Vector Observations
02 00001348 GPS Vector Residual Summary
01 00001470 Adjusted Bearings and Horizontal Distances
01 00001671 Error Propagation
02 00001674 Station Coordinate Standard Deviations
02 00001714 Station Coordinate Error Ellipses

02 00001756 Relative Error Ellipses
01 00001859 End of File
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