U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

Horizontal & Vertical Control Report

*Type of Survey*____Navigable Areas & Field Examination_____

*Project No*____OPR-G347-NRT2-08_____

*Time Frame*____May 2008 to September 2009_____

LOCALITY

State _____South Carolina_____

*General Locality*____Charleston_____

2009

CHIEF OF PARTY

_____Robert W. Ramsey Jr. – Team Leader_____

Library & Archives

DATE _____

Horizontal & Vertical Control Report
Title Sheet

*Project No*___OPR-G347-NRT2-08_____

*Date of Project Instructions*___09 April, 2008_____
Change No.1 Date:07/28/2008

*Vessel*_____NOAA Launch 1210_____

*Field Unit*____Navigation Response Team 2_____

*Chief of Branch*_____CDR. Lawrence T. Krepp

*Chief of Party*_____Robert W. Ramsey Jr. – Team Leader_____

Vertical and Horizontal Control Report
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Calendar year 2008-2009, Charleston, SC

There were no vertical or horizontal controls established by NRT2 during OPR-G347.

There was one calibration point established on the dock, to enable launch 1210 to perform monthly calibration checks referenced to DGPS for survey acquisition. This point was established with a Trimble DGPS Backpack.

A comparison was also made between the POS MV system with the same DGPS configured hardware. The results of this test inserted below:

S-1210 POS M/V Position Check
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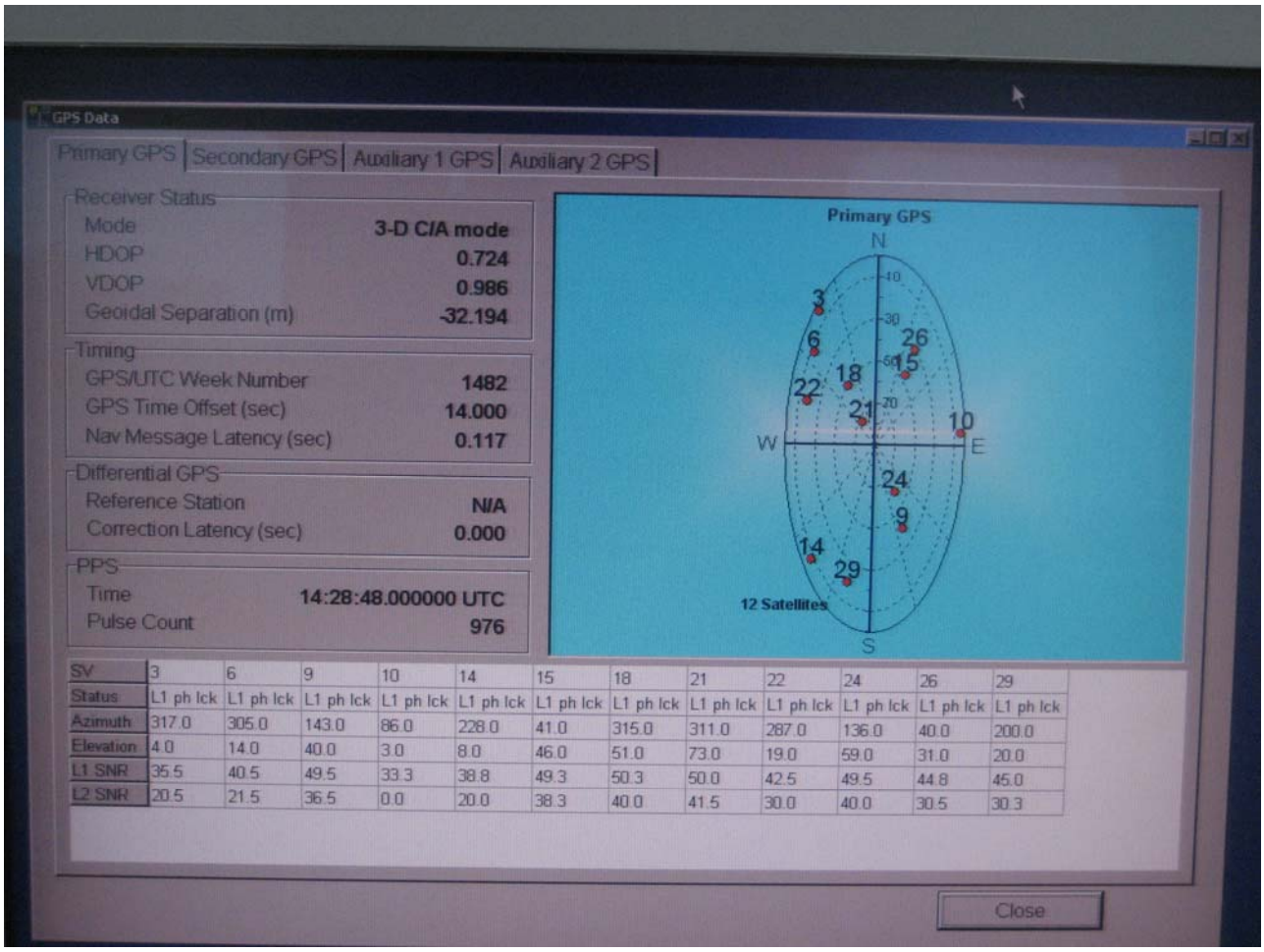
An alongside docked system check was preformed for the POS M/V system check, with an independent DGPS system.

The results, under these conditions, were deemed satisfactory for a field check.

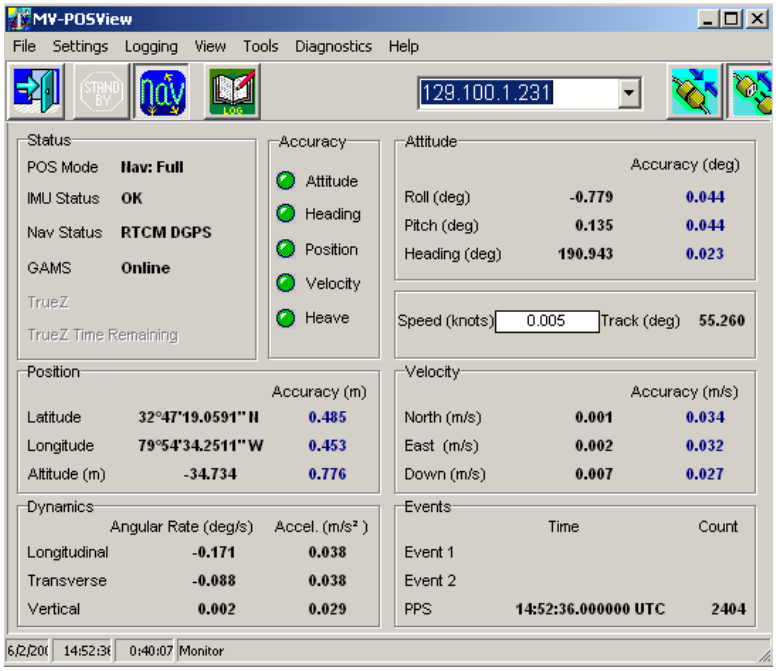
The Trimble Instrument was placed over the RP Plate cover.

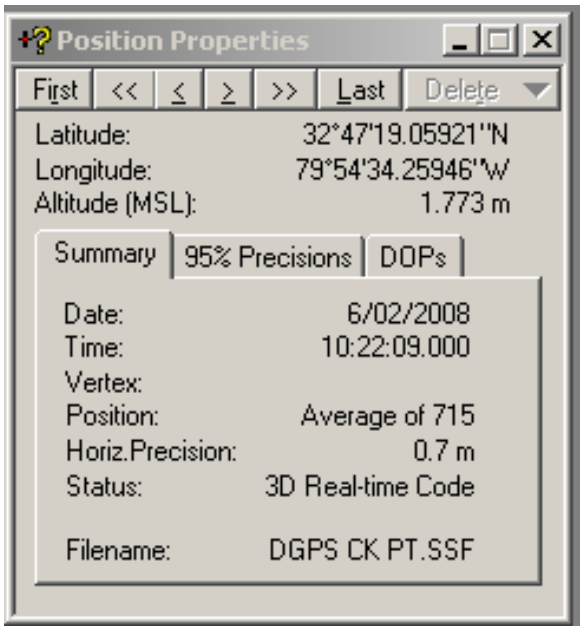
Logged data from the handheld Trimble was compared to a screen grab capture of the POS M/V system.

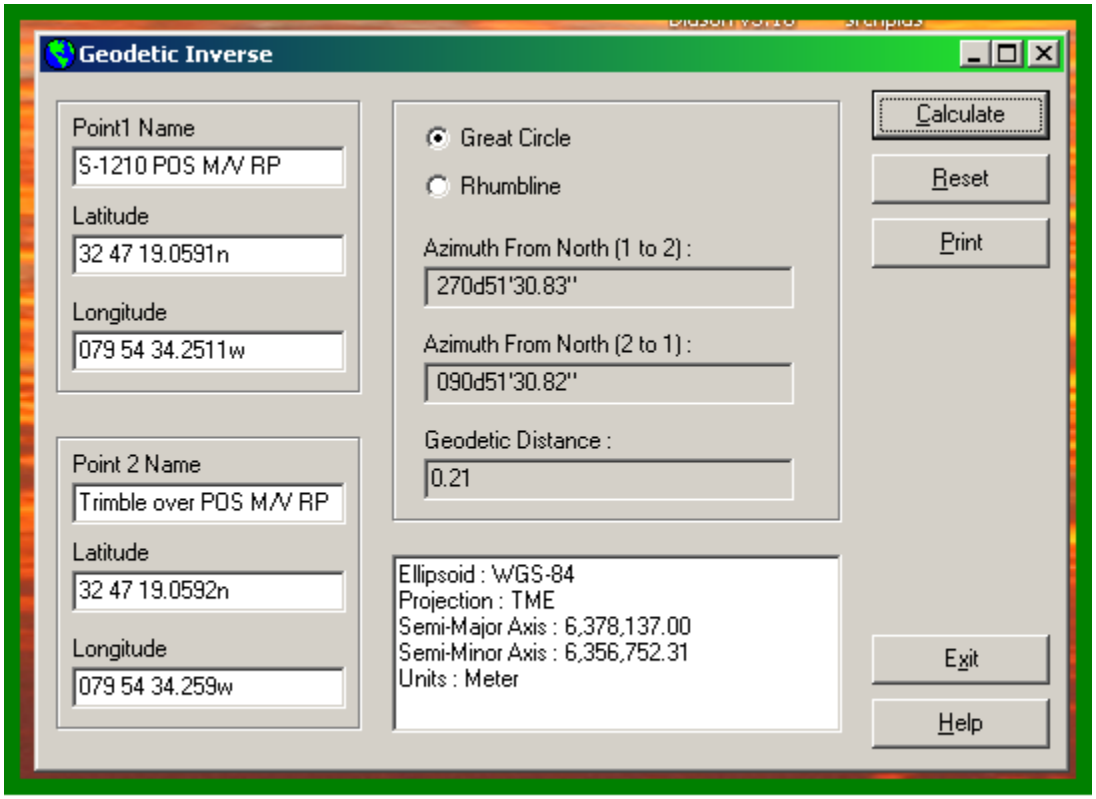
Minor multi-path error may have been present due to the low antenna height. Even with this distortion, the values were low.



SV	3	6	9	10	14	15	18	21	22	24	26	29
Status	L1 ph lck	L1 ph lck	L1 ph lck	L1 ph lck	L1 ph lck	L1 ph lck	L1 ph lck	L1 ph lck	L1 ph lck	L1 ph lck	L1 ph lck	L1 ph lck
Azimuth	317.0	305.0	143.0	86.0	228.0	41.0	315.0	311.0	287.0	136.0	40.0	200.0
Elevation	4.0	14.0	40.0	3.0	8.0	46.0	51.0	73.0	19.0	59.0	31.0	20.0
L1 SNR	35.5	40.5	49.5	33.3	38.8	49.3	50.3	50.0	42.5	49.5	44.8	45.0
L2 SNR	20.5	21.5	36.5	0.0	20.0	38.3	40.0	41.5	30.0	40.0	30.5	30.3


MV-POSView
File Settings Logging View Tools Diagnostics Help
129.100.1.231
Status
POS Mode Nav: Full
IMU Status OK
Nav Status RTCM DGPS
GAMS Online
TrueZ
TrueZ Time Remaining
Accuracy
Attitude
Heading
Position
Velocity
Heave
Attitude
Accuracy (deg)
Roll (deg) -0.779 0.044
Pitch (deg) 0.135 0.044
Heading (deg) 190.943 0.023
Speed (knots) 0.005 Track (deg) 55.260
Position
Accuracy (m)
Latitude 32°47'19.0591" N 0.485
Longitude 79°54'34.2511" W 0.453
Altitude (m) -34.734 0.776
Velocity
Accuracy (m/s)
North (m/s) 0.001 0.034
East (m/s) 0.002 0.032
Down (m/s) 0.007 0.027
Dynamics
Angular Rate (deg/s) Accel. (m/s²)
Longitudinal -0.171 0.038
Transverse -0.088 0.038
Vertical 0.002 0.029
Events
Time Count
Event 1
Event 2
PPS 14:52:36.000000 UTC 2404
6/2/20(14:52:3(0:40:07 Monitor


Position Properties
First << < > >> Last Delete
Latitude: 32°47'19.05921"N
Longitude: 79°54'34.25946"W
Altitude (MSL): 1.773 m
Summary 95% Precisions DOPs
Date: 6/02/2008
Time: 10:22:09.000
Vertex:
Position: Average of 715
Horiz.Precision: 0.7 m
Status: 3D Real-time Code
Filename: DGPS CK PT.SSF



S-1210 POS M/V Calib Check // OPR-G347 2008

With the Trimble ANT at approx: 13cm aft of RP, and approx: 60cm above RP, the calculated value of 21cm is considered expectable.

E. APPROVAL SHEET

Vertical and Horizontal Control Report
OPR-G347-NRT2-08

And Accompanying Surveys
For Calendar year 2008/09

The Vertical and Horizontal Control Report information and all accompanying records and data are approved.

Submitted by: Robert W Ramsey Jr

Digitally signed by Robert W Ramsey Jr
DN: cn=Robert W Ramsey Jr, o=USDOC/NOAA/NOS/NRB, ou=NRT-2, email=Robert.Ramsey@NOAA.GOV, c=US
Date: 2009.03.04 18:29:58 Z

Robert W. Ramsey Jr. - Team Leader
Navigation Response Team 2