

# OPUS Projects

National Geodetic Survey / NOS / NOAA  
Silver Spring, MD



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FIG Working Week  
Hong Kong SAR, China  
May 13<sup>th</sup> – 17<sup>th</sup>, 2007

# Main Concepts

- Process GPS Campaign Data Consistently
- Field Personnel Submit GPS Data via OPUS
- Manager Monitors, Quality Checks, Processes via the Web
- OPUS - Initial Quality Control – Phase I
- Network Adjustment for Sessions – Phase II
- Combination of Sessions – Phase III
- SINEX Output



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# Creating a New Project



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# Project Modification



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# OPUS Upload Page



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# OPUS Options Page



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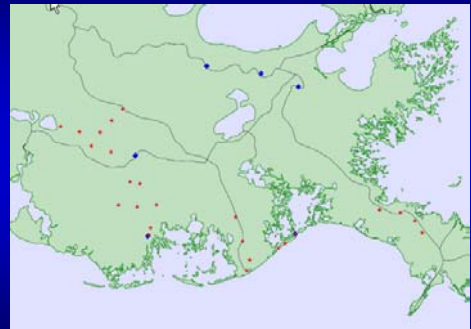
# Data and File Management

# Session Viewer

# Processing Sessions

## OPUS: Processing southern louisiana height modernization 2006

# Dynamic Session Map



```

NOA OPUS SOLUTION REPORT
*****
USER: Ronald_Taylor@noaa.gov          DATE: November 11, 2006
SITE FILE: 1100095a.06c              TIME: 15:49:21 UTC

SOLUTION: paper 0001.10 netat137-p1   START: 2006/10/12 20:18:00
FORWARD: 14613000.eph [ephresol]      STOP: 2006/10/23 20:48:10
RAW FILE: hmo21950.06c                OBS USED: 46919 / 50077 / 954
ANT NAME: TRIMBLE7100                 # FIXED ANTS: 247 / 306 / 1 808
APP METHOD: 2                           OVERALL RMS: 0.022 (m)

REF FRAME: WGS_84 (GCRS04) (EPOCH:2002.0000)      ITRF00 (EPOCH:1996.8002)
X1: -221793.999(m)  0.023(m)                      -221794.474(m)  0.023(m)
Y1: -851352.376(m)  0.053(m)                      -851353.097(m)  0.053(m)
Z1: 3120094.543(m)  0.023(m)                       3120094.374(m)  0.023(m)

LAT: 30 12 50.74844  0.007(m)                      30 12 50.74409  0.007(m)
E LONG: 247 41 7.47014  0.024(m)                    247 41 7.44469  0.024(m)
S SEM: 90 19 52.30786  0.024(m)                     90 19 52.18832  0.024(m)
EL BOT: -21.518(m)  0.057(m)                       -22.444(m)  0.057(m)
ORIG BOT: 8.013(m)  0.042(m) [Geoid@3 NAD83]

SITE COORDINATES      STATE PLANNED COORDINATES
SITE (EPOCH: 150)      ITRF (EPOCH: 15.0)
Nothing (T) [meters]   3162707.870      190402.432
Easting (E) [meters]   545984.438      905021.498
Convergence (degrees)  0.34493234      -0.48044322
Datum Shifts          0.39945488      0.39992144
Combined Factors     0.99945703      0.99993389

30 NATIONAL GRID DESIGNATION: 118949564708 (RAD 83)

BASE STATIONS USED
FILE DESIGNATION      BASE STATION ID      LATITUDE      LONGITUDE      DISTANCE (m)
200505 DATE CHANGE BY CODE APP      8001050_021 W051100_843  87046.3
200505 DATE CHANGE BY CODE APP      8004050_004 W050935_120  74031.3
200505 DATE CHANGE BY CODE APP      8003114_947 W050541_190  21864.9

NEAREST NOA PUBLISHED CONTROL POINT
FILE#2      414      8002150.748 N0511802_519      0.0
    
```

# Conclusion

- Project Administration via the Web
- Consistent Processing
- Automated File Management
- Monitoring of Project via the Web
- OPUS – Initial Quality Control
- Robust Network Adjustment for All Sessions
- Combination of Sessions
- SINEX Output

# Questions / Comments



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