

GEOSAT FOLLOW-ON GFO Radar Altimeter Satellite Performance

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Abstract: Under a Navy Contract with Ball Aerospace and Technologies Corporation, the first GFO satellite was completed in 1997 and launched on 10 February 1998 on an Orbital Taurus launch vehicle. The satellite was operationally accepted on 29 November 2000. With an anticipated 8-year or more life, GFO (<http://gfo.bmpcoe.org/Gfo>) is a DoD satellite mission managed by the PEO C4I and Space, Meteorological and Oceanographic (METOC) Systems Program Office (PMW 155) located in San Diego, California. The satellite is in the same Exact Repeat Orbit (ERO) as the original GEOSAT (800 km by 108 degrees inclination). All GFO's data products are available to the scientific community and are distributed by NOAA's Laboratory for Satellite Altimetry. The primary program objective was to develop an operational series of radar altimeter

satellites to maintain continuous ocean observation for accurate global measurements of both mesoscale and basin-scale oceanography. Since its acceptance, Computer Sciences Corporation (CSC), under contract with the Navy, has provided a team known as the GFO Calibration and Validation (Cal/Val). This team, assisted by NASA and NOAA personnel, has undertaken extensive and continuing calibration and validation activities on an exact repeat cycle basis. This paper will discuss the results of those Cal/Val efforts and present charts showing the performance history of the satellite, its sensors (both the Radar Altimeter and the Water Vapor Radiometer), and other relevant performance measures such as orbit accuracy.

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