

The Global Positioning System Division

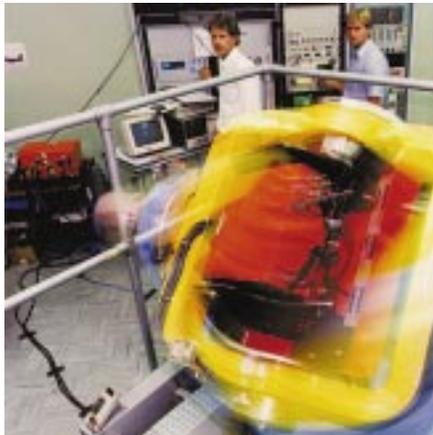
SPAWAR



*Systems Center
San Diego*

Space and Naval Warfare Systems Center
San Diego, CA 92152-5001

Global Positioning System (GPS) Division



Leader in the Research, Development, Test, and Evaluation (RDT&E) of Government and Commercial Global Positioning Systems and Navigation Technologies

The Space and Naval Warfare Systems Center, San Diego (SSC SD) is the Navy's leading navigation research and development activity. At SSC SD, the Global Positioning System (GPS) Division, provides a unique and innovative research, development, test, and evaluation environment for state-of-the-art navigation systems, GPS receivers, subsystems, and systems.

SSC SD's GPS and navigation laboratories evaluate proposed GPS and navigation system changes, support the development of new receivers and systems, perform bid sample and production performance characterization testing, and assist manufacturers with incorporating GPS receiver and navigation system modifications and enhancements in support of fleet needs. Navigation efforts encompass airborne, shipboard, subsurface unmanned vehicles, hand-held, and ground-based applications for both the Department of Defense and the Navy.



Global Positioning Systems

The Navy Satellite (NAVSTAR) GPS is a space-based, global, all-weather, survivable navigation system that provides extremely accurate, three-dimensional position and velocity information and system time. The accuracy provided by GPS has revolutionized navigation and has led to a growing number of innovative applications by both the military and civilian sectors. While GPS has been identified as a force enhancer for the military, in the civilian sector the emerging multibillion dollar GPS and GPS applications industry has truly created a dual-use success story.

GPS Division Background



The SSC SD GPS Division has supported the GPS Program continuously since its inception in 1973 and has functioned as the lead Navy navigation technology activity for well over 50 years. In the late 1970s, the Naval Electronic Systems Command (now the Space and Naval Warfare Systems Command [SPAWAR]) designated the Naval Air Development Center's (NADC's)

(now SSC SD) as the lead Navy GPS test and integration agency for developing and integrating GPS receivers into all Navy Technical Evaluation (TECHEVAL) and Operational Evaluation (OPEVAL) platforms. In 1984, the effort led to NADC's (SSC SD's) designation as the Central Engineering Activity (CEA), which provides technical management and engineering support for GPS receiver development and integration into more than 120 Navy, Marine, and Coast Guard platforms and which manages the GPS CEA Laboratory for evaluating GPS receivers.

Due to base realignment and mission consolidation actions, these functions were relocated in 1996 to the SSC SD Point Loma Campus in San Diego. With our re-establishment in San Diego and our consolidation with the in-service GPS and inertial navigation activities already present in San Diego, we now provide cradle-to-grave navigation system support.

GPS Division Facilities



GPS Central Engineering Activity (CEA)

The GPS CEA is the lead Navy laboratory for developing and testing GPS receivers. Through the real-time simulation of both GPS satellite signals and host vehicle sensors and communications, the facility exercises GPS receiver hardware and software dynamically under precise and repeatable laboratory conditions. Laboratory accuracy under dynamic conditions has been certified to be under 2 centimeters.



Reviewed and approved by
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