



Optical Tracking

SSC Pacific offers the DoD advanced design, test, experimentation in optical tracking.

Background

SPAWAR Systems Center Pacific has a DOD Leadership role in the development of advanced optical tracking systems and experimentation.

Capabilities

- Has nearly 8,000 sq. ft of in-house photonic laboratories. The Division has in-house design and end-to-end optical propagation modeling capability to support tracking experimentation and design. Remote assets include a GRAZ mount, ROBS mount, and a Kineto Tracker Mount (KTM).
- Developed the Stabilized High-Accuracy Optical Tracking System (SHOTS), a 3/4-m aperture long focal length telescope that goes on board the Mobile at Sea Sensor (MATSS) IX-524. MATSS is an instrumentation barge built on a World War II floating dry dock section.
- Designed the adaptive optics for the Advanced Electro-Optical System (AEOS), a mid-wave infrared adaptive optical system integrated onto the Air Force Maui Space Surveillance Site for the Advanced Electro-Optical System (AEOS) 3.6-meter telescope.
- Innovative Science and Experimentation Facility (ISTEF) –The ISTEF is a SSC Pacific facility located at Kennedy Space Center that contains tracking mounts (permanent and mobile), optics, sensors, lasers, computers, and interfaces for optical and laser tracking systems. The Division has a funds-in CRADA with the University of Central Florida to collaborate in the areas of atmospheric propagation and high energy laser systems. ISTEF has the Contraves Kineto Tracker Mount (KTM), a mobile, trailer-mounted system which employs multiple telescopes and detectors to support simultaneous data collection over a range of wavelengths, for example LWIR, MWIR and visible detection and tracking.
- Pacific Missile Range Facility (PMRF)- The world's largest instrumented, multi-dimensional testing and training missile range. The Division has a long partnership with / access to PMRF, which has over 42,000 square miles of controlled airspace.



Innovative Science and Technology Experimentation Facility (ISTEF)



Pacific Missile Range Facility (PMRF)



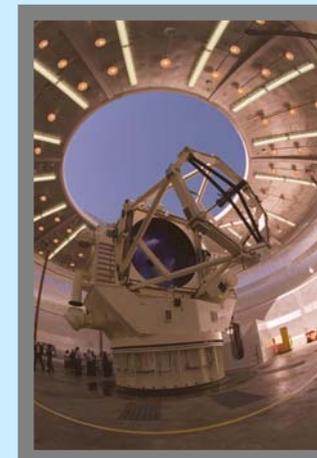
GRAZ mounts



ROBS mount



Stabilized High-Accuracy Optical Tracking System



Adaptive optics design (AEOS)

Approved for public release; distribution is unlimited.

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