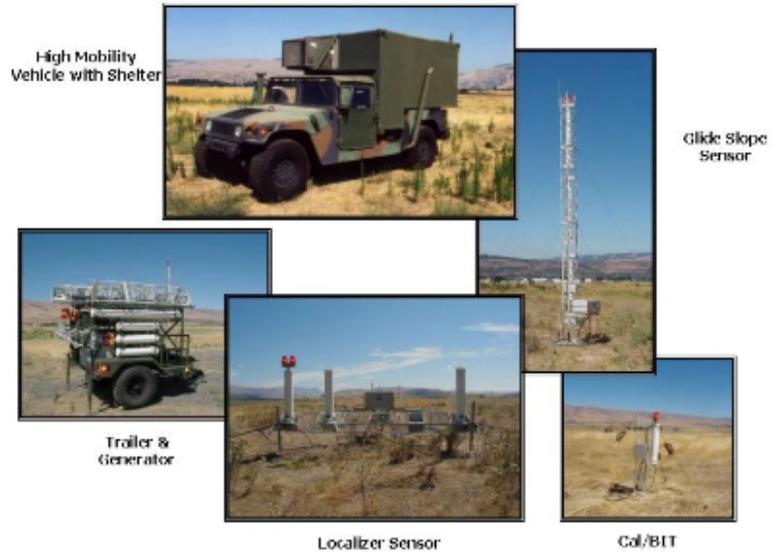


Transportable Transponder Landing System (TTLS)

Purpose: To provide a rapidly deployable (HMMWV mounted or smaller), all weather, precision, non-emitting, terminal air traffic control capability--to be employed under instrument flight rules conditions.

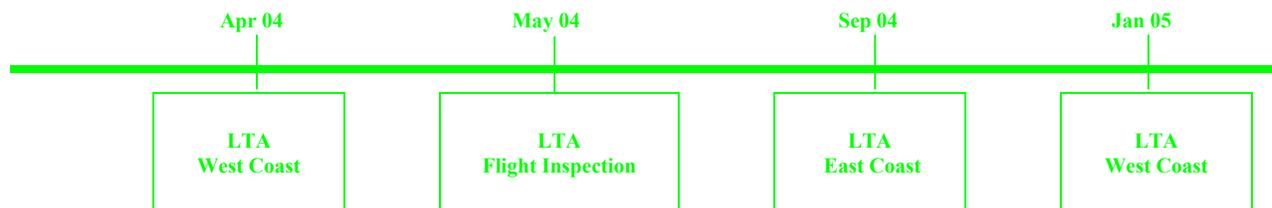
Background: During April 2001, the Marine Air Board identified a requirement for a non-emitting precision approach landing capability. Such a system would be used to provide an initial tactical precision approach capability with reduced footprint and electronic signature. Congress appropriated \$3.5M in FY04 to explore TTLS technology to determine if it has the potential to provide the Marine Corps a portable, low emitting precision approach landing system for aircraft.



Description: TTLS was originally developed under a Defense Advanced Research Projects Agency effort through NAVAIR and Advanced Navigation and Positioning Corporation. The system was designed to provide a precision approach capability by using inexpensive ground systems to provide position information for aircraft equipped with a transponder and standard Federal Aviation Administration Category I Instrument Landing System (ILS) equipment. In order for TTLS to suit Marine Corps tactical mission requirements, several capabilities must be developed. These capabilities include: multiple aircraft tracking and guidance; miniaturization of the system for mounting on a supporting ground vehicle; and reciprocal approaches/runway support. The Lab, in conjunction with NAVAIR and HQMC(Aviation) will assess the TTLS's ability to perform: Multiple Aircraft Tracking, 360 Degree Surveillance, and Primary and Reciprocal Runway Approach Guidance. Following the assessment, HQMC (Aviation) will determine suitability of TTLS for Marine Corps employment and acquisition.

Deliverable Product(s): Assessment reports and requirements documentation.

Milestones:



Action Officer: 784-0056