

NAVSTAR GLOBAL POSITION SYSTEM (GPS) CAPABILITY AND
PLANS FOR PTTI APPLICATIONS*

Cmdr. William G. Houston

Space and Missile System Organization
Los Angeles, California

ABSTRACT

The NAVSTAR Global Positioning System (GPS) consists of a network of satellites in 12 hour orbits. When fully operational, the primary function of the system will be to provide data for precision navigation. A user with a special GPS receiver will obtain transmission from four satellites, each including a satellite ephemeris. With this information the receiver can calculate its 3-dimensional position within approximately 10 meters. To provide the extremely accurate system time required for this positional precision, each satellite will carry an atomic (Cesium and/or Rubidium) frequency standard. As a result, in addition to its primary function of navigation, the NAVSTAR system will offer an excellent source of precision time, and time interval, information available to any user with a simplified receiver at any place on the earth's surface.

(Paper not Received)

*Presented by Capt. David C. Holmes, U.S. Naval Research Laboratory