

THE NAVSTAR GLOBAL POSITIONING SYSTEM (continued)

The receiver translates satellite signals into navigation information so that the user will know where he is within 30 feet, anywhere in the world, day or night, 24 hours a day.

General system description

The navstar GPS is a space-based radio positioning, navigation and time-transfer system. When fully operational (1988) the system will be composed of 18 satellites in 20,000 Km orbits arranged so that any spot on earth will will always have a minimum of 4 satellites in view. Each satellite transmits on two L-band frequencies, 1575.42 Mhz (L_1) and 1277.6 MHz (L_2). L_1 will carry a precise (P) signal and a clear/acquisition (C/A) signal. L_2 will carry either a P or C/A signal. Superimposed on these signals will be navigation and system data including satellite ephemeris, atmospheric propagation correction data, and satellite clock bias information.