

NAVSTAR Global Positioning System (GPS)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance



MISSION

To provide real-time position, velocity, and timing data to tactical and strategic organizations.

DESCRIPTION

The Global Positioning System (GPS) is a space-based joint-service navigation program, led by the Air Force, which distributes position, velocity, and timing (PVT) data. The GPS has three segments: a space segment (nominally 24 satellites), a ground control segment, and a user equipment segment. User equipment consists of receivers configured for handheld, ground, aircraft, and watercraft applications. Military GPS receivers use the Precise Positioning Service (PPS) signal to gain enhanced accuracy and signal protection not available to commercial equipment. GPS receivers in the Army today are: the Precision Lightweight GPS Receiver (PLGR) with more than 100,000 in handheld, installed, and integrated applications; and the Defense Advanced GPS Receiver (DAGR) with more than 92,200 as handheld receivers and 62,000 distributed for platform installations

to date for a total of 154,200 DAGRs fielded. In addition, GPS user equipment includes a Ground-Based GPS Receiver Applications Module (GB-GRAM). Over 78,000 GB-GRAMs have been procured and provide an embedded PPS capability to a variety of weapon systems. The Army represents more than 80 percent of the requirement for user equipment.

DAGR

Size: 6.37 x 3.4 x 1.56 inches

Weight: One pound; fits in a two-clip carrying case that attaches to Load-Bearing Equipment

Frequency: Dual (L1/L2)

Battery Life: 19 hours (4 AA batteries)

Security: Selective availability anti-spoofing module

Satellites: All-in-view

GB-GRAM

Size: 0.6 x 2.45 x 3.4 inches

Weight: 3.5 ounces

Frequency: Dual (L1/L2)

Security: Selective availability anti-spoofing module

Satellites: All-in-view

SYSTEM INTERDEPENDENCIES

Blue Force Tracking, PATRIOT, Excalibur, Paladin, mobile ballistic computers, laser rangefinders, movement tracking systems, and several unmanned aerial vehicle systems.

PROGRAM STATUS

- **3QFY08–1QFY09:** Continue DAGR fieldings

PROJECTED ACTIVITIES

- **2QFY09–1QFY11:** Continue DAGR fieldings

ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

NAVSTAR Global Positioning System (GPS)

FOREIGN MILITARY SALES

PPS-capable GPS receivers have been sold to 41 authorized countries.

CONTRACTORS

DAGR/GB-GRAM acquisition and PLGR support:

Rockwell Collins (Cedar Rapids, IA)

