



NEWS RELEASE

OFFICE OF ASSISTANT SECRETARY OF DEFENSE
(PUBLIC AFFAIRS)

WASHINGTON, D.C. 20301

PLEASE NOTE DATE

IMMEDIATE RELEASE

March 30, 1998

No 139-98

(703)695-0192(media)

(703)697-5737(public/industry)

ADDITIONAL CIVIL CODED SIGNALS ON FUTURE GLOBAL POSITIONING SYSTEM (GPS) SATELLITES

The Interagency Global Positioning System Executive Board (IGEB) announced today a decision to place expanded civil capabilities on future Global Positioning System (GPS) satellites. A new civil signal will be added to the current military GPS L2 signal. This additional signal will provide significant improvements in GPS positioning and navigation services to worldwide users.

Secretary of Defense William S. Cohen said, "This IGEB decision reinforces the continuing U. S. commitment to provide the most capable, efficient and reliable satellite navigation system for use by all the world's nations well into the 21st century."

In addition to reaching a decision on the second civil coded signal, the IGEB recognized that civil GPS users can benefit from the implementation of a third coded signal. Consequently, the IGEB further directed that efforts continue to define an additional frequency in the L band for a third coded civil GPS signal. Although no decision has been made for the location of the third frequency, the IGEB did indicate that the areas of interest are in the proximity of the current frequency allocations used by GPS.

The IGEB will finalize the configuration for the additional civil GPS signals early this fall in order to support GPS satellite contract timelines. To assist the IGEB in this effort, the U.S. Air Force is working closely with civil agencies in completing GPS modernization analyses. This effort is focused on making enhancements to the system to improve GPS services for both civil and military users. The addition of these frequencies will greatly enhance the accuracy, reliability, and robustness of the civilian GPS service.

The IGEB was established to implement President Clinton's GPS policy, and is jointly chaired by Jacques Gansler, the under secretary of Defense for Acquisition and Technology, and Mortimer Downey, the deputy secretary of Transportation.

-END-

INTERNET AVAILABILITY: This document is available on DefenseLINK, a World Wide Web Server on the Internet, at <http://www.dtic.mil/defenseink/>

"This new civilian signal will mean significant improvements in navigation, positioning and timing services to millions of users worldwide—from backpackers and fishermen to farmers, airline pilots, and scientists," Vice President Gore said.

- The NAVSTAR Global Positioning System (GPS) is a constellation of 24 satellites developed, launched, and maintained by the U.S. Air Force that provides positioning, timing, and navigation signals free-of-charge to both military and civilian users worldwide.
- A second civil frequency will allow receivers to measure the time of arrival for two signals that have passed through the Earth's atmosphere and correct for the distortion introduced by passage from space to earth.
- An improved location calculation will allow safety-critical users requiring dynamic, reliable capability to be more reliant on the GPS signal, improve the overall accuracy of the system for the average user, and allow the high-accuracy users (surveying, geodesy, weather forecasters, etc.) to determine their data in a faster, more reliable manner. In addition, the second civil signal will allow the safety-critical users to have a backup signal in the event of inadvertent disruption of the current civil signal.
- The Interagency GPS Executive Board (IGEB) has selected the 1227.6 MHz band (currently known as the L2 signal) for the addition of new civil capability. A third civil signal will also be added with a decision on the frequency to be made in August of this year. The decision on which of these two new signals the Government will pursue to become the safety-of-life service signal will also be made in August.
- One of the key factors in deciding which frequency to pursue as the safety-of-life signal is a commitment by all members of the IGEB to have a safety-of-life service signal available by 2005.
- The new signals are intended to be added to the GPS Block IIF satellites.
- The new signals will be available to all civil users worldwide. Internationally, interest has been expressed via the International Civil Aviation Organization (ICAO) in the use of a second GPS civil signal in conjunction with the Japanese MSAS and the European EGNOS augmentation programs.
- Currently the GPS system is used by a wide range of users: from cars and trucks on the nation's highways to ships at sea and on inland waterways; from civil aviation to satellites in space, from earthquake monitoring equipment to surveyors to backpackers; new industries such as precision farming; and the electrical power companies and long-distance phone systems which derive timing and synchronization from the signals.