



Billing Code 4910-HY

DEPARTMENT OF TRANSPORTATION

Global Positioning System Pre-Operational Civil Navigation

Message Continuous Broadcast

AGENCY: Office of the Assistant Secretary for Research and Technology, Department of Transportation.

ACTION: Notice; request for public comments.

SUMMARY: The purpose of this notice is to seek comment from the public and industry regarding plans by the United States Air Force to broadcast pre-operational L2C and L5 civil navigation (CNAV) messages from certain Global Positioning System (GPS) satellites beginning in April 2014. These messages will be formatted in accordance with Interface Specifications IS-GPS-200G and IS-GPS-705C, each dated 31 Jan 2013. However, a pre-operational signal means the availability and other characteristics of the broadcast signal may not comply with all requirements of the relevant Interface Specifications and should be employed at the users' own risk.

The Department of Transportation seeks comments on: (a) the benefits, risks, or issues to users from this plan, including comments on the appropriate timeline for broadcasting pre-operational CNAV messages. Comments are requested from industry on: (b) the receiver development benefits and other intended uses of pre-operational signals, and (c) the benefits and

potential impacts to users of continuous pre-operational CNAV messages with L2C and L5 signals set healthy.

DATES: Submit comments on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments identified by docket number [DOT-OST-2014-0028] using any one of the following methods:

(1) Federal eRulemaking Portal:

<http://www.regulations.gov>.

(2) Fax: 202-493-2251.

(3) Mail: Docket Management Facility (M-30), U.S.

Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590-0001.

(4) Hand delivery: Same as mail address above, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202-366-9329.

To avoid duplication, please use only one of these four methods. See the "Public Participation" portion of the SUPPLEMENTARY INFORMATION section below for instructions on submitting comments.

Confidential Business Information: If you wish to submit any information under a claim of confidentiality, you should submit three copies of your complete submission, including the

information you claim to be confidential business information, to the address given below under FOR FURTHER INFORMATION CONTACT. In addition, you should submit a copy from which you have deleted the claimed confidential business information to the docket. When you send a comment containing information identified as confidential business information, you should include a cover letter setting forth the reasons you believe the information qualifies as "confidential business information".

(49 CFR 7.17)

FOR FURTHER INFORMATION CONTACT: If you have questions on this notice or would like to schedule a discussion, contact Karen L. Van Dyke, Office of the Assistant Secretary for Research and Technology Administration, Director Positioning, Navigation, and Timing and Spectrum Management, telephone 202-366-3180 or e-mail karen.vandyke@dot.gov. If you have questions on viewing or submitting material to the docket, call Barbara Hairston, Docket Operations, telephone 202-366-9826.

SUPPLEMENTARY INFORMATION:

Background and Purpose

The United States Government is currently adding new civil signals to the GPS constellation, including L2C and L5. The Commander of the United States Air Force Space Command directed that, beginning in April 2014, GPS satellites will broadcast navigation messages on the L2C and L5 signals to facilitate development of compatible user equipment and CNAV operational procedures. This extended pre-operational continuous broadcast is the next phase of development of a new capability based on the testing done in June 2013, per 78 *Federal Register Notice* 17185, March 20, 2013. This broadcast message capability is to be implemented using current GPS ground control capabilities in advance of more automated capabilities to become operational with the Next Generation GPS Operational Control System, called OCX.

The CNAV message broadcasts planned to begin in April 2014 will be implemented on all operational GPS satellites capable of transmitting the L2C and L5 signals. Currently, seven GPS IIR-M satellites broadcast L2C and four GPS IIF satellites broadcast L2C and L5. On average, users may expect at least one L2C-broadcasting satellite to be in view at all times. The CNAV message content will include Broadcast Message Types (MT) 10,

11, 30, and 33 (as defined in IS-GPS-200G and IS-GPS-705C, see <http://www.gps.gov/technical/icwg/>) in lieu of the currently transmitted MT-0. The Air Force intends to broadcast L2C and L5 messages with the health bits set healthy, as was the case during the June 2013 test. The CNAV data uploads will be integrated into current operations, but initially the uploads to each appropriate satellite will occur only twice per week. In December 2014, CNAV uploads are planned to be at the normal rate of once per day for each appropriate satellite. Consequently, users should expect L2C and L5 signals with CNAV messages to provide increased user range error compared to legacy civil signals between April and December 2014. After December 2014, the accuracy of the L2C and L5 signals with CNAV messages is expected to meet or exceed that of legacy signals. Future tests and implementation of the remaining CNAV message types will be announced under separate *Federal Register* Notices.

The pre-operational CNAV messages are being made available for user familiarization and for equipment development. They should not be considered operational pending availability of OCX monitoring and control capabilities, and therefore they should not be used for safety-of-life or other critical purposes. Caveats indicating "Developmental Signal-in-Space, non-operational" will be included in Notice Advisory to NAVSTAR Users (NANUs).

The Department of Transportation seeks comments on benefits, risks, or issues to users from this plan, including comments on the appropriate timeline for implementing the plan. Comments are requested from industry on the receiver development benefits and other intended uses of pre-operational signals. Comments are also requested on the benefits and potential impacts to users of continuous pre-operational CNAV broadcast with signals set healthy.

Public Participation

You may submit comments and related material regarding this proposed plan. All comments received will be posted, without change, to <http://www.regulations.gov> and will include any personal information you have provided.

Submitting comments: If you submit a comment, please include the docket number for this notice (DOT-OST-2014-0028) and provide a reason for each suggestion or recommendation. You may submit your comments and material online or by fax, mail or hand delivery, but please use only one of these means. We recommend that you include your name and a mailing address, an e-mail address, or a telephone number in the body of your document so that we can contact you if we have questions regarding your submission.

To submit your comment online, go to <http://www.regulations.gov> and use "DOT-OST-2014-0028" as your

search term. Locate this notice in the results and click the corresponding "Comment Now" box to submit your comment. If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit comments by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope.

We will consider all comments and material received during the comment period.

Viewing the comments: To view comments, as well as documents mentioned in this notice as being available in the docket, go to <http://www.regulations.gov> and use "DOT-OST-2014-0028" as your search term. Use the filters on the left side of the page to highlight "Public Submissions" or other document types. If you do not have access to the Internet, you may view the docket online by visiting the Docket Management Facility in Room W12-140 on the ground floor of the Department of Transportation West Building, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Privacy Act: Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union,

etc.). You may review a Privacy Act system of records notice regarding our public dockets in the January 17, 2008 issue of the Federal Register (73 FR 3316).

Gregory D. Winfree
Assistant Secretary
Office of the Assistant Secretary for Research and Technology

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