Change Topic: Clarification of CNAV Broadcast Intervals

This change package accommodates the text changes to support the proposed solution (see table below) within the public Signals-in-Space (SiS) documents. All comments must be submitted in Comments Resolution Matrix (CRM) form.

The columns in the WAS/IS table following this page are defined below:

Section Number: This number indicates the location of the text change within the document.

Proposed Heading: Contains existing and/or proposed changes to section titles and/or the titles to new sections

(WAS) <Document Title>: Contains the baseline text of the impacted document.

Proposed Object Text: Contains proposed changes to baseline text.

PROBLEM STATEMENT:
The current CNAV/CNAV-2 broadcast intervals tables in IS-GPS-200, IS-GPS-705, and IS-GPS-800 do not clearly convey the separate, distinct characteristics between each type of almanac message data (Reduced Almanac, Midi Almanac) and associated message type numbers (Message Type 31 and 37, respectively); nor do the tables note the operational flexibility retained by AFSPC. A literal reading of the existing CNAV/CNAV-2 broadcast intervals tables has -- and will likely continue to -- cause the Control Segment to waste valuable CNAV/CNAV-2 throughput broadcasting unnecessary CNAV/CNAV-2 messages.
SOLUTION: *(Proposed)*
Clarify the differences/separation/options for each CNAV message type/data, message type number, and associated broadcast intervals.

Change Topic: Clarification of CNAV Broadcast Intervals

Section	IS-GPS-705 RevC (5 Sep 2012) L5 SS and Nav User Segment Interfaces	Proposed Clarification of CNAV Broadcast Intervals
20.3.4.1		

Table 20-XII. Message Broadcast Intervals

Message Data	Message Type Number	Maximum Broadcast Intervals †
Ephemeris	10 & 11	24 sec
Clock	Type 30-37	24 sec
ISC, IONO	30 *	144 sec
Reduced Almanac	31* or 12	10 min**
Midi Almanac	37	60 min**
EOP	32*	15 min
UTC	33*	144 sec
Diff Correction	34* or 13 & 14	15 min***
GGTO	35*	144 sec
Text	36* or 15	As needed

* Also contains SV clock correction parameters.
** Complete set of SVs in the constellation.
*** When Differential Corrections are available.
† The intervals specified are maximum. As such, the broadcast intervals may be shorter than the specified value.

Table 20-XII. Message Broadcast Intervals

Message Data	Message Type Number	Maximum Broadcast Intervals †
Ephemeris	10 & 11	24 sec
Clock	Type 30's	24 sec
ISC, IONO	30*	144 sec
Reduced Almanac	31* or 12	10 min**,****,*****
Midi Almanac	37	60 min**,****,*****
EOP	32*	15 min****
UTC	33*	144 sec
Diff Correction	34* or 13 & 14	15 min***,****
GGTO	35*	144 sec****
Text	36* or 15	As needed****

* Also contains SV clock correction parameters.
** Complete set of SVs in the constellation.
*** When Differential Corrections are available.
**** Optional (interval applies if/when broadcast).
***** Either Reduced Almanacs or Midi Almanacs, but not both.
† The intervals specified are maximum. As such, the broadcast intervals may be shorter than the specified value.