**UNCLASSIFIED** 

**Change Topic: Civil Navigation (CNAV) Durations** 

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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.

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

document.

Proposed Heading: Contains proposed changes to existing section titles

and/or the titles to new sections

Proposed Text: Contains proposed changes to baseline text.

Rationale: Contains the supporting information to explain the reason for

the proposed changes.

#### **PROBLEM STATEMENT:**

The CNAV broadcast durations for clock & ephemeris data are undefined.

**SOLUTION:** (Proposed)

Define the CNAV broadcast durations for clock & ephemeris data as 48 hours.

4-Aug-11

### UNCLASSIFIED Change Topic: Civil Navigation (CNAV) Durations

### Start of WAS/IS for IS-GPS-200E Changes

Section Number	CNAV Durations Proposed Heading	IS-GPS-200 Rev E Navstar GPS Space Segment/Navigation User Interfaces  CNAV Durations Redlines						Rationale			
20.3.4.4			Table 20-XII. IODC Values and Data Set Lengths (Block IIR/IIR-M/IIF/IIIA)			Table 20-XII. IODC Values and Data Set Lengths (Block IIR/IIR-M/IIF & GPS III)				Supports	
			Days Spanned	Transmission Interval (hours) (Note 5)	Curve Fit Interval (hours)	IODC Range	Days Spanned	Transmission Interval (hours) (Note 5)	Curve Fit Interval (hours)	IODC Range	the CS ability to define the
			1	2 (Note 4)	4	(Note 2)	1	2 (Note 4)	4	(Note 2)	transition out of 4
			2-14	4	6	(Note 2)	2-14	4	6	(Note 2)	
			15-16	6	8	240-247 (Note 1)	15-16 17-20	12	8 14	240-247 (Note 1) 248-255, 496 (Note 1) (Note 3)	hour curve fits into
			17-20	12	14	248-255, 496 (Note 1) (Note 3)	21-62	24	26	497-503, 1021-1023	extended
			21-62	24	26	497-503, 1021-1023	21 02	21		177 303, 1021 1023	
			Note 1: For transmission intervals of 6 and 12 hours, the IODC values shown will be transmitted in increasing order.  Note 2: IODC values for blocks with 1-, 2- or 4-hour transmission intervals (at least the first 14 days after upload) shall be any numbers in the range 0 to 1023 excluding those values of IODC that correspond to IODE values in the range 240-255, subject to the constraints on re-transmission given in paragraph 20.3.4.4.  Note 3: The ninth 12-hour data set may not be transmitted.  Note 4: SVs operating in the Autonav mode will have transmission intervals of 1 hour per paragraph 20.3.4.4.  Note 5: The first data set of a new upload may be cut-in at any time and therefore the transmission interval may be less than the specified value.				Note 1: For transmission intervals of 6 and 12 hours, the IODC values shown will be transmitted in increasing order.  Note 2: IODC values for blocks with 1-, 2- or 4-hour transmission intervals (at least the first 14 days after upload) shall be any numbers in the range 0 to 1023 excluding those values of IODC that correspond to IODE values in the range 240-255, subject to the constraints on re-transmission given in paragraph 20.3.4.4. The CS can define the GPS III SV time of transition from the 4-hour curve fits into extended navigation (beyond 4 hour curve fits). Following the transition time, the SV will follow the timeframes defined in the table, including appropriately setting IODC values.  Note 3: The ninth 12-hour data set may not be transmitted.  Note 4: SVs operating in the Autonav mode will have transmission intervals of 1 hour per paragraph 20.3.4.4.  Note 5: The first data set of a new upload may be cut-in at any time and therefore the transmission interval may be less than the specified value.			navigation. This is definable in 1 hour increment s. Once the transition occurs, the SV will broadcast the intervals and curve fits as defined in this table.	
30.3.2	Block IIR-M and IIF SVs have the capability of storing at least 48 hours of CNAV naviga current memory margins, to provide CNAV positioning service without contact from the period. GPS III SVs have the capability of providing up to 60 days of CNAV positioning contact from the CS. The timeframe is defined by the CS.					ithout contact from the CS for that	Defines the CNAV data duration (48 hours) that supports the SV				

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Section Number	CNAV Durations Proposed Heading	IS-GPS-200 Rev E Navstar GPS Space Segment/Navigation User Interfaces	CNAV Durations Redlines	Rationale
				broadcast
				of CNAV
				clock and
				ephemeris
				and
				clarifies
				the GPS III
				SVs ability
				to support
				up to 60
				days.

End of WAS/IS for IS-GPS-200E

# UNCLASSIFIED Change Topic: Civil Navigation (CNAV) Durations

Start of WAS/IS for IS-GPS-705A Changes

Section	CNAV Durations	IS-GPS-705 Rev A L5 SS and Nav User Segment Interfaces	CNAV Durations Redlines	Rationale
Number	Proposed Heading			
20.3.2			Block IIF SVs have the capability of storing at least 48 hours of CNAV navigation data,	Defines the CNAV data duration
			with current memory margins, to provide CNAV positioning service without contact	(48 hours) that supports the SV
			from the CS for that period. GPSIII SVs have the capability of providing up to 60 days	broadcast of CNAV clock and
			of CNAV positioning service without contact from the CS. The timeframe is defined by	ephemeris.
			the CS.	

End of WAS/IS for IS-GPS-705A