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Document Title: Navstar GPS S	pace Segment / User Segm	ent L1C Interfaces				
Reason For Change (Driver): To parameter Time of Predict (T_op) baseline documentation.						
Description of Change : Process the appropriate documentation fo	• •	nges with the correct stał	eholders and update			
Prepared By: Amit Patel	Checked By: Huey Ngu		1			
AUTHORIZED SIGNATURES		ESENTING	DATE			
		Directorate ems Center (SMC) – LAAFB				
See Section XX <u>OR</u> See Next Page	The Boe	The Boeing Company				
See Section XX <u>OR</u> See Next Page		HQ Air Force Space Command (AFSPC/A5M)				
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CLASSIFIED BY: N/A DECLASSIFY ON: N/A	<u>.</u>					
Document Title: Navstar GPS	Space Segment / User Se	gment L1C Interfaces				
Reason For Change (Driver): ⁻ parameter Time of Predict (T_op baseline documentation.						
Description of Change : Process RFC via the proposed changes with the correct stakeholders and update the appropriate documentation for accurate implementation.						
APPROVED:						
	With Comments: Yes	No 🗆				
	With Exceptions: Yes	No 🗆				
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Section Number :

3.5.3.0-5

WAS :

Any change in the subframe 2 ephemeris and clock data shall be accomplished with a simultaneous change in the t_{oe} value. The SV shall assure that the t_{oe} value, for at least the first data set transmitted by an SV after an upload, is different from that transmitted prior to the cutover. The eight LSBs of t_{oe} for each data set shall be different from the eight LSBs of t_{oe} transmitted during the previous six hours by the SV.

Redlines :

Any change in the subframe 2 ephemeris and clock data shall be accomplished with a simultaneous change in the toe value. The SV shall assure that the toe value, for at least the first <u>CEI</u> data set transmitted by an SV after<u>from</u> ana <u>uploadnew CEI data sequence propagation</u>, is different from that transmitted <u>from the</u> prior <u>toCEI</u> <u>thedata</u> <u>cutoversequence propagation</u>. The eight LSBs of toe- for each <u>CEI</u> data set shall be different from the eight LSBs of toe transmitted during the previous six hours by the SV.

IS :

Any change in the subframe 2 ephemeris and clock data shall be accomplished with a simultaneous change in the t_{oe} value. The SV shall assure that the t_{oe} value, for at least the first CEI data set transmitted by an SV from a new CEI data sequence propagation, is different from that transmitted from the prior CEI data sequence propagation. The eight LSBs of t_{oe} for each CEI data set shall be different from the eight LSBs of t_{oe} transmitted during the previous six hours by the SV.

IS800-158 :

Section Number :

3.5.3.0-6

WAS :

The general format of clock data in subframe 2 consists of data fields for SV clock correction coefficients. The clock parameters of subframe 2 describe the SV time scale during the period of validity. The parameters are applicable during the time in which they are transmitted. Beyond that time, they are still applicable, however, the most recent data set should be used since the accuracy degrades over time.

Redlines :

The general format of clock data in subframe 2 consists of data fields for SV clock correction coefficients. The clock parameters of subframe 2 describe the SV time scale during the period of validity. The parameters are applicable during the time in which they are transmitted. Beyond that time, they are still applicable, however, the most recent <u>CEI</u> data set should be used since the accuracy degrades over time.

IS :

The general format of clock data in subframe 2 consists of data fields for SV clock correction coefficients. The clock parameters of subframe 2 describe the SV time scale during the period of validity. The parameters are applicable during the time in which they are transmitted. Beyond that time, they are still applicable, however, the most recent CEI data set should be used since the accuracy degrades over time.

IS800-159 :

Section Number :

3.5.3.0-7

WAS :

Table 3.5-1. Subframe 2 Parameters (1 of 3)						
	Parameter	No. of Bits**	Scale Factor (LSB)	Effective Range***	Units	
WN	Week No.	13	1		weeks	
ITOW	Interval time of week	8		83	(see text)	
t _{op}	Data predict time of week	11	300	604,500	seconds	
L1C health		1			(see text)	
URA _{ED} Index	ED accuracy index	5*			(see text)	
t _{oe}	Ephemeris/clock data reference time of week	11	300	604,500	seconds	
ΔΑ ****	Semi-major axis difference at reference time	26*	2-9		meters	
Å	Change rate in semi-major axis	25*	2-21		meters/sec	
Δn_0	Mean Motion difference from computed value at reference time	17*	2 ⁻⁴⁴		semi-circles/sec	
$\Delta \mathbf{n}_0$	Rate of mean motion difference from computed value	23*	2 ⁻⁵⁷		semi-circles/sec ²	
M _{0-n}	Mean anomaly at reference time	33*	2-32		semi-circles	
en	Eccentricity	33	2-34		dimensionless	
ω _n	Argument of perigee	33*	2-32		semi-circles	
** See Figu *** Unless of indicate	 ** See Figure 3.5-1 for complete bit allocation in Subframe 2; *** Unless otherwise indicated in this column, effective range is the maximum range attainable with indicated bit allocation and scale factor. 					

**** Relative to $A_{REF} = 26,559,710$ meters.

Table 3.5-1. Subframe 2 Parameters (1 of 3)					
	Parameter	No. of Bits**	Scale Factor (LSB)	Effective Range***	Units
WN	Data Sequence Propagation	13	1		weeks
	Week Number	8		0 to 83	(see text)
ITOW	Interval time of week	0		0 10 85	(see text)
		11	300	0 to 604,500	seconds
t _{op}	CEI Data sequence				
L1C health	propagation time of week	1			(see text)
		5*			(see text)
URA_{ED} Index	ED accuracy index				
		11	300	0 to 604,500	seconds
t _{oe}	Ephemeris/clock data reference time of week				
	Telefence time of week	26*	2-9		meters
ΔΑ ****	Semi-major axis difference at reference time				
		25*	2-21		meters/sec
Ă	Change rate in semi-major axis				
Δn_0	Mean Motion difference from computed value at reference time	17*	2-44		semi-circles/sec
	time	23*	2-57		semi-circles/sec ²
Δn_0^{\bullet}	Rate of mean motion difference from computed value				
	value	33*	2-32		semi-circles
M _{0-n}	Mean anomaly at reference time				
	D	33	2-34	0.0 to 0.03	dimensionless
en	Eccentricity	33*	2-32		semi-circles
ω _n	Argument of perigee	55	2		50111-0110105
 Parameters so indicated are in two's complement notation; See Figure 3.5-1 for complete bit allocation in Subframe 2; Unless otherwise indicated in this column, valid range is the maximum range attainable with indicated bit allocation and scale factor. Relative to A_{REF} = 26,559,710 meters. 					

Table 3.5-1. Subframe 2 Parameters (1 of 3)					
Parameter	No. of Bits**	Scale Factor (LSB)	Effective Range***	Units	

WN	Data Sequence Propagation Week Number	13	1		weeks		
		8		0 to 83	(see text)		
ITOW	Interval time of week	11	300	0 to 604,500	seconds		
t _{op}	CEI Data sequence propagation time of week	1			(see text)		
L1C health	F. F. S.	5*					
URA _{ED} Index	ED accuracy index	-			(see text)		
t _{oe}	Ephemeris/clock data	11	300	0 to 604,500	seconds		
	reference time of week	26*	2-9		meters		
ΔA ****	Semi-major axis difference at reference time	20	2		meters		
		25*	2-21		meters/sec		
Ă	Change rate in semi-major axis						
Δn_0	Mean Motion difference from	17*	2-44		semi-circles/sec		
	computed value at reference time						
Δn_0^{\bullet}	Rate of mean motion	23*	2-57		semi-circles/sec ²		
Z 11()	difference from computed value						
		33*	2-32		semi-circles		
M _{0-n}	Mean anomaly at reference time						
	Eccentricity	33	2-34	0.0 to 0.03	dimensionless		
en	Argument of perigee	33*	2-32		semi-circles		
ω _n	Argument or perigee						
* Parameters so indicated are in two's complement notation;							
 ** See Figure 3.5-1 for complete bit allocation in Subframe 2; *** Unless otherwise indicated in this column, valid range is the maximum range attainable with 							
indicated bit allocation and scale factor.							

**** Relative to $A_{REF} = 26,559,710$ meters.

IS800-161 :

Section Number :

3.5.3.0-9

WAS :

Table 3.5-1. Subframe 2 Parameters (3 of 3)					
Parameter	No. of Bits**	Scale Factor (LSB)	Effective Range***	Units	

URA _{NED0} Index	NED Accuracy Index	5*			(see text)	
URA _{NED1} Index	NED Accuracy Change Index	3			(see text)	
URA _{NED2} Index	NED Accuracy Change Rate Index	3			(see text)	
a _{f2-n}	SV Clock Drift Rate Correction Coefficient	10*	2 ⁻⁶⁰		sec/sec ²	
a_{fl-n}	SV Clock Drift Correction Coefficient	20*	2-48		sec/sec	
a _{f0-n}	SV Clock Bias Correction Coefficient	26*	2 ⁻³⁵		seconds	
T _{GD} ****	Inter-Signal Correction for L1 or L2 P(Y)	13*	2 ⁻³⁵		seconds	
ISC _{L1CP} ****	Inter-Signal Correction for L1C _P	13*	2 ⁻³⁵		seconds	
ISC _{L1CD} ****	Inter-Signal Correction for L1C _D	13*	2-35		seconds	
WN _{OP}	Data Predict Week Number	8	1		weeks	
* Parameters so indicated are in two's complement notation;						
** See Figure 3.5-1 for complete bit allocation in Subframe 2;						
*** Unless otherwise indicated in this column, effective range is the maximum range attainable with indicated bit allocation and scale factor.						
**** The bit string of "1000000000000" will indicate that the group delay value is not available.						

Table 3.5-1. Subframe 2 Parameters (3 of 3)					
	Parameter	No. of Bits**	Scale Factor (LSB)	Effective Range***	Units
URA _{NED0} Index	NED Accuracy Index	5*			(see text)
URA _{NED1} Index	NED Accuracy Change Index	3			(see text)

URA _{NED2} Index	NED Accuracy Change Rate Index	3			(see text)	
a _{f2-n}	SV Clock Drift Rate Correction Coefficient	10*	2-60		sec/sec ²	
a _{f1-n}	SV Clock Drift Correction Coefficient	20*	2-48		sec/sec	
a _{f0-n}	SV Clock Bias Correction Coefficient	26*	2 ⁻³⁵		seconds	
T _{GD} ****	Inter-Signal Correction for L1 or L2 P(Y)	13*	2 ⁻³⁵		seconds	
ISC _{L1CP} ****	Inter-Signal Correction for L1C _P	13*	2-35		seconds	
ISC _{L1CD} ****	Inter-Signal Correction for L1C _D	13*	2 ⁻³⁵		seconds	
WN _{op}	CEI Data Sequence Propagation Week Number	8	1		weeks	
* Parameters so indicated are in two's complement notation;						
** See Figure 3.5-1 for complete bit allocation in Subframe 2;						
	*** Unless otherwise indicated in this column, effective range is the maximum range attainable with indicated bit allocation and scale factor.					
**** The bit string of "1000000000000" will indicate that the group delay value is not available.						

	Table 3.5-1. Subframe 2 Parameters (3 of 3)						
	Parameter	No. of Bits**	Scale Factor (LSB)	Effective Range***	Units		
URA _{NED0} Index	NED Accuracy Index	5*			(see text)		
URA _{NED1} Index URA _{NED2} Index	NED Accuracy Change Index NED Accuracy Change Rate Index	3			(see text)		
		5			(300 10,11)		
a _{f2-n}	SV Clock Drift Rate Correction Coefficient	10*	2-60		sec/sec ²		

a _{f1-n}	SV Clock Drift Correction Coefficient	20*	2-48	sec/sec			
a _{f0-n}	SV Clock Bias Correction Coefficient	26*	2 ⁻³⁵	seconds			
T_{GD}^{****}	Inter-Signal Correction for L1 or L2 P(Y)	13*	2-35	seconds			
ISC _{L1CP} ****	Inter-Signal Correction for L1C _P	13*	2 ⁻³⁵	seconds			
ISC _{L1CD} ****	Inter-Signal Correction for L1C _D	13*	2 ⁻³⁵	seconds			
WN _{op}	CEI Data Sequence Propagation Week Number	8	1	weeks			
* Parameter	* Parameters so indicated are in two's complement notation;						
** See Figure 3.5-1 for complete bit allocation in Subframe 2;							
*** Unless otherwise indicated in this column, effective range is the maximum range attainable with indicated bit allocation and scale factor.							
**** The bit string of "100000000000" will indicate that the group delay value is not available.							

IS800-163 :

Section Number :

3.5.3.1.0-1

WAS :

Bits 1 through 13 of subframe 2 shall contain 13 bits that are a modulo-8192 binary representation of the current GPS week number at the start of the data set transmission interval (see paragraph 6.2.2).

Redlines :

Bits 1 through 13 of subframe 2 shall contain 13 bits that are a modulo-8192 binary representation of the current GPS week number at the start of the <u>CEI</u> data set transmission interval (see paragraph 6.2.2).

IS :

Bits 1 through 13 of subframe 2 shall contain 13 bits that are a modulo-8192 binary representation of the current GPS week number at the start of the CEI data set transmission interval (see paragraph 6.2.2).

Section Number :

3.5.3.3

WAS : Data Predict Time of Week

Redlines :

CEI Data PredictSequence Propagation Time of Week-.

IS :

CEI Data Sequence Propagation Time of Week.

IS800-167 :

Section Number : 3.5.3.3.0-1

WAS :

Bits 22 through 32 of subframe 2 shall contain the data predict time of week (t_{op}). The t_{op} term provides the epoch time of week of the state estimate utilized for the prediction of satellite quasi-Keplerian ephemeris parameters.

Redlines :

Bits 22 through 32 of subframe 2 shall contain the <u>CEI</u> data <u>predictsequence propagation</u> time of week (top). The top term provides the epoch time of week of the state <u>estimatedata</u> utilized for <u>thesatellite</u> <u>prediction</u><u>CEI data</u>. <u>Users are</u> <u>cautioned to avoid using this parameter to compute age</u> of <u>satellitedata</u> <u>quasi-Keplerian</u><u>for</u> <u>ephemerisany</u> <u>parameters</u><u>SV</u>.

IS :

Bits 22 through 32 of subframe 2 shall contain the CEI data sequence propagation time of week (t_{op}). The t_{op} term provides the epoch time of week of the state data utilized for satellite CEI data. Users are cautioned to avoid using this parameter to compute age of data for any SV.

IS800-172 :

Section Number :

3.5.3.4.0-2

WAS :

The predicted health data will be updated at the time of upload when a new data set has been built by the CS. The transmitted health data may not correspond to the actual health of the transmitting SV. In real time, if the L1C signal becomes unhealthy, the status change will normally be indicated by the broadcast of non-standard code or be indicated by the health bits as described in subframe 2.

Redlines :

The predicted health data will be updated at the time of upload when a new <u>CEI</u> data set has been built by the CS. The transmitted health data may not correspond to the actual health of the transmitting SV. In real time, if the L1C signal becomes unhealthy, the status change will normally be indicated by the broadcast of non-standard code or be indicated by the health bits as described in subframe 2.

The predicted health data will be updated at the time of upload when a new CEI data set has been built by the CS. The transmitted health data may not correspond to the actual health of the transmitting SV. In real time, if the L1C signal becomes unhealthy, the status change will normally be indicated by the broadcast of non-standard code or be indicated by the health bits as described in subframe 2.

IS800-179 :

Section Number :

3.5.3.6.1.0-1

WAS :

The user shall compute the ECEF coordinates of position for the SV's antenna phase center (APC) utilizing a variation of the equations shown in Table 3.5-2. The ephemeris parameters are Keplerian in appearance; however, the values of these parameters are produced by the SV via a least squares curve fit of the predicted ephemeris of the SV APC (time-position quadruples: t, x, y, z expressed in ECEF coordinates). Particulars concerning the applicable coordinate system are given in Sections 20.3.3.4.3.3 and 20.3.3.4.3.4 of IS-GPS-200.

Redlines :

The user shall compute the ECEF coordinates of position for the SV's antenna phase center (APC) utilizing a variation of the equations shown in Table 3.5-2. The ephemeris parameters are Keplerian in appearance; however, the values of these parameters are produced by the SV via a least squares curve fit of the <u>predictedpropagated</u> ephemeris of the SV APC (time-position quadruples: t, x, y, z expressed in ECEF coordinates). Particulars concerning the applicable coordinate system are given in Sections 20.3.3.4.3.3 and 20.3.3.4.3.4 of IS-GPS-200.

IS :

The user shall compute the ECEF coordinates of position for the SV's antenna phase center (APC) utilizing a variation of the equations shown in Table 3.5-2. The ephemeris parameters are Keplerian in appearance; however, the values of these parameters are produced by the SV via a least squares curve fit of the propagated ephemeris of the SV APC (time-position quadruples: t, x, y, z expressed in ECEF coordinates). Particulars concerning the applicable coordinate system are given in Sections 20.3.3.4.3.3 and 20.3.3.4.3.4 of IS-GPS-200.

IS800-904 :

Section Number : 3.5.3.11 WAS : Data Predict Week Number.

Redlines : <u>CEL</u> Data PredictSequence Propagation</u> Week Number.

IS :

CEI Data Sequence Propagation Week Number.

IS800-905 :

Section Number :

3.5.3.11.0-1

WAS :

Bits 567-574 of Subframe 2 shall indicate the Data Predict Week Number (WN_{OP}) to which the Data Predict Time of Week (top) is referenced (see 3.5.3.3). The WN_{OP} term consists of eight bits which shall be a modulo 256 binary representation of the GPS week number to which the top is referenced.

Redlines :

Bits 567-574 of <u>Subframesubframe</u> 2 shall indicate the <u>CEI</u> Data <u>PredictSequence Propagation</u> Week Number (<u>WNOPWNop</u>) to which the <u>CEI</u> Data <u>PredictSequence Propagation</u> Time of Week (top) is referenced (see 3.5.3.3). The <u>WNOPWNop</u> term consists of eight bits which shall be a modulo 256 binary representation of the GPS week number to which the top is referenced. The combination of the epoch time of state data (top, WNop) for a valid CEI data sequence propagation will be in the past relative to the time of broadcast.

IS :

Bits 567-574 of subframe 2 shall indicate the CEI Data Sequence Propagation Week Number (WN_{op}) to which the CEI Data Sequence Propagation Time of Week (t_{op}) is referenced (see 3.5.3.3). The WN_{op} term consists of eight bits which shall be a modulo 256 binary representation of the GPS week number to which the t_{op} is referenced. The combination of the epoch time of state data (t_{op} , WN_{op}) for a valid CEI data sequence propagation will be in the past relative to the time of broadcast.

IS800-289 :

Section Number :

3.5.5.1.0-2

WAS :

Cutovers of subframe 2 data to new data sets will nominally occur on hour boundaries except for the first data set of a new upload. The first data set of newly uploaded data will cutover on 15 minute boundaries.

Redlines :

Cutovers of subframe 2 data to new <u>CEI</u> data sets will nominally occur on hour boundaries except for the first <u>CEI</u> data set of a new <u>upload</u>. The first data set of newly <u>uploaded</u><u>CEI</u> data <u>will cutover on 15 minutesequence</u> <u>boundariespropagation</u>.

IS :

Cutovers of subframe 2 data to new CEI data sets will nominally occur on hour boundaries except for the first CEI data set of a new CEI data sequence propagation.

IS800-869 :

Section Number : 3.5.5.2

WAS : Data Sets

Redlines : CEI Data Sets

IS : CEI Data Sets

IS800-871 :

Section Number :

3.5.5.2.0-1

WAS :

The t_{oe} shall be equal to the t_{oc} of the same CNAV data set. The following rules govern the transmission of t_{oe} and t_{oc} values in different data sets: (1) The transmitted t_{oc} will be different from any value transmitted by the SV during the preceding seven days; (2) The transmitted t_{oe} will be different from any value transmitted by the SV during the preceding six hours.

Cutovers to new data sets will occur only on hour boundaries except for the first data set of a new upload. The first data set may be cut-in (reference paragraph 3.5.5.1) at any time during the hour and therefore may be transmitted by the SV for less than one hour.

The start of the transmission interval for each data set corresponds to the beginning of the curve fit interval for the data set. Each data set remains valid for the duration of its transmission interval, and nominally also remains valid for the duration of its curve fit interval. A data set is rendered invalid before the end of its curve fit interval when it is superseded by the SV cutting over to the first data set of a new upload.

Normal Operations. The subframe 2 data sets are transmitted by the SV for periods of two hours. The corresponding curve fit interval is three hours.

Redlines :

The toe shall be equal to the toc of the same CNAV data set. The following rules<u>rule governgoverns</u> the transmission of toe and toc values in different<u>CEI</u> data sets: (1) The transmitted toe toe will be different from any value transmitted by the SV during the preceding seven days; (2) The transmitted toe will be different from any value transmitted<u>six</u> by<u>hours</u>. the<u>top</u> SV<u>does</u> duringnot the<u>have</u> precedingto sixmatch hourstoe.

Cutovers to new <u>CEI</u> data sets will occur only on hour boundaries except for the first <u>CEI</u> data set of a new <u>uploadCEI</u> <u>data sequence propagation</u>. The first <u>CEI</u> data set may be cut-in (reference paragraph 3.5.5.1) at any time during the hour and therefore may be transmitted by the SV for less than one hour.

The start of the transmission interval for each <u>CEI</u> data set corresponds to the beginning of the curve fit interval for the <u>CEI</u> data set. Each <u>CEI</u> data set remains valid for the duration of its transmission interval, and nominally also remains valid for the duration of its curve fit interval. A <u>CEI</u> data set is rendered invalid before the end of its curve fit interval when it is superseded by the SV cutting over to the first <u>CEI</u> data set of a new <u>upload</u><u>CEI</u> data sequence propagation.

Normal Operations. The subframe 2<u>CEI</u> data sets are transmitted by the SV for periods of two hours. The corresponding curve fit interval is three hours.

The following rule governs the transmission of t_{oe} in different CEI data sets: The transmitted t_{oe} will be different from any value transmitted by the SV during the preceding six hours. t_{op} does not have to match t_{oe} .

Cutovers to new CEI data sets will occur only on hour boundaries except for the first CEI data set of a new CEI data sequence propagation. The first CEI data set may be cut-in (reference paragraph 3.5.5.1) at any time during the hour and therefore may be transmitted by the SV for less than one hour.

The start of the transmission interval for each CEI data set corresponds to the beginning of the curve fit interval for the CEI data set. Each CEI data set remains valid for the duration of its transmission interval, and nominally also remains valid for the duration of its curve fit interval. A CEI data set is rendered invalid before the end of its curve fit interval when it is superseded by the SV cutting over to the first CEI data set of a new CEI data sequence propagation.

Normal Operations. The subframe 2 CEI data sets are transmitted by the SV for periods of two hours. The corresponding curve fit interval is three hours.

IS800-918 : Insertion after object IS800-871

Section Number :

3.5.5.2.1

WAS :

N/A

Redlines :

<u>Updates to parameters in table 6.2-18 shall prompt changes in toe.</u> Any parameter marked with NOTE1 may be changed with or without a change in toe.

IS :

Updates to parameters in table 6.2-18 shall prompt changes in t_{oe} . Any parameter marked with NOTE1 may be changed with or without a change in t_{oe} .

IS800-893 :

Section Number :

6.1.0-1

WAS :

APC	-	antenna phase center
ASCII	-	American Standard Code for Information Interchange
ВСН	-	Bose, Chaudhuri, and Hocquenghem
BOC	-	Binary Offset Carrier
BPSK	-	Bi-Phase Shift Key

ССВ	-	Configuration Control Board
CDC	-	clock differential correction
CNAV-2-	-	L1C Navigation Message
CRC	-	Cyclic Redundancy Check
CS	-	Control Segment
dBc	-	Power ratio of a signal to a (unmodulated) carrier signal, expressed in decibels
DC	-	differential correction
DN	-	Day Number
ECEF	-	Earth-Centered, Earth-Fixed
ECI	-	Earth-Centered, Inertial
EDC	-	ephemeris differential correction
EOE	-	Edge-of-Earth
EOL	-	End-of-Life
EOP	-	Earth Orientation Parameters
FEC	-	Forward Error Correction
GBAS	-	Ground Based Augmentation System
GGTO	-	GPS/GNSS Time Offset
GNSS	-	Global Navigation Satellite System
GPS	-	Global Positioning System
GPSW	-	GPS Wing
ICC	-	Interface Control Contractor
ICWG	-	Interface Control Working Group
IRN	-	Interface Revision Notice
IS	-	Interface Specification
ISC	-	Inter-Signal Correction
ITOW	-	Interval Time of Week
LDPC	-	Low Density Parity Check
LFSR	-	Linear Feedback Shift Register
LSB	-	Least Significant Bit

L1C-Common L1 SignalMCS-Master Control StationMH2-MegahertzMSB-Nost Significant BitNAV-Legacy Navigation Messago, D(t)NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Proposed Interface Revision NoticeRF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedRMS-Satellite Based Augmentation Systemsps-Space Service VolumeSV-Space Service VolumeSV-To Be DeterminedTBD-To Be SuppliedTMBOC-Time-Multiplexed BOCTOW-Time of IntervalTOW-Time of IntervalTOW-SuppliedTOW-User EquipmentUEA-User EquipmentURA-User EquipmentURA-User Range AccuracyUS-User Segment	LSF	-	Leap Seconds Future
MHzImage: constraint of the second secon	LIC	-	Common L1 Signal
MSB-Most Significant BitNAV-Legacy Navigation Message, D(1)NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Pseudo-Random NoiseRF-Radio FrequencyRHCP-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Space SegmentSSV-Space SegmentSSV-Space SegmentTBD-To Be DeterminedTBR-To Be SuppliedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-Super Stanga AccuracyUE-User Range AccuracyUS-SuppliedSNO-Space SegmentSNO-To Be ResolvedTBR-To Be ResolvedTABOC-Time of IntervalTOU-Time of IntervalTOW-User Range AccuracyUE-User Range AccuracyUSNO-User Segment	MCS	-	Master Control Station
NAV-Legacy Navigation Message, D(t)NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Radio FrequencyRKF-Radio FrequencyRMS-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Space SegmentSSV-Space SegmentSV-To Be DeterminedTBB-To Be SuppliedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-Sire SegmentUE-User EquipmentURA-User EquipmentURA-SuppliedTIMBOC-Time of IntervalTOW-User Differential Range AccuracyUE-User SegmentUSNO-User SegmentUSNO-User SegmentUSNO-User SegmentUSNO-User Segment	MHz	-	Megahertz
NSCDImage: Constandard L1CpNSCP-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Pseudo-Random NoiseRF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedRMS-Rot Mcan SquareSBAS-Satellite Based Augmentation Systemsps-Symbols per secondSSV-Space SegmentSV-Space Service VolumeTBD-To Be DeterminedTBR-To Be ResolvedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-User Differential Range AccuracyUE-User SagmentURA-User SagmentUSNO-User Segment	MSB	-	Most Significant Bit
NSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Pseudo-Random NoiseRF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedRMS-Satellite Based Augmentation Systemsps-Symbols per secondSSV-Space SegmentSV-Space VehicleTBD-To Be DeterminedTBR-To Be ResolvedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalCOW-Suse Differential Range AccuracyUE-User EquipmentURA-User Range AccuracyUSNO-User Segment	NAV	-	Legacy Navigation Message, D(t)
PIRN-Proposed Interface Revision NoticePIRN-Proposed Interface Revision NoticePRN-Redio FrequencyRF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedRMS-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Space SegmentSSV-Space SegmentSV-Space Service VolumeSV-To Be DeterminedTBR-To Be ResolvedTMBOC-Time-Multiplexed BOCTOI-Time of MeekUDRA-User Differential Range AccuracyUE-User Range AccuracyUSNO-User SegmentUSNO-User Segment	NSCD	-	non-standard L1C _D
PRN-Pseudo-Random NoisePRN-Radio FrequencyRF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedRMS-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Statellite Based Augmentation Systemsps-Space SegmentSSV-Space SegmentSV-Space VehicleTBD-To Be DeterminedTBS-To Be ResolvedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-Sier Differential Range AccuracyUE-User Differential Range AccuracyUSNO-User SegmentUSNO-User Segment	NSCP	-	non-standard L1C _P
Image: Augument of the second secon	PIRN	-	Proposed Interface Revision Notice
RHCP-Right-Hand Circularly PolarizedRMS-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Satellite Based Augmentation Systemsps-Symbols per secondSS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be DeterminedTBR-To Be ResolvedTBS-Time-Multiplexed BOCTOI-Time of IntervalTOW-User Differential Range AccuracyUE-User Range AccuracyUS-User SegmentUSNO-User Segment	PRN	-	Pseudo-Random Noise
RMS-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Satellite Based Augmentation SystemSS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be DeterminedTBR-To Be SuppliedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-User Differential Range AccuracyUE-User Range AccuracyUSNO-U.S. Naval Observatory	RF	-	Radio Frequency
SBAS-Satellite Based Augmentation Systemsps-Satellite Based Augmentation Systemsps-Symbols per secondSS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be DeterminedTBR-To Be ResolvedTBS-To Be SuppliedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-User Differential Range AccuracyUE-User Range AccuracyUS-User SegmentUSNO-U.S. Naval Observatory	RHCP	-	Right-Hand Circularly Polarized
sps-symbols per secondSS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be DeterminedTBR-To Be ResolvedTBS-To Be SuppliedTOI-Time-Multiplexed BOCTOW-Time of IntervalTOW-Time of User NetworkUDRA-User Differential Range AccuracyUS-User Range AccuracyUSNO-User SegmentUSNO-User SegmentUSNO-U.S. Naval Observatory	RMS	-	Root Mean Square
SS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be DeterminedTBR-To Be ResolvedTBS-To Be SuppliedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-Time of IntervalUDRA-User Differential Range AccuracyUE-User Range AccuracyUS-User SegmentUSNO-U.S. Naval Observatory	SBAS	-	Satellite Based Augmentation System
SN-Space Service VolumeSV-Space VehicleTBD-To Be DeterminedTBR-To Be ResolvedTBS-To Be SuppliedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-Sine of WeekUDRA-User Differential Range AccuracyURA-User Range AccuracyUS-User SegmentUSNO-U.S. Naval Observatory	sps	-	symbols per second
SV-Space VehicleTBD-To Be DeterminedTBR-To Be ResolvedTBS-To Be SuppliedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-Time of WeekUDRA-User Differential Range AccuracyUE-User Range AccuracyUS-User SegmentUSNO-U.S. Naval Observatory	SS	-	Space Segment
TBDTo Be DeterminedTBR-To Be ResolvedTBS-To Be SuppliedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-Time of SuppliedUDRA-User Differential Range AccuracyUE-User Range AccuracyUSNO-User SegmentUSNO-U.S. Naval Observatory	SSV	-	Space Service Volume
Image: Big b	SV	-	Space Vehicle
Image: Constraint of the sympleTBS-To Be SuppliedTMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-Time of WeekUDRA-User Differential Range AccuracyUE-User EquipmentURA-User Range AccuracyUSNO-U.S. Naval Observatory	TBD	-	To Be Determined
TMBOC-Time-Multiplexed BOCTOI-Time of IntervalTOW-Time of WeekUDRA-User Differential Range AccuracyUE-User EquipmentURA-User Range AccuracyUS-User SegmentUSNO-U.S. Naval Observatory	TBR	-	To Be Resolved
TOI-Time of IntervalTOW-Time of WeekUDRA-User Differential Range AccuracyUE-User EquipmentURA-User Range AccuracyUS-User SegmentUSNO-U.S. Naval Observatory	TBS	-	To Be Supplied
TOWImage: Constraint of WeekUDRA-User Differential Range AccuracyUE-User EquipmentURA-User Range AccuracyUS-User SegmentUSNO-U.S. Naval Observatory	ТМВОС	-	Time-Multiplexed BOC
UDRA-User Differential Range AccuracyUE-User EquipmentURA-User Range AccuracyUS-User SegmentUSNO-U.S. Naval Observatory	ТОІ	-	Time of Interval
UE-User EquipmentURA-User Range AccuracyUS-User SegmentUSNO-U.S. Naval Observatory	TOW	-	Time of Week
URA-User Range AccuracyUS-User SegmentUSNO-U.S. Naval Observatory	UDRA	-	User Differential Range Accuracy
US - User Segment USNO - U.S. Naval Observatory	UE	-	User Equipment
USNO - U.S. Naval Observatory	URA	-	User Range Accuracy
	US	-	User Segment
UTC - Coordinated Universal Time	USNO	-	U.S. Naval Observatory
	UTC	-	Coordinated Universal Time

WGS	84
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APC	-	antenna phase center
ASCII	-	American Standard Code for Information Interchange
ВСН	-	Bose, Chaudhuri, and Hocquenghem
BOC	-	Binary Offset Carrier
BPSK	-	Bi-Phase Shift Key
ССВ	-	Configuration Control Board
CDC	-	clock differential correction
CEI	-	Clock/Ephemeris/ Integrity
CNAV-2-	-	L1C Navigation Message
CRC	-	Cyclic Redundancy Check
CS	-	Control Segment
dBc	-	Power ratio of a signal to a (unmodulated) carrier signal, expressed in decibels
DC	-	differential correction
DN	-	Day Number
ECEF	-	Earth-Centered, Earth-Fixed
ECI	-	Earth-Centered, Inertial
EDC	-	ephemeris differential correction
EOE	-	Edge-of-Earth
EOL	-	End-of-Life
ЕОР	-	Earth Orientation Parameters
FEC	-	Forward Error Correction
GBAS	-	Ground Based Augmentation System
GGTO	-	GPS/GNSS Time Offset
GNSS	-	Global Navigation Satellite System
GPS	-	Global Positioning System

ICC.Interface Control ContractorICWG.Interface Control Working GroupIRN.Interface Control Working GroupIS.Interface SpecificationISC.Interface SpecificationISC.Interface SpecificationITOW.Interval Time of WeekLDPC.Low Density Parity CheckLFSR.Linear Feedback Shift RegisterLSB.Least Significant BitLSF.Leap Seconds FutureLIC.Common L1 SignalMCS.Master Control StationMHz.MegahertzMSB.Instradard LICpNSCD.non-standard LICpNSCD.non-standard LICpNRN.Pesudo-Random NoiseRF.Radio FrequencyRKCP.Radio FrequencyRKS.Satellite Based Augmentation SystemSBAS.Satellite Based Augmentation SystemSS.Space Service VolumeSV.Space VehicleTBD.To Be DeterminedTBR.To Be Determined	GPSW	-	GPS Wing
IRNImage: Constraint of the service of th	ICC	-	Interface Control Contractor
ISInterface SpecificationISCInter-Signal CorrectionISCInter-Signal CorrectionITOWInterval Time of WeekLDPCLow Density Parity CheckLSRI Linear Feedback Shift RegisterLSBI Least Significant BitLSFI Leap Seconds FutureLICCommon L1 SignalMCSMaster Control StationMHzMegahertzMSBNost Significant BitNAVI Leagex Navigation Message, D(t)NSCDnon-standard L1CpNSCPnon-standard L1CpPIRNProposed Interface Revision NoticeRFRadio FrequencyRHCPRadio FrequencyRKSSort Masta SquareSASSSpace SegmentSSVSpace SegmentSVSpace Service VolumeTBD-To Be DeterminedTBD-To Be Determined	ICWG	-	Interface Control Working Group
ISCInter-Signal CorrectionITOW-Inter-Signal CorrectionITOW-Interval Time of WeekIJDPC-Low Density Parity CheckISSR-Linear Feedback Shift RegisterISB-Least Significant BitISF-Leap Seconds FutureLIC-Common L1 SignalMCS-Master Control StationMHz-MegahertzMSB-League Navigation Message, D(t)NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Radio FrequencyRHCP-Right-Hand Circularly PolarizedRMS-Satellite Based Augmentation Systemsps-Space SegmentSV-Space Service VolumeTBD-To Be Determined	IRN	-	Interface Revision Notice
ITOW-Interval Time of WeekILDPC-Low Density Parity CheckLISR-Linear Feedback Shift RegisterLSB-Least Significant BitLSF-Leap Seconds FutureLIC-Common L1 SignalMCS-Master Control StationMHz-McgahertzMSB-Itegay Navigation Message, D(t)NSCD-non-standard L1CpNSCP-Proposed Interface Revision NoticePRN-Radio FrequencyRF-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Space Service VolumeSSV-Space Service VolumeTBD-Space VehicleTBD-Space Vehicle	IS	-	Interface Specification
LDPC-Low Density Parity CheckLFSR-Linear Feedback Shift RegisterLSB-Least Significant BitLSF-Least Significant BitLSF-Least Significant BitLIC-Common L1 SignalMCS-Master Control StationMHz-MegahertzMSB-Nost Significant BitNAV-Legacy Navigation Message, D(t)NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Redio FrequencyRFF-Ratio FrequencyRHCP-Statellite Based Augmentation Systemsps-Symbols per secondSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	ISC	-	Inter-Signal Correction
LFSR-Linear Feedback Shift RegisterLFSR-Least Significant BitLSB-Leap Seconds FutureLSF-Leap Seconds FutureLIC-Common L1 SignalMCS-Master Control StationMHz-MegahertzMSB-Most Significant BitNAV-Legacy Navigation Message, D(t)NSCD-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Radio FrequencyRF-Radio FrequencyRMS-Satellite Based Augmentation Systemsps-Satellite Based Augmentation Systemsps-Space SegmentSV-Space Service VolumeTBD-To Be Determined	ITOW	-	Interval Time of Week
LSB-Least Significant BitLSF-Least Significant BitLIC-Common L1 SignalMCS-Master Control StationMHz-MegahertzMSB-Most Significant BitNAV-Legacy Navigation Message, D(t)NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Radio FrequencyRF-Right-Hand Circularly PolarizedRMS-Satellite Based Augmentation Systemsps-Space SegmentSSV-Space Service VolumeSV-Space Service VolumeTBD-To Be Determined	LDPC	-	Low Density Parity Check
LSF-Leap Seconds FutureL1C-Common L1 SignalMCS-Master Control StationMHz-MegahertzMSB-Most Significant BitNAV-Legacy Navigation Message, D(t)NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Radio FrequencyRFF-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Space SegmentSSV-Space SegmentSV-Space SegmentTBD-To Be Determined	LFSR	-	Linear Feedback Shift Register
L1C-Common L1 SignalMCS-Master Control StationMHz-MegahertzMSB-Most Significant BitNAV-Legacy Navigation Message, D(t)NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Radio FrequencyRF-Radio FrequencyRHCP-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	LSB	-	Least Significant Bit
Image: Control StationMCS-Master Control StationMHz-MegahertzMSB-Most Significant BitNAV-Legacy Navigation Message, D(t)NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Radio FrequencyRF-Right-Hand Circularly PolarizedRMS-Satellite Based Augmentation SystemSBAS-Satellite Based Augmentation SystemSSV-Space SegmentSV-Space VehicleTBD-To Be Determined	LSF	-	Leap Seconds Future
MHz-MegahertzMSB-Most Significant BitNAV-Legacy Navigation Message, D(t)NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Radio FrequencyRF-Right-Hand Circularly PolarizedRMS-Satellite Based Augmentation Systemsps-Symbols per secondSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	LIC	-	Common L1 Signal
MSB-Most Significant BitNAV-Legacy Navigation Message, D(t)NSCD-non-standard L1CDNSCP-non-standard L1CPPIRN-Proposed Interface Revision NoticePRN-Pseudo-Random NoiseRF-Radio FrequencyRMS-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Space SegmentSSV-Space SegmentSV-Space Service VolumeTBD-To Be Determined	MCS	-	Master Control Station
NAV-Legacy Navigation Message, D(t)NSCD-non-standard L1CDNSCP-non-standard L1CPPIRN-Proposed Interface Revision NoticePRN-Pseudo-Random NoiseRF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedSBAS-Satellite Based Augmentation Systemsps-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	MHz	-	Megahertz
NSCD-non-standard L1CpNSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Pseudo-Random NoiseRF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedRMS-Satellite Based Augmentation Systemsps-Symbols per secondSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	MSB	-	Most Significant Bit
NSCP-non-standard L1CpPIRN-Proposed Interface Revision NoticePRN-Pseudo-Random NoiseRF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedSBAS-Satellite Based Augmentation Systemsps-Symbols per secondSSV-Space SegmentSV-Space VehicleTBD-To Be Determined	NAV	-	Legacy Navigation Message, D(t)
PIRN-Proposed Interface Revision NoticePRN-Pseudo-Random NoiseRF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedRMS-Sottellite Based Augmentation Systemsps-Symbols per secondSSV-Space SegmentSV-Space VehicleTBD-To Be Determined	NSCD	-	non-standard L1C _D
PRN-Pseudo-Random NoiseRF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedRMS-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Symbols per secondSS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	NSCP	-	non-standard L1C _P
RF-Radio FrequencyRHCP-Right-Hand Circularly PolarizedRMS-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Symbols per secondSS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	PIRN	-	Proposed Interface Revision Notice
RHCP-Right-Hand Circularly PolarizedRMS-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-symbols per secondSS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	PRN	-	Pseudo-Random Noise
RMS-Root Mean SquareSBAS-Satellite Based Augmentation Systemsps-Symbols per secondSS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	RF	-	Radio Frequency
SBAS-Satellite Based Augmentation Systemsps-Symbols per secondSS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	RHCP	-	Right-Hand Circularly Polarized
sps-symbols per secondSS-Space SegmentSSV-Space Service VolumeSV-Space VehicleTBD-To Be Determined	RMS	-	Root Mean Square
SS - Space Segment SSV - Space Service Volume SV - Space Vehicle TBD - To Be Determined	SBAS	-	Satellite Based Augmentation System
SSV - Space Service Volume SV - Space Vehicle TBD - To Be Determined	sps	-	symbols per second
SV - Space Vehicle TBD - To Be Determined	SS	-	Space Segment
TBD - To Be Determined	SSV	-	Space Service Volume
	SV	-	Space Vehicle
TBR - To Be Resolved	TBD	-	To Be Determined
	TBR	-	To Be Resolved

TBS	-	To Be Supplied
ТМВОС	-	Time-Multiplexed BOC
TOI	-	Time of Interval
TOW	-	Time of Week
UDRA	-	User Differential Range Accuracy
UE	-	User Equipment
URA	-	User Range Accuracy
US	-	User Segment
USNO	-	U.S. Naval Observatory
UTC	-	Coordinated Universal Time
WGS 84	-	World Geodetic System 1984

APC		antana alama antan
APC	-	antenna phase center
ASCII	-	American Standard Code for Information Interchange
A Self		intered standard code for information interendinge
ВСН	-	Bose, Chaudhuri, and Hocquenghem
BOC	-	Binary Offset Carrier
DDGW		
BPSK	-	Bi-Phase Shift Key
ССВ		Configuration Control Board
ССВ	-	Configuration Control Board
CDC	-	clock differential correction
CEI	-	Clock/Ephemeris/ Integrity
CNAV-2-	-	L1C Navigation Message
CRC		Cyclic Redundancy Check
CKC	-	Cyclic Reduildancy Check
CS	-	Control Segment
dBc	-	Power ratio of a signal to a (unmodulated) carrier signal,
		expressed in decibels
DC	-	expressed in decibels differential correction
		differential correction
DC DN	-	
DN	-	differential correction Day Number
		differential correction

ECI	-	Earth-Centered, Inertial
EDG		
EDC	-	ephemeris differential correction
EOE	-	Edge-of-Earth
EOL	-	End-of-Life
EOP	-	Earth Orientation Parameters
FEC	-	Forward Error Correction
GBAS	-	Ground Based Augmentation System
GGTO	-	GPS/GNSS Time Offset
GNSS	-	Global Navigation Satellite System
GPS	-	Global Positioning System
GPSW	-	GPS Wing
ICC	-	Interface Control Contractor
ICWG	-	Interface Control Working Group
IRN	-	Interface Revision Notice
IS	-	Interface Specification
ISC	-	Inter-Signal Correction
ITOW	-	Interval Time of Week
LDPC	-	Low Density Parity Check
LFSR	-	Linear Feedback Shift Register
LSB	-	Least Significant Bit
LSF	-	Leap Seconds Future
L1C	-	Common L1 Signal
MCS	-	Master Control Station
MHz	-	Megahertz
MSB	-	Most Significant Bit
NAV	-	Legacy Navigation Message, D(t)
NSCD	-	non-standard L1C _D
NSCP	-	non-standard L1C _P
PIRN	-	Proposed Interface Revision Notice
PRN	-	Pseudo-Random Noise

RF	-	Radio Frequency
RHCP	-	Right-Hand Circularly Polarized
RMS	-	Root Mean Square
SBAS	-	Satellite Based Augmentation System
sps	-	symbols per second
SS	-	Space Segment
SSV	-	Space Service Volume
SV	-	Space Vehicle
TBD	-	To Be Determined
TBR	-	To Be Resolved
TBS	-	To Be Supplied
ТМВОС	-	Time-Multiplexed BOC
TOI	-	Time of Interval
TOW	-	Time of Week
UDRA	-	User Differential Range Accuracy
UE	-	User Equipment
URA	-	User Range Accuracy
US	-	User Segment
USNO	-	U.S. Naval Observatory
UTC	-	Coordinated Universal Time
WGS 84	-	World Geodetic System 1984

IS800-911 : Insertion after object IS800-910

Section Number :

6.2.8

WAS :

N/A

IS800-912 :

Insertion below object IS800-911

Section Number :

6.2.8.1

WAS :

N/A

Redlines :

The Clock, Ephemeris, Integrity (CEI) data set is the collection of SV-specific clock correction polynomial parameters, ephemeris parameters, and related parameters (health flags, URA parameters, time tags, etc.) needed to use the SV's broadcast signal(s) in the positioning service. The parameters in the CEI data set are explicitly listed in Table 6.2-18. The entire CEI data set is needed for maximum accuracy. However, the core CEI data set (parameters without NOTE1 in Table 6.2-18) is sufficient for an initial position solution. The top term provides the epoch time of week of the state data utilized for the core CEI data set.

IS :

The Clock, Ephemeris, Integrity (CEI) data set is the collection of SV-specific clock correction polynomial parameters, ephemeris parameters, and related parameters (health flags, URA parameters, time tags, etc.) needed to use the SV's broadcast signal(s) in the positioning service. The parameters in the CEI data set are explicitly listed in Table 6.2-18. The entire CEI data set is needed for maximum accuracy. However, the core CEI data set (parameters without NOTE1 in Table 6.2-18) is sufficient for an initial position solution. The top term provides the epoch time of week of the state data utilized for the core CEI data set.

IS800-919 :

Insertion after object IS800-912

Section Number :

6.2.8.2

WAS : N/A

Redlines : Core CEI Data Set.

IS : Core CEI Data Set.

Section Number : 6.2.8.2.1

WAS :

N/A

Redlines :

A Core CEI Data Set are the CEI parameters necessary for a satellite to be used for a position solution (non-almanac); broadcast to users with the shortest broadcast interval. The top term provides the epoch time of week of the state data utilized for CEI data, except for parameters marked with a Note1 in Table 6.2-18.

IS :

A Core CEI Data Set are the CEI parameters necessary for a satellite to be used for a position solution (non-almanac); broadcast to users with the shortest broadcast interval. The t_{op} term provides the epoch time of week of the state data utilized for CEI data, except for parameters marked with a Note1 in Table 6.2-18.

IS800-916 :

Insertion after object IS800-919

Section Number :

6.2.8.3

WAS :

N/A

Redlines : Table 6.2-18. CEI Data Set Parameters

IS :

Table 6.2-18. CEI Data Set Parameters

IS800-917 :

Insertion after object IS800-916

Section Number :

6.2.8.4

WAS :

N/A

Symbol	Parameter Name	Subframe
À	Change Rate in Semi-major Axis	2
ΔΑ	Semi-major Axis Difference at Reference Time	2
Δn_0	Mean Motion Difference from Computed Value at Reference Time	2
$\Delta \dot{n_0}$	Rate of Mean Motion Difference from Computed Value	2
Ω ₀	Longitude of Ascending Node of Orbit Plane at Weekly Epoch	2

Symbol	Parameter Name	Subframe			
$\Delta\dot{\Omega}$	Rate of Right Ascension Difference	2			
ω	Argument of Perigee	2			
a _{f0}	SV Clock Bias Correction Coefficient	2			
a _{f1}	SV Clock Drift Correction Coefficient	2			
a _{f2}	Drift Rate Correction Coefficient Index	2			
C _{ic}	Amplitude of the Cosine Harmonic Correction Term to the Angle of Inclination	2			
C _{is}	Amplitude of the Sine Harmonic Correction Term to the Angle of Inclination	2			
C _{rc}	Amplitude of the Cosine Harmonic Correction Term to the Orbit Radius	2			
C _{rs}	Amplitude of the Sine Correction Term to the Orbit Radius	2			
C _{uc}	Amplitude of Cosine Harmonic Correction Term to the Argument of Latitude	2			
Cus	Amplitude of Sine Harmonic Correction Term to the Argument of Latitude	2			
е	Eccentricity	2			
i ₀	Inclination Angle at Reference Time	2			
i _{0-n} -DOT	Rate of Inclination Angle	2			
ISC _{L1CP}	Inter-signal Correction	2			
ISC_{L1CD}	Inter-signal Correction	2			
ISC_{L1CA}	Inter-signal Correction	3			
ISC _{L2C}	Inter-signal Correction	3			
ISC _{L515}	Inter-signal Correction	3			
ISC _{L5Q5}	Inter-signal Correction	3			
ISF	Integrity Status Flag NOTE1	2			
ITOW	Interval Time of Week	2			
L1C	Signal Health (1 bits)	2			
M ₀	Mean Anomaly at Reference Time	2			
T _{GD}	Group Delay Differential	2			
t _{oe}	Time of Ephemeris	2			
t _{op}	CEI Data Sequence Propagation Time of Week	2			
URA _{ED} Index	Elevation Dependent User Range Accuracy, URA _{ED} Index	2			
URA _{NEDO} Index	NED Accuracy Index	2			
URA _{NED1} Index	NED Accuracy Change Index	2			
URA _{NED2} Index	NED Accuracy Change Rate Index	2			
WN	WNData Sequence Propagation Week Number2				
	rrameters so indicated are for CEI Refinement – not limited to rs not indicated are needed for/limited to curve fit.	curve fit.			

Symbol	Parameter Name	Subframe		
Updates to parameters in table shall prompt changes in toe. Any parameter marked				
with NOTE1 may be changed with or without a change in t_{oe} .				

Symbol	Parameter Name	Subframe
À	Change Rate in Semi-major Axis	2
ΔA	Semi-major Axis Difference at Reference Time	2
Δn_0	Mean Motion Difference from Computed Value at Reference Time	2
$\Delta \dot{n_0}$	Rate of Mean Motion Difference from Computed Value	2
Ω ₀	Longitude of Ascending Node of Orbit Plane at Weekly Epoch	2
$\Delta\dot{\Omega}$	Rate of Right Ascension Difference	2
ω	Argument of Perigee	2
a _{f0}	SV Clock Bias Correction Coefficient	2
a _{f1}	SV Clock Drift Correction Coefficient	2
a _{f2}	Drift Rate Correction Coefficient Index	2
C _{ic}	Amplitude of the Cosine Harmonic Correction Term to the Angle of Inclination	2
C _{is}	Amplitude of the Sine Harmonic Correction Term to the Angle of Inclination	2
C _{rc}	Amplitude of the Cosine Harmonic Correction Term to the Orbit Radius	2
C _{rs}	Amplitude of the Sine Correction Term to the Orbit Radius	2
C _{uc}	Amplitude of Cosine Harmonic Correction Term to the Argument of Latitude	2
Cus	Amplitude of Sine Harmonic Correction Term to the Argument of Latitude	2
е	Eccentricity	2
i _o	Inclination Angle at Reference Time	2
i _{0-n} -DOT	Rate of Inclination Angle	2
ISC _{L1CP}	Inter-signal Correction	2
ISC _{L1CD}	Inter-signal Correction	2
ISC _{L1CA}	Inter-signal Correction	3
ISC _{L2C}	Inter-signal Correction	3
ISC _{L515}	Inter-signal Correction	3
ISC _{L5Q5}	Inter-signal Correction	3
ISF	Integrity Status Flag NOTE1	2
ITOW	Interval Time of Week	2

Symbol	Parameter Name	Subframe	
L1C	Signal Health (1 bits)	2	
M ₀	Mean Anomaly at Reference Time	2	
T _{GD}	Group Delay Differential	2	
t _{oe}	Time of Ephemeris	2	
t _{op}	CEI Data Sequence Propagation Time of Week	2	
URA _{ED} Index	Elevation Dependent User Range Accuracy, URA _{ED} Index	2	
URA _{NEDO} Index	NED Accuracy Index	2	
URA _{NED1} Index	NED Accuracy Change Index	2	
URA _{NED2} Index	NED Accuracy Change Rate Index	2	
WN	Data Sequence Propagation Week Number	2	
NOTE1: Parameters so indicated are for CEI Refinement – not limited to curve fit. Parameters not indicated are needed for/limited to curve fit. Updates to parameters in table shall prompt changes in t_{oe} . Any parameter marked with NOTE1 may be changed with or without a change in t_{oe} .			

IS800-913 :

Insertion after object IS800-911

Section Number :

6.2.9

WAS :

N/A

Redlines :

CEI Data Sequence Propagation.

IS :

CEI Data Sequence Propagation.

IS800-914 :

Insertion below object IS800-913

Section Number :

6.2.9.1

WAS :

N/A

Redlines :

A related time-ordered sequence of CEI data sets in which each successive CEI data set is a time propagation of the

preceding CEI data set. Special provisions apply to alert users to discontinuities separating one CEI data sequence propagation from another CEI data sequence propagation (e.g., after an upload occurs). An upload may include multiple segments of temporally continuous CEI Data sequence propagations.

IS :

A related time-ordered sequence of CEI data sets in which each successive CEI data set is a time propagation of the preceding CEI data set. Special provisions apply to alert users to discontinuities separating one CEI data sequence propagation from another CEI data sequence propagation (e.g., after an upload occurs). An upload may include multiple segments of temporally continuous CEI Data sequence propagations.