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APPROVALS

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INTERFACE SPECIFICATION

UNLESS OTHERWISE SPECIFIED: NUMBERS ARE REPRESENTED IN DECIMAL FORM.

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TITLE:
IS-GPS-800 RevJ IRN003 (09 January 2024) Navstar GPS Space Segment/User Segment L1C Interfaces

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	66RP1	**IS-GPS-800**
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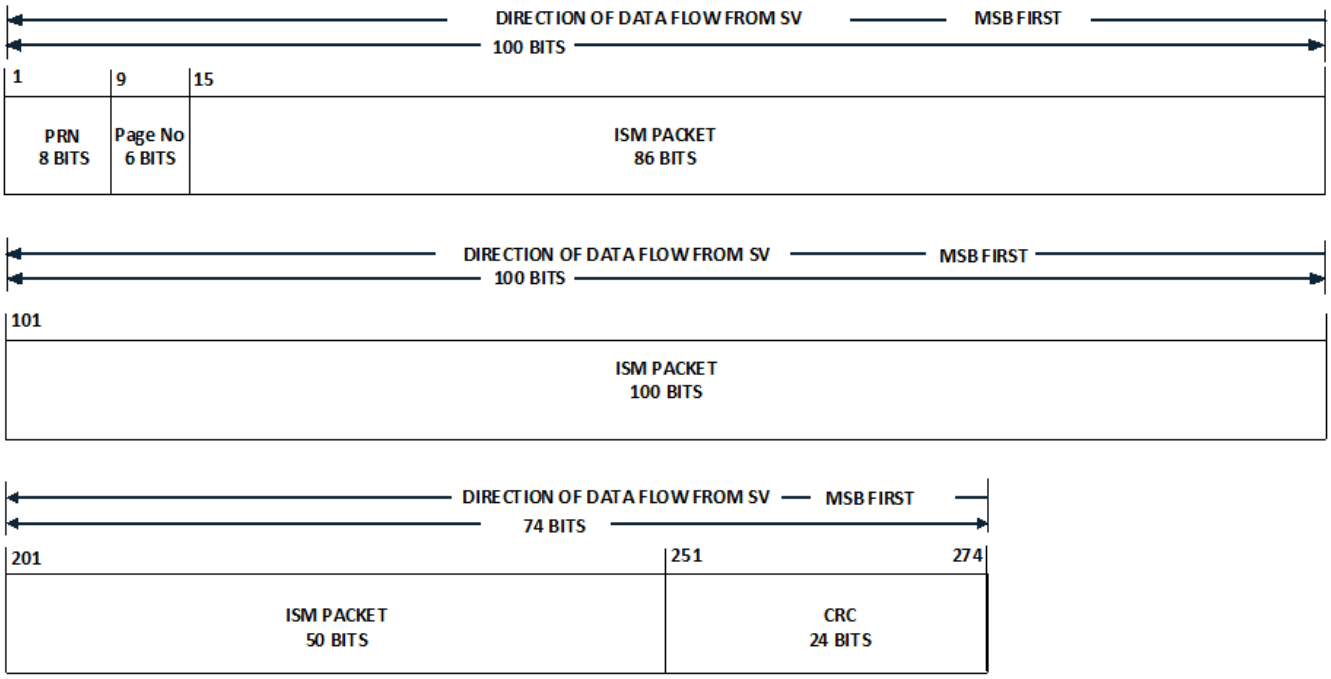
Figure 3.5-8a Subframe 3, Page 8, Integrity Support Message 1

DOORS ID	IS-GPS-800	Object Type
IS800-142	**3.5.2 Subframe 1**	Header
IS800-1030	Modified Figure  Note: Broadcast sequence of subframe 3 is a variable and, as such users must not expect a fixed pattern of page sequence.	Figure
IS800-1031	**Figure 3.5-8a Subframe 3, Page 8, Integrity Support Message**	Figure Caption
	:	
IS800-210	**3.5.3.10 Integrity Assurance**	Header
IS800-211	The L1C message will contain information that allows users to operate when integrity is assured. This is accomplished using an integrity assured URA value in conjunction with an ~~integrity~~Integrity ~~status~~Status ~~flag~~Flag (ISF). The ~~URA~~IAURA value is the RSS of URAED and URANED; ~~URA~~IAURA is integrity assured to the enhanced level only when the ~~integrity status flag~~ISF is “1”.	Info-Only
	:	

DOORS ID	IS-GPS-800	Object Type
IS800-1032	**3.5.4.7 Subframe 3, Page 8- Integrity Support Message (ISM)**	Header
IS800-1035	Subframe 3, Page 8, as depicted in Figure 3.5-8a, shall contain the parameters related to GNSS constellation and satellite integrity parameters used for ARAIM algorithms.	Requirement
IS800-1036	The ~~bit~~ISM ~~lengths,~~specific ~~scale~~parameters ~~factors,~~and ~~ranges,~~fields ~~and~~are ~~units~~contained in the ISM Packet (reference 30.3.3.10 of IS-GPS-200) whose structure is shown in Figure 30-7 of IS-GPS-200. Users who implement Advanced Receiver Autonomous Integrity Monitoring (ARAIM), may use these parameters ~~are~~for ~~given~~the ARAIM algorithm as referenced in ~~Table~~future ~~3.5-9~~TSO and MSO.	Info-Only
IS800-1181	**3.5.4.7.1 Use of GPS ISM Data**	Header
IS800-1182	To calculate the nominal pseudorange error bias (b_{nom}), see 30.3.3.10.2 of IS-GPS-200.	Requirement
IS800-1184	Where IAURA in that formula is described in sections 3.5.3.10, 3.5.3.5, 3.5.3.8, and 6.2.1.	Info-Only
	⋮	
IS800-296	**6.2.1 User Range Accuracy**	Header
IS800-297	User Range Accuracy (URA) is a statistical indicator of the GPS ranging accuracy obtainable with a specific signal and SV. URA provides a conservative RMS estimate of the user range error (URE) in the associated navigation data for the transmitting SV. It includes all errors for which the Space and Control Segments are responsible. Whether the integrity status flag is 'off' or 'on', 4.42 times URA bounds the instantaneous URE under all conditions with 1-(1e-5) per hour probability (‘legacy’ level of integrity assurance). When the integrity status flag is 'on', 5.73 times URA bounds the instantaneous URE under all conditions with 1-(1e-8) per hour probability (‘enhanced’ level of integrity assurance). Integrity properties of the URA are specified with respect to the scaled (multiplied by either 4.42 or 5.73 as appropriate) upper bound value of the URA index or to the scaled composite of the upper bound values of all component URA indexes.	Info-Only
IS800-1185	The composite integrity assured URA (IAURA) value is the RSS of an elevation-dependent function of the upper bound value of the URA_{ED} component and the upper bound value of the URA_{NED} component.	Info-Only