

CRM STANDARD TEMPLATE

ICC: Jaime O. Valdivia
ICC Phone Number: 310-416-8375
Baselined Document (CCB Version): ICD-GPS-870, Rev -
Proposed Change: ICD-GPS-870, Rev A
Title: Navstar Next Generation GPS Operational Control Segment (OCX) to User Support Community Interfaces
Date: 7-Jan-11
Tech Lead Name: Karl Kovach, 310-336-2188

For instructions see the "INSTRUCTIONS" TAB below

Commenter Identification Fields						Comment Description Fields					
(1) COMMENT NO.	(2) ENTITY	(3) OFFICE SYMBOL	(4) COMMENTER NAME	(5) PHONE #	(6) EMAIL	(7) DOC LINE# (if applicable)	(8) PARA #	(9) COMMENT TYPE (C/S/A)	(10) COMMENT	(11) ORIGINAL TEXT (FROM)	(12) SUGGESTED CHANGE (TO)
1	RTN OCX		C. Max	720-858-4454	curt.max-nr@raytheon.com		Global	S - Substantive	Beginning in section 1.1 the term "other civil users" is used and again repeated throughout the document.	"Other Civil Users" throughout the ICD	Specifically provide list of users or else provide reference for where these "other civil users" are defined.
2	RTN OCX		C. Max	720-858-4454	curt.max-nr@raytheon.com		3.2.1	A - Administrative	Fix gramatical errors with "Almanac" in section 3.2.1, para 1, sent 1.	"...System Effectiveness Model (SEM) format Almanac (current.al3 and current.bl3), two current YUMA format Almanac"	"...System Effectiveness Model (SEM) format Almanacs (current.al3 and current.bl3), two current YUMA format Almanacs"
3	RTN OCX		C. Max	720-858-4454	curt.max-nr@raytheon.com		Figure 10-14	S - Substantive	Header is inconsistent with all other NANUs in terms of spacing between SVN/PRN and their numbers.	SVN XXX (PRN XX)	SVNXXX (PRNXX)
4	RTN OCX		C. Max	720-858-4454	curt.max-nr@raytheon.com		30.5	S - Substantive	Update Section 30.5, para 2, last sentence to provide clarifying words.	"...the maximum number of records is 31."	"...the maximum number of records in a current.blm file is 31."
5	RTN OCX		C. Max	720-858-4454	curt.max-nr@raytheon.com		40.1	S - Substantive	Provide message formatting clarification in section 40.1 to note whether the file is space delimited, tab delimited, etc.	[Blank]	[Provide further details]
6	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		Revision Record	A - Administrative	Should we identify the additions of the A-S status and ESHS files in the Revision Record?	Update data formats for OCX (RFC-00041). Add IA requirements (data integrity) for this interface (RFC-00045)	Update data formats and add the A-S Status and ESHS files for OCX (RFC-00041). Add IA requirements (data integrity) for this interface (RFC-00045)
7	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		1.1	A - Administrative	Grammar change for subject-verb consistency	The format of these files are defined in the Appendices of this document.	The formats of these files are defined in the Appendices of this document.

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8	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		1.1	A - Administrative	2 SOPS stands for 2nd Space Operations Squadron, not Satellite Operations Squadron.	The GPS OCX is operated by the 2nd Satellite Operations Squadron (2 SOPS), administratively organized under 50th Space Wing (50 SW).	The GPS OCX is operated by the 2nd Space Operations Squadron (2 SOPS), administratively organized under 50th Space Wing (50 SW).
9	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		2.1	S - Substantive	ICD 700 should not have been added to the Other Publications subsection. It is not referenced anywhere in the document.	ICD-GPS-700 Current Version Navstar GPS Military-Unique Space Segment / User Segment Interfaces	Delete
10	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		3.1	S - Substantive	Why is M-code included in the opening paragraph? It is not discussed in the document anywhere. Moreover, any notices that might reference M-code cannot be made public since they will be FOUO, so they shouldn't be a part of ICD 870. Please delete "and M-code."	all legacy signals and the new signals L1C, L2C, L5, and M-Code.	all legacy signals and the new Civil signals L1C, L2C, and L5.
11	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		Figure 1	S - Substantive	The figure states "and A-S" when it should be "and A-S Status".	Almanacs, NANUs, OAs, and A-S	Almanacs, NANUs, OAs, and A-S Status
12	RTN		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		Figure 1	A -	The word SIPRNet is in red font.	SIPRNet (red font)	SIPRNet (black font)
13	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		3.1.1	A - Administrative	2 SOPS stands for 2nd Space Operations Squadron, not Satellite Operations Squadron.	The GPS OCX is operated by the 2nd Satellite Operations Squadron (2 SOPS), administratively organized under 50th Space Wing (50 SW).	The GPS OCX is operated by the 2nd Space Operations Squadron (2 SOPS), administratively organized under 50th Space Wing (50 SW).
14	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		Global	A - Administrative	Please standardize the capitalization of "users". In 3.1.2, for example, it says, "...involve the Civil and Military GPS users..." and then later, "...other Civil Users; and various Military Users. These GPS Users..."	N/A	N/A
15	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		3.2.7	S - Substantive	A-S status needs to be added to the list of downloadable files from SIPRNet.	Only authorized Military GPS users with SIPRNet connectivity can download a NANU, OA, or Almanac data file using HTTPS.	Only authorized Military GPS users with SIPRNet connectivity can download a NANU, OA, A-S status , or Almanac data file using HTTPS.
16	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		30.4	A - Administrative	The data sample in Figure 30-1 applies to both Tables 30-II and 30-III, not just table 30-II as written.	The bold letters and numbers in the rectangles are not part of the SEM format; they are used for identification purposes in Table 30-II. Table 30-II identifies the characteristics of each parameter in the SEM Almanac.	The bold letters and numbers in the rectangles are not part of the SEM format; they are used for identification purposes in Tables 30-II and 30-III . Tables 30-II and 30-III identify the characteristics of each parameter in the SEM Almanacs current.a13 and current.b13, respectively .
17	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		Multiple	S - Substantive	The document does not state how two-digit SVNs are handled on a global basis. Are they zero-padded to make the required three digits or not (i.e. 054 vs. 54)? This answer should be stated somewhere globally or put in each individual section (10.3.1, 30.4, 40.1, and 50.1 as well as updates to the tables/figures within each, as applicable).	N/A	(multiple locations/tables/figures as necessary) Suggested text if zero-padding is true: The SVN is zero-padded for any vehicle with a one- or two-digit SVN, so allowable SVNs are numbered from 001 to 999.

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18	RTN OCX		J. McCoy	720-858-5964	jeffrey.d.mccoy-nr@raytheon.com		Multiple	S - Substantive	The document does not state how one-digit PRNs are handled on a global basis. Are they zero-padded to make the required two digits or not (i.e. 01 vs. 1)? This answer should be stated somewhere globally or put in each individual section (10.3.1, 20.3, 20.4, 30.4, 30.5, 40.1, and 50.1 as well as updates to the tables/figures within each, as applicable). Note: OA Section 1 does not use zero-padding, OA Section 2 does, SEM Almanac does not, YUMA Almanac does, A-S status does not. The ultimate message is that there needs to be text clarification in the document of which should be used as well as standardization of the formats.	N/A	(multiple locations/tables/figures as necessary) Suggested text if zero-padding is true: The PRN is zero-padded for any one-digit PRN, so allowable PRNs are numbered from 01 to 63. OR Substitute "01 to 63" with " 01 to 32 " for those datasets that are split into 1-32/33-63.
19	RTN OCX		J. Crooks	720-858-5181	jcrooks@raytheon.com		1.1, 3.1, 3.1.1, 6.1, Cover Page	A - Administrative	Throughout the document the acronym "GPS OCX" is used. In this case "GPS OCX" should be defined as the "GPS Next Generation Control Segment". Same change needs to be made in all indicated sections.	This Interface Control Document (ICD) defines the functional data transfer interface between the Next Generation Global Positioning System (GPS) Operational Control Segment (OCX) ...	This Interface Control Document (ICD) defines the functional data transfer interface between the Global Positioning System (GPS) Next Generation Operational Control Segment (OCX) ...
20	RTN OCX		J. Crooks	720-858-5181	jcrooks@raytheon.com		1.3	A - Administrative	Recommend re-ordering list of signatories to be consistent with Cover Page	1. Air Force Space Command (AFSPC), GPS Wing Directorate (GPSW) Space and Missile Systems Center (SMC) 2. Department of Homeland Security (DHS), United States Coast Guard (USCG), Navigation Center (NAVCEN) 3. Air Force Space Command (AFSPC), 50th Space Wing (50 SW) 4. Department of Transportation (DOT), Federal Aviation Administration (FAA) 5. Raytheon Company, OCX Contractor	1. Air Force Space Command (AFSPC), GPS Wing Directorate (GPSW) Space and Missile Systems Center (SMC) 2. Air Force Space Command (AFSPC), 50th Space Wing (50 SW) 3. Raytheon Company, OCX Contractor 4. Department of Homeland Security (DHS), United States Coast Guard (USCG), Navigation Center (NAVCEN) 5. Department of Transportation (DOT), Federal Aviation Administration (FAA)
21	RTN OCX		J. Crooks	720-858-5181	jcrooks@raytheon.com		2.1	A - Administrative	Add MIL-HDBK-470 and MIL-STD-810 to list of applicable Govt documents (these documents are referenced in Section 4).	Standards - <i>Military</i> None	Standards - <i>Military</i> MIL-HDBK-470 - Designing and Developing Maintainable Products and Systems, Current Issue MIL-STD-810 - Department of Defense Test Method Standard for Environmental Engineering Considerations and Laboratory Tests, Current Issue
22	RTN OCX		J. Crooks	720-858-5181	jcrooks@raytheon.com		Table I	S - Substantive	It is mis-leading to describe the A-S status data same as the OAs.	<i>For the A-S status rows (2 places)...</i> Data Information Exchange - GPS Constellation Status Summary Information Description - A-S	<i>For the A-S status rows (2 places)...</i> Data Information Exchange - GPS Constellation Anti-Spoofing Status Information Description - A-S Status

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23	RTN OCX		J. Crooks	720-858-5181	jcrooks@raytheon.com		3.2.6	S - Substantive	It is not necessary for this ICD to describe how OCX implements automated e-mail distribution.	... Other approved/authorized GPS users with .mil or .gov e-mail accounts also receive automatic NANUs. Automatic e-mail distribution implies that OCX will maintain a distribution list of approved e-mail addresses.	... Other approved/authorized GPS users with .mil or .gov e-mail accounts also receive automatic NANUs.
24	RTN OCX		J. Crooks	720-858-5181	jcrooks@raytheon.com		3.2.8	S - Substantive	This section is not necessary to define this interface as currently implemented. If a new automated interface between the CS and the USNOF is added in the future, then this section can be added at that time.	3.2.8 GPS MCS to the United States Notice to Airmen Office Interface There is ...	Delete section. And delete the associated row in the VCRM. Or, delete all of the text (and associated row in the VCRM) and just write "3.2.8 Reserved".
25	RTN OCX		J. Crooks	720-858-5181	jcrooks@raytheon.com		3.2.8	A - Administrative	Proposed rewording for clarity.	The OCX certificate (and corresponding public key) will be made available to all users for data integrity verification and source authentication. DoD PKI root certificates are available on the DoD Class 3 Public Key Infrastructure (PKI) website, http://dodpki.c3pki.chamb.disa.mil/ , to verify the certificate chain.	The OCX certificate (and corresponding public key) will be made available to all users for data integrity verification and source authentication. DoD PKI root certificates to verify the certificate chain are available on the DoD Class 3 Public Key Infrastructure (PKI) website, http://dodpki.c3pki.chamb.disa.mil/.
26	RTN OCX		J. Crooks	720-858-5181	jcrooks@raytheon.com		6.1	A - Administrative	Need to add missing acronyms.	N/A	DD - Calendar Day (2 digits) GPSW - GPS Wing HDBK - Handbook HH = Hour (2 digits) HTTP - Hypertext Transfer Protocol IERS - International Earth Rotation Service JJJ - Julian Date (3 digits) MIL - Military MMM - Month (3 characters) MM - Minutes (2 digits) NNN - NANU Number (3 digits) RAD - Radians RFC - Request for Change SPS - Standard Positioning Service SS - System Specification SSS - Seconds (3 digits) STD - Standard TBD - To Be Determined UTC - Coordinated Universal Time YYYY - Year (4 digits) Z - Zulu
27	RTN OCX		J. Crooks	720-858-5181	jcrooks@raytheon.com		20.1	A - Administrative	"Note" is somewhat misleading as it applies only to the example OA shown.	*Note: Section 1.C of the OA message contains example data ...	*Note: Section 1.C of the example OA message shown above contains example data ...

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28	RTN OCX		A. Snyder	720-858-5616	atsnyder@raytheon.com		3.3	S - Substantive	The document doesn't specifically list all users that will have access to OCX websites via internet/sipernet or who will be provided email to. A full list would be beneficial to determine who would have the appropriate PKI keys		Add a Table of Users
29	RTN OCX		A. Snyder	720-858-5616	atsnyder@raytheon.com		3.2	S - Substantive	Section 3.2 indicates that OCX will communicate with users using TCP/IP communications but sections 3.2.5 and 3.2.6 indicate that OCX will provide data via email and websites with the download of the data via HTTPS.	For this interface, the GPS OCX will communicate using Transmission Control Protocol/Internet Protocol (TCP/IP) communications protocol.	Delete
30	RTN OCX		A. Snyder	720-858-5616	atsnyder@raytheon.com		3.3	S - Substantive	Can email be protected with PKI? It would be helpful if section 3.3 went into more detail on PKI for the OCX websites vs. email.	GPS OCX will sign all ICD-GPS-870 information with a DoD Public Key Infrastructure (PKI) provided certificate specific for this purpose.	
31	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive	Requirements in Sections 3.2 through 3.3 do not contain "shall" statement which will be verified IAW table II VCRM		Add shall statements as shown below
32	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive		3.2 Interface Definitions The following -----Sser User Community. For this interface, the GPS OCX will communicate using Transmission Control Protocol/Internet Protocol (TCP/IP) communications protocol.	3.2 Interface Definitions The following -----Sser User Community. For this interface, the GPS OCX shall communicate using Transmission Control Protocol/Internet Protocol (TCP/IP) communications protocol.

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33	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive		3.2.1 The GPS OCX generates the Almanac data for the GPS constellation, one two current System Effectiveness Model (SEM) format a lmanac (current.al3 and current.bl3), two current YUMA format Almanac (current.alm and current.blm), and one current Extended Signals Health Status (ESHS) format Almanac (current.ale). The satellite SEM and YUMA almanac data contains orbital and performance parameters for operational GPS satellites. Detailed data formats of the SEM and YUMA Almanac data are described in Appendix 3 of this ICD. The satellite ESHS Almanac data contains -----4 of this ICD.	3.2.1 The GPS OCX shall generate the Almanac data for the GPS constellation, one two current System Effectiveness Model (SEM) format A lmanac (current.al3 and current.bl3), two current YUMA format Almanac (current.alm and current.blm), and one current Extended Signals Health Status (ESHS) format Almanac (current.ale). The satellite SEM and YUMA Almanac data shall contain orbital and performance parameters for operational GPS satellites. Detailed data formats of the SEM and YUMA aAlmanac data are described in Appendix 3 of this ICD. The satellite ESHS Almanac data shall contain ----- 4 of this ICD.
34	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive		3.2.2 Generation of Operational Advisory Data The GPS OCX generates the Operational Advisory data (current. oa for the GPS constellation. The OA data are descriptive summaries of GPS constellation status. Detailed data formats of the OA data are described in Appendix 2 of this ICD.	3.2.2 Generation of Operational Advisory Data The GPS OCX shall generate the Operational Advisory data (current. OA) for the GPS constellation. The OA data are descriptive summaries of GPS constellation status. Detailed data formats of the OA data are described in Appendix 2 of this ICD.
35	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive		3.2.3 Generation of NANU Data The GPS OCX generates the NANU data file (current.nnu) for the GPS constellation. The NANU data are messages that inform users of satellite outages and other GPS issues. Detailed data formats of the NANU data are described in Appendix 1 of this ICD.	3.2.3 Generation of NANU Data The GPS OCX shall generate the NANU data file (current.nnu) for the GPS constellation. The NANU data are messages that inform users of satellite outages and other GPS issues. Detailed data formats of the NANU data are described in Appendix 1 of this ICD.
36	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive		3.2.4 Generation of Anti-Spoofing Status The GPS OCX generates the Anti-Spoofing status files (as.txt and as2.txt) for the GPS constellation. The A-S status informs Users whether the Anti-Spoofing mode of each GPS SV is ON or OFF. Detailed data format of the A-S status are described in Appendix 5 of this ICD.	3.2.4 Generation of Anti-Spoofing Status The GPS OCX shall generate the Anti-Spoofing status files (as.txt and as2.txt) for the GPS constellation. The A-S status informs Users whether the Anti-Spoofing mode of each GPS SV is ON or OFF. Detailed data format of the A-S status are described in Appendix 5 of this ICD.
37	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive		3.2.5 Data Distribution The GPS OCX distributes the NANU, Operational Advisory, Anti-Spoofing status, and Satellite Almanac files to the Military and Civil User shall Support Communities via electronic mail (e-mail), and Internet and SIPRNet websites. Sections 3.2.6 and 3.2.7 describe these interfaces.	3.2.5 Data Distribution The GPS OCX shall distribute the NANU, Operational Advisory, Anti-Spoofing status, and Satellite Almanac files to the Military and Civil User shall Support Communities via electronic mail (e-mail), and Internet and SIPRNet websites. Sections 3.2.6 and 3.2.7 describe these interfaces.

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38	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive		<p>3.2.6 GPS MCS to Civil GPS Users Interface (USCG/FAA) The GPS OCX provides the NANU data file via automatic electronic mail (e-mail) distribution to an e-mail address provided by the USCG and FAA. E-mail used for data transfer is ----- a distribution list of approved e-mail addresses.</p> <p>The GPS OCX uploads the NANU, Operational Advisory, Anti-Spoofing status, and Satellite Almanac files to the Constellation Status page of the 2nd Space Operations Squadron (2 SOPS) Internet secured website, https://gps.afspc.af.mil/gps. NANU messages are transmitted whenever they are generated including weekends and holidays.</p>	<p>3.2.6 GPS MCS to Civil GPS Users Interface (USCG/FAA) The GPS OCX shall provide the NANU data file via automatic electronic mail (e-mail) distribution to an e-mail address provided by the USCG and FAA. E-mail used for data transfer is ----- a distribution list of approved e-mail addresses.</p> <p>The GPS OCX shall upload the NANU, Operational Advisory, Anti-Spoofing status, and Satellite Almanac files to the Constellation Status page of the 2nd Space Operations Squadron (2 SOPS) Internet secured website, https://gps.afspc.af.mil/gps. NANU messages shall be transmitted whenever they are generated including weekends and holidays.</p>
39	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive		<p>3.2.7 GPS MCS to Military GPS Users Interface The Military GPS users with Internet----- as described in Section 3.2.6.</p> <p>The GPS OCX uploads the NANU, Operational Advisory, Anti-Spoofing status, and Satellite ----- with SIPRNet connectivity can download a NANU, OA, or Almanac data file using HTTPS.</p>	<p>3.2.7 GPS MCS to Military GPS Users Interface The Military GPS users with Internet----- as described in Section 3.2.6.</p> <p>The GPS OCX shall upload the NANU, Operational Advisory, Anti-Spoofing status, and Satellite ----- with SIPRNet connectivity can download a NANU, OA, or Almanac data file using HTTPS.</p>
40	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive		<p>3.2.8 GPS MCS to the United States Notice to Airman Office Interface There is a data transfer interface between the CS and the United States NOTAM (Notice to Airmen) Office (USNOF) which ----- added to this ICD in a future revision.</p>	<p>3.2.8 GPS MCS to the United States Notice to Airman Office Interface There shall be a data transfer interface between the CS and the United States NOTAM (Notice to Airmen) Office (USNOF) which ----- added to this ICD in a future revision.</p>
41	FFRDC	Aerospace	Hassan Saberi-Nakhost	310-336-6049	Hassan.Saberi-Nakhost@aero.org			S - Substantive		<p>3.3 GPS MCS to GPS User Support Community Information Assurance Requirements GPS OCX will sign all ICD-GPS-870 information with a DoD Public Key Infrastructure (PKI) ----- ----- from the GPS MCS.</p> <p>The OCX certificate (and corresponding public key) will be made available to all users for data integrity verification and source authentication. DoD PKI root certificates are available on the DoD Class 3 Public Key Infrastructure (PKI) website, http://dodpki.c3pki.chamb.disa.mil/, to verify the certificate chain.</p>	<p>3.3 GPS MCS to GPS User Support Community Information Assurance Requirements GPS OCX will sign all ICD-GPS-870 information with a DoD Public Key Infrastructure (PKI) ----- ----- from the GPS MCS.</p> <p>The OCX certificate (and corresponding public key) shall be made available to all users for data integrity verification and source authentication. DoD PKI root certificates shall be available on the DoD Class 3 Public Key Infrastructure (PKI) website, http://dodpki.c3pki.chamb.disa.mil/, to verify the certificate chain.</p>
42	FFRDC	Aerospace	Don Gardner	310-336-5979	donald.j.gardner@aero.org		3.1.2	A - Administrative	Is there supposed to be a comma after (DHS)? If not, remove.	<p>The GPS user and user-support communities involve the Civil and Military GPS users which are comprised of the Department of Homeland Security (DHS), United States Coast Guard (USCG); Navigation Center (NAVCEN), Department of Transportation (DOT), Federal Aviation Administration (FAA); other Civil Users; and various Military GPS Users.</p>	

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(1) COMMENT NO.	(2) ENTITY	(3) OFFICE SYMBOL	(4) COMMENTER NAME	(5) PHONE #	(6) EMAIL	(7) DOC LINE# (if applicable)	(8) PARA #	(9) COMMENT TYPE (C/S/A)	(10) COMMENT	(11) ORIGINAL TEXT (FROM)	(12) SUGGESTED CHANGE (TO)
43	FFRDC	Aerospace	Don Gardner	310-336-5980	donald.j.gardner@aero.org		1.1	A - Administrative	SEM and YUMA - First Use Explain the acronyms. Can't find the explanation for YUMA.	The files that are distributed by the GPS OCX are: Almanacs (SEM, YUMA, and Extended Signals Health Status (ESHS)), Operational Advisories (OAs), Anti-Spoofing (A-S) status, and Notice Advisory to Navstar Users (NANUs).	The files that are distributed by the GPS OCX are: Almanacs (System Effectiveness Model (SEM)), YUMA, and Extended Signals Health Status (ESHS)), Operational Advisories (OAs), Anti-Spoofing (A-S) status, and Notice Advisory to Navstar Users (NANUs).
44	SE&I		Jaime Valdivia	310-416-8375	jaime.valdivia.ctr@losangeles.af.mil		3.1, Table I, 3.2.6	C - Critical	These sections state that NANU data files are sent via e-mail. It's been mentioned that actual NANA data files are not sent via e-mail. What's sent are automatic NANU notifications that tells the Users that the new NANU files have been generated. We need to verify whether or not actual NANUs are sent.	Section 3.1, Table I Note: * Automatic NANUs are also sent to other 2 SOPS approved .mil and .gov users via e-mail Section 3.2.6, 1st para: The GPS OCX provides the NANU data file via automatic electronic mail (e-mail) distribution to an e-mail address provided by the USCG and FAA. E-mail used for data transfer is generated and transmitted using resources of the OCX secure network environment.	
45	SE&I		Jaime Valdivia	310-416-8375	jaime.valdivia.ctr@losangeles.af.mil		30.4, Table 30-II	C - Critical	The SVN range in Table 30-II states 0-999, but other ICDs consistently describe this range from 0-255.	SVN: 0-999	SVN: 0-255

(13) RATIONALE FOR CHANGE	ICC Disposition Fields			Commenter Concurrence		ICC Concurrence Fields			
	(20) DISPOSITION - Accept, Accept with Comment, Reject, or Defer	(21) DISPOSITION RATIONAL	(22) FINAL CHANGED TEXT (if not identical to suggested text or no suggestion offered)	(23) COMMENTER CONCURRENCE (Concur or Non Concur)	(24) NON CONCURRENCE RATIONAL (if applicable)	(25) CONCURRENCE METHOD (email, phone, mtg)	(26) DATE CONCURRENCE RECEIVED (mm/dd/yy)	(27) FINAL COMMENT STATUS (Open/Closed)	(28) NOTES
In terms of posting data to a website, it's transparent to OCX whom these other users are. However, for providing emails, OCX needs to know whom these emails would need to be provided to. Section 3.2.6 states that OCX will maintain a list of approved email addresses, but this can't be done if "Other Civil Users" isn't defined somewhere and under control.	Reject	Other Civil Users implies entities all over the world, such as, Universities, Research Institution, Airports, Transportation Departments, etc. Military and Government Users will be able to subscribe to Automatic NANU Notifications via the 2 SOPS website. OCX will maintain a database with these Military and Government e-mail addresses. Other Civil Users will be able to subscribe via the NAVCEN website. OCX does not maintain an "Other Civil User" e-mail database.							
Need to update "Almanac" to "Almanacs" to be gramatically correct.	Accept								
Remove the space between "SVN" and "XXX" and also between "PRN" and "XX" in order to be consistent with the header format of all NANUs.	Accept								
This wording provides clarification and delineates between .alm and .blm files.	Accept								
Is message format ASCII space delimited, tab delimited, etc.?	Reject	The ESHS file is the of the same type and format as the SEM Almanac files, but with the information provided in Figure 40-1. We don't specify whether the SEM file is ASCII space delimited, tab delimited, or any other format, therefore, the ESHS file does not specify the format. Users have been able to use the SEM files without the format being provided. How the End Users read these files is up to them. We don't tell them how to read it???							
The major changes are not limited to existing data formats and new IA requirements.	Accept	Update data formats includes A-S Status and ESHS, but since they are new to the ICD, we'll add them in the Rev Record.							
There are multiple files, each with unique formats, so "format" should be made plural. This fits grammatically with the existing "are".	Accept								

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Need to correct name of 2 SOPS.	Accept with Comments	2 SOPS - 2d Space Operations Squadron							
ICD 700 is not referenced anywhere in the document, so please delete it from Applicable Docs.	Accept	Agree.							
M-code is not and should not be discussed anywhere in this public document.	Accept	Agree.							
Per government direction, "A-S" should be everywhere replaced by "A-S status" or something similar.	Accept								
Standardize the font in the figure	Accept								
Need to correct name of 2 SOPS.	Accept with Comments	2 SOPS - 2d Space Operations Squadron. Same as item #8.							
"Users" is capitalized in some locations and not in others.	Accept								
A-S status was left off of the list of downloadable files.	Accept								
Table 30-II (current.al3) and Table 30-III (current.b3) both map to the data sample in Figure 30-1.	Accept with Comments	If you look at Figure 30-1, the name of the file is current.al3, so Table 30-III does not apply to this Figure. But we do realize that the title of the Figure should state: Figure 30-1 SEM Data Sample for Current.al3							
Users with automated software need to know whether SVNs in each dataset are zero-padded for those with two digits or not.	Accept with Comments	No zero-padded verbiage will be mentioned when describing the SVN field. Instead, this will be stated in Table 30-II under the SVN description: For any SV with a one- or two-digit SVN, the preceeding 0 will not be shown.							

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Users with automated software need to know whether PRNs in each dataset are zero-padded for those with one digit or not.	Reject	No need to further describe the PRN field. Users have been using the data in the ICD without this type of PRN description.							
Consistent definition of the term "GPS OCX".	Accept with Comments	Per the OCX Contract, OCX stands for Advanced Control Segment							
Consistent list of signatories between the Cover Page and section 1.3.	Accept								
Include all referenced documents in the list of applicable documents.	Accept								
Accurate definition of A-S informaiton exchange.	Accept								

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It is not necessary for this ICD to describe how OCX implements automated e-mail distribution.	Accept with Comments	Concur with the comment, but additionally, delete reference to .mil and .gov e-mail addresses because 2 SOPS also approves other Users.							
This section is not necessary to define this interface as currently implemented.	Reject	This paragraph was inserted at the request of the FAA. They wanted NOTAMs to be kept as a place holder							
Proposed rewording for clarity.	Accept								
Complete listing of acronyms.	Accept								
Clarity the note about sample data only applies to the example OA shown.	Accept								

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To assure keys are being provided to the appropriate "other civil users", should a table of users approved for PKI be called out?	Reject	Gov TIM: Consensus was to reject this comment. Civil users are not required to have PKI certificates to obtain data on the unclassified interface. Military users are expected to provide PKI credentials when registering for automated notifications. We do not intend to make the list of users public information. Such a list is also dynamic and would be many months out of date if we were to try to maintain it in the ICD. Such a listing or database is a dynamic and a configurable item outside the scope of the ICD.							
It doesn't appear OCX needs to provide data via TCP/IP interface.	Reject	TCP/IP are communication protocols that the internet uses. HTTPS provides encrypted comm and secure identification of a network web server Gov TIM: The consensus was to reject this comment, but we were requested to specify that OCX will be IPv6 capable. Raytheon concurred.							
Add additional clarification to the ICD	Accept with Comments	Yes, e-mail can be protected with PKI. Gov TIM: Section 3.3 has been rewritten by the IA group to describe how digital signatures are applied to the data in email and web site for data integrity.							
Need to clearly define what requirements should be verified using "shall" statements	Reject	There will not be any requirements in this ICD - no shall statements. VCRM in ICD will be deleted. The CS-800 which applies to OCX, contains requirements to generate data described in this ICD and distribute the data per ICD 870. ICD 870 is describing the data and the means by which this data is distributed. 3.3.11 User Support Community Interface - The CS shall provide NANU, Operational Advisory, and Satellite Almanac data to the Military and Civil User Support Communities as defined in ICD-GPS-870. Gov TIM: Consensus was to Reject this comment and to remove the VCRM Section.							
Need to clearly define what requirements should be verified using "shall" statements	Reject	See item #31							

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Need to clearly define what requirements should be verified using "shall" statements	Reject	See item #31							
Need to clearly define what requirements should be verified using "shall" statements	Reject	See item #31							
Need to clearly define what requirements should be verified using "shall" statements	Reject	See item #31							
Need to clearly define what requirements should be verified using "shall" statements	Reject	See item #31							
Need to clearly define what requirements should be verified using "shall" statements	Reject	See item #31							

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Need to clearly define what requirements should be verified using "shall" statements	Reject	See item #31							
Need to clearly define what requirements should be verified using "shall" statements	Reject	See item #31							
Need to clearly define what requirements should be verified using "shall" statements	Reject	See item #31							
Need to clearly define what requirements should be verified using "shall" statements	Reject	CS 800 already contains requirements to for Security Authentication. Section 3.3.3 Security Authentication - Connection to the CS from external interfaces shall be authenticated using the DoD Public Key Infrastructure (PKI) Class 3 or 4 certificate...							
	Reject	If the redlines in the document are accepted the sentence would read: "...Department of Homeland Security (DHS), United States Coast Guard (USCG)..." The comma is already there.							

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	Accept								
Need to verify whether or not actual NANU data files are sent via e-mail.	Reject	Auto NANU Notifications do contain the NANU data							
Consistency and correctness. I believe the SVN is described by an 8 bit number	Accept	Gov TIM: The SVN number field is described in ICD 700 as an 8 bit number. This corresponds to a maximum number of 255 (starting from 0). So the consensus in the meeting was to change the SVN range back to 255.							