

2026 PICWG Meeting Minutes

Global Positioning System (GPS)

Public Interface Control Working Group (ICWG) & Public Forum

Meeting Details:

Tuesday, June 16, 2026
8:30AM - 15:00 PDT

Primary Meeting Information (via MS Teams)
+1 410-874-6750,,764408612# United States, Odenton
Phone conference ID: 764 408 612#

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Minutes Ground Rules

1. These meeting minutes have had the slides renumbered to accommodate slide changes requested during the meeting. This includes slide additions, removals and some reshuffling as some rejected comments were changed to accepted. The slide numbers in these meeting minutes track to the relevant slides as contained in the “post Meeting” slide set only and not to the slide set presented on June 16th.
2. After the PICWG materials were approved by Public Affairs, they could not be changed until after the PICWG. Subjects that were “voice tracked” during the PICWG had slides entered into the slide deck and entered into these meeting minutes.
3. Across the board, all CRM comments were concurred with by the originator, the PICWG SME Team members and all GPS stakeholders in attendance at the PICWG. Concurrences that were obtained during the AWG are not shown in the meeting minutes for brevity.

Agenda

Public ICWG (1st Half of Day)	Presenter	Times
GPS Public ICWG and Public Forum Meeting Overview	Dan Stevenson	08:30 08:45
Opening Remarks / GPS Overview	Dan Stevenson	08:45 09:05
2026 Public ICWG RFC Discussion		
RFC-519 – Civil ISM Formats (Delta AWG)	Tony Anthony	09:05 9:30
Action Item Review		09:30 09:35
RFC-544 – Eccentric Anomaly Rate & No Cost Items (AWG)	Tony Anthony	09:35 10:30
Break		10:30 10:40
RFC-544 (Cont.)	Tony Anthony	10:40 11:50
Action Item Review		11:50 12:00

Public Forum Presentations (2nd Half of Day)	Presenter	Times
Lunch Break (1 hour)		12:00 13:00
Walk-on Topics, Open Discussion	--	13:00 13:30
Action Item Review		13:30 13:40
PRAT - Public Req. Accountability Tool	Tony Anthony	13:40 14:10
Action Item Review		14:10 14:25
Closing Remarks	Dan Stevenson	14:25 14:30

Meeting Minutes

Opening Remarks / GPS Overview / TBCMP Requirements Management Process

- No Comments

RFC-00519 “Civil ISM Formats” Adjudication Working Group “Delta AWG”

Slide 27 RFC-00519 Comment Resolution Matrix (CRM) Status – for PICWG

- Counts updated to 4 to account for recent comment CRM #76

Slide 28 RFC-00519 Comment Resolution Matrix (CRM) Status – at PICWG

- Late arriving comment CRM #79 was added to this status page

Slide 29, 31, 32, 33 CRM #66, #68, #75, #79

- Karl Kovich: Has a comment on the URA corrections. Will circle back at the end of the presentation to give more time to overview what needs to be updated
- Later after lunch, Karl agreed that the “URANED0” should be modified by removing the “0” in the subscript, to be “URANED”.
- Also, in the second paragraph of IS200-1952 (and corresponding parts of IS705-265 and IS800-193, two sentences that start with
 - a. “URANED0 accounts...” will be replaced with “Nominal URANED and IAURANED account...” and
 - b. “URANED0 does not...” will be replaced with “Nominal URANED and IAURANED do not...” and

Slide 34, 35 CRM #76 about IAURA Formulas using Sum instead of RSS

- Was voice tracked during the PICWG and these slides added.

Slide 36 Question/Comments Slide

- Question from Steven Hutsell from 2 NWS. Wanted to know if there was any crossflow between those working RFC519 and 539.
 - a. Tony: This could be a walk on topic if there was unclassified material to discuss and approved for public release. However, RFC-539 about WAGE bits is an LNAV subject and RFC-519 only covers CNAV
 - b. Steven: His understanding is that the general enterprise has expressed an interest in the legacy signal
 - c. Kevin Greco: There are efforts right now to write a proposal and that there is interest. Still in brainstorming phase so haven’t mentioned as much publicly. Will be worked out in the coming months.
- Action item: To contact people for RFC 538 and Kevin in regard to crossflow discussion.

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RFC-00544 “Eccentric Anomaly Rate Fix and No Cost Items” AWG

Slide 45, RFC-544 Stakeholder Review Comment Resolution Matrix (CRM) Status – for PICWG

- Numbers were adjusted due to CRM #77 arriving after the slide deck was approved

Slide 46, RFC-544 Stakeholder Review Comment Resolution Matrix (CRM) Status – at PICWG

- One CRM (#78) arrived just before the PICWG was evaluated and approved at the RFC-544 AWG

Public Comments Received - Slides 45-48

Slides 48-49 CRM #74

- Comment from Albert Hayden: Isn't the fact that it shouldn't happen part of the reason for the alarm?
 - Rhonda Slattery: Older satellites have the capability but current newer ones do not
 - Tony: Since it is not possible currently for this situation to occur, there is no point in having the alarm
 - Jed: Concurs with Tony. It's about what the system could generate so we wouldn't need it
 - No other objections/comments, so the consensus is to still go with D as the recommendation on the slide shows

Deferred Comments - Slides 51-52

- No comments

Substantive Accepted - Slides 53-74

Slide 61 CRM #7, #8

- Clarified that RFC 312 is Definition and Clarification of the t_{op} Parameter

Slides 63-68 CRM #9, #10, #11

- Jeff Stevens suggested updating the main note by adding something to the effect of “except as described in Note 1 below”. Eventually the consensus was that exact wording and has been applied to all Core CEI Parameters tables.
- Jeff Stevens also preferred another word than “commonly” used in Note 2. Consensus settled on substituting in “typically”, which is commonly used in the public SiS documents.
- Karl Kovach pointed out that the NOTE2 is singular; however the IS-GPS-705 and IS-GPS-800 tables were accidentally using “are” instead of the correct “is”. The was fixed in the offending Core CEI Parameter tables.

Administrative Comments: Front Matter - Slides 75-79

Slide 77 CRM #26, #27, #28, #29, #30

- Corrected spelling of “TBCMP”

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Administrative Rejected - Slides 80-86

- No comments

Administrative Accepted - Slides 87-118

Slide 90, 91 CRM #1, #2

- Joseph Ross objected to the rounded value $9.77517107 \times 10^{-8}$ seconds. That feels wrong.”
 - a. The fraction $(1/10.23 \times 10^{+6})$ was reconsidered.
 - b. Rhonda Slattery recommended finding the correct reference in IS-GPS-200 for the P-Code frequency, which is what the group reached consensus on.
 - c. After the PICWG, the reference was found to be section 3.3.1.1, which pointed out the exact frequency was not exactly anyway $10.23 \times 10^{+6}$ Hz as contended in bullet a. above.

Slide 114 CRM #71

- Action item: Correct the typo in title “WN_a”

Slide 119 Questions/Comments

- Karl and Jed concur with Tony on his additional CRM #78

Slide 120 Review of action items for RFC 544

- Update wording “, except as described below”. Applies to slides 62, 63, and 64.
- Change commonly to typically for Note 2. Applies to slides 62, 63, and 64.
- Fix the grammar as well in Note 2 “are independent” to “is independent”. This applies to slide 63 and 64.
- Slide 71: Correct the misspelling of TBCMP in the government response paragraph
- Slide 108: Correct the typo in title “WN_a”
- Slide 85: Go with Rhonda’s suggestion. Find the reference in 200 for where the P code chip rate is defined

Walk on Special Topics - Slide 122

- There were no presentations

Slide 123 Questions and Comments

- At this point Karl presented his conclusions regarding Slide 29, 31, 32, 33 CRM #66, #68, #75, #79
 - See above for details

PRAT Item Status - Slides 125-138

- No comments

Slide 127 Public Requirements Accountability Tool

- PRAT 2020-03 Normalize Power of 10 Notation was moved from being tired to RFC-544 to Remaining Open

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Slide 131 PRAT 2021-03 Investigate ISC for Core CEI

- Discussion between Jeff Stevens, Karl and Tony on if everyone agrees on the changes mentioned in the notes. Tony and Karl thinks that it is good right now and not much further to do.

Slide 134 PRAT 2020-03 Normalize Power of 10 Notation

- After discussion with the originator it was decided that ICD-GPS-240 is likely to be re-invigorated and the 3 residual power of 10 changes in that document can be resolved when the document is opened for a likely future RFC.

Slide 135 PRAT 2021-02 Almanac Ephemeris URE

- Discussion: Tony noted that the 16 Jun comment will need to be updated due to the status of OCX. Bert stated that the investigation will be complete by the next PICWG.

Slide 136 PRAT 2023-02 Investigate CNAV-2 Schedules Technical Baseline Changes

- Rhonda Slattery asked if it is possible to put this on hold?
 - Bert concurred with Rhonda we should put it on hold until we have greater clarity on L5 CNAV schedule (i.e. L5 IOC is achieved)
 - The status was changed to “On Hold” until L5 CNAV achieves IOC.

Slide 137 PRAT 2025-01 More Effective PRAT Mechanisms

- Rhonda: Is there a better way to keep the public informed
- Action: To discuss it with Rhonda and Emily. Also consider concerns affecting public documents

New 2026 PRAT Items - Slide 138

- No one wanted to initiate any new PRAT items.

Closing Slides

- Discussion about scheduling for the next PICWG. Typically takes 9 months out from an RFC.
- Hamza Abdusalem wanted to know if is there an estimated completion date and Tony stated that he can go over the schedule in the weekly Public ICWG Management Tag Up.
- Last PICWG for Dan Stevenson

End of Slides

- No additional go backs.

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Action Items

Actionee	Description	Status
Kovach, Karl	The Action to consider the “URA _{NED0} ” change per CRM #79 was discharged during PICWG directly after lunch	Complete
Anthony, Tony	Contact the RE for RFC-538 to discuss options for reusing the WAGE bits.	Not yet started
Anthony, Tony	Contact Emily Hendrickson about how we can improve the focus on public document oriented Concerns and PRAT Items.	Not yet started

Attendees

Attendee	Organization
Anthony, Ralph E (presenter)	SE&I
Gutierrez, Sean	SE&I
Stevenson, Daniel	SSC/SYD 831/S5
Young, Carissa R	SSC/SYD 831/SE5
Ward, Caroline	FAA
Holzer, Rebecca	SE&I
Albert Hayden	
Alexandra Doan	
Armando Patroni	
Bach Vu	
Benjamin Feuge-Miller	
Calvin Miles	
Dan O’Laughlin	
Denis Bouvet	
Denison Almy	
Lauren Dias	
Eduardo Villalba	
Emily Hendrickson	
Fan Liu	
Greg Serrien	
Brian Hauck	
Barbara Hemmerich	
Steven Hutsell	
Isaac Remington	
Jamall Dean	
Jamie Dougherty	
Jed Dennis	

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Jeff Crum	
Jeff Stevens	
John Emilian	
Jonathan Santos	
JR Refujio	
Karl Kovach	
Kevin Bean	
Kevin Greco	
Kevin Pi	
Harold J Kiffer	
John McCanless	
Melanie Soares	
Michael Connor	
Michael Reed	
Adam J Midose	
Patricia Jennex	
Rane	
Rhonda Slattery	
Joseph D Ross	
Matther C Royal	
Stacie Suggs	
John Taylor	
Tim Cashin	
Vern Slonaker	
Zena Walker	