



DEPARTMENT OF THE AIR FORCE
50TH SPACE WING (AFSPC)
HEADQUARTERS SPACE AND MISSILE SYSTEMS CENTER (AFSPC)



DEC 20 2017

MEMORANDUM FOR GPS USERS AND USER EQUIPMENT MANUFACTURERS

FROM: 50 SW/CC
SMC/GP-1

SUBJECT: Issue of Data, Clock (IODC) Value Selection Process and IS-GPS-200H Compliance

1. This memorandum informs the GPS community of an IS-GPS-200H compliant change to the IODC value selection process in the GPS control segment software. The IODC values will now be any numbers in the range 0 to 1023 to support requirements in IS-GPS-200H paragraph 20.3.4.4. Historically, the IODC values were typically chosen from the range 0 to 255.
2. The 2d Space Operations Squadron (2 SOPS) first installed the update to the GPS software that contained the change to the IODC selection process on 21 Sep 2017. By 29 Sep, the 50th Space Wing GPS Operations Center (GPSOC) had received reports that several thousand GPS receivers were experiencing problems catalyzed by IODC values in the range 256 to 1023. Due to the nature of the impacted receivers, 2 SOPS subsequently removed the GPS software update.
3. Per IS-GPS-200H Table 20-XII, "IODC values for blocks with 1-, 2- or 4-hour transmission intervals (at least the first 14 days after upload) shall be any numbers in the range 0 to 1023 excluding those values of IODC that correspond to Issue of Data, Ephemeris (IODE) values in the range 240-255, subject to the constraints on re-transmission given in paragraph 20.3.4.4."
4. The 50th Space Wing and GPS Directorate have determined that the impacted receivers were experiencing problems because the impacted receivers had not properly adhered to IS-GPS-200H. Therefore, the IS-GPS-200H compliant change to the IODC selection process will be reinstalled in a later update to the GPS software no earlier than 1 Mar 2018. This delay is intended to provide time for manufacturers to bring receivers into compliance with IS-GPS-200H.
5. Please direct any questions to the 50th SW GPSOC at gpsoperationscenter@us.af.mil.

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