

Motorola Solutions Technical Notification (MTN)

TITLE: GPS Week Rollover occurring on April 6th 2019. Minimal impact to Motorola Systems expected.

TECHNOLOGY: ASTRO Infrastructure, ASTRO Subscribers, MOTOTRBO™ Infrastructure, MOTOTRBO™ Subscribers

SYMPTOMS:

The legacy GPS navigation message has a ten (10) bit parameter that represents Week Number. Thus, the Week Number parameter in the GPS navigation message "rolls over" to zero every 1024 weeks starting from 0000Z January 6, 1980. The next Week Number rollover will occur April 6, 2019.

MODELS / SYSTEM RELEASES / KITS / DATECODES AFFECTED:

The following Motorola Infrastructure and Subscriber items were investigated by engineering for the GPS Rollover, April 6th, 2019.

Minimal impact to the following:

- APX Subscribers (Mobile and Portable) – Please See "**Potentially Impacted Units**" below

No known impact to the following:

- Infrastructure
 - TRAK Products (8900, 9100, 8835) – Not Impacted
 - HPD Site Controller – Not Impacted
 - RDM – Not Impacted
 - MOTOTRBO™ Infrastructure Devices (Stations, Controllers) – Not Impacted
- Devices
 - XTS GPS RSM's – Not Impacted
 - XTL Mobiles – Not Impacted. No GPS Receiver.
 - *No investigation was done regarding the CompassCom application that was sold as an AVL solution for these devices.*
 - MOTOTRBO™ Mobiles – Not Impacted
 - MOTOTRBO™ Portables – Not Impacted
 - MOTOTRBO™ Subscriber Applications
 - *No investigation was done regarding applications connected to MOTOTRBO™ devices.*

SEVERITY RECOMMENDATION:

NA

ROOT CAUSE / DEFINITIVE TEST:

NA

POTENTIALLY IMPACTED UNITS:

For the models listed below, the users may experience the following two symptoms as a result of the GPS Rollover. The impact will be minimal but may be noticed by the operator.

ANY USE NOT APPROVED BY MOTOROLA SOLUTIONS IS PROHIBITED. This Motorola Technical Notification (MTN) is issued pursuant to Motorola's ongoing review of the quality, effectiveness, and performance of its products. The information provided in this bulletin is intended for use by trained, professional technicians only, who have the expertise to perform the service described in the MTN. Motorola disclaims any and all liability for product quality or performance if the recommendations in this MTN are not implemented, or not implemented in compliance with the instructions provided here. Implementation of these recommendations may be necessary for the product to remain compliant with applicable laws or regulations. Please be advised, that failure to implement these recommendations in the manner instructed may also invalidate applicable warranties, or otherwise impact any potential contractual rights or obligations. MOTOROLA, MOTO, MOTOROLA SOLUTIONS, and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners. ©2016 Motorola Solutions, Inc. All rights reserved."

Symptoms:

- 1) Any of the impacted radios models that are operational with a GPS lock will lose their GPS lock at the time of the roll-over (11:59:42 UTC, April, 06, 2019, or 23:59:42 UTC, April, 06, 2019), and will subsequently re-acquire a new GPS lock.
- 2) For seven days beginning at 11:59:42 UTC, April 06, 2019, or 23:59:42 UTC, April 06, 2019, the TTFF (time to first GPS fix) will be approximately doubled after each radio power up.

Models Impacted:

- APX7000
- APX6000AN
- APX4000
- APX2000
- APX1000
- APX7500
- APX6500
- APX4500

RESOLUTIONS AND REPAIR PROCEDURES:

NA

PARTS REQUIRED (HARDWARE/SOFTWARE):

NA

ADDITIONAL INFORMATION:

Please contact Motorola Technical Support at 1-800-221-7144 (1-302-444-9800) if you have any questions or experience any issues related to the GPS Rollover.

REFERENCE THE FOLLOWING DOCUMENTS/PROCESSES FOR INSTALLATION PROCEDURES:

NA

WHEN TO APPLY RESOLUTION:

After reboot ___
After (re)installation ___
After upgrade ___
After power cycle ___
After database restoration ___
After failure ___
On FRU replacement ___
During maintenance ___
Immediately ___
As instructed ___
Information only ___x_

LABOR ALLOWANCE:

This is an informational bulletin. No labor warranty is implied, intended or authorized for U.S. Domestic Partners/Customers. Other regions should follow their own standard procedures.

For assistance with this bulletin please contact your MSI Technical support center

https://www.motorolasolutions.com/en_us/support.html