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## **GPS Era Issue for OEMV**

### **Background:**

GPS Time is reported in weeks since Jan 6, 1980. The GPS ICD defined navigation data format limits the number of weeks before a roll over to 1023. This means that roughly every 19 years the GPS week goes back to zero and starts incrementing again. In order to help the receiver determine the actual calendar date, NovAtel has historically pre-configured a date as a reference to figure out the current GPS "era" (pre 1999 or post 1999). From time to time NovAtel has updated the pre-configured date in a new firmware version to allow the receiver to determine to correct era for the next 10-18 years. Again, the receiver continues to function but the GPS week is reported as a raw number between 0 and 1023 instead of the number of weeks since January 6, 1980.

### **Issue Summary:**

On GPS week 1959 (starting July 22<sup>nd</sup>, 2017), OEMV receivers with firmware versions 3.300-3.714 and version 3.810-3.813 will report a GPS week of 935 instead of the correct 1959. While the receivers will continue to operate, the incorrectly reported GPS week could cause some systems to have issues. The receiver software should be upgraded to the latest version (which supports the correct GPS week until March 2033) before July 2017 to avoid any potential issues.

### **Product Affected:**

All OEMV based products with firmware versions 3.300-3.714 or 3.810-3.813, including:

- All OEMV receivers
- ProPak-V3
- DL-V3
- FlexPak (OEMV)
- FlexPak-G2 (OEMV)
- MR-10
- MR-15
- SmartV1/V1G
- SmartAG
- SPAN-SE (OEMV)
- SPAN-MPPC (OEMV)
- SPAN-CPT (OEMV)
- SPAN on OEMV1/V2/V3



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**Mitigation:**

Reload the SPAN-CPT with software version CPT3.913, available in the link below.

<http://www.novatel.com/support/info/documents/564>

Reload SPAN on OEMV1/V2/V3 with software version SPAN3.913, available in the link below

<http://www.novatel.com/support/info/documents/553>

For all other products, reload the OEMV with software version 3.907, available in the link below.

<http://www.novatel.com/support/info/documents/515>

For assistance, please contact [support@novatel.com](mailto:support@novatel.com)