GPS Week Number Rollover of April 6, 2019

SUMMARY:
On April 6, 2019, the first GPS Week Number rollover since 1999 will occur. At this date, all Arrow Series™ GNSS receivers will be unaffected and continue to operate normally.

ARROW SERIES™ MODELS CONCERNED:
· Arrow Gold, Arrow 200, Arrow 100, Arrow Lite

BACKGROUND INFORMATION:
The Global Positioning Systems (GPS) has its own way of expressing date and time. It uses a count of weeks and seconds within a week, from a start date. GPS time uses a 10-bit binary number to count its “GPS Week Number”. GPS receivers, including all Arrow models, translate the GPS Week Number into a more common time format — such as date, month and year.

A 10-bit binary number only allows to count from 0 to 1023, which means that GPS can keep track of a total of 1024 weeks from a start date (the very first “Week 0” was on January 6, 1980 at 00:00:00 UTC (Universal Time Coordinated)).

This also means that every 19.7 years (1024 weeks), there is a reset to 0 of the week number count called the “GPS Week Number Rollover”. The last (and 2nd) GPS Week Number rollover occurred on August 21, 1999.

What will happen on April 6, 2019?
On April 6, 2019, we will see the 3rd rollover in the history of GPS. Some GPS receivers, in which this rollover was not accounted for, might get confused with the start of a new count. However, owners of an Arrow receiver will not encounter any issue. GPS Week Number Rollovers have been accounted for and implemented in all Arrow firmware builds available from Eos since the creation of the Arrow Series™ product line.

FURTHER INFORMATION:
If you have any further questions, please contact Eos’ technical support department at +1 (450) 824-3325 (Canada). For support via email, please fill out this support page: https://eos-gnss.com/technical-support-request/.

This article is provided for technical support purposes only. Please refer to your Arrow receiver’s product documentation for additional warranty, license and safety information.