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4 ALBERT EMBANKMENT  
LONDON SE1 7SR  
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

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**RECOGNITION OF THE GLOBAL POSITIONING SYSTEM  
STANDARD POSITIONING SERVICE (GPS-SPS) AS A COMPONENT OF  
THE WORLD-WIDE RADIONAVIGATION SYSTEM**

**Potential GPS problems due to week counter roll over on 6 April 2019**

- 1 At the request of the Government of the United States, the following information is brought to the attention of Member States and international organizations.
- 2 Reference is made to *Recognition of the Global Positioning System Standard Positioning Service (GPS-SPS) as a component of the World-wide radionavigation system* (SN/Circ.182, dated 13 June 1996). The GPS-SPS is undergoing the week counter roll over on 6 April 2019, which may affect some of the outdated GPS receivers.
- 3 The GPS system transmits time to GPS receivers using a format of time and weeks after the start date of 6 January 1980. The data field in the navigational message sent by GPS satellites containing the number of weeks after the start date is limited to a maximum of 1023 weeks. When the GPS system reaches week 1024, the system will revert back to week zero.
- 4 Some GPS receivers are known to be unable to make the transition from week 1023 to 1024. If the GPS receiver is outdated or lacks proper updates, the receiver will revert to reading the week zero as August 1999. During this time the internal clocks of these GPS receivers will experience a lack of absolute reference and may give the wrong time and position or may lock up permanently.
- 5 Some of these GPS receivers are repairable with upgrades and others will become unusable. Users are advised to check with their GPS manufacturer regarding the status of their receiver.
- 6 Member States are invited to bring this information to the attention of all concerned.