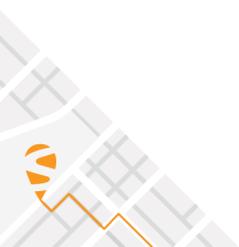# Release Notes and Installation Guide

PolaRx5 Firmware Package v5.3.2

1 Installation Guidelines

In order to upgrade the firmware to version 5.3.2, only the following file is to be installed on the receiver:

SUF file	Located in	Contains
PolaRx5-5.3.2.suf	firmware/	See section 6

There is no need to install the file PolaRx5-5.3.2-failsafe.suf, unless Septentrio Support advises otherwise.

2 New Features and Improvements

2.1 New features in version 5.3.2

1. A new feature named "CloudIt" is introduced, which offers an alternative to FTP for remote file submission.

2.2 Improvements in version 5.3.2

1. The field distribution of MT37 is different between versions v0.3.8 and v0.5 of the DFMC MOPS. The difference mainly affects the decoding of the DFREI scale table when DFREI==14 and the decoding of the WRO counter.
2. Rare occurrences of biases in the Galileo E6 and BeiDou B3 pseudoranges when using an external frequency reference have been fixed.
3. Occasional gaps in the carrier phase measurements for BeiDou geostationary satellites have been fixed.

2.3 New features in version 5.3.1

1. A new type (ScheduledLogging) was added to the configuration of Log Sessions, that allows a log session to be scheduled according to a configurable schedule.
2. A new type (PreserveOnEvent) was added to the configuration of Log Sessions, that allows a log session to be triggered by an electrical event and preserved with higher priority than normal log sessions under the DeleteOldest functionality.
3. As a new feature, the Power Mode page now has a "Monitoring" tab, that offers the possibility to put the receiver in StandBy mode when the external power supply drops below a certain threshold.

4. This firmware release contains a beta version of the "CloudIt" feature, which offers an alternative to FTP for remote file submission.

2.4   Improvements in version 5.3.1

1. The precision of the geoid undulation field in the command setGeoidUndulation was increased to 3 digits.
2. The periodicEcho command has been optimized for MET sensor integration.
3. An issue has been fixed to avoid missing observables for BeiDou Phase-2 satellites when enabling the channel number as pseudo-observable in RINEX.
4. A number of potential security issues have been addressed.
5. A library update was done to improve compatibility for SFTP.

3   Known Issues and Limitations

1. If the message "USB device not recognised" is shown on the PC after an upgrade of the receiver firmware, it is recommended to restart the receiver. Afterwards, the USB connection will be functional again.
2. When logging data at a very low rate, the WebUI Disk Usage widget may not correcly indicate which data types are logged.
3. During bootup of the receiver, the status of the external disk is labeled as "no disk detected" in the webserver. Please do not disconnect the disk to avoid filesystem corruption.
4. When accessing the webUI over https, occasional CPU overloads can be detected.
5. If more than one user simultaneously changes settings via the web interface, the resulting configuration of the receiver may not be consistent.
6. The time needed to detect an external USB disk connected to the receiver varies with the size of the USB disk and the CPU load of the receiver. For larger USB disks, this can take up to 1 minute.
7. When connecting to the web interface using clientless SSL VPN, the Expert Control Panel may fail to load commands.
8. Upgrading from a single beam L-band to a multi beam L-band release would bring a loss of the SECORX activation, if the receiver would have an active SECORX contract. In order to reactivate the SECORX contract, please contact Septentrio.
9. It is not possible to upgrade the receiver using mobile Safari on iOS devices.
10. The external disk must be large enough to hold more than one day of data. If the disk is too small, FTP push may fail and the logged data may be lost.
11. The NTRIP server connection is sometimes not reliable when connected to a caster running "Professional Ntrip Broadcaster" (up to v2.0.22).
12. The generation rate of GBS and GRS NMEA sentence is limited to 1 Hz.
13. IPS connections may stay visible in the web interface after the client has been disconnected.

4 Support

For further information or support, please consult the Septentrio support website (http://www.septentrio.com/support).

5 Legal Notice

Septentrio does not authorize the use of its products as critical components in devices or systems intended for safety-of-life applications or in devices or systems, of which the failure may endanger life or cause injuries, unless written approval is given.

All the firmware and documentation delivered with the PolaRx5 Firmware Package is licensed, as explained in the About page which is accessible via the web interface of the receiver.

6 System Components and Versions

Firmware Package: 5.3.2 Applicable Product Group: PolaRx5 Receiver Platform: SSRC7 Release Date: 14 January 2020	version	PolaRx5-5.3.2-failsafe.suf	PolaRx5-5.3.2-.suf
Failsafe	5.4.0-g6432644	Y	
Operating System	5.4.0-g6432644		Y
GNSS Firmware	6.2.3-r77182		Y
Antenna Information	2.13.0-e47835c0		Y