



RELEASE NOTES

AARC500 (Gen-2)

Adaptive Aeromagnetic Real-Time Compensator

Host Firmware Release RMS11029-03-D

These release notes contain important information about the new firmware and how it will affect the performance of instruments in which it is installed. The notes outline functional enhancements, adaptive changes and, if applicable, problem corrections.

Please read this documentation carefully. References to pertinent sections in the product's user's guide are shown in square brackets.

Compatibility:

(D)AARC500 Front End – Requires firmware RMS1877-04-E or later
AARC5XX Support Software – Requires v. Jan/2017 or later

1. The firmware now supports three GPS data output modes: 'Off', 'On-Basic', and 'On-Full'. The first two modes correspond to 'Disabled' and 'Enabled' in previous versions of the firmware.

When operating in 'On-Basic' mode, GPS time, latitude, longitude, altitude, and quality indicator (QI) are appended at the end of recorded/transmitted magnetics data packets.

When operating in 'On-Full' mode, GPS time, latitude, longitude, altitude, and auxiliary data are appended at the end of recorded/transmitted magnetics data packets. The auxiliary data field multiplexes QI, number-of-satellites, HDOP, age-of-differential, and undulation. With GPS data at the nominal 10 Hz, each auxiliary variable is updated at 2 Hz.

NOTE: If 'On-Full' mode is used, the latest version of the AARC5XX Support Software (Jan/2017 or later) should be used to export data. It will automatically handle the de-multiplexing of the auxiliary fields.

An older version of the support software may be used if the system is operated with GPS output mode set to 'On-Basic' or 'Off'.

The window for monitoring GPS data in real-time now includes also the number of satellites, and HDOP.

[User's Guide: Sections 3.4.1.1g, 2.4.2, and 3.4.2]

2. The system's *hardware revision* is now displayed in the 'about' dialog, and is included in (text) log files. This identifies unambiguously specific hardware sub-assemblies or options in a unit. At present, hardware revision 1.00 corresponds to AARC500 Gen-1 systems, and revision 2.00 corresponds to Gen-2 systems. See Table 1.1 in the User's Guide.
3. Added protection against potential selection of out-of-range graph configuration file numbers.