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RELEASE NOTES

AARC500 Adaptive Aeromagnetic Real-Time Compensator

Host Firmware Release RMS1878-02-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 include information about enhancements, adaptive changes, and corrections to known problems. Please read this documentation carefully.

Compatibility:

(D)AARC500 Front End – Requires firmware RMS1877-02-E or later

1. The AARC500 now allows access to its file systems through the Ethernet port (J16), using the industry-standard File Transfer Protocol (FTP). This permits direct, fast transfer of files between the AARC500 and an external computer.

2. The firmware now supports the *GPS receiver option*.

   The option is available in an internal form (in which the GPS receiver itself is embedded within the AARC500 chassis), and in an external form (in which an external receiver is connected to dedicated I/O ports in the AARC500).

   GPS data (time, latitude, longitude and altitude) are directly appended at the end of recorded and transmitted magnetics data. GPS data rates up to 10 Hz are supported.

   This option offers optimum synchronization to GPS, and greatly simplifies the process of time-aligning magnetics data with data recorded from other sources.

   The embedded GPS receiver can be selected from variety of options, within Novatel's OEMV-1 and OEMV-2 families.

   GPS variables can be monitored on the screen in real-time, both graphically and numerically.

   Note: The GPS receiver option is available as a retrofit for older AARC500 units.

3. The user can now easily scroll through the different *graph configuration files* by simply clicking on a button ("up" or "down") on the real-time graphic display window. In many cases this may be preferable to the alternative, which is to explicitly select the graph configuration file from *options → graph configuration*.

4. A copy of the `monasc.txt` log file for every session is now saved together with data files. In the past, the file was stored only in RAM and had to be copied before the system was shut down at the end of a flight.
5. Two new sets of signals have been added to those available for real-time monitoring: fourth-difference of compensated TFs, and first-difference of compensated TFs.
6. The ***event inputs*** trigger mode is now user-selectable: falling edge (default), or rising edge.
7. A USB Flash disk is now automatically detected and mounted. There is no longer need to explicitly request the mounting of the device.
8. The system now incorporates support for touchscreen displays using Egalax controllers (e.g., those made by Lilliput Electronics).
9. A simpler/faster shutdown procedure is now used.