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## RELEASE NOTES

### AARC510

### Adaptive Aeromagnetic Real-Time Compensator

### Host Firmware Release RMS11031-03-A

*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.*

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#### Compatibility:

*(D)AARC500 Front End – Requires firmware RMS1877-04-E or later*  
*AARC5XX Support Software – Requires v. Oct/2020 or later*

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1. The system now supports two independent logical connections for acquisition and recording of streaming data in the form of TCP/IP packets over the Ethernet interface. Data for the secondary connection is recorded in a separate file ('t2'), analogous to that used for the primary connection ('t').  
*[User's Guide: Sections 3.4.6, 4.4.1]*
2. Addition of system variables for monitoring, in graphical and/or numerical form, the recording of data to the various output files ('d', 't', 't2').  
*[User's Guide: Section 3.4.2, Table 3.3]*
3. Addition of LED-like indicators on the main screen to indicate active recording on each of the output data files: 'd' (magnetics + GPS + FE-Analog), 't' (Ethernet, primary connection), and 't2' (Ethernet, secondary connection).  
*[User's Guide: Sections 3.3.1, 3.4.2]*
4. Support of a dual-buffered recording mode for TCP/IP connections. This mode is suitable when interfacing to devices that transmit fixed-length data packets at regular time intervals, but with either (a) significant jitter in timing, or (b) packet-concatenation to increase efficiency  
*[User's Guide: Section 3.4.6.2]*

5. In the user interface dialog for setup of the *magnetics data output and remote control ports*, automatically calculate and display the bandwidth requirement for data transmission via the serial output port. This simplifies setup, as the requirement is a function of a large number of variables (number of mag channels and gradients, sampling/output rate, output data format, baud rate, inclusion/exclusion of GPS data, etc.).

*[User's Guide: Section 3.4.3]*

6. Cosmetic/functional improvements to the user interface dialog for setup of the numerical display.

*[User's Guide: Section 3.3.2]*

7. Allow designation of FE analog channels AN02 and AN03 as either 'general purpose', or dedicated to 'embedded sensors'.

(Not relevant at present – reserved for future use.)

*[User's Guide: Section 3.4.1.1h]*