

## RELEASE NOTES

### AARC510

#### Adaptive Aeromagnetic Real-Time Compensator

#### Host Firmware Release RMS11031-03-H

*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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*FULL\* Compatibility:*

*(D)AARC500 Front End Firmware: ≥ RMS1877-05-D*

*HW Revision: ≥ 2.20*

*(D)AARC5XX Support Software: ≥ Apr/2025*

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*[ \* ] To assess partial compatibility with other releases, or for non-active products, refer to Application Note DAARC5XX-035 – (D)AARC5XX Compatibility Chart:  
<http://www.rmsinst.com/servicesupport/releasenotes/Compatibility%20Chart.pdf>*

1. Support for a new Front-End transfer function (MA825s). It complements a comprehensive collection of both pre-defined and customizable transfer functions, carefully designed for airborne geophysical applications. MA825s has a bandwidth directly proportional to the host sampling rate and excellent attenuation beyond the pass-band. This replaces a previously 'reserved' option.

*[Section 3.4.1]*

2. The Event-3 tag in recorded and transmitted data packets may now, optionally, reflect host-subsystem-generated warnings (in addition to front-end-generated errors).

When transmitted in real-time to a navigation system (Ag-Nav), this provides pilots/operators with a simple 'green-light/red-light' indication of system readiness.

*[Sections 2.4.1.2, 3.4.1]*

3. Two cells in the custom numerical display now allow real-time monitoring of any system variable, with user-defined alarm thresholds and trigger modes. Complements similar functionality in place for monitoring quality-control signals for total-field magnetometers as well as the fluxgate magnetometer.

*[Section 3.3.2]*

4. The firmware now supports real-time calculation and display of the largest gradient measured along the calibration flight path by any one of the total-field magnetometer sensors in the system.

This is a useful quality-control measure: excessive gradients during a calibration will inevitably lead to poor results.

*[Section 3.3.1]*

5. Support for a second capture mode of the *line number* transmitted by Ag-Nav navigation systems. Intended for setups in which the line number is not necessarily a multiple of ten.

*[Section 3.4.3]*

6. Miscellaneous cosmetic/streamlining changes.