

RELEASE NOTES

AARC510

Adaptive Aeromagnetic Real-Time Compensator

Host Firmware Release RMS11031-04-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.

FULL Compatibility:*

(D)AARC500 Front End Firmware: ≥ RMS1877-06-A

HW Revision: ≥ 2.20

(D)AARC5XX Support Software: ≥ Apr/2026

*[*] 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. Real-time monitoring of *custom devices* (typically radar/laser altimeters) now observes user-selectable high and low thresholds. Color-coding identifies 'within thresholds' (green background), 'outside thresholds' (yellow), and 'no valid data' (red) conditions.

[DAARC500: Appx. O; others: Appx. N]

2. User-selectable threshold parameters, for the improvement ratio and the norm of a calibration's solution/model, are now used to qualify the performance of operation in adaptive mode. The qualifying measure is also encoded in the background color of the ADAPT button.

[Sec. 3.5.2.1]

3. Full statistics are now provided for any retrieved RLSQ solution.

[DAARC500: Appx. G; others: Appx. E]

4. Introduced enhanced safety measures to protect the System Partition in embedded Flash.

[Sec. 5.2.1]

5. Post-flight compensated output files now include GPS and FE-analog data, if present in the original data file. This ensures the format of the (binary) output file is always identical to that of the original file.

[DAARC500: Sec.3.10.1; others: Sec. 3.9.1]

6. Real-time output of high-passed compensated TF signals while adaptive mode is engaged.
7. In addition to showing the *current* accumulation matrix (AM) indicator on the main dialog, the firmware now displays also the *next* AM. This is particularly relevant after 'loading' one or more AMs through the matrix management facilities.
[Sec. 3.5.1.3]
8. Miscellaneous cosmetic/streamlining changes.