

## RELEASE NOTES

### AARC510

#### Adaptive Aeromagnetic Real-Time Compensator

#### Host Firmware Release RMS11031-03-E

*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: ≥ RMS1877-05-C*

*HW Revision: ≥ 2.20*

*(D)AARC5XX Support Software: ≥ Oct/2023*

---

*[\*] To assess partial compatibility with other releases, or for non-active products, request Application Note DAARC5XX-035 – (D)AARC5XX Compatibility Chart.*

1. Increased (2X) the number of waveforms that may be monitored in real-time through the graphic display function. Waveforms can now be paired in each of four recording areas – overlapping traces are very useful, for example, to compare compensated and uncompensated signals.

*[Sec. 3.4.5]*

2. Added NanoRadar's NRA24 radar altimeter to the list of ancillary sensors supported as 'custom devices' for enhanced real-time monitoring.

*[Appendix L.5]*

3. A pulse-train output is now available at J30 (HW Rev. ≥ 3.20). Allows synchronization of external equipment to the AARC52's timing. User-defined frequency, as a submultiple of the *host sampling rate*.

*[Sec. 2.3.11, 3.4.1.1]*

4. Newly introduced *magnetometer quality measures* qualify the overall soundness of raw total-field signals. When monitored on the numerical display, color coding readily alerts the operator of signal loss or excessive noise levels.

*[Table 3.3]*

5. The firmware now includes an embedded mechanism to automatically install a customized version of one of the Front-End transfer functions available to target specific installation requirements ('Custom1').

*[Application Note DAARC5XX-032]*

6. Receive buffers used for acquisition of streaming TCP/IP data have been extended (~2X) to accommodate the timing and packet size of recently introduced ancillary sensors of interest.
7. Parameters for the 'Custom2' Front-End transfer function are now included in the log file.
8. Minor corrections, cosmetic: the monitoring of GPS data and the *custom device* are allowed at access level 0.