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## RELEASE NOTES

### **AARC500 Adaptive Aeromagnetic Real-Time Compensator**

### **DAARC500 DAS & Adaptive Aeromagnetic Real-Time Compensator**

### **Front End Firmware Release RMS1877-02-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.*

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#### *Compatibility:*

*AARC500 – requires Host firmware RMS1878-01-H or later*

*DAARC500 – requires Host firmware RMS1936-01-G or later*

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1. The firmware allows more flexible management of statistical information logged during self-testing of the front end subsystem. This information is for Factory use only, and is totally transparent to the user.
2. On power-up, the firmware checks that ambient temperature (as measured by the Magnetometer Processor Module) is within specification. If the temperature is well-out of the acceptable range, the Front End will issue error code '13'. See Table 5.2 in the DAARC500 User's Guide (v2.10 or later), or Table 5.1 in the AARC500 User's Guide (v2.41 or later).
3. Some GPS receivers may occasionally issue extra pulses on the PPS output, under marginal satellite signal conditions (e.g., when switching between so-called *fine-steering* and *coarse-time* or *free-wheeling* modes). This can affect timing when the PPS signal is used as a trigger source.

Some receiver manufacturers have identified this problem and, according to published information, they have corrected it. See, for example, the link below to Garmin's web site; under 'Changes made from version 2.05 to 2.06' they indicate:

*'Addressed problem where an 'extra' PPS pulse sometimes occurred in marginal signal environments.'*

[ [http://www.garmin.com/support/download\\_details.jsp?product=010-00258-02](http://www.garmin.com/support/download_details.jsp?product=010-00258-02) ]

The Front End firmware can now identify and discard most of these spurious pulses.