

RDA 8.09.1 Release Notes (19 Jun 2005)

These release notes cover changes made to the SIGMET Radar Data Acquisition platform. The last public release was RDA-8.09 dated 11 June 2005. If you are upgrading from an earlier version please also read the release notes that have been published since then.

New Features

1. The *-perpetual* command line argument has been removed from both the RVP8 and RCP8 products. Please use the **rdadiags** utility for burn-in diagnostic testing.
2. The semantics of the CLTSIG_DEFAULT driver flag have been improved; the flag now causes the RVP8's *Residual Clutter LOG Noise Margin* parameters to be reloaded from their saved file values rather than from the values shown in the **Mf** menu. This means that the **Mf** menu is guaranteed to always show the current working values, in keeping with how all other RVP8 setup parameters are handled.
3. Two new timeseries "mismatch" bits have been added to the RVP8. Errors in placement of range mask bins are indicated by MMTS_BINPLACE, while MMTS_RMASKRES shows when the range mask resolutions differ by more than 2.5cm.

Bug Repairs

1. The 16-bit velocity and width parameters that are output by the RVP8 during Dual-PRF modes have been incorrect for several years. The velocities were being scaled down by the unfolding factor, and the widths were being scaled up.
2. The default reflectivities in BATCH mode now come directly from the raw LoPRF power sums in each bin. Previously, the range averaged LoPRF sums were being used (to reduce the variance), but this had the side effect of defeating the point clutter algorithm later in the process. Many thanks to the ORDA software team for identifying what was happening here.
3. When timeseries playback was stopped the RVP8 would sometimes keep returning rays from the last few seconds of TS data. The correct response now is that rays will never be output from retrograde timeseries data.

RDA 8.09 Release Notes (11 Jun 2005)

These release notes cover changes made to the SIGMET Radar Data Acquisition platform. The last public release was RDA-8.08.14 dated 27 May 2005. If you are upgrading from an earlier version please also read the release notes that have been published since then.

New Features

1. An additional element *fdBAddNseThr* has been added to *struct rvp8BatchSetup* to allow a slightly higher noise threshold to be set for the BATCH surveillance powers versus the Doppler powers. The default value is zero, meaning that the same noise threshold will be used for both sets of pulses just as it always has been.

This new parameter is experimental. Please be sure to initialize it prior to calling the DSP driver routine *dspw_batchSetup()*. A conservative suggestion for reducing the density of speckles in BATCH mode is to set this parameter to 0.5dB, and also turn on the standard “1D” RVP8 speckle remover.

Bug Repairs

1. A bug was repaired in RVP8 BATCH mode wherein Doppler data might (very rarely) be unfolded into more than one range bin.
2. Timeseries data that were recorded using PRF-Sectors could not be played back properly on the RVP8.
3. The RVP8 algorithm for finding the next Coherent Processing Interval would sometimes fail to properly resume after a network timeout that interrupted the reporting of angles to the RVP8.