

RVP7 V14 Release Notes

These notes cover changes made to the RVP7 code since release V13 of 21 December 1998. If you are upgrading from an earlier release, please read those notes also.

Bug Repairs

1. Repaired inverted sense of the trigger setup question: "*PreTrigger active on rising edge: Yes/No*". The repair was done by toggling the sense of the "Yes/No" answer; not by changing the interpretation of the nonvolatile setup bit itself. Thus, code that used to be configured a certain way will continue to run unchanged, except that the reverse answer to this question will be noted. This bug dates back to the first RVP7 public release.
2. Repaired a bug in which the range mask was in error by one bin; the RVP7 was reporting targets one bin closer than they actually were. For example, at 125-meter range resolution, a target at 1.0km would appear to be at 875 meters. Likewise, at 50-meter resolution, that same target would appear to be at 950 meters. This bug also dates back to the first RVP7 public release.

As a result of this repair, data requested and processed from "range zero" will now be indicative of the (I,Q) values from the center of the burst pulse (since that is the RVP7's definition of zero range).

New Features

1. A new setup question has been added in the "**Mt**" section to compensate for the offset in range that is due to the length of waveguide connecting the transmitter, antenna, and receiver. You should specify the total 2-way length of waveguide, i.e., the span from transmitter to antenna, plus the span from antenna to receiver. The RVP7 range selection will compensate for the additional waveguide length to within plus-or-minus half a bin, and works properly at all range resolutions.



Note: This setup question could be used to undo the range mask repair described in Bug Repair #2. If, for reasons of compatibility, you want your system to continue running with the 1-bin range error, then set the waveguide length equal to the range resolution that you are using.

2. The present level of AFC/MFC is now available via the GPARM command. GPRAM status word #51 now holds a 16-bit signed number matching the requested AFC/MFC value being applied to the 16-bit D/A converter in the RVP7/IFD unit. The IRIS **dspx** utility has also been improved to show this value in its "gparm" printout.

Setup Changes

1. The pretrigger active edge is now correctly reported (See Bug Repair #1.).
2. There is a new setup question to set the waveguide length (See New Feature #1.).