

2.13 RTI: Range Time Indicator

SIGMET, rain RTI Product Configuration: RTI2

File Menus Type Commands Help

TASK SUMMARY

TASK Name: DSP Data:

Max Range:

Angles from 0.5 to 1.2

PRODUCT PARAMETERS

Data:Display:

Max Range:

Sweep Ang:

ZR relation:

TR Smoother:

DISPLAY PARAMETERS

Display Units:

Color Scale:

Level:

Level/Stop:

Resolution:

- Task Summary area, see Section 2.1.1.
- Product Parameters, see Section 2.1.3.
- Display Parameters area, see Section 2.1.4.

In an RTI plot, the horizontal axis is the time (seconds after the beginning of the scan), and the vertical axis is the range from the radar. This type of display can be used for any scan type (e.g., PPI, RHI), but is most useful for manual scans or “searchlight” scans which are manual scans at a fixed position. Perhaps the best application is for vertical incidence scanning in which case the RTI product shows a time-height cross-section of the atmosphere.

To open the RTI Product Configuration menu:

Choose **Type**→RTI from the menu bar. The fields are described below.

Data: Display

Choose any parameter available in the task configuration.

Max Range

Enter maximum range in kilometers.

Sweep Angle

Select any of the elevation angles in the task. You can see a list of them in the upper part of this menu, at Angle list.

ZR relation

How to transform reflectivity (dBZ) to rainfall intensity (mm/h). This is used only in the case when you select rainfall rate (R) for output.

TR Smoother

Smoother in XY directions of the RTI image. Typically, a small value is used for research purposes and a bigger value for customer products. The time direction smoother is expressed in seconds, the range direction in km.

Resolution

You can choose from four resolutions: Low, medium, high and extra high. The default resolutions are rectangular to match the default rectangular window sizes of the Quick Look Window.

Examples

Here you see a RTI and a PPI from the same situation. From both pictures, the maximum range is 50 km and the color scale is same. In this case, RTI has been made from a PPI task rotating 10 degrees per second so the horizontal axis is both seconds from start and azimuth in tens of degrees. You can see the weak echo region near 220 degrees, starting from 15 km in both. This can be beam blocking, which is probably easier to recognize in the RTI.





