

Notification to WSR-88D Field Sites on Snow Accumulation Algorithm Product Problem
and
Plan to Correct

28 November 2006

Background:

WSR-88D Radar Product Generator (RPG) Build 8 includes the Snow Accumulation Algorithm (SAA) that generates six possible products: 1) One-Hour Snow Water Equivalent (OSW), 2) One-Hour Snow Depth (OSD), 3) Storm Total Snow Water Equivalent (SSW), 4) Storm Total Snow Depth (SSD), 5) User Selectable Snow Water Equivalent (USW), and 6) User Selectable Snow Depth (USD). During a recent snow event forecasters at a weather forecast office found that the two “user selectable” SAA products (USD and USW) did not contain meaningful data.

A WSR-88D Radar Operations Center (ROC) investigation revealed that the RPG default generation list does not specify an End Hour and Time Duration for the product to be generated by default. Unless these parameters are provided, the SAA cannot properly generate the USW and USD products. With these parameters operators can then specify the desired end hour and time duration of the products (as done with the User Selectable Rainfall Accumulation Product). The other four SAA products do not rely on these parameters and are properly generated and available for use.

Work Around:

A “work around” is available that requires vigilant periodic operator intervention. The work around procedure is to modify the "Current" Product Generation Table (PGT) to specify an End Hour and Time Duration (see attached before (Figure 1) and after (Figure 2) screen shots). However, sites cannot change the default Mode A or Mode B lists because they are ROC Level-Of-Change-Authority. Thus, every time the radar’s weather mode changes, sites will need to update the "Current" PGT.

NOTE: It is recommended that if users need the USW and USD products that they change both their Clear Air and Precip Switching to Manual. Since every mode change reverts from the “Current” PGT to the “Default” PGT for the new mode, data gaps in the USW and USD products will result unless the operator is extremely vigilant to make changes to the “Current” PGT immediately after a radar mode change. Therefore, setting the mode change to manual can function as a reminder to change the “Current” PGT whenever a Manual mode change is commanded. Once the winter event has passed and the USW and USD products are no longer needed, Clear Air or Precip switching can be set back to Automatic if desired.

To make the changes to the “Current” product generation table follow these steps at the RPG Human Computer Interface (HCI).

- 1) From the RPG Control/Status window click on the “Products” button in the RPG box.
- 2) The RPG Products window pops up. Next, select the “Generation List” button.
- 3) RPG Products Generation Table Editor window pops up. Click the “Current” button at the top and scroll down until you find the USD (product 151) and USW (product 150).
- 4) Click on a blue (editable) field on the USW product and the End Hour and Time Duration table will pop-up as shown in Figure 1.
- 5) Make changes as shown in Figure 2 for End Time = 12 hours and Time Duration = 24 hours.
- 6) Next, click on a blue (editable) field on the USD product and the End Hour and Time Duration table will pop-up as shown in Figure 1. Repeat step 5.
- 7) Click on the “Save” button at the top of the RPG Products Generation Table Editor and “Yes” on the change confirmation pop-up. Finally, click on “Close” button.

Radars Operations Center Resolution Plan:

By 31 December 2006 the ROC will correct the RPG configuration file and issue a software kit that will include the updated file, an automated “script,” and load instructions. This will be RPG Software Build 8.2

Point of Contact: WSR-88D Hotline, 1-800-643-3363

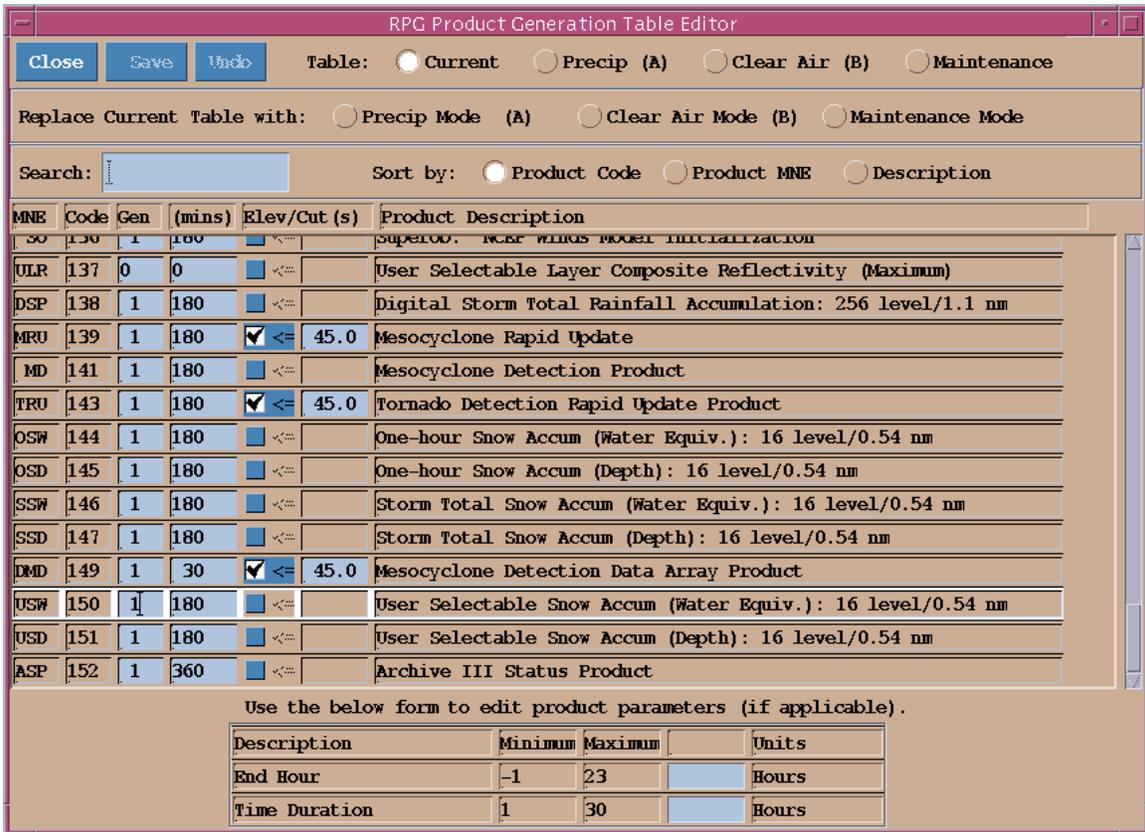


Figure 1. Screen shot of the current RPG Product Generation Table before specifying the End Hour and Time Duration at the RPG Human Computer Interface (HCI).

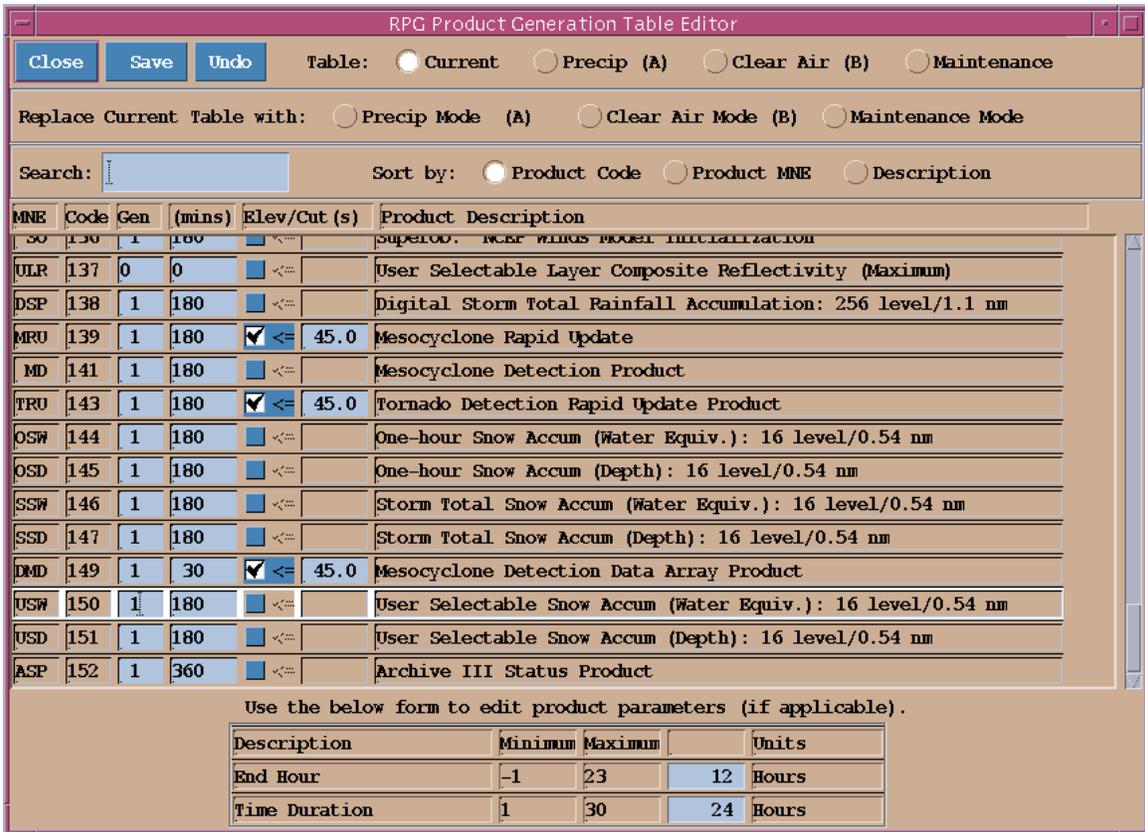


Figure 2. Screen shot of the current RPG Product Generation Table after specifying the End Hour and Time Duration at the RPG Human Computer Interface (HCI). Providing these numbers will permit automatic generation of 24 hours ending at 12Z in addition to getting the products to work. This is similar to the User Selectable Rainfall Accumulation Product.