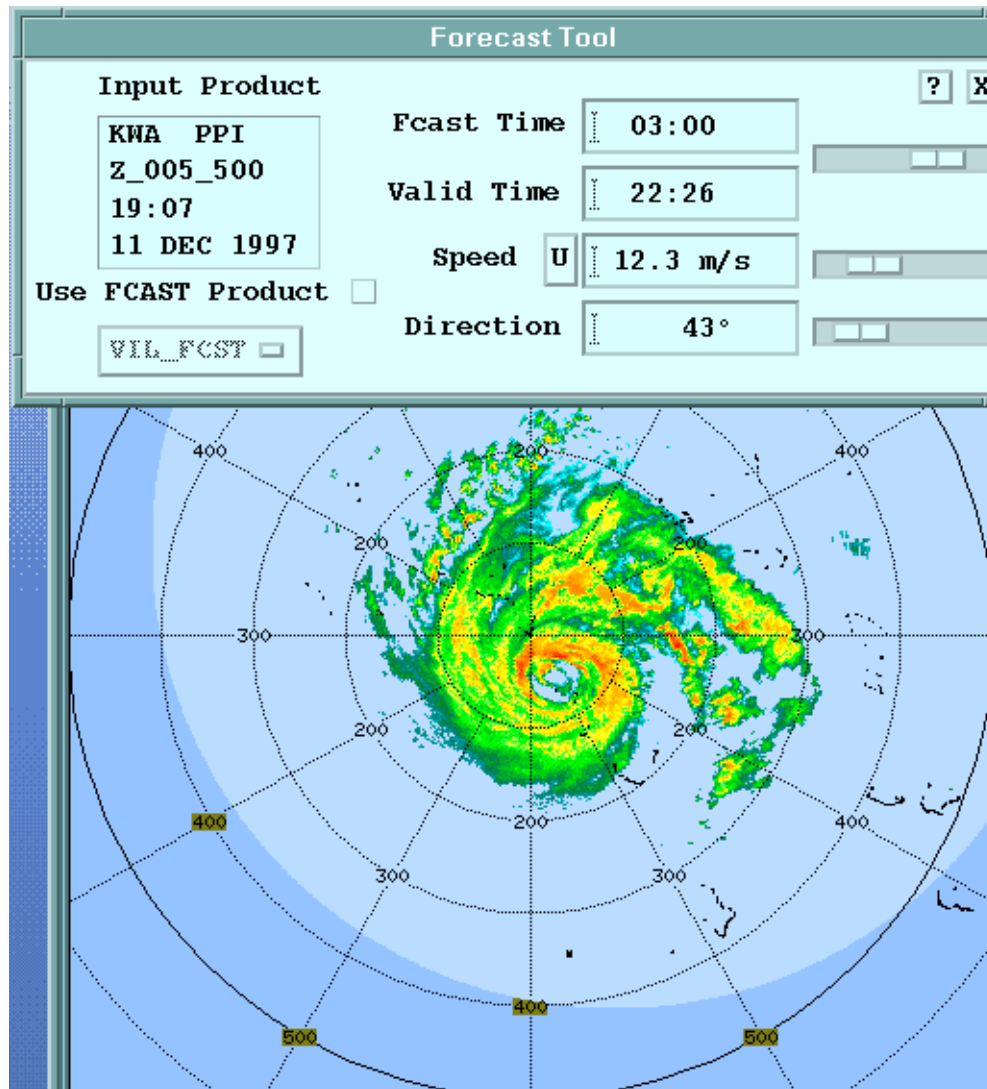




5.13 Forecast Tool

This tool is used to shift products “into the future” to see the forecast position of weather features. An example is shown below for the case of a typhoon.



The dark outer region represents the area not scanned, while the inner lighter circle represents the area that was scanned. In the example, the radar image is shifted three hours for an assumed motion of 24 knots at 43 degrees.

There are two ways that the image can be shifted:

- **User Input** – the forecaster inputs a speed and direction as was done in the example.
- **FCAST Product**– an IRIS Forecast product or user Forecast product can be used.

In the case of the user input, the echo is shifted by a constant speed and direction. This is shown in the example above.

If a Forecast product is used, then the echoes can be subjected to both a non-uniform motion field and a non-uniform intensity change field. Forecast products can be produced either by IRIS or by external programs that create forecast products and insert them into IRIS (User Product Insert or UPI).

The IRIS Forecast product computes a uniform wind field based on the average echo motion as calculated from a 2D cross-correlation of the current and previous image. No intensity change is calculated. Check with your system manager to see what Forecast products are available on your system.

User Input Forecast

Suppose that you have obtained a nominal speed and direction from the manual track product. To do a manual forecast projection:

- “**Use FCAST Product**” button should be clicked out.
- **Speed** and **Direction** are set manually by type-in or slide pot.
- **FCAST Time** is set to how far ahead you want to look.
- **Valid Time** displays the time at which the forecast will be valid, i.e., the data time of the display plus the **Forecast Time**

FCAST Product Forecast

- “**Use FCAST Product**” button should be clicked in.
- Select the forecast product, if any are available, from the option widget.

In this case the speed and direction will be taken from the forecast product and the user input fields are desensitized.