



Interferometry.... Continued

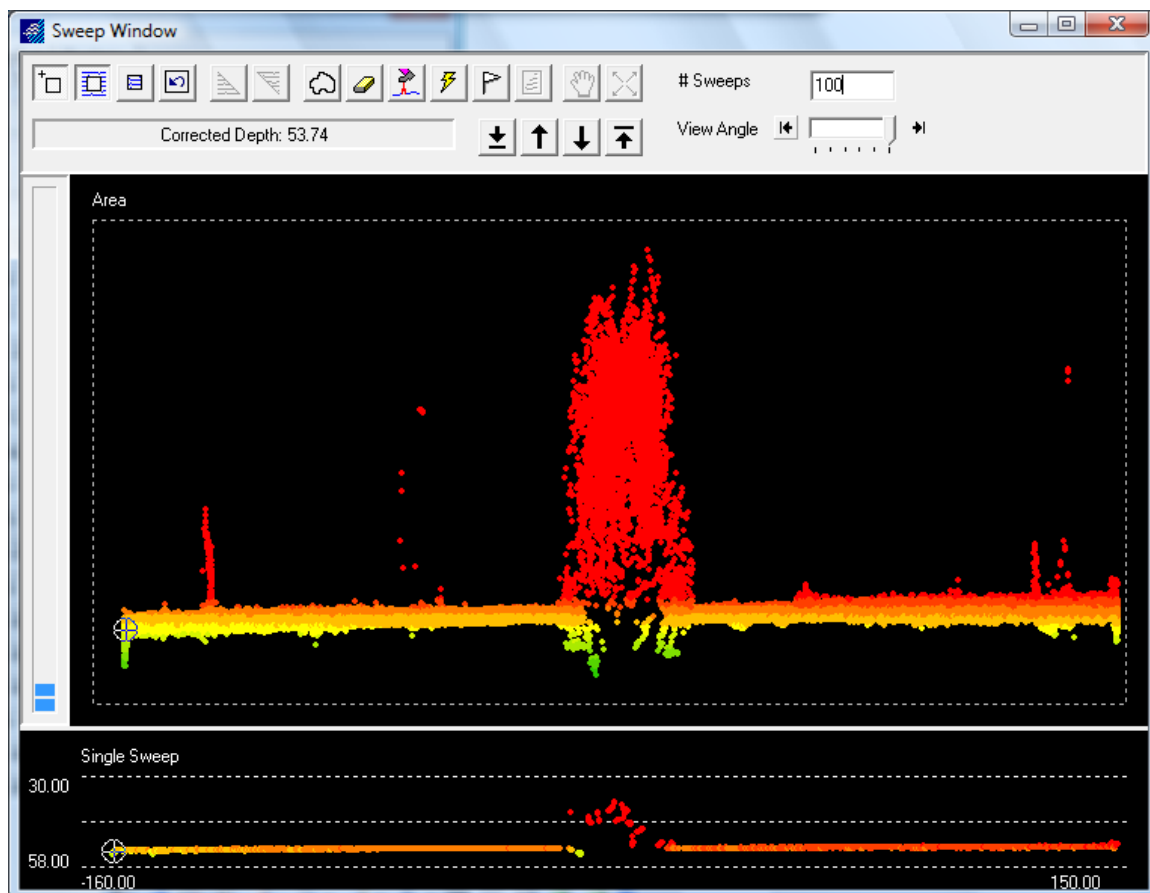
-Harold Orlinsky

A while back, I wrote about HYPACK® handling Interferometry data. Over the past few months, I have worked more with these systems, and seen more manufactures come out with their own model. HYSWEEP® interfaces with many of them, and our file format converter can handle some of the other models.

We are often asked about why 1440 points - the maximum beams per ping that can be stored in an HSX file. Besides the increased time for data processing, or the eventual downsample of the data while plotting or the across track resolution at less then 10cm (100 meter swath / 1440 beams), or just a huge file size, we have run out of ideas for keeping this limitation. So in a future version of HYSWEEP®, we will open the data file to log more then the 1440 points, and capture the entire beam count of the sonar system. Stay tuned for that release later this year.

In the meantime, a new feature in MBMAX is a filter for cleaning the nadir region. Typically, this area has a lot of noise that needs to be edited out during processing. In Figure 1, note the area at nadir that needs to be edited for flyers.

FIGURE 1. A Typical View In the Sweep Window of 100 Swaths



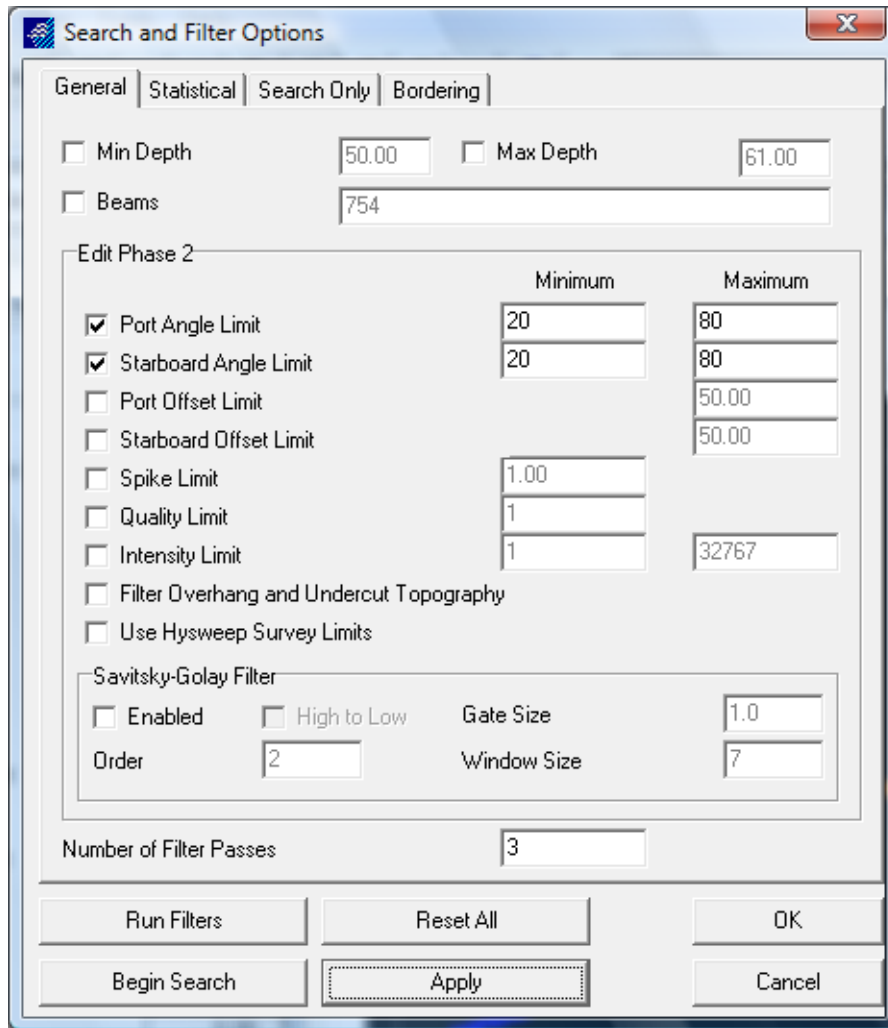
Done



In the Search and Filter Options in MBMAX, we added a Minimum Angle Limit, along with the existing Maximum Angle Limit.

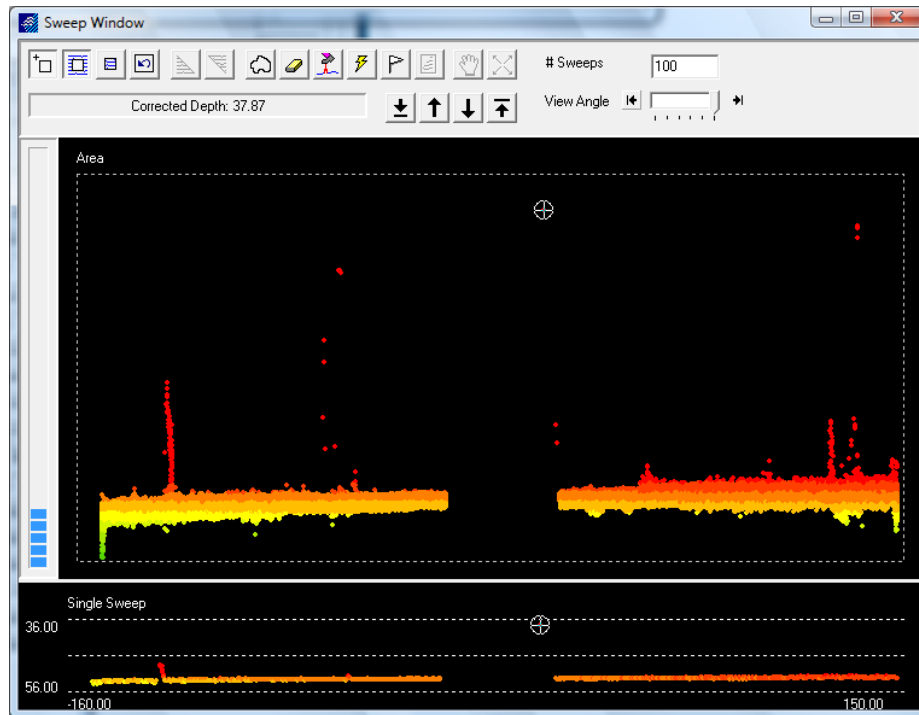
In this example, an angle filters of 20 degrees at nadir and 80 degree for the maximum swath was used.

FIGURE 2. Search and Filter Options in MBMax



The data cleans up most of the noise using just the angle filters.

FIGURE 3.



Adding the depth and other filters, makes editing a whole lot faster.

FIGURE 4. All the Data Shown in Phase 3 of MBMAX

