

Figure 1. Plot of the track of RRS James Clark Ross during cruise JR097. The three boxes (Fimbul west, Fimbul east, and Brunt area) are expanded in figures 2, 3 and 4.

ice tongue. About 11 days were spent in the vicinity of Fimbul Ice Shelf, yielding seven WASP stations (benthic photographic surveys), comprehensive swath and CTD/LADCP surveys of the western side of the ice tongue, several CTD/LADCP stations in challenging sea ice conditions east of the ice tongue and a successful Autosub mission beneath Fimbul Ice Shelf. That period also saw the unfortunate loss of Autosub beneath the ice shelf.

The ship then sailed for the Brunt Ice Shelf area. The aims here were to attempt to achieve at least some of the objectives of the polynya/sea ice project, but also to conduct a study of the ice shelf water-rich plume that flows down the continental slope north of Filchner Ice Shelf. A CTD/LADCP section was occupied in support of the polynya work, two sea-ice buoys were deployed, and pancake ice was sampled at various stages of its formation. The plume study consisted of a CTD/LADCP section across the plume (down the slope), and two yo-yo-type LADCP deployments.

While in the vicinity of Brunt Ice Shelf, two current meter moorings were recovered, and five personnel were transferred from *RRS Ernest Shackleton*, in support of BAS logistics. While in the vicinity of the sill at the continental shelf break north of Filchner Ice Shelf, a long term current meter mooring was recovered, serviced, and then re-deployed.

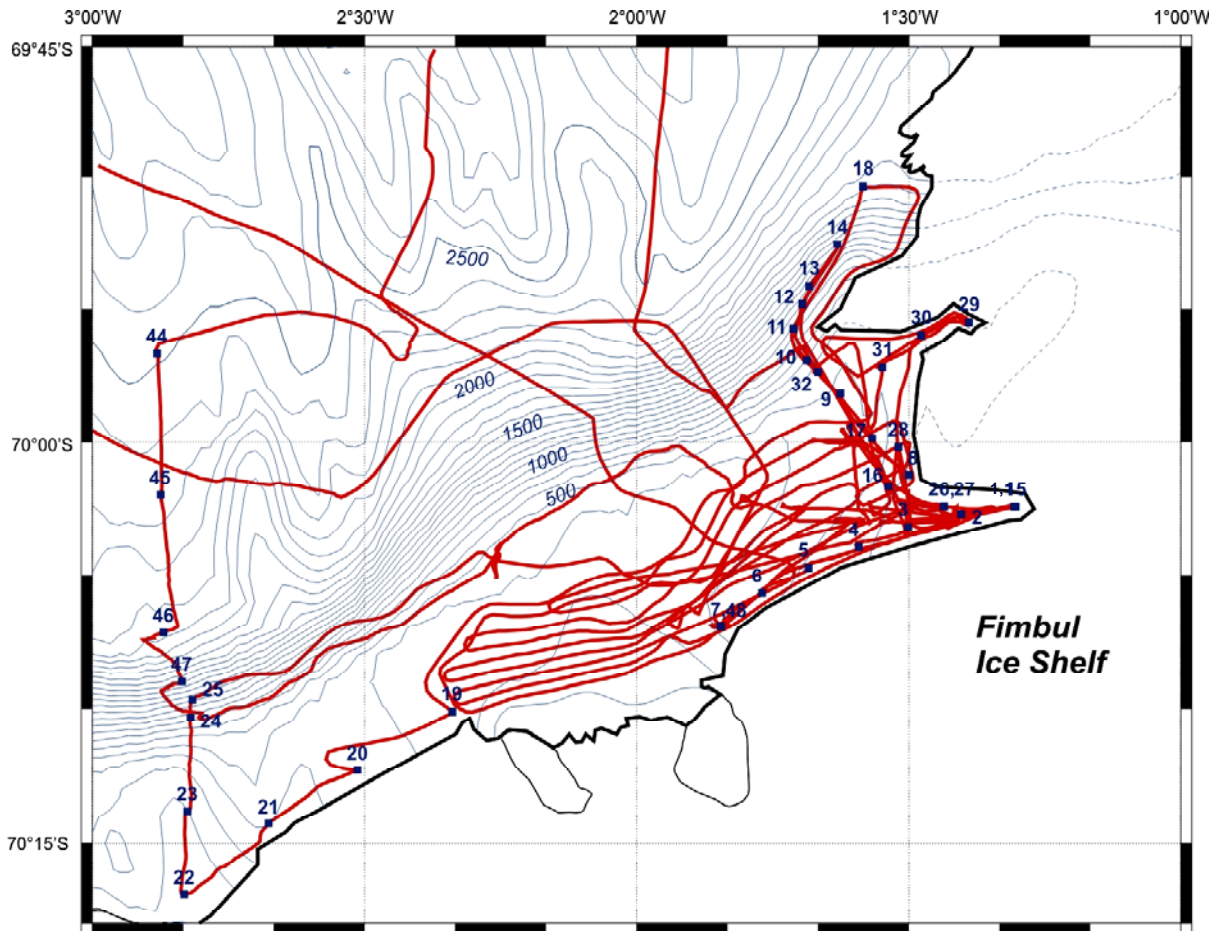


Figure 2. Ship track in work area west of the Fimbul ice tongue. The numbers indicate CTD stations.

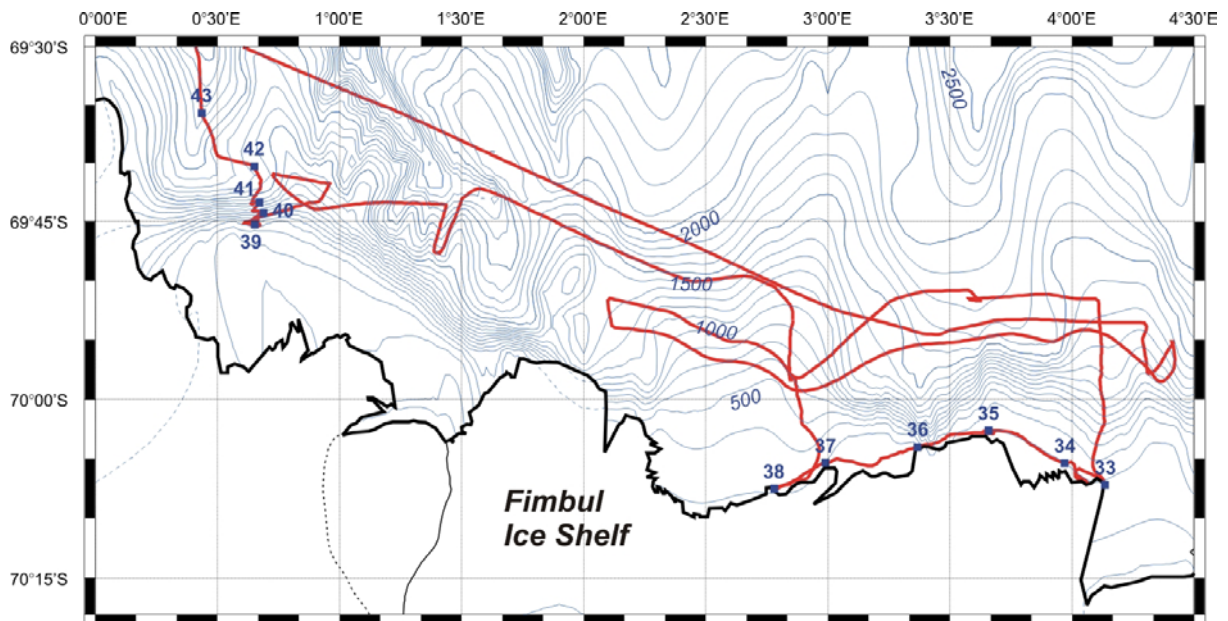


Figure 3. Ship track in work area east of Fimbul ice tongue. Numbers indicate CTD stations.

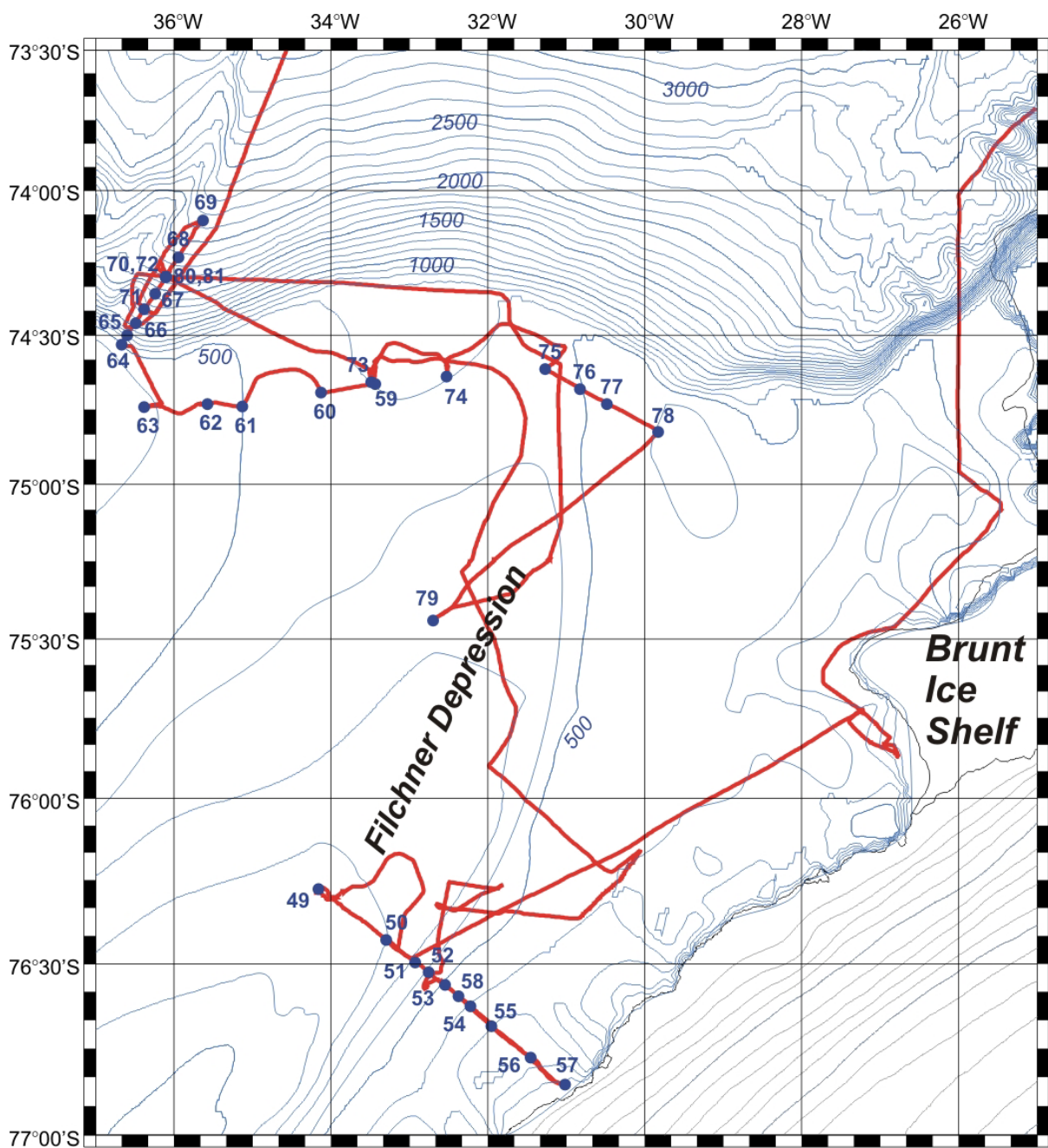


Figure 4. Ship track in work area near Brunt Ice Shelf. Numbers show locations of CTD stations.