



Another example of land applications of ocean altimeter data is its use to measure surface elevation change on the southern Greenland ice sheet. In a study funded by NASA's Polar Program, the ESE, and JPL*, researchers found that the average elevation change above 2000 m elevation from 1978 to 1988 was not significant, contrary to reports that positive ice sheet growth rates suggest increased precipitation due to warmer polar climate.

Fig. 5. Spatial distribution of elevation change from 1978 to 1988 from an analysis of Seasat and Geosat altimeter data. The approximate location of the ice divide (stars), 2000 m surface elevation contour (dots), and geociever stake locations (circles) are also shown. A spatial average of the data yields a growth rate of 1.3 ± 0.6 cm/yr.

*Davis, C., Kluever, C., Haines, B., Perez, C., and Yoon, Y., Improved elevation-change measurement of the Southern Greenland Ice Sheet from satellite radar altimetry, IEEE transactions on Geoscience and Remote Sensing, Vol. 38, No. 3, May 2000