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Transport at the south east tip of Greenland from in situ and altimetric data

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The circulation and related transports at the south east tip of Greenland are determined from direct current observations from a moored current meter array. The measurements covered a time span from June 2004 to June 2006.
From these measurements the net mean total southwestward transport from the mid-shelf (20 km off the coast at 60^oN) to the 2070 m isobath (about 100 km offshore) was estimated as 17.3$\sim$Sv (1$\sim$Sv=1$\times 10^6 \sim$m$^3 \sim$s^{-1}) with an uncertainty of 1$\sim$Sv.
The measured standard deviation of 3.8$\sim$Sv quantifies the transport variability, which shows a peak to peak amplitude that can reach 30$\sim$Sv. Frequencies around 0.1 day^{-1} dominate the signal, although a variability at lower frequency also appears in winter.

The possibility of using altimetric data to contruct an East Greenland Irminger Current (EGIC) transport time series comparable to the in situ times series will be examined.