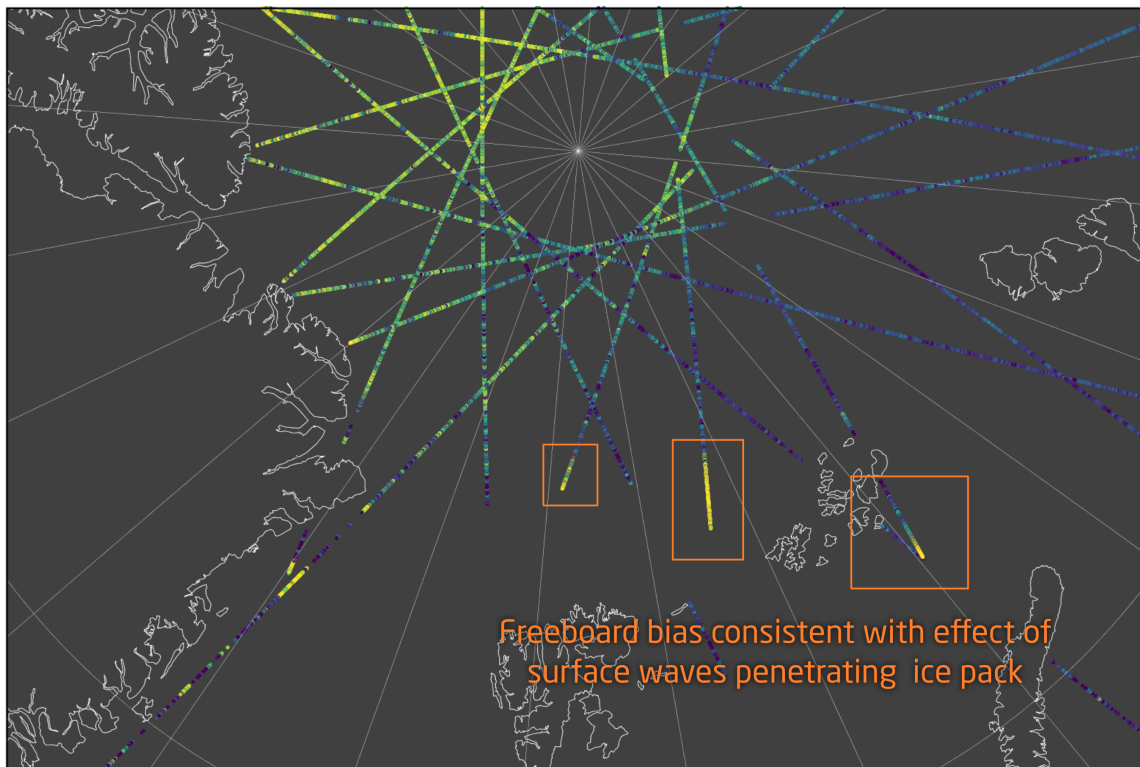


Effect of Ice-Penetrating Surface Waves on Sea Ice Altimetry

A major low pressure system passed through the Barents Sea on February 5, 2018 transporting significant amount of warm air masses to the central Arctic (overview e.g. [Arctic News](#), [Arctic Sea Ice Blog](#)). It also generated high surface waves in the sea-ice free area north of Spitsbergen. The retrieved freeboard in CryoSat-2 [NRT product](#) shows how far these waves penetrated into the sea ice since the presence of surface waves causes the freeboard to be biased high (see map below). While this is an unwanted effect and a shortcoming of the algorithm, it can be used to study surface wave penetration into the marginal ice zone.



CryoSat-2

5. February 2018

(cs2awi v2.0 NRT)

