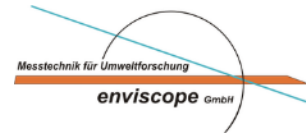
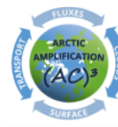




UNIVERSITÄT
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Max-Planck-Institut
für Meteorologie



First Quicklooks and Potential of VELOX Measurements

HALO-(AC)3 Quicklook Meeting, 26 March 2022

M. Schäfer, A. Ehrlich, J. Röttebacher, B. Kirbus, M. Wendisch et al.

Contact: michael.schaefer@uni-Leipzig.de

VELOX - Video airborne Longwave Observations within six channels

Spectral channels:

1. 7.7 - 12 (broadband)
2. 8.4 - 8.9
3. 11.3 - 12.0 } (clouds)
4. 10.6 - 11.0
5. 11.7 - 12.0 } (surface)
6. 9.6 - 11.5 (KT19)

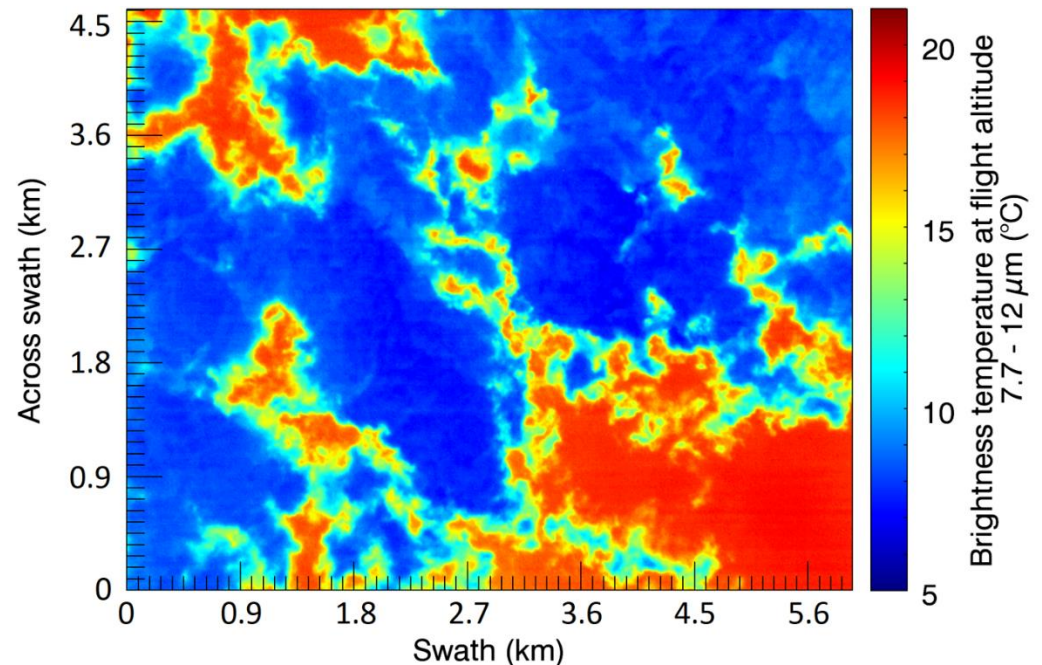
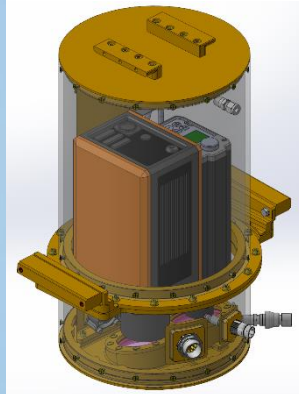
Resolution:

Spatial: (10 m at 10 km distance)

- 640 × 512 Pixels
- 35.5 × 28.7° Field of view

Temporal: 100 Hz

Thermal: 40 mK NETD (without filter)

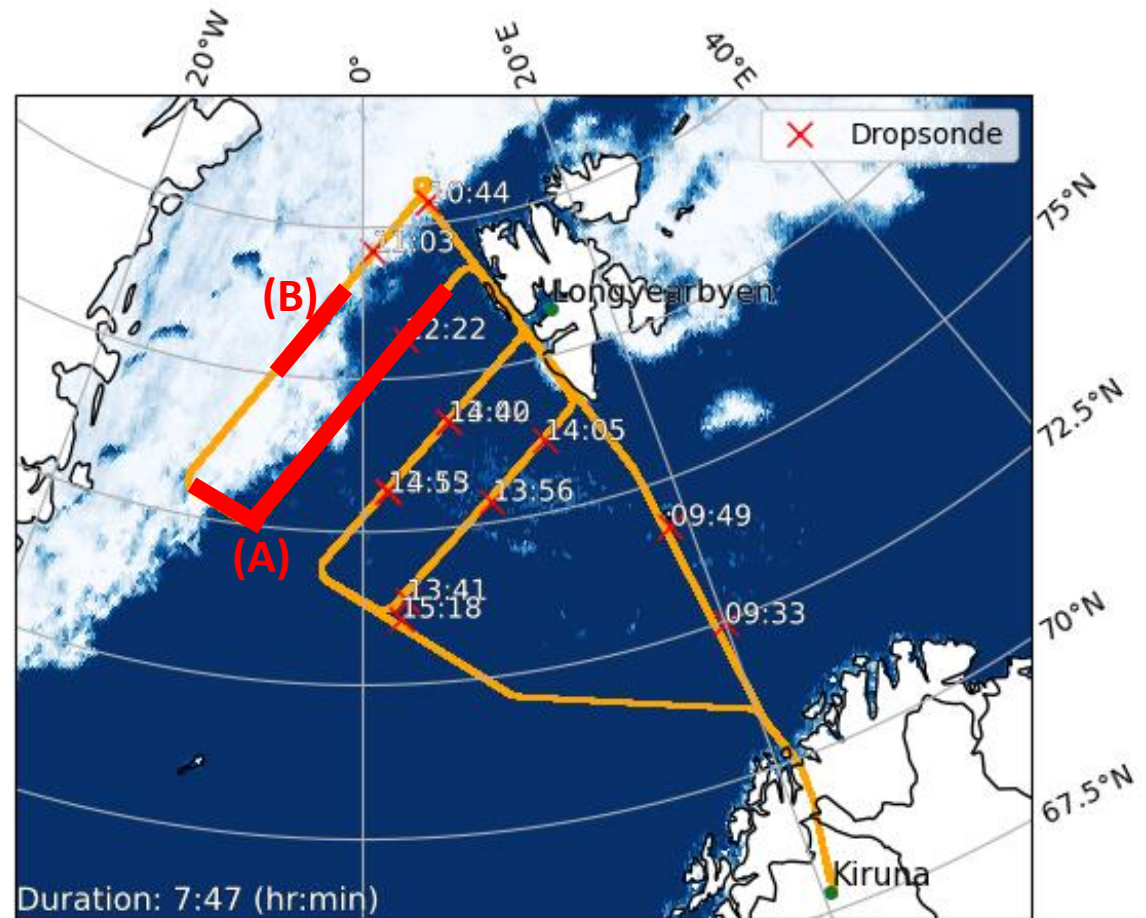


Cases from RF08 on 21 March 2022

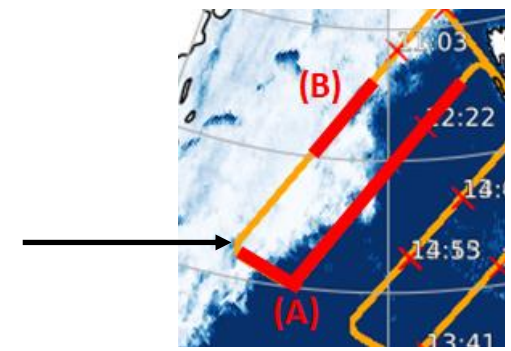
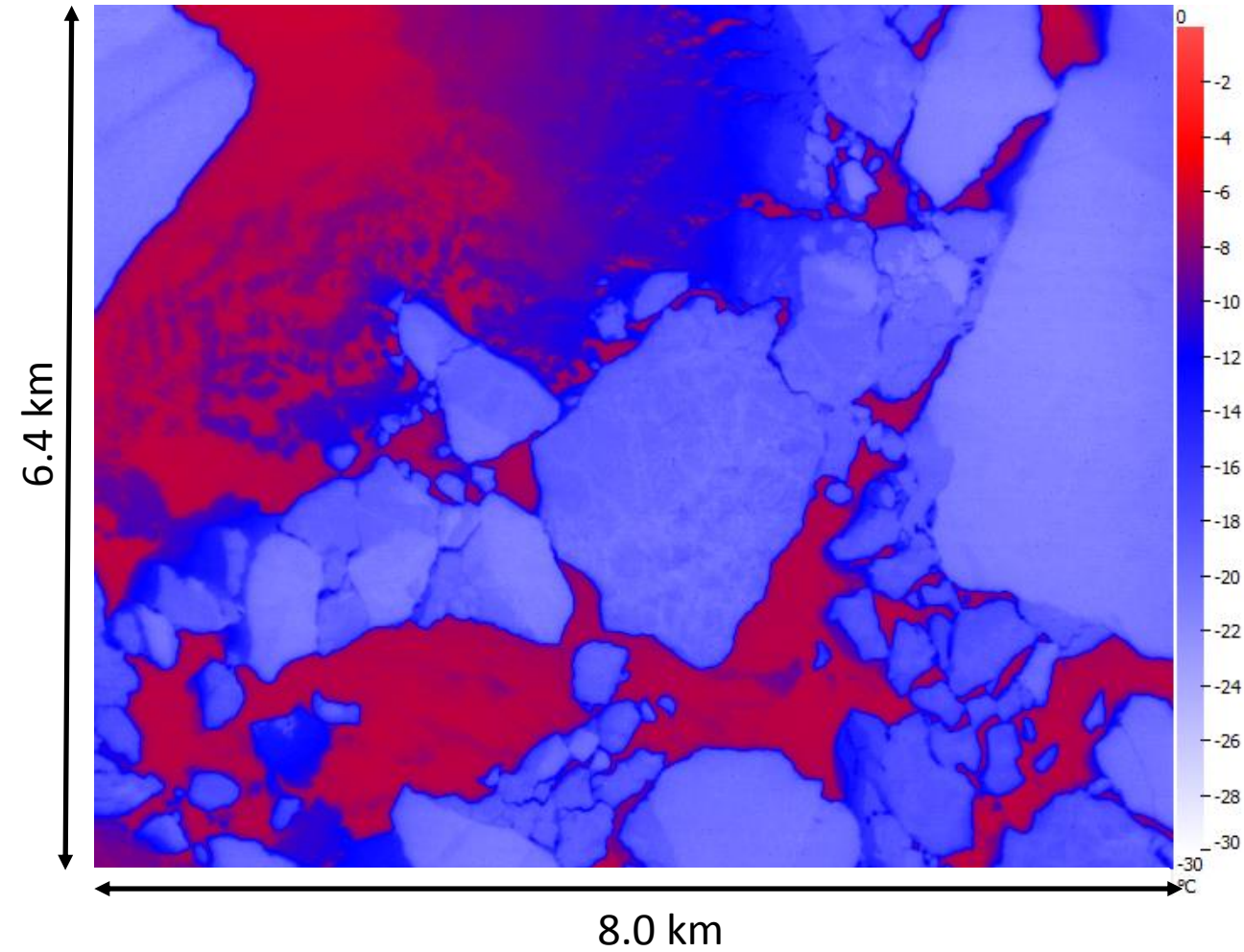
(A) Sea ice and beginning roll convection

(B) Cirrus and sea ice

(C) Full flight time series of nadir brightness temperature

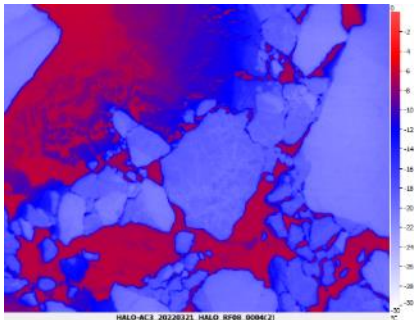
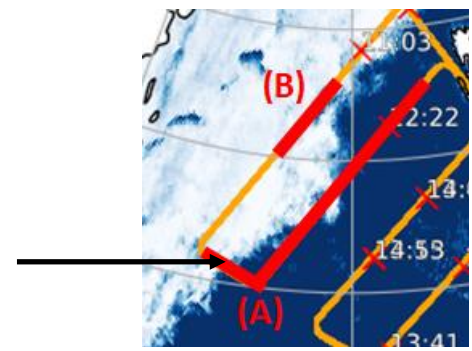
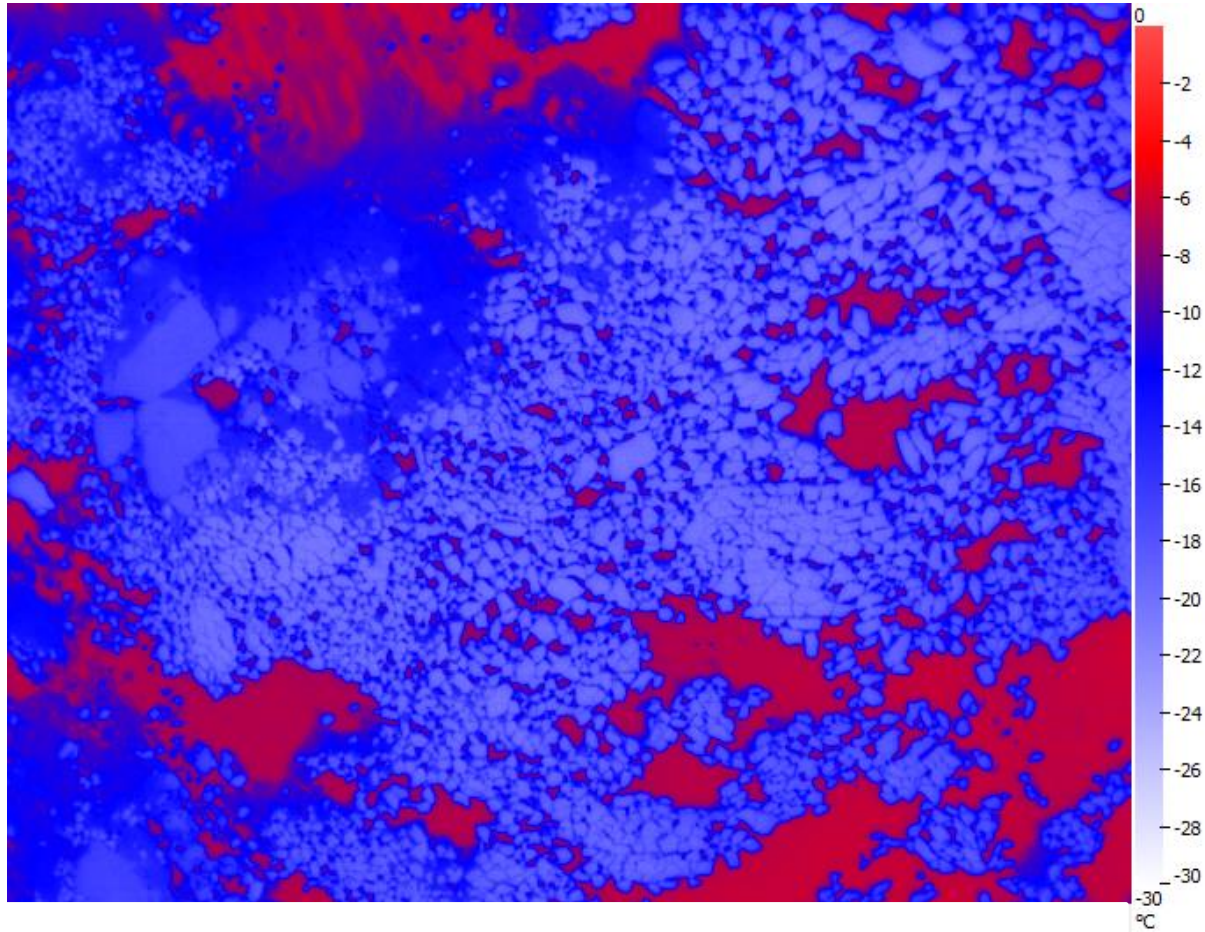


(A) Sea ice and beginning roll convection

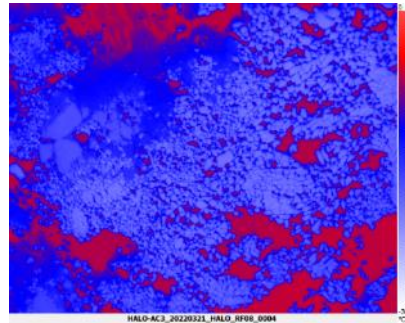
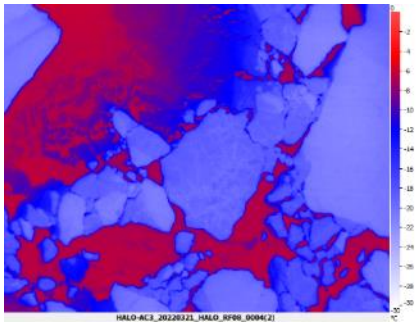
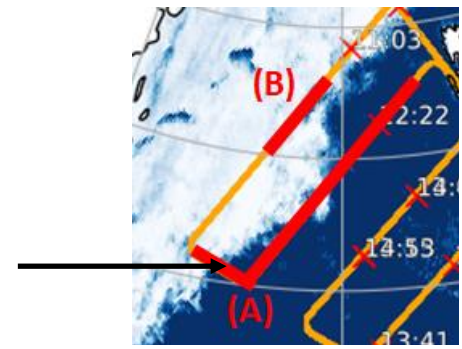
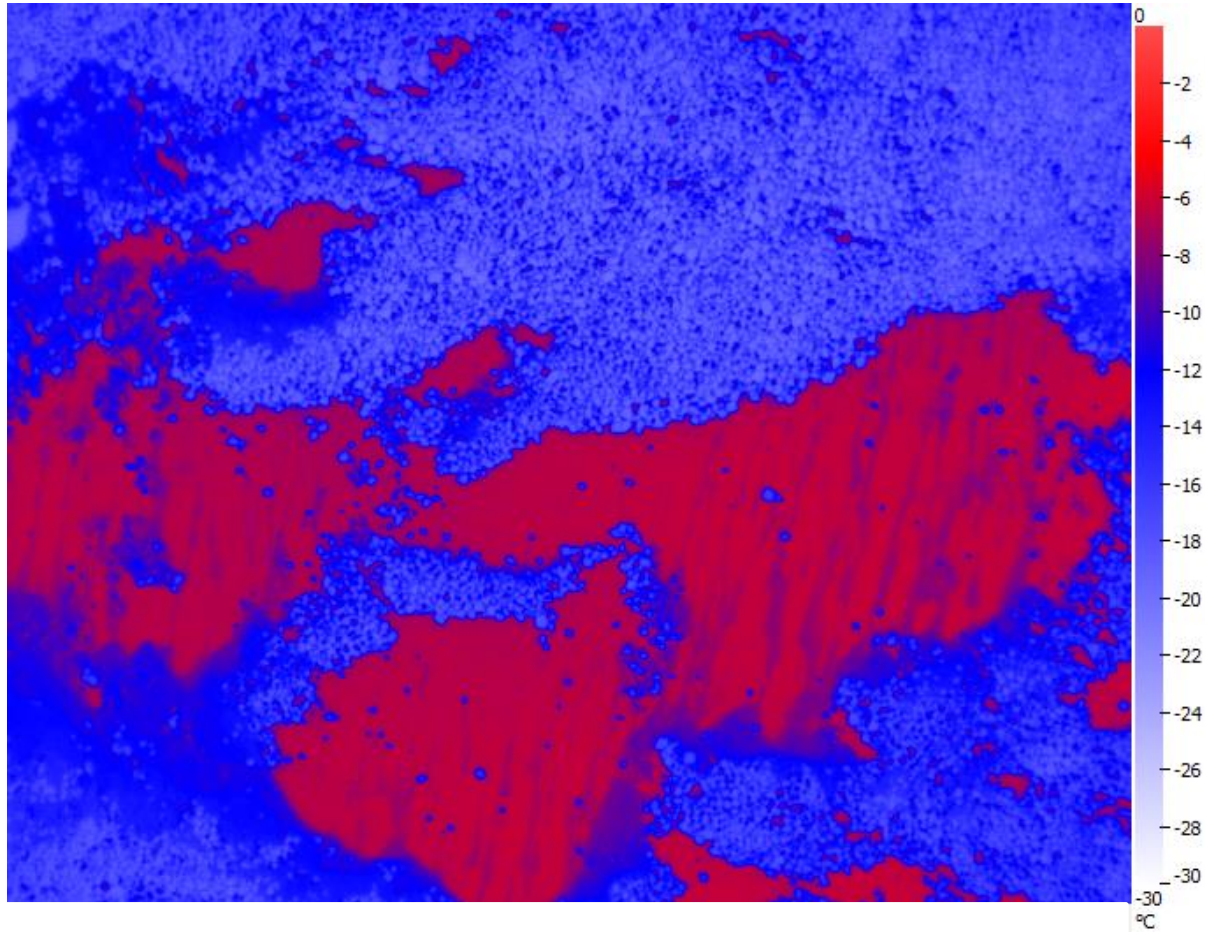


Flight direction

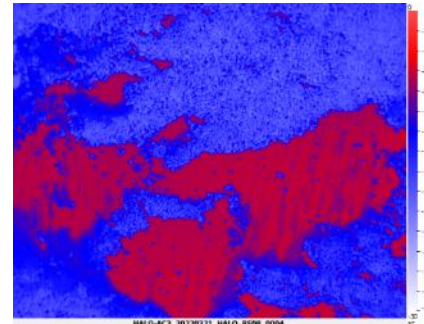
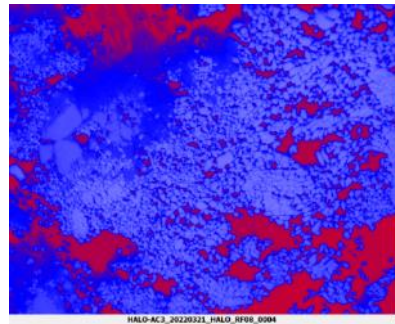
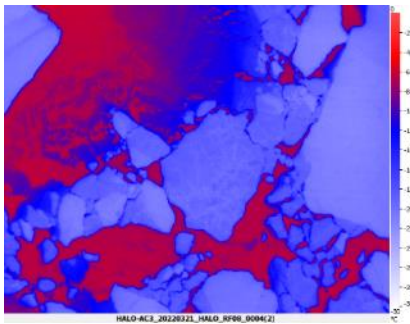
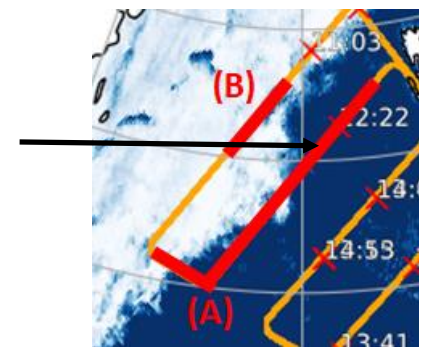
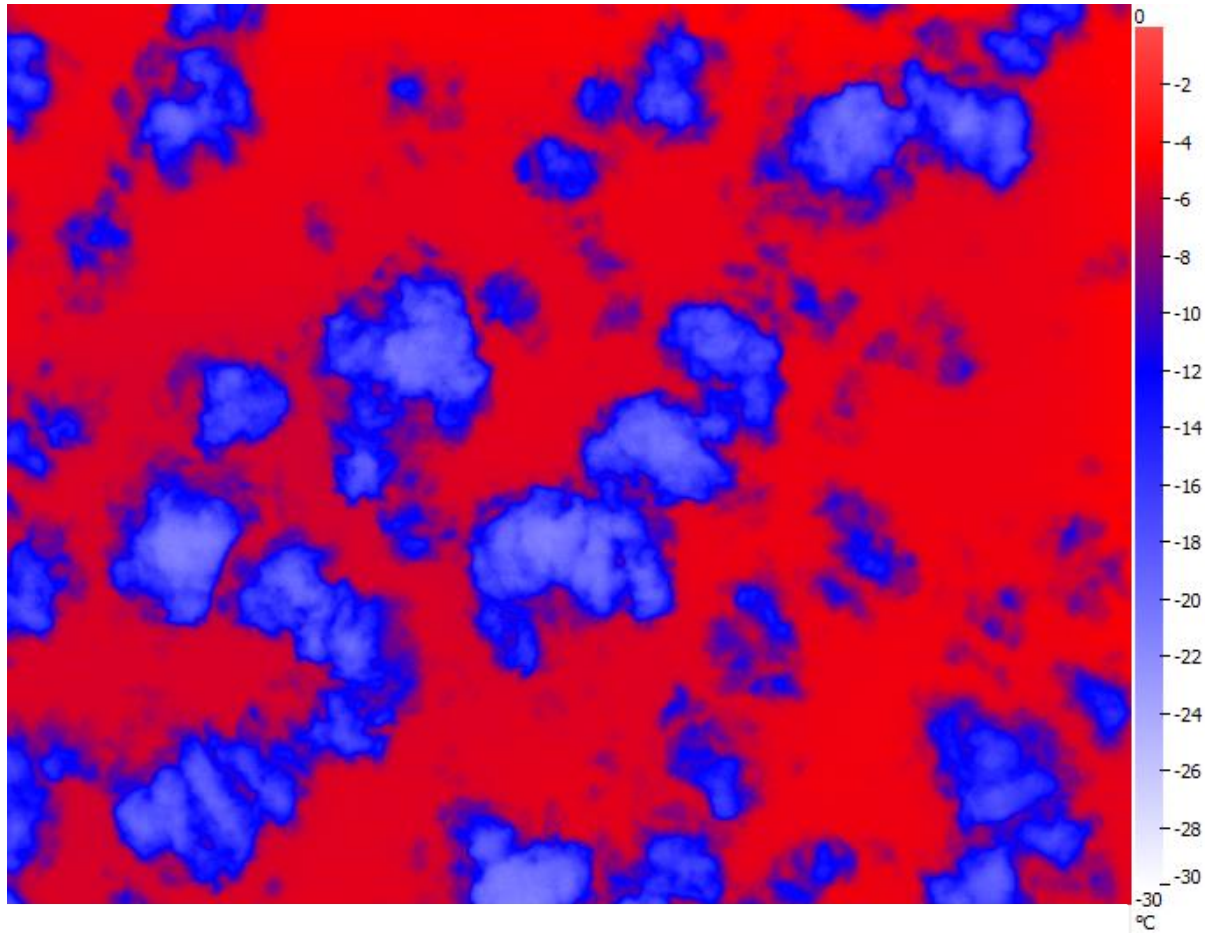
(A) Sea ice and beginning roll convection



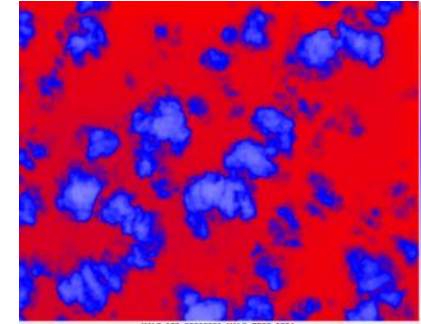
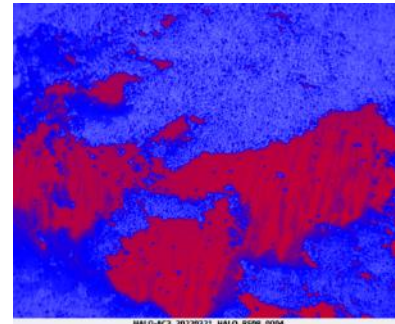
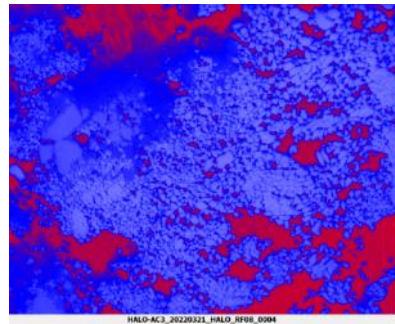
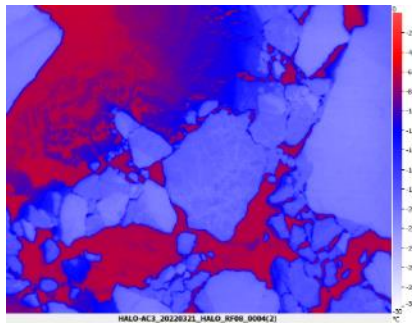
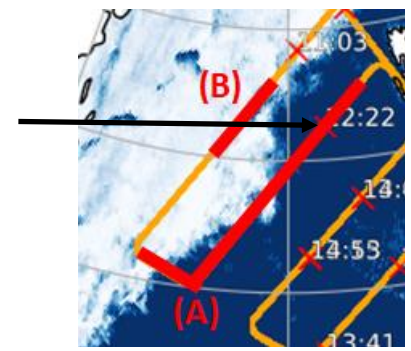
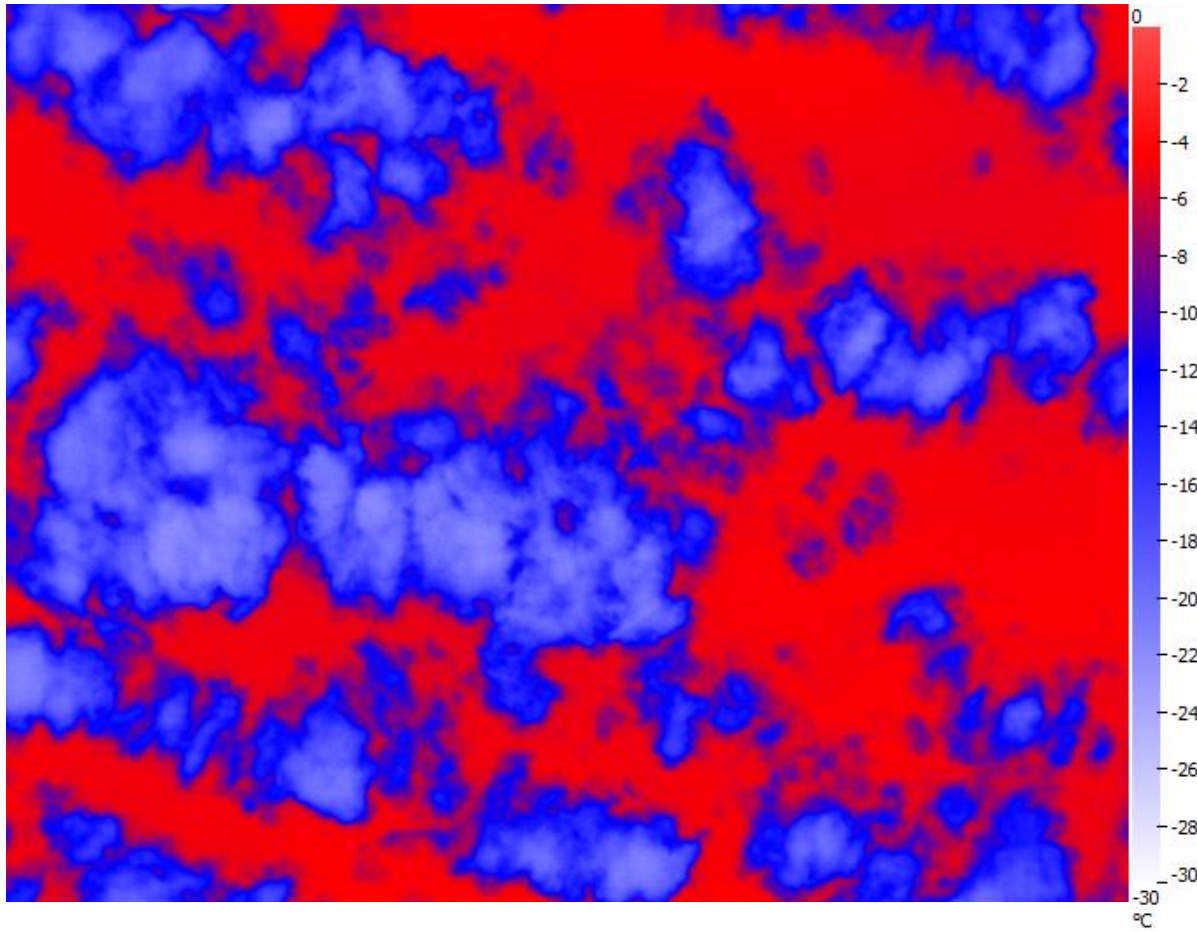
(A) Sea ice and beginning roll convection



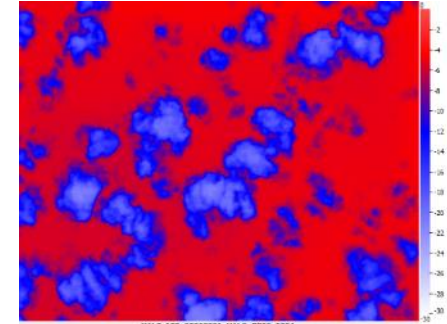
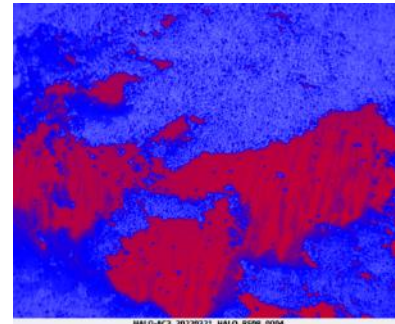
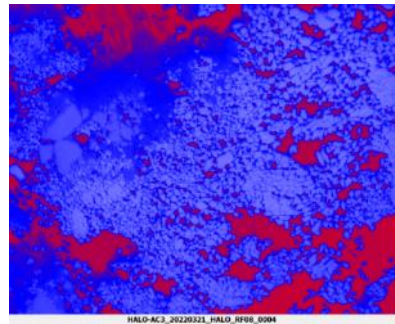
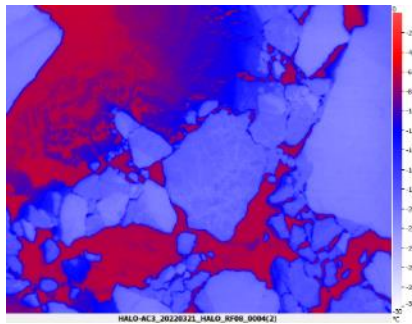
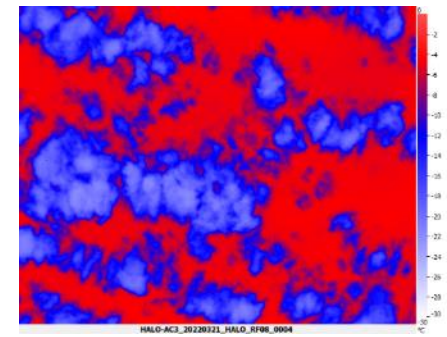
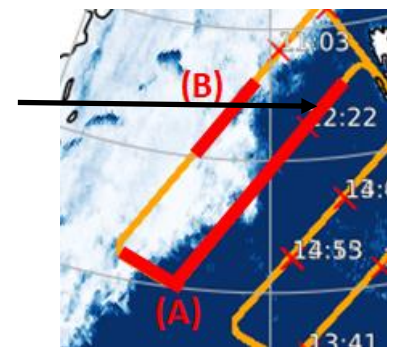
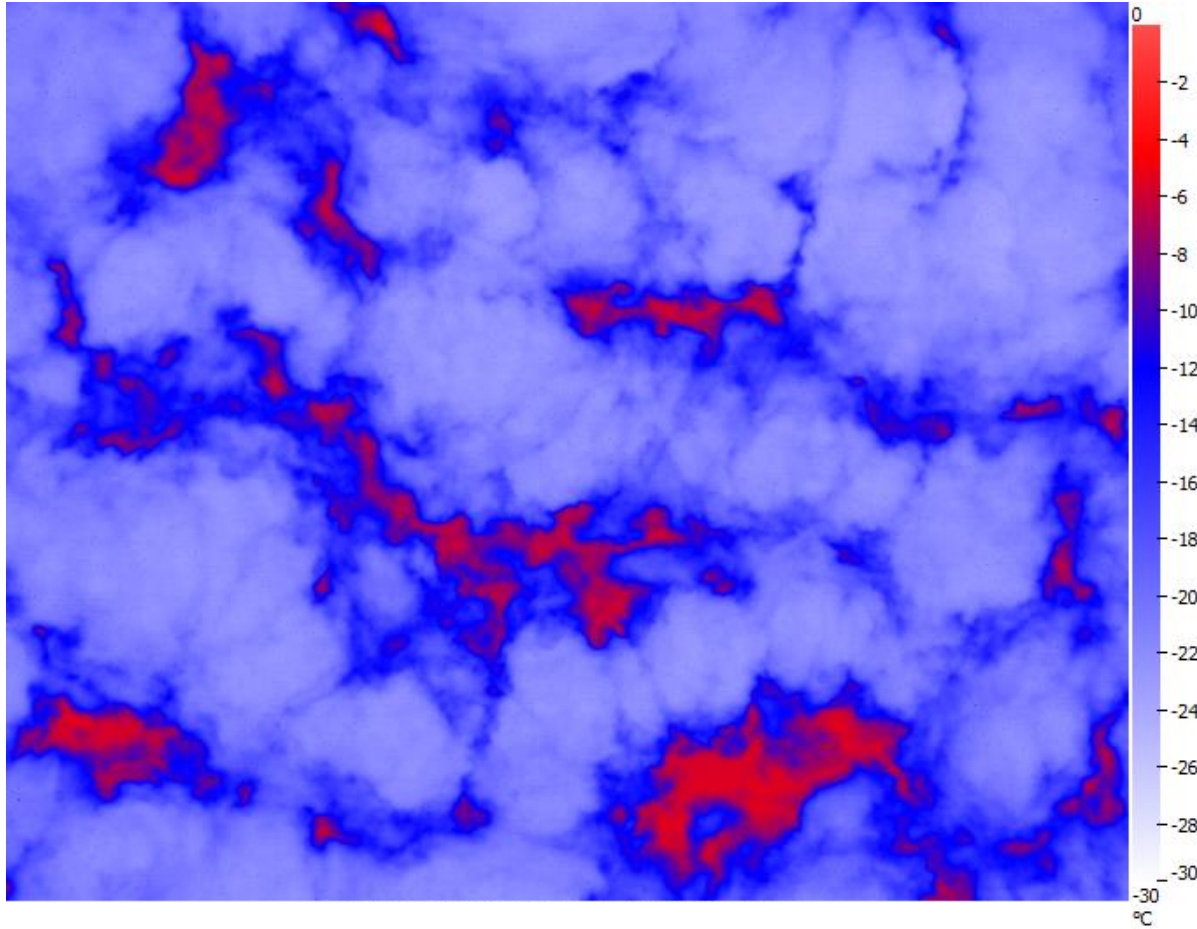
(A) Sea ice and beginning roll convection



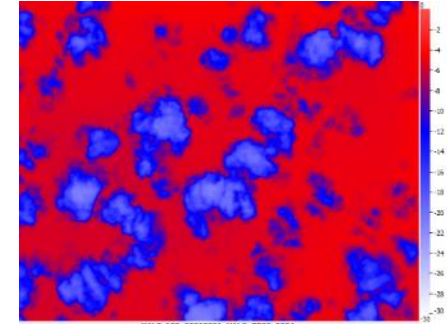
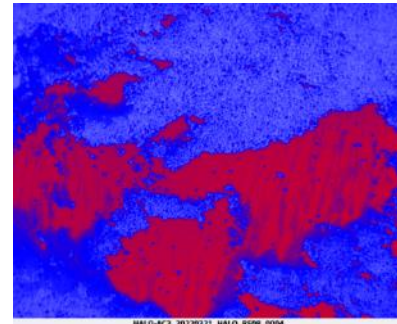
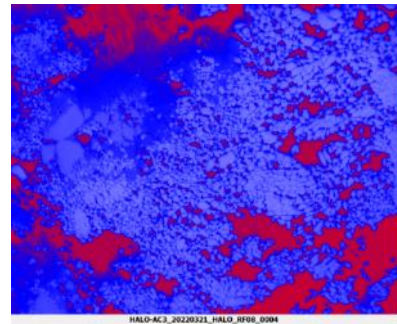
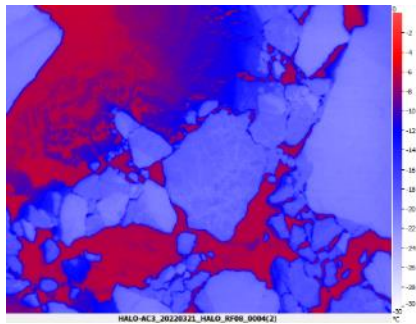
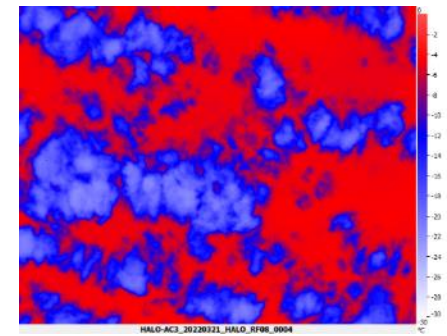
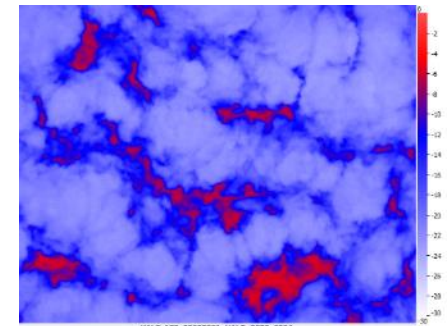
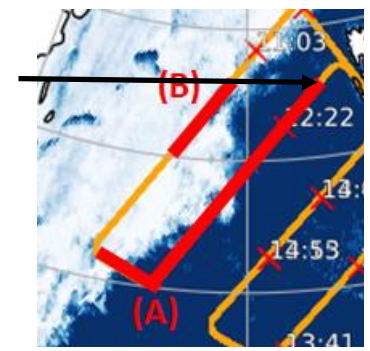
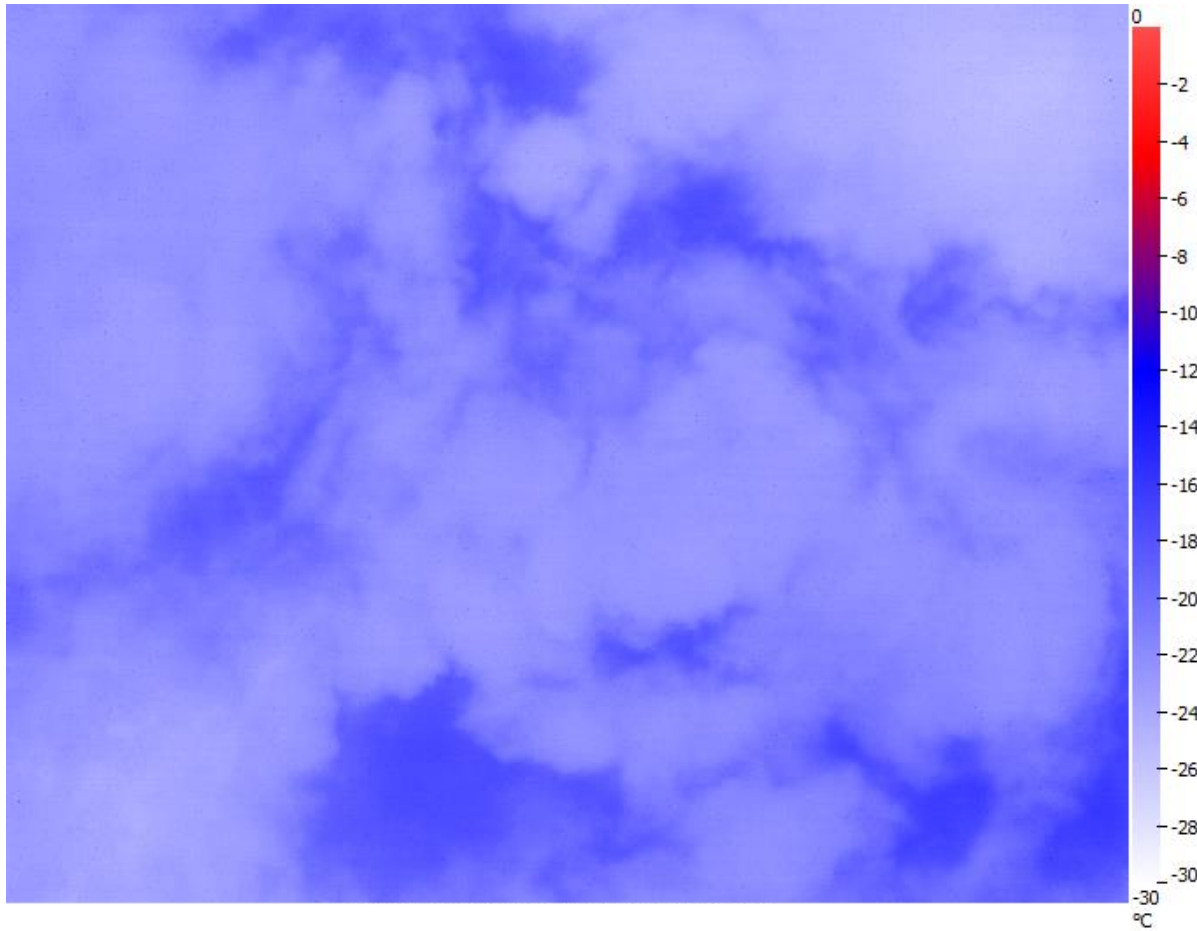
(A) Sea ice and beginning roll convection



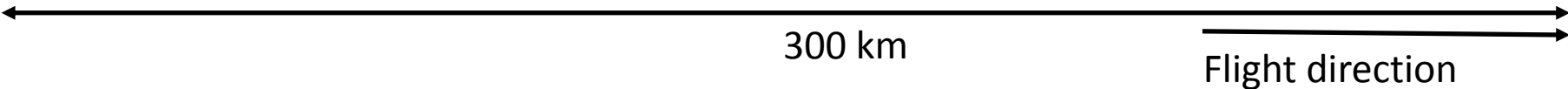
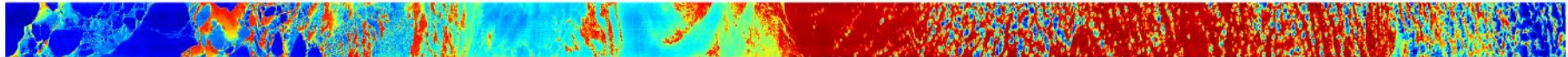
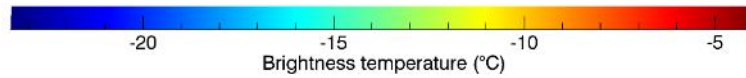
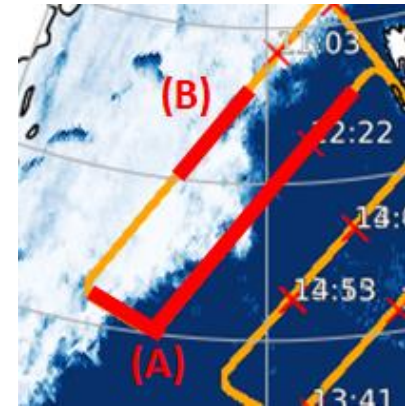
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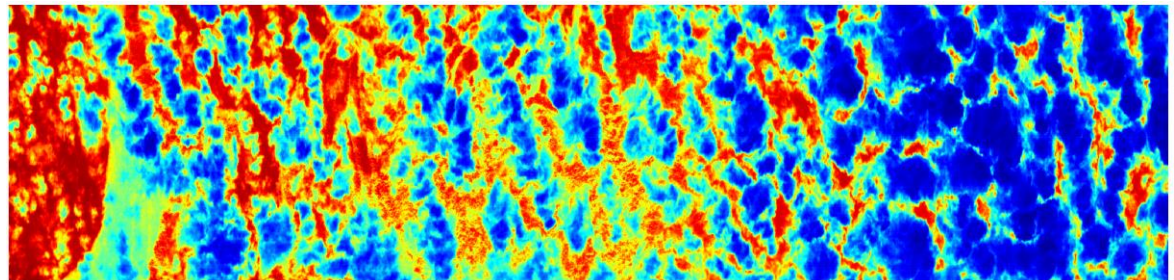
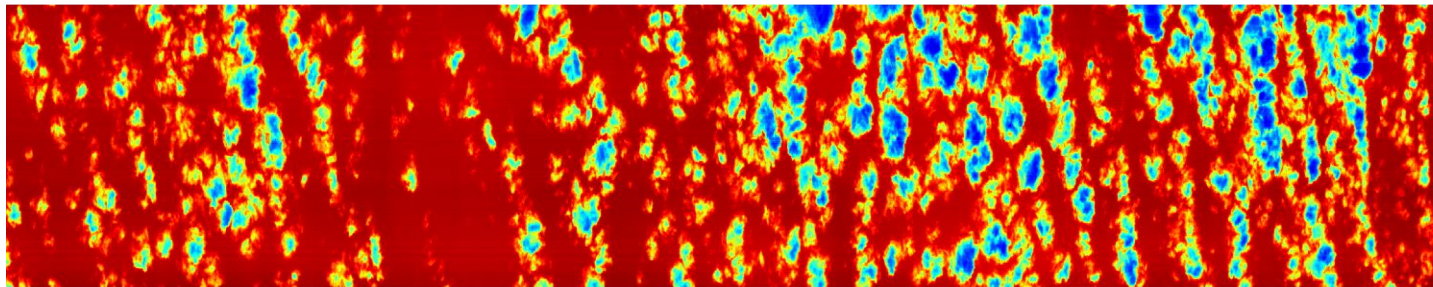
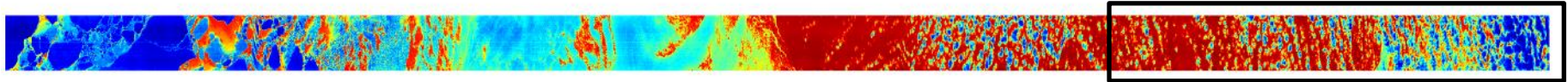
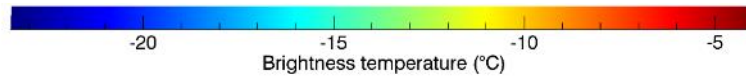
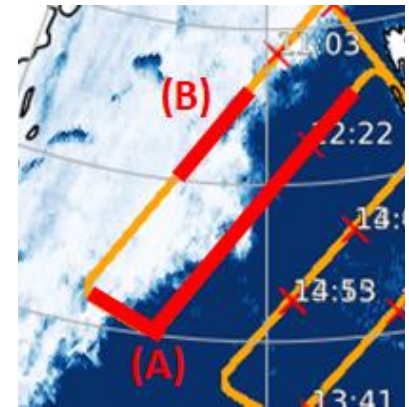
(A) Sea ice and beginning roll convection



(A) Sea ice and beginning roll convection



(A) Sea ice and beginning roll convection

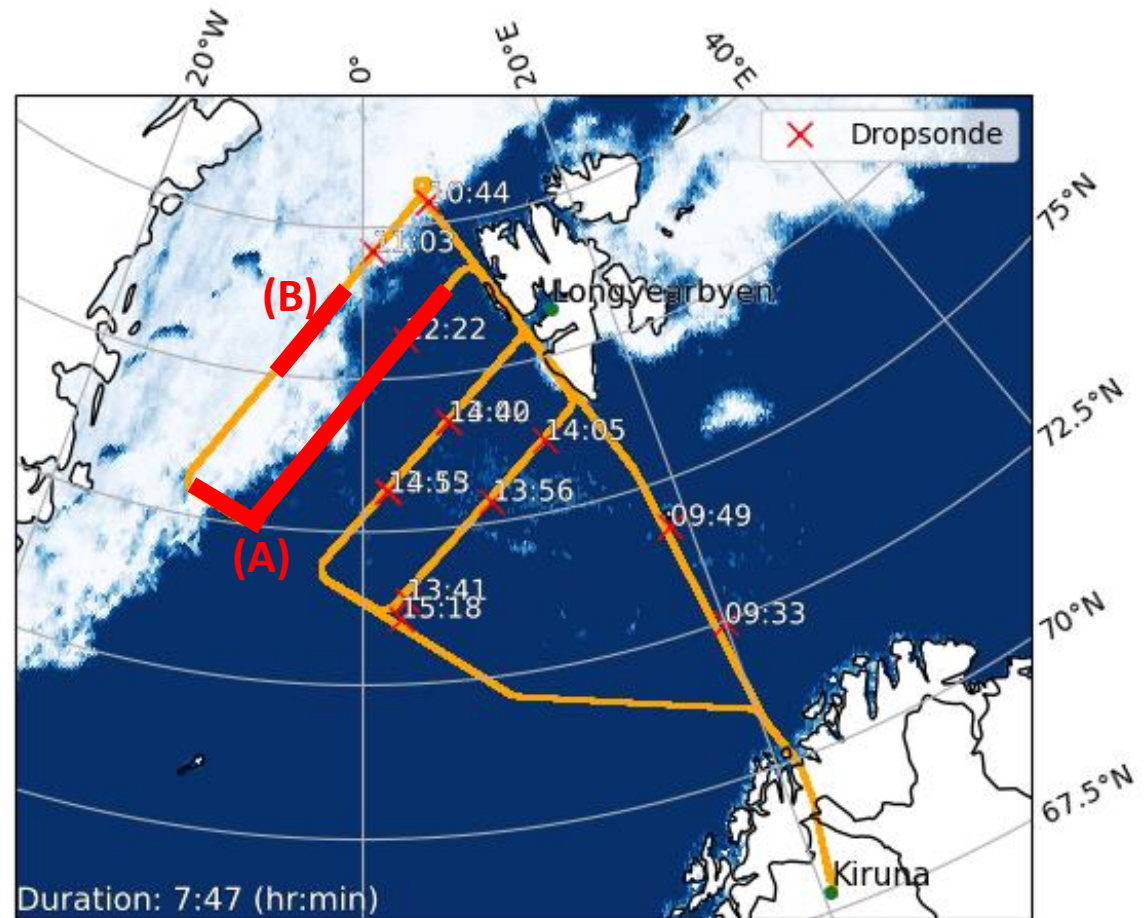


Cases from RF08 on 21 March 2022

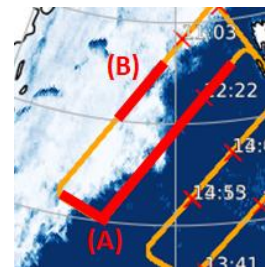
(A) Sea ice and beginning roll convection

(B) Cirrus and sea ice

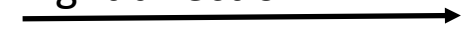
(C) Full flight time series of nadir brightness temperature



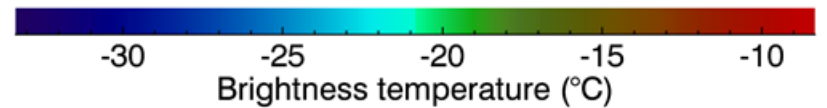
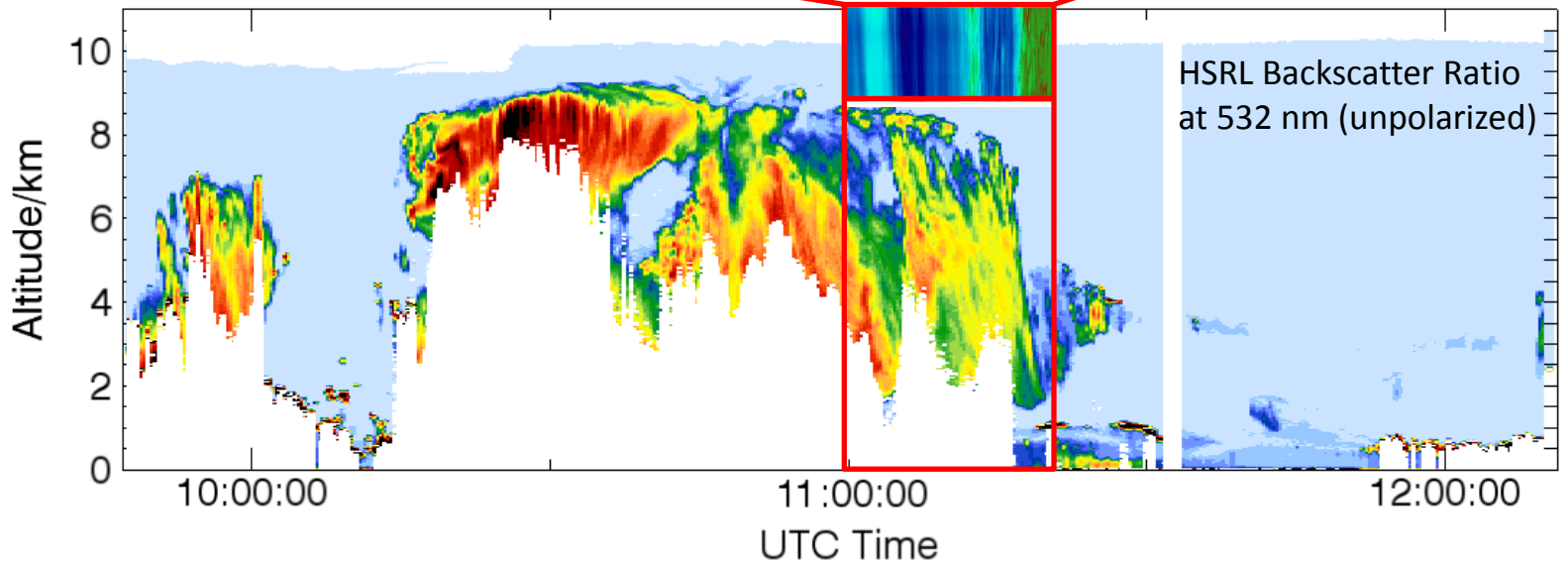
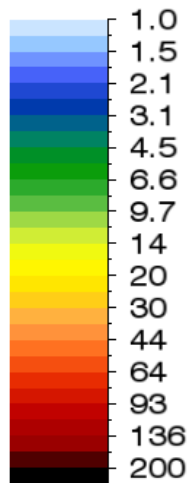
(B) Cirrus and sea ice



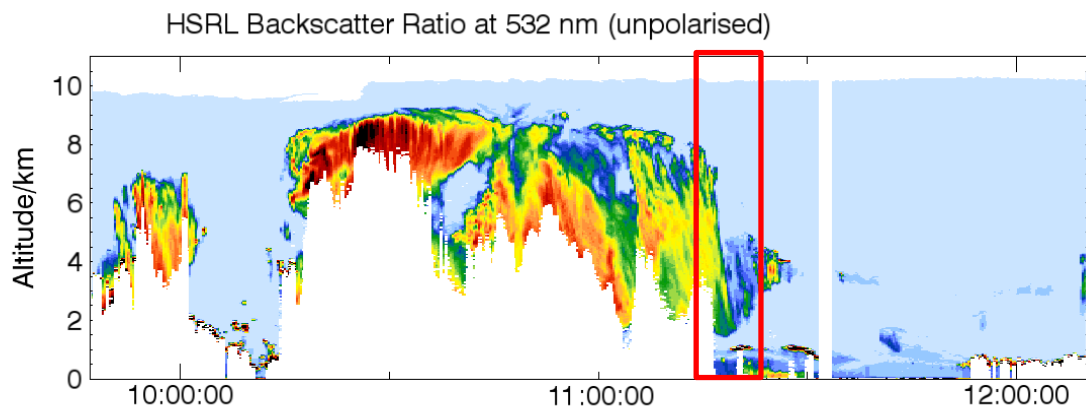
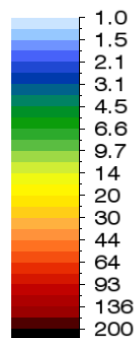
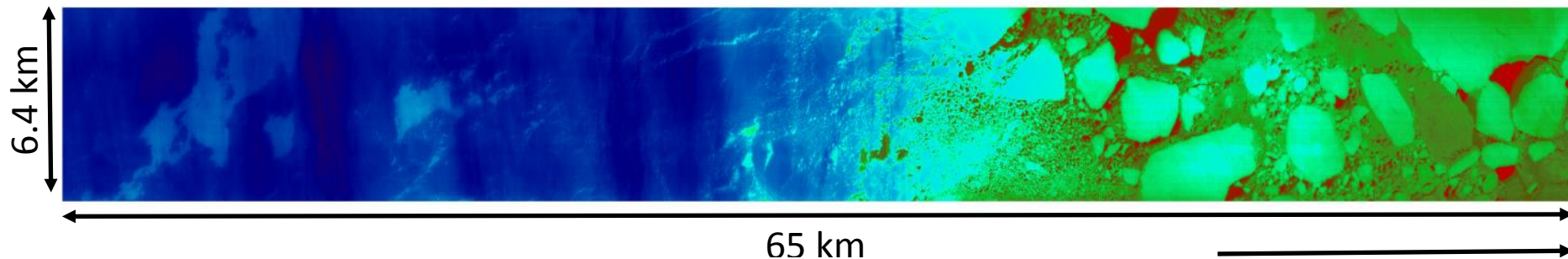
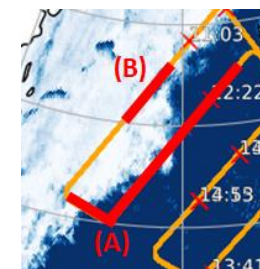
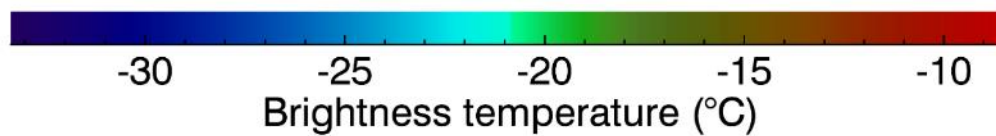
Flight direction



260 km

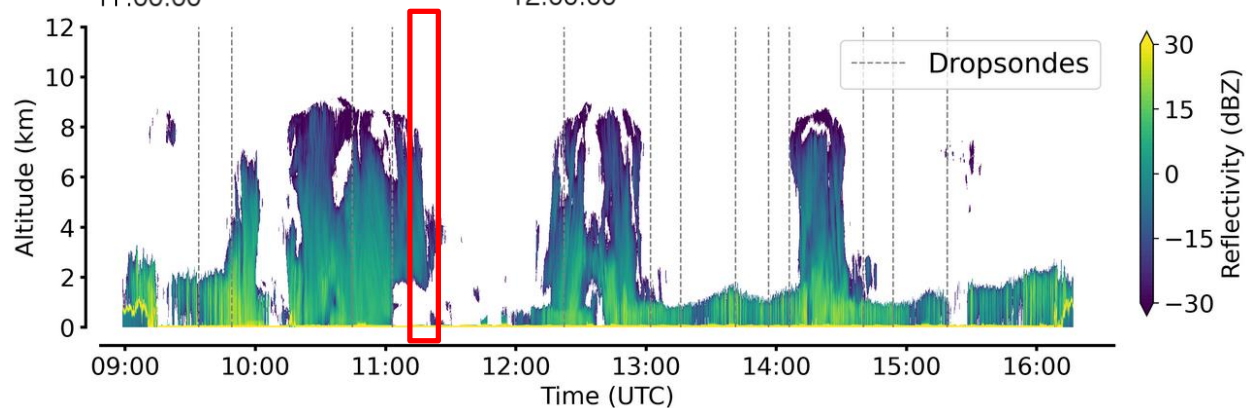


(B) Cirrus and sea ice



WALES

HAMP Radar

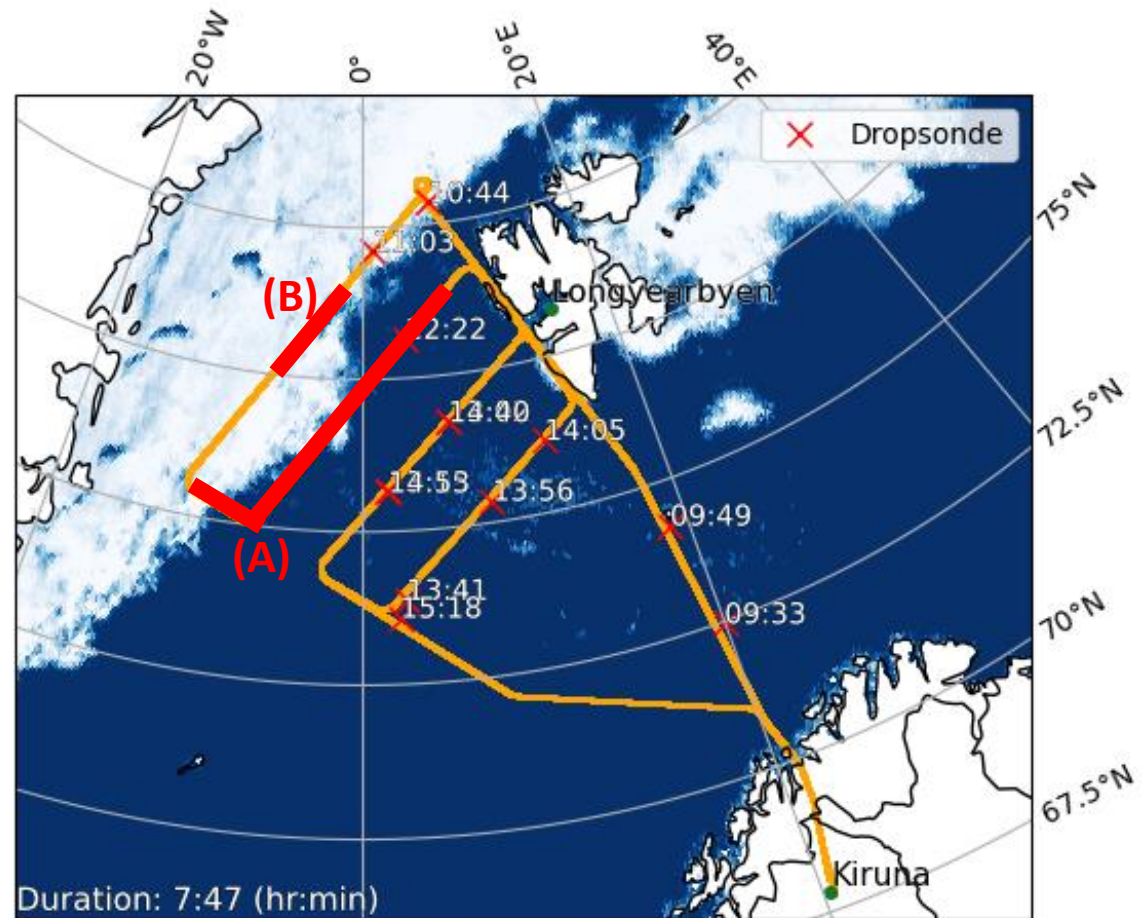


Cases from RF08 on 21 March 2022

(A) Sea ice and beginning roll convection

(B) Cirrus and sea ice

(C) Full flight time series of nadir brightness temperature



(A) Full flight time series of nadir brightness temperature

