



Latitudinal variation of geomagnetic activity in solar cycle 24

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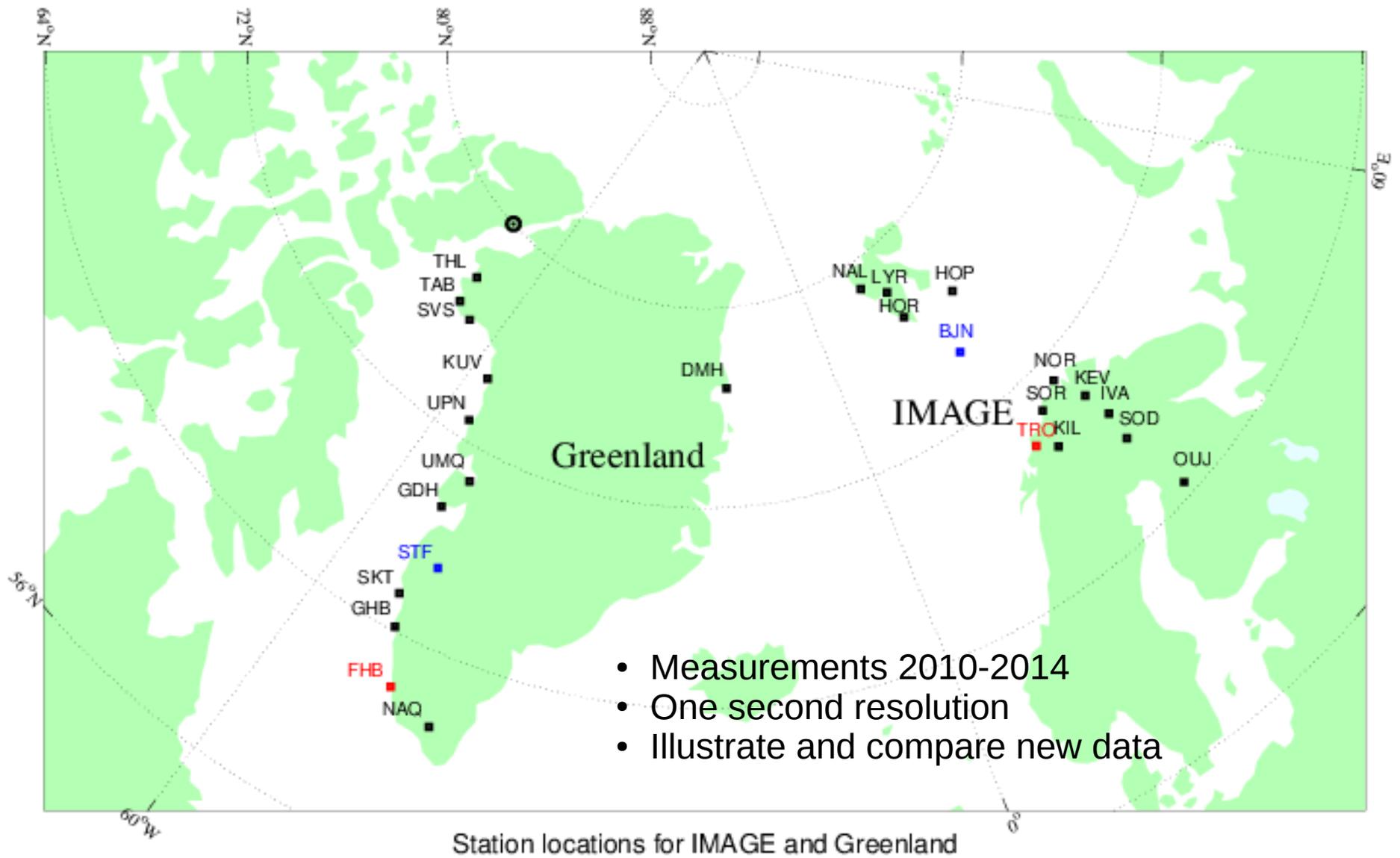
(2) Aalto University

(3) GeoForschungsZentrum Potsdam

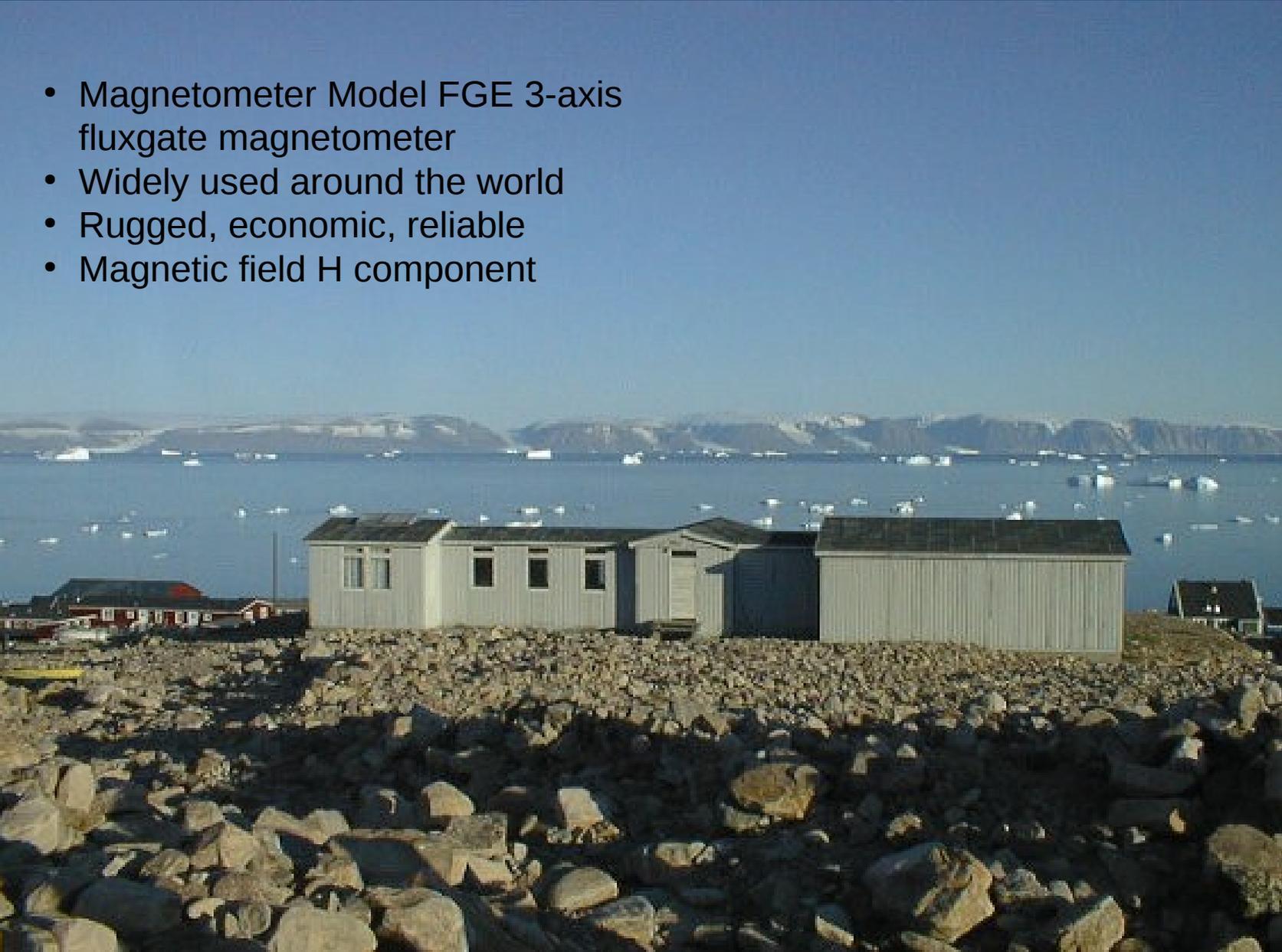
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Motive for work

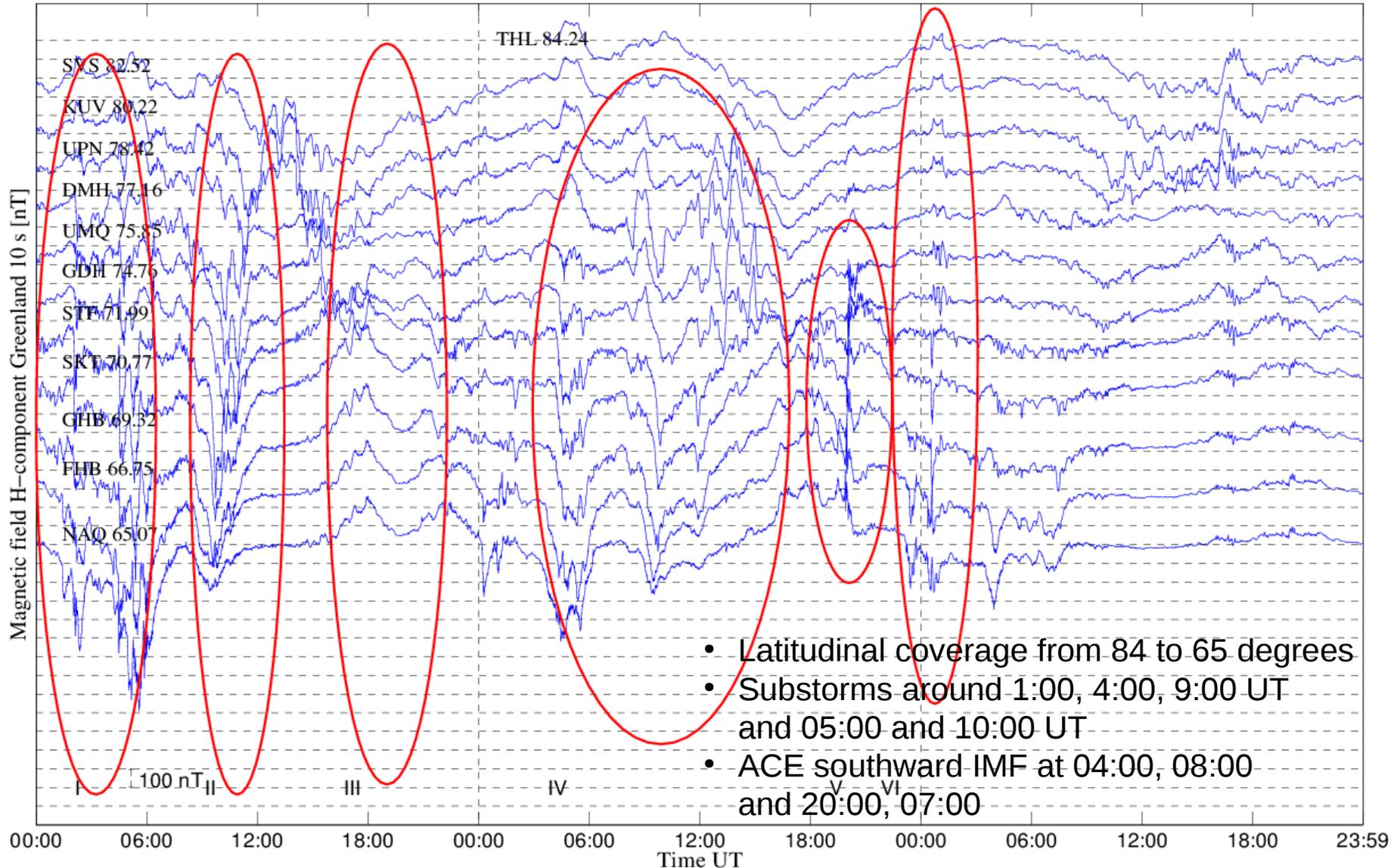


- Magnetometer Model FGE 3-axis fluxgate magnetometer
- Widely used around the world
- Rugged, economic, reliable
- Magnetic field H component



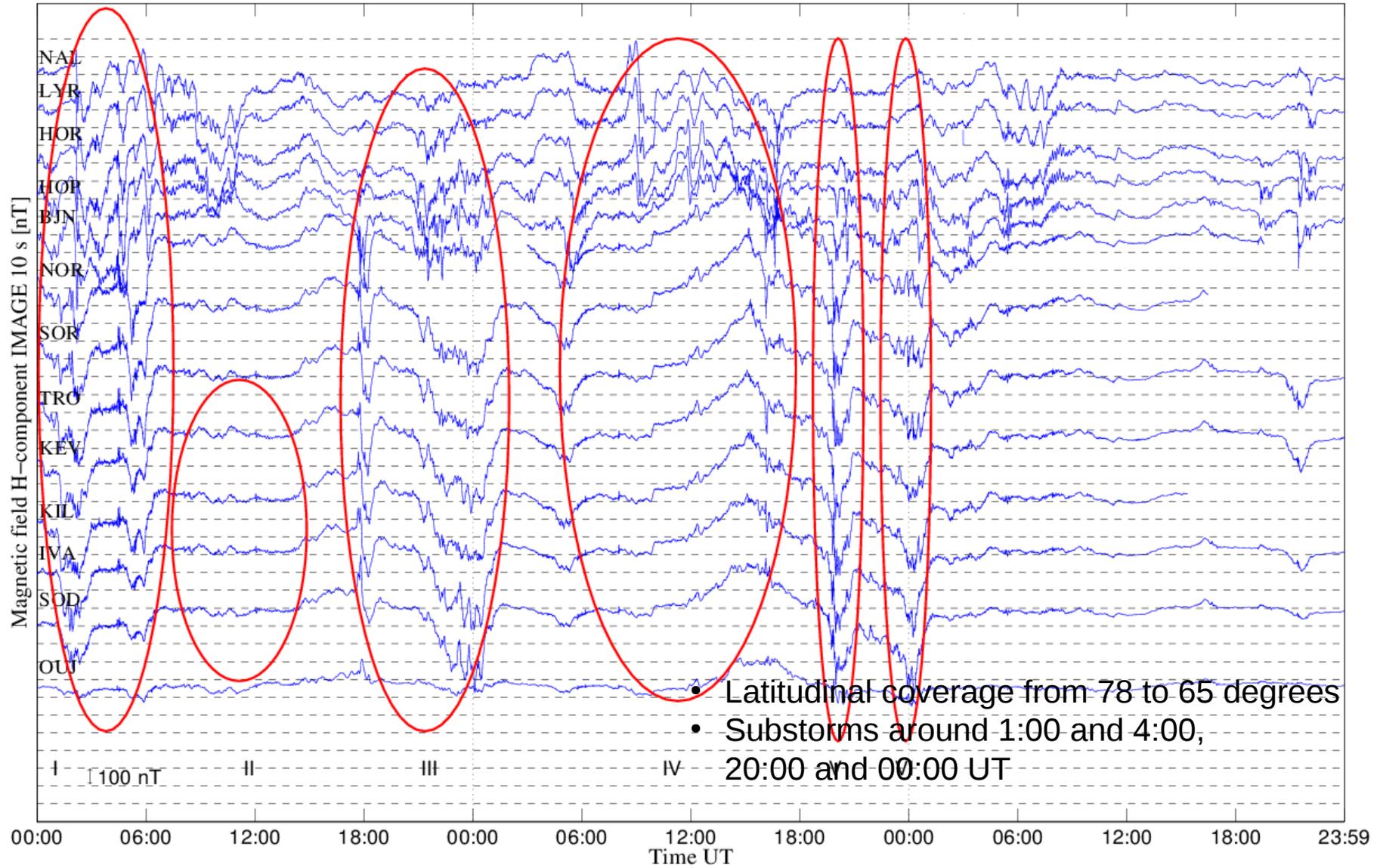
Example event Greenland

Greenland measurements on 23–25 June, 2013



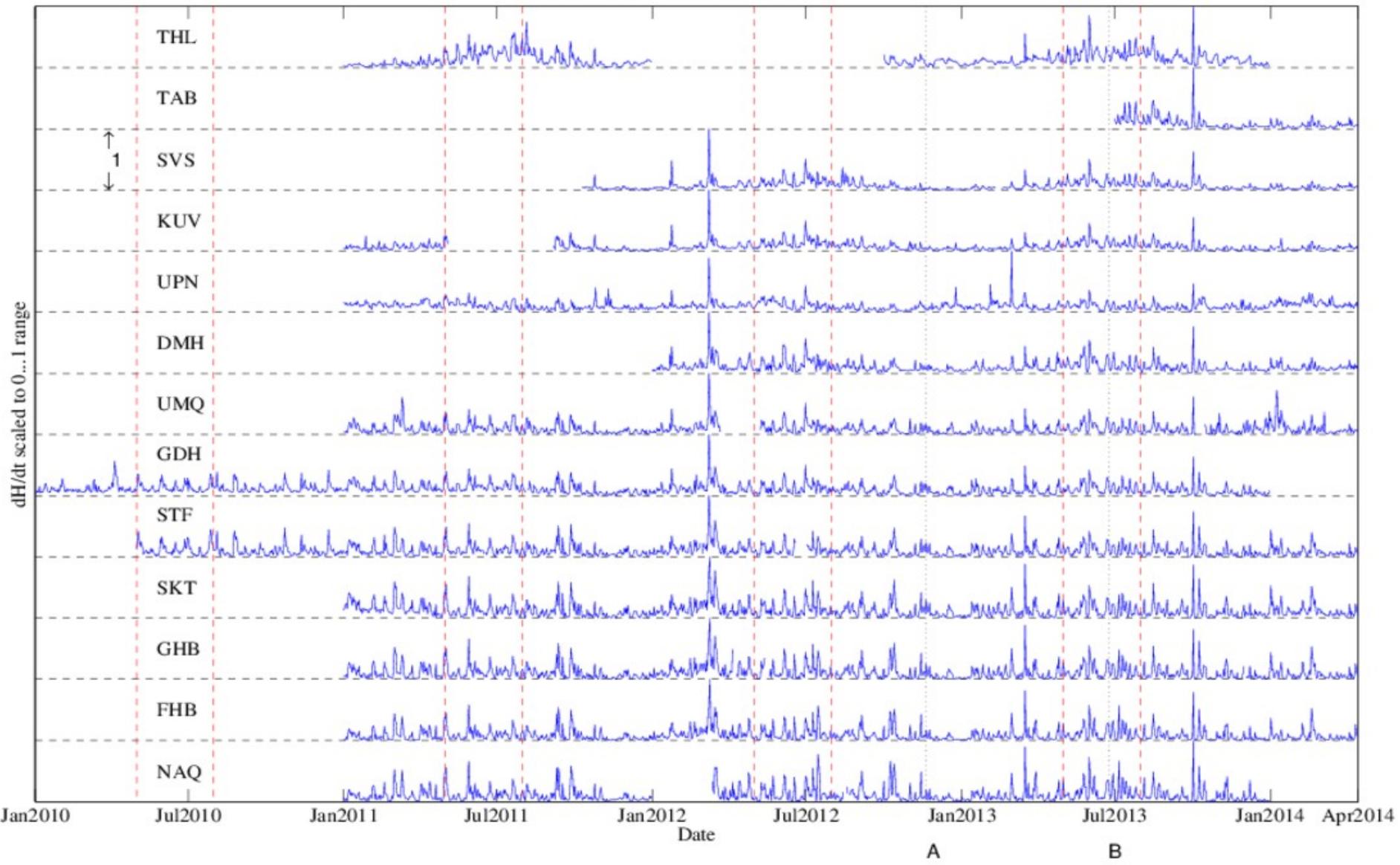
Example event IMAGE

IMAGE measurements on 23–25 of June, 2013

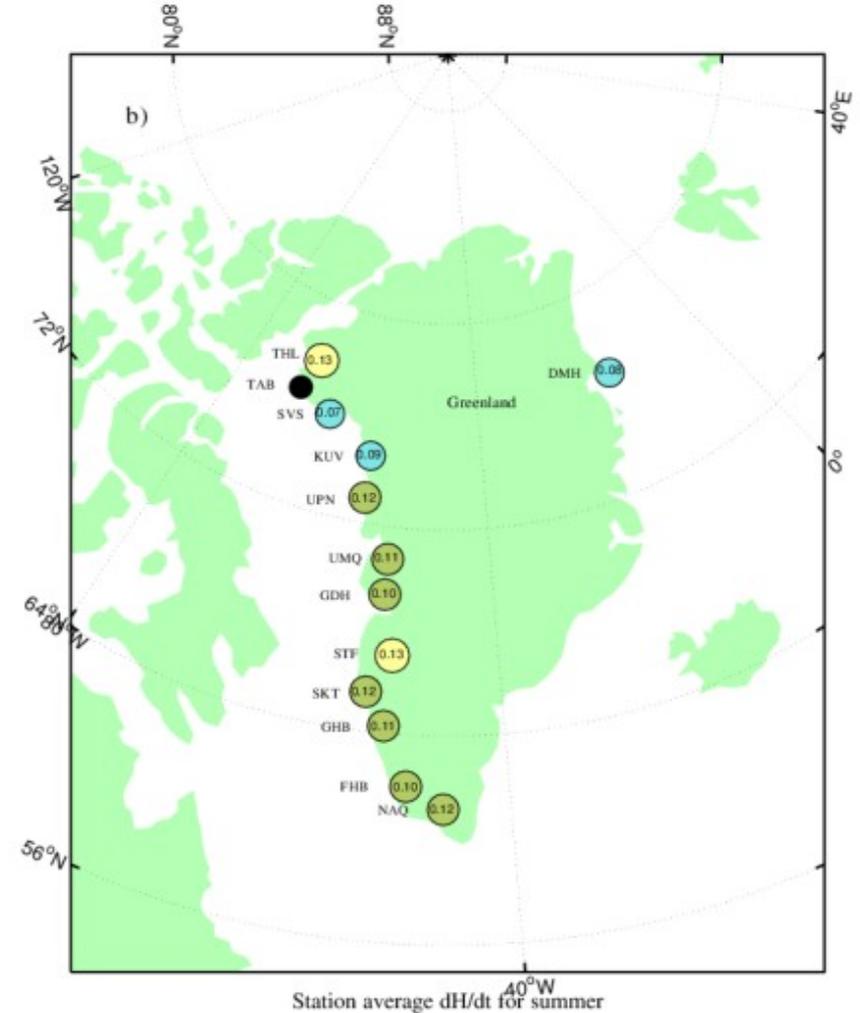
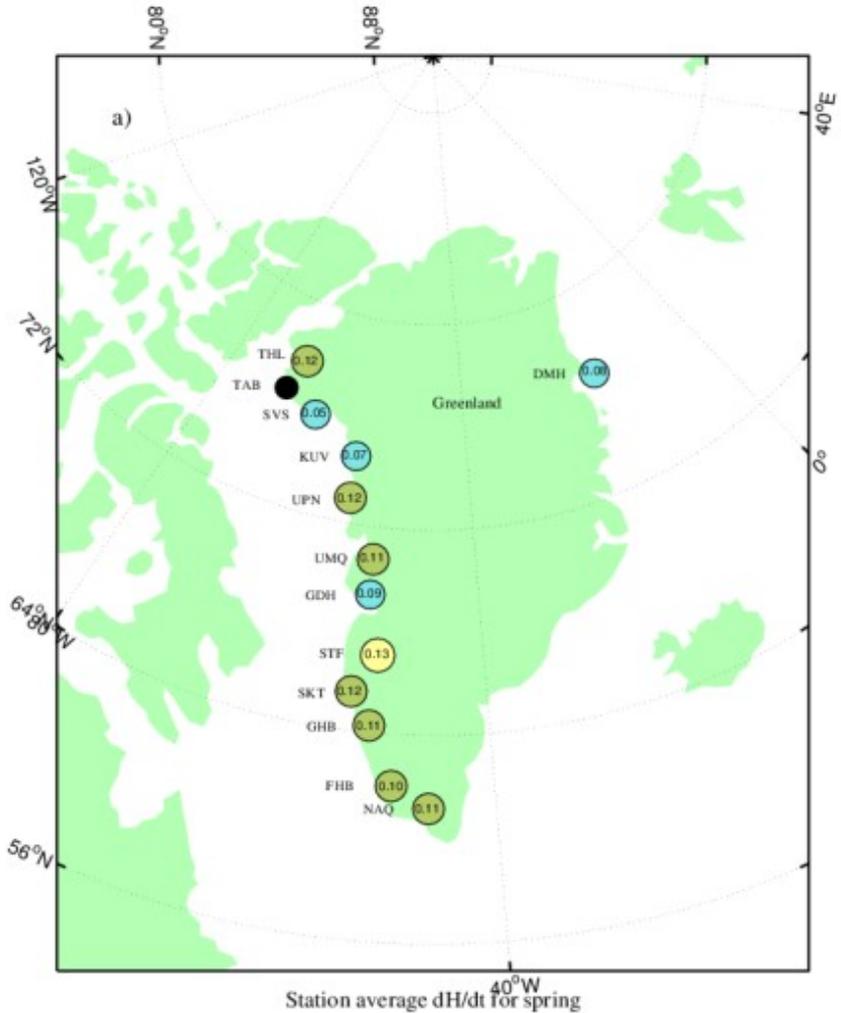


dH/dt full timeline

Greenland dH/dt plot 2010–2014

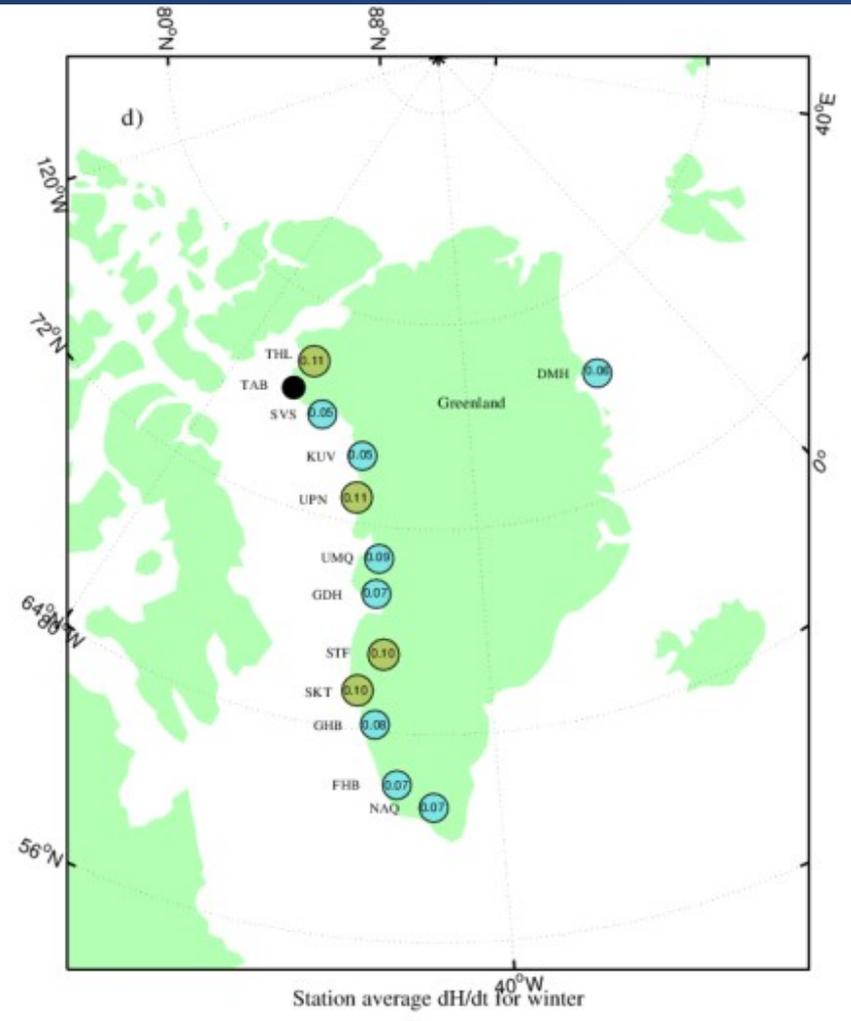
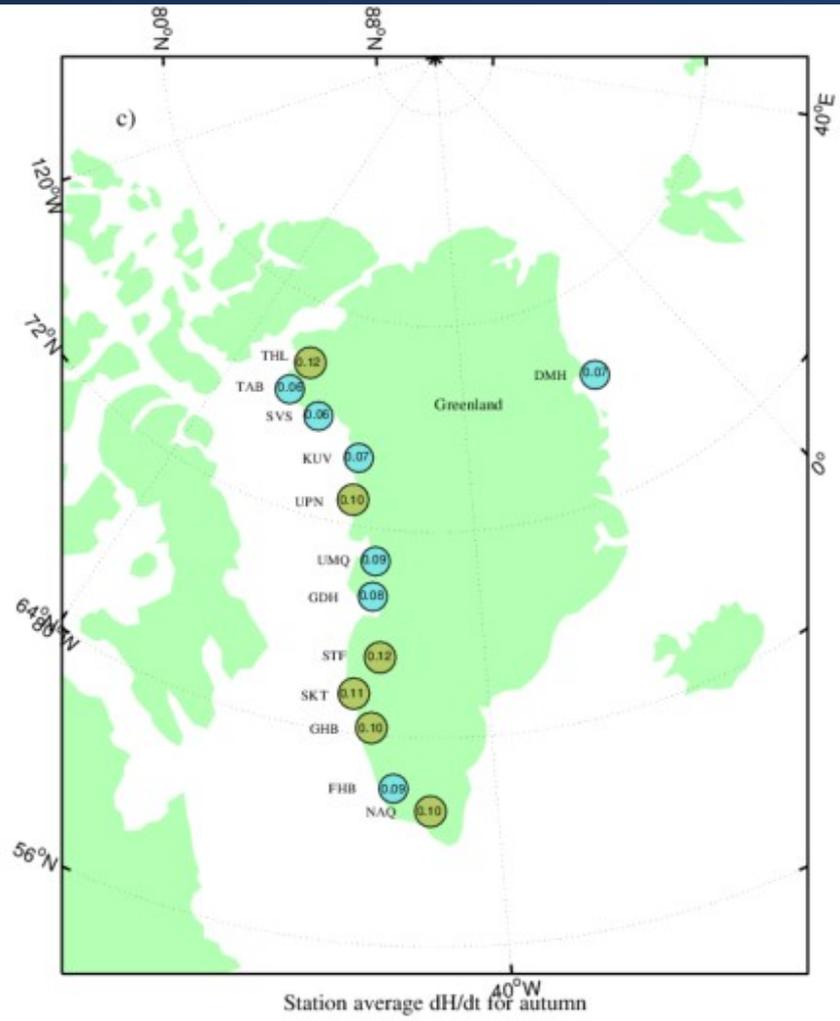


Seasonal dH/dt



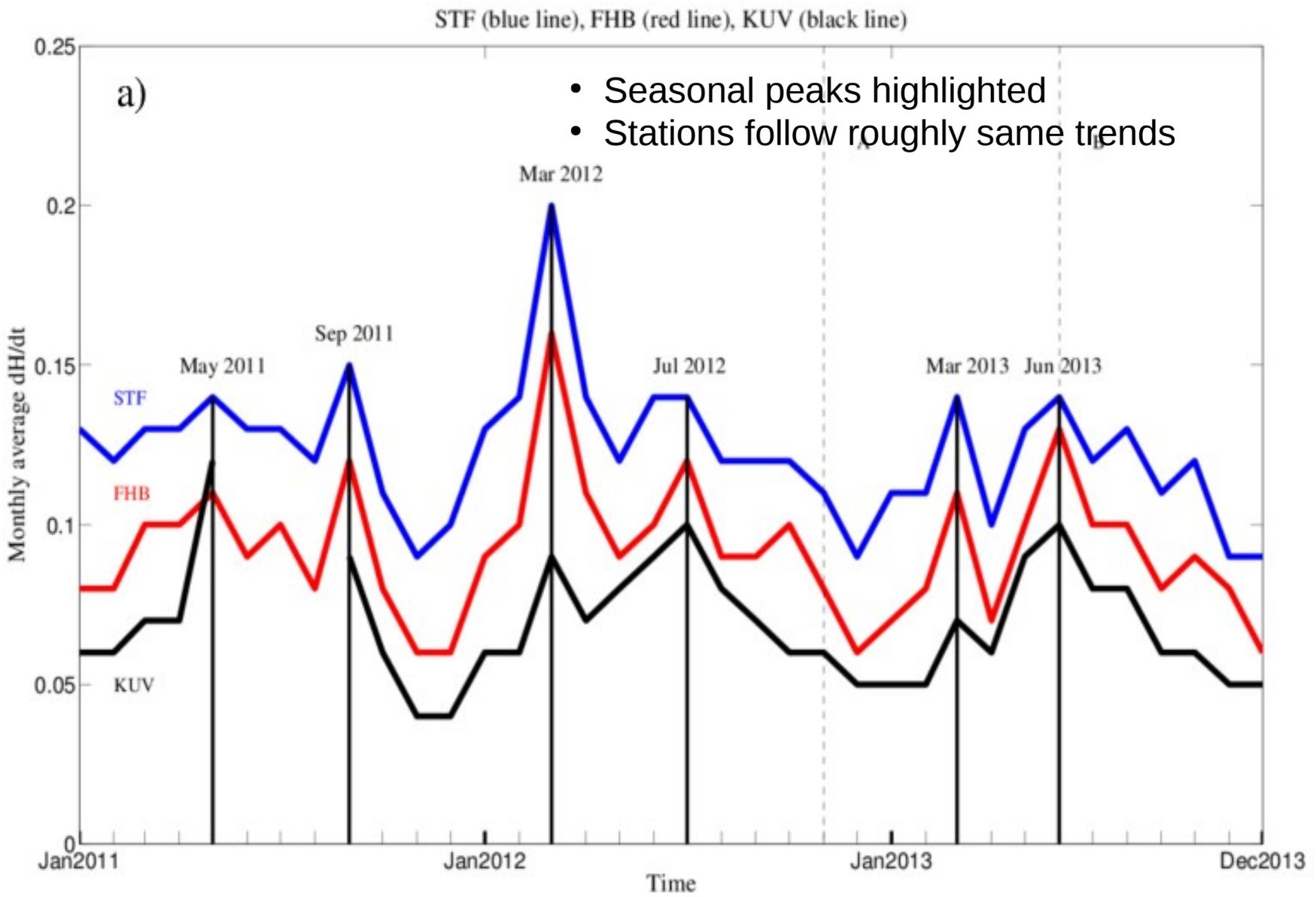
- Latitudinal coverage largest during summer
- Disturbances highest during spring

Seasonal dH/dt



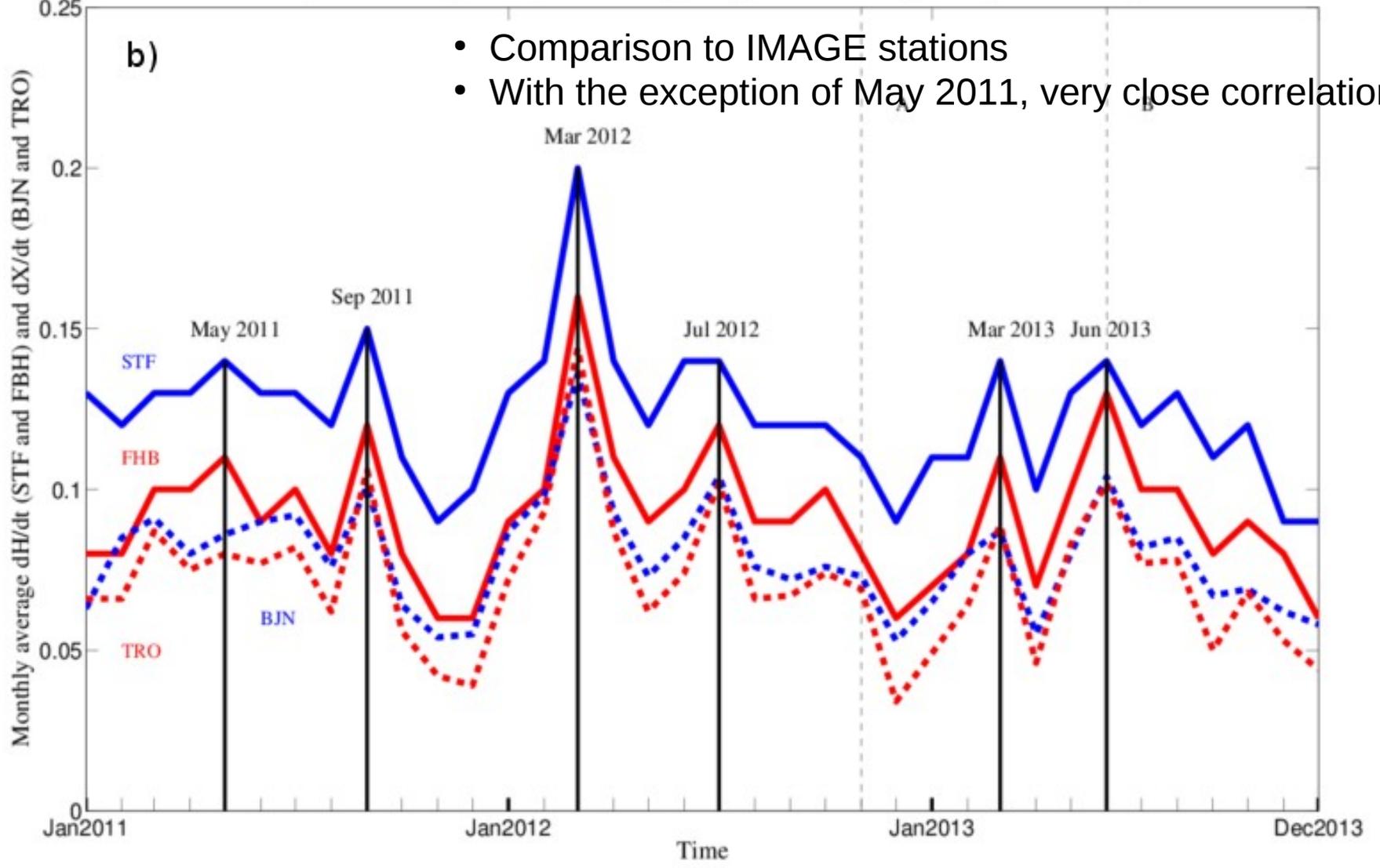
- By far lower levels of activity compared to spring/summer

dH/dt comparison



dH/dt comparison

STF (solid blue line), FHB (solid red line), BJN (dashed blue line), TRO (dashed red line)



- Geomagnetic activity in Greenland for the solar cycle 24 is the largest in the spring 2012.
- The latitudinal coverage of dH/dt disturbances is the largest in summer and smallest in winter.
- The amplitude of disturbances in IMAGE are about 65 – 75% of the disturbances seen in Greenland.