

SITU (Sea Ice Tracking Utility): an interactive tool for tracking sea ice properties

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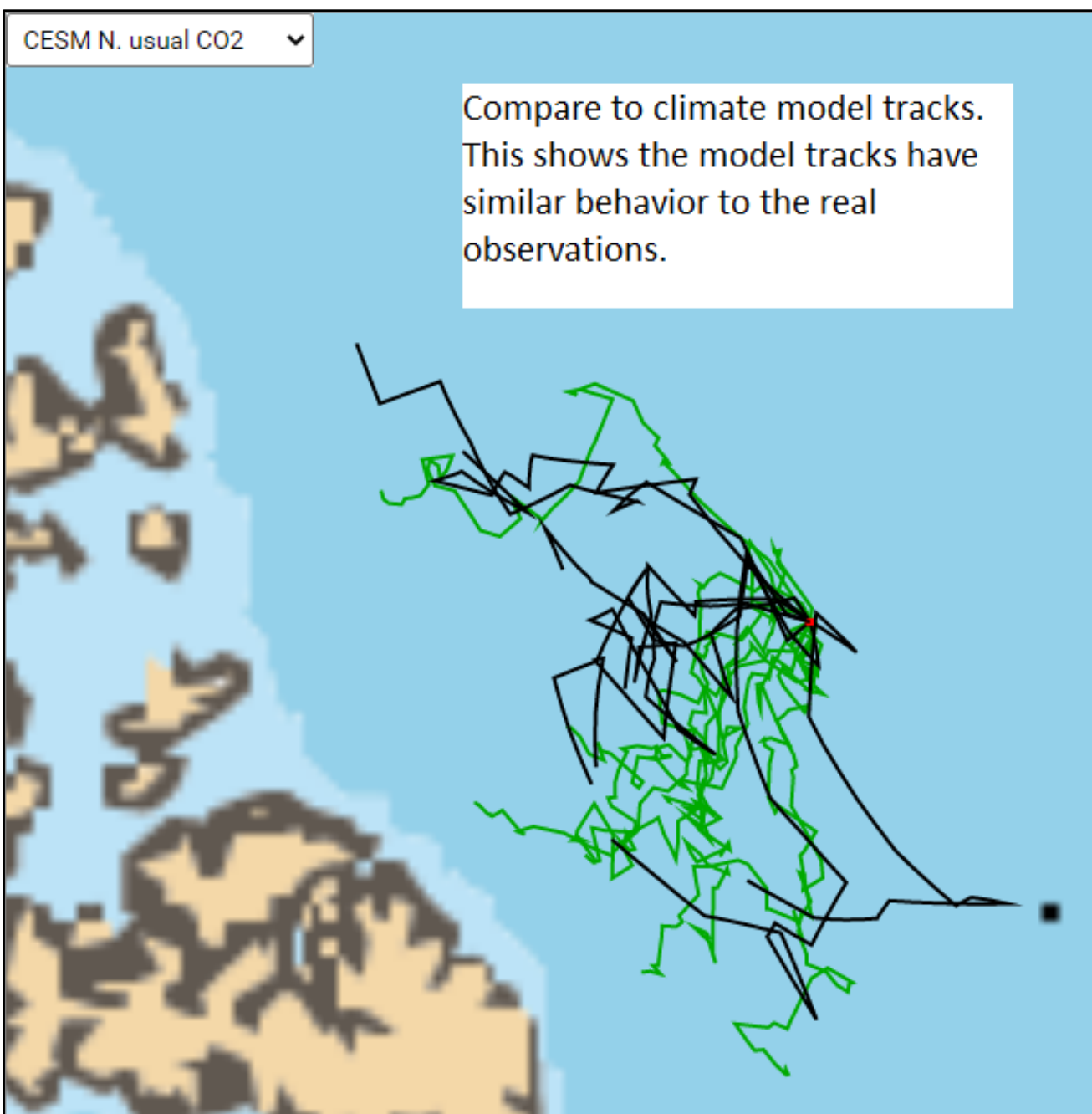
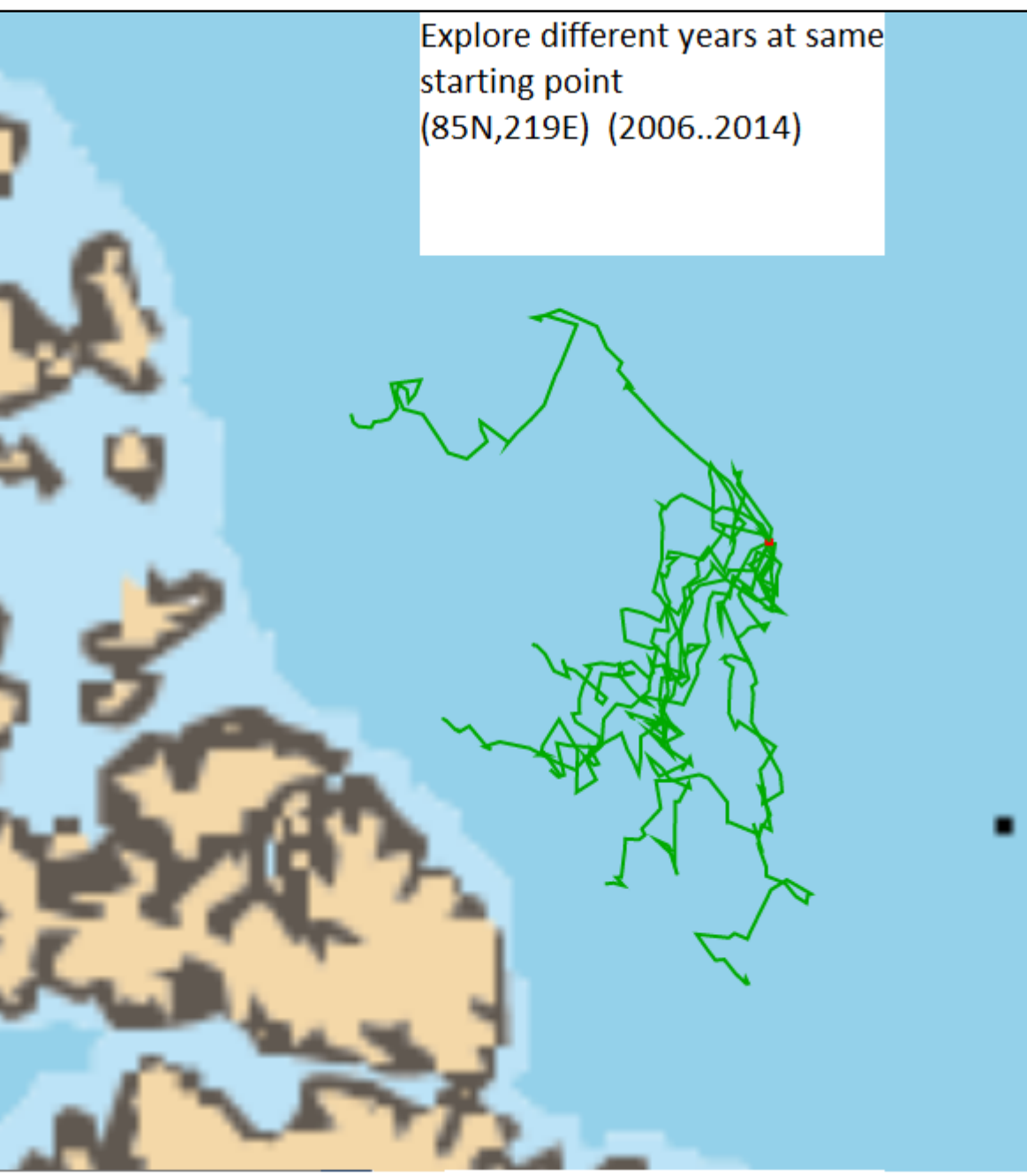
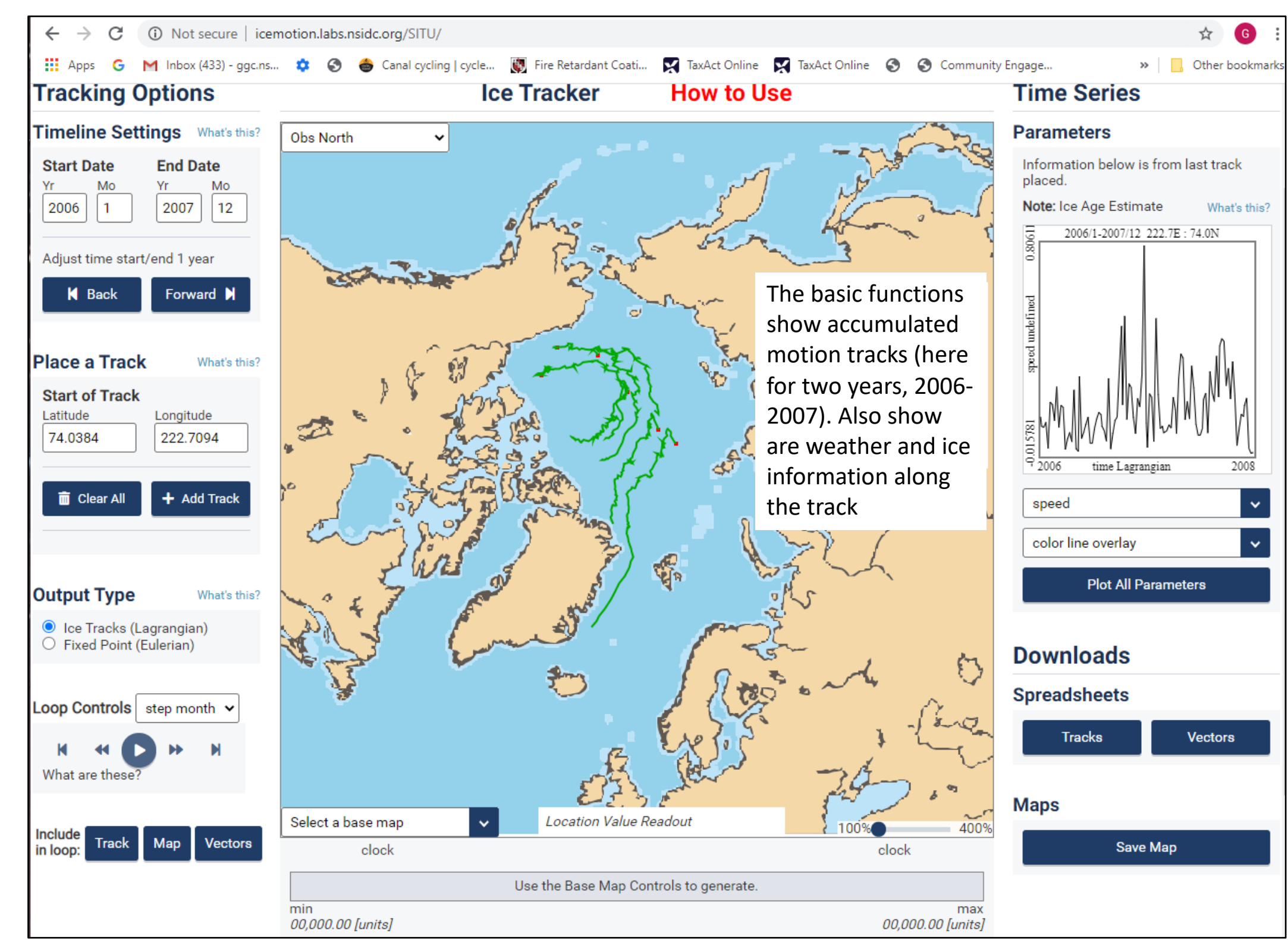
<http://icemotion.labs.nsidc.org/SITU/>

Selected examples are shown on this poster.
During the actual presentation we will attempt an interactive demonstration.

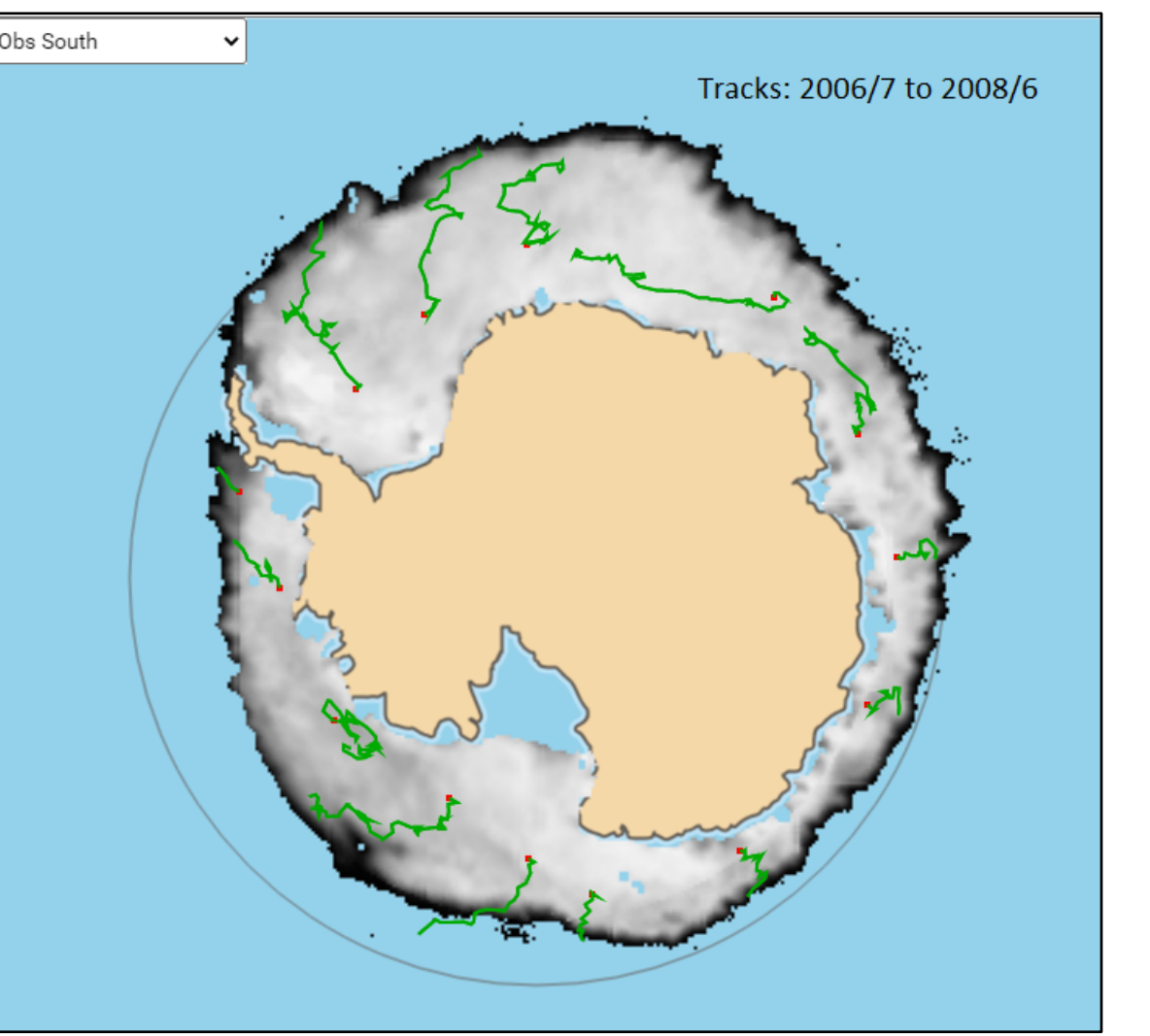
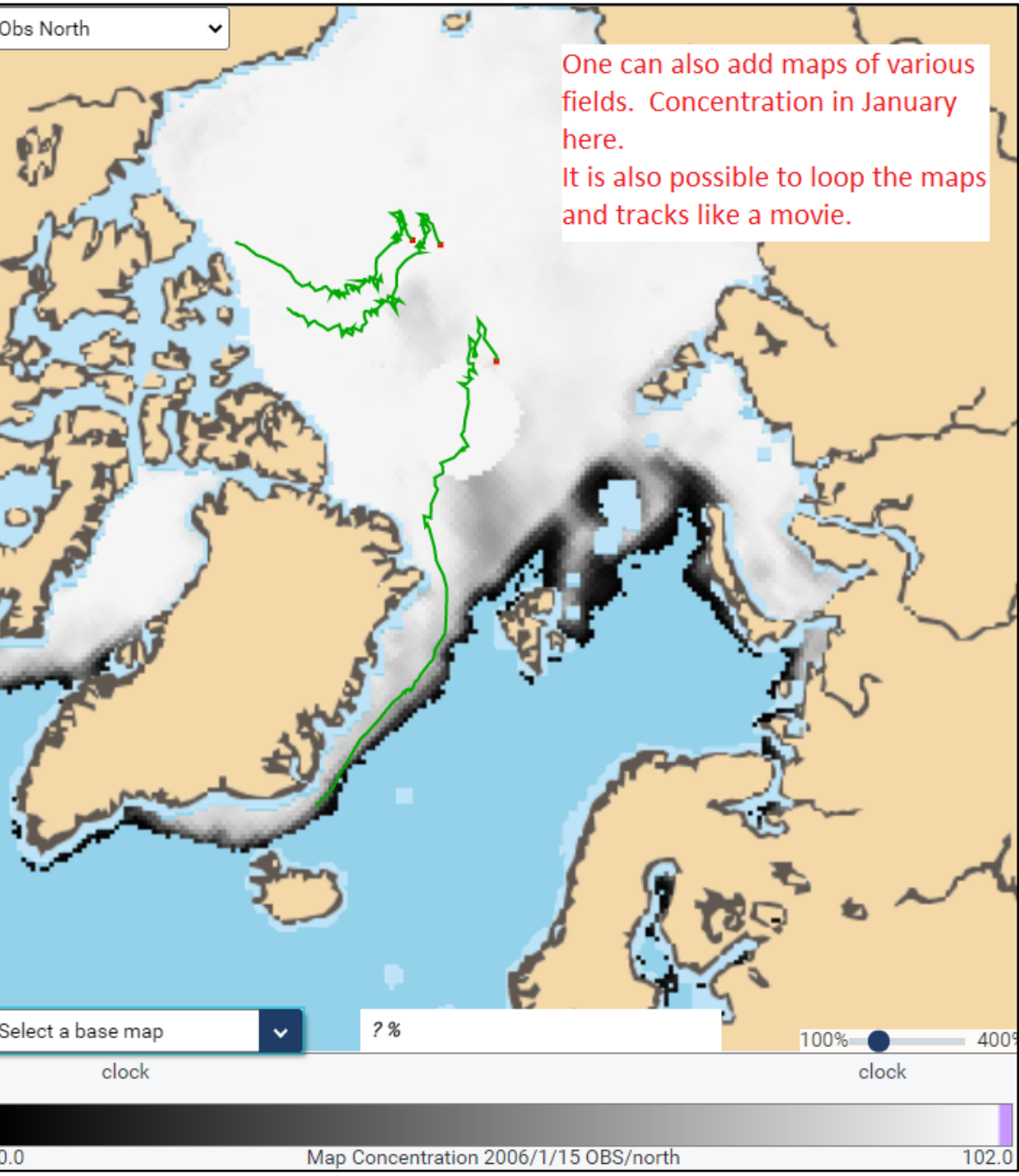
Lagrangian Tracks of Sea Ice Motion or the accumulated motion from sea ice motion vectors

Our goal here was to develop a tool to explore sea ice motion. This evolved over many iterations into an interactive tool with both real world observations (1979 to present) and model predictions (2006 to 2100). To fully appraise the possibilities, one should visit the web site.

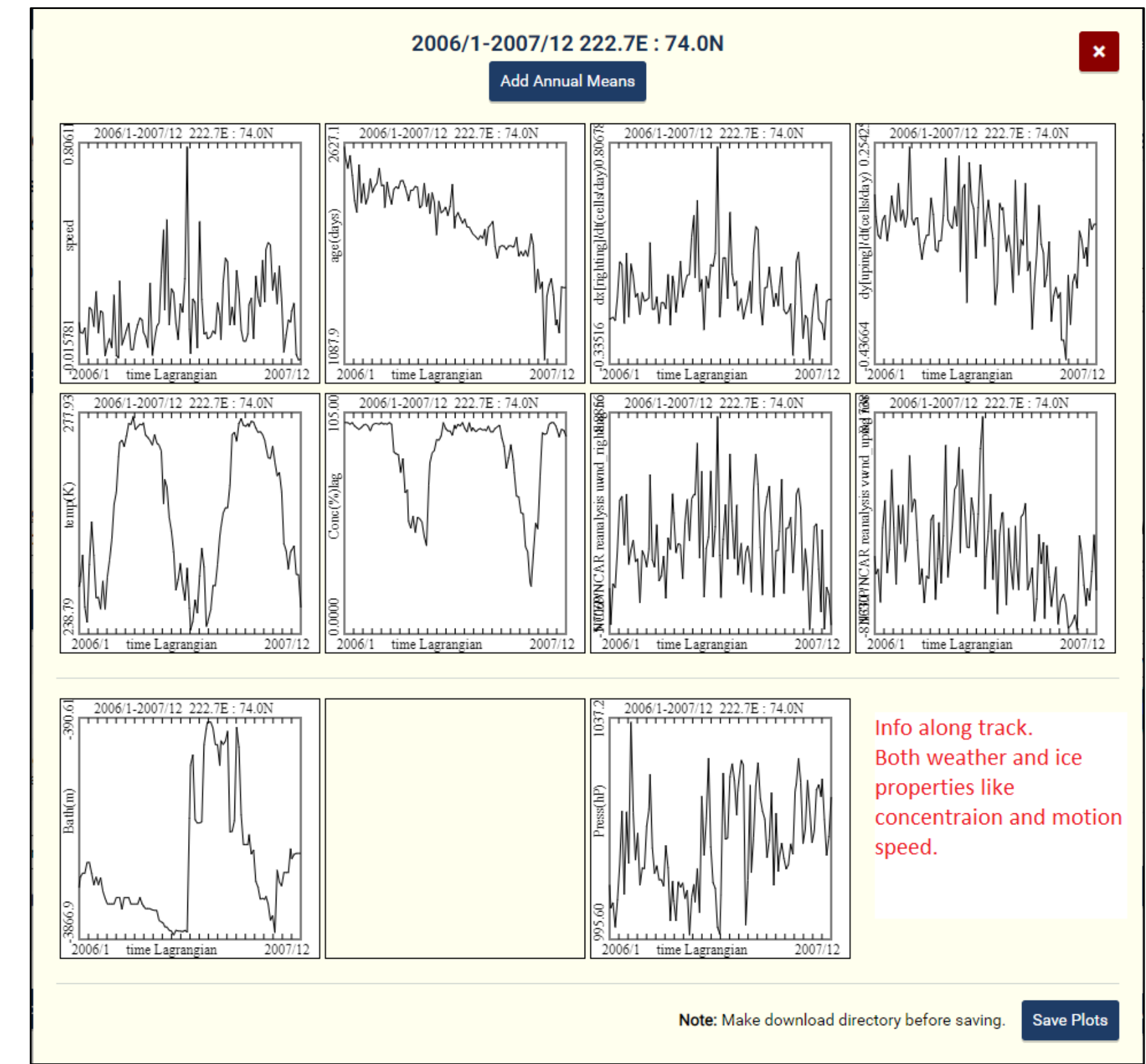
This tool can be used for research as well as a *teaching tool* for climate discussions. One can also show time loops with background maps and stepping along the tracks.



One can look at long time series at a specific location or follow along parcel tracks as they drift. Above, one sees that the speed of the ice is forecast to be very similar to today's speed, even with open water interruptions.

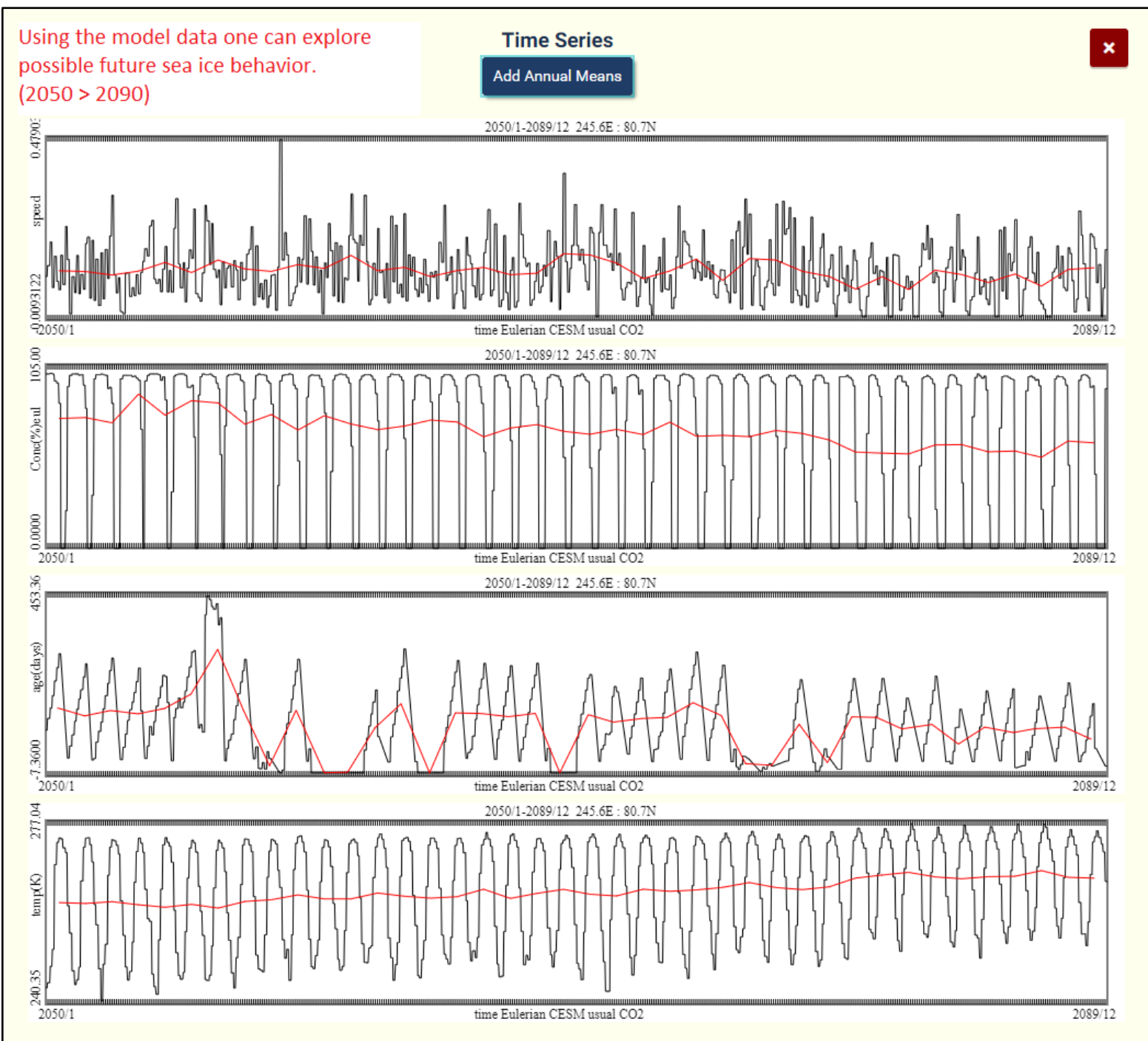


Southern Hemisphere data is available from the satellite data.

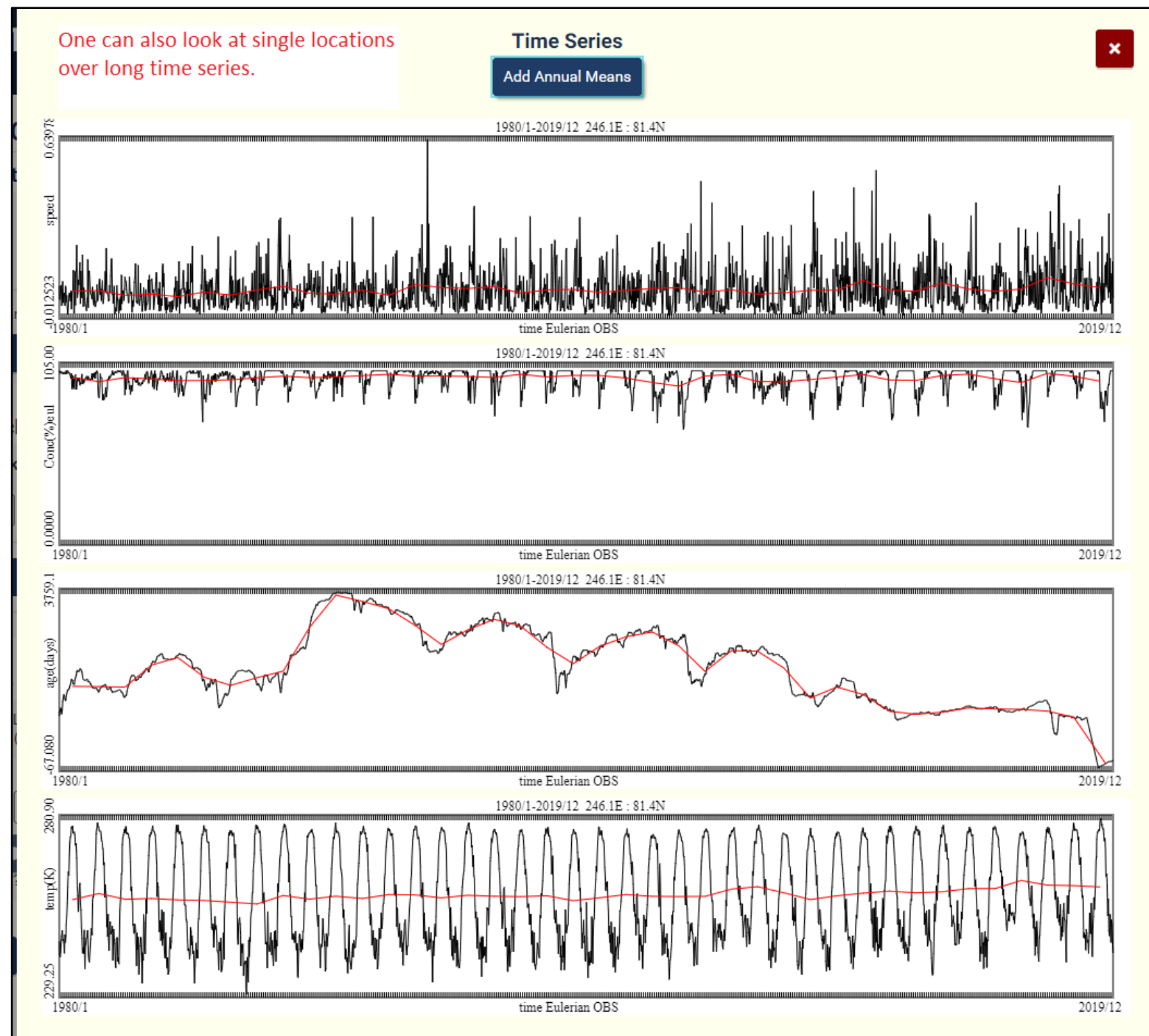


Weather and motion data are available for plotting and download.

Model parameters, 2050-2090



Observed parameters, 1980-2019



The data comes from the Polar Pathfinder Daily 25 km EASE-Grid Sea Ice Motion Vectors, Version 4 dataset (<https://nsidc.org/data/nsidc-0116>) See the product website for details on the data, methodology, and references. The model fields come from CESM (<http://www.cesm.ucar.edu>).

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