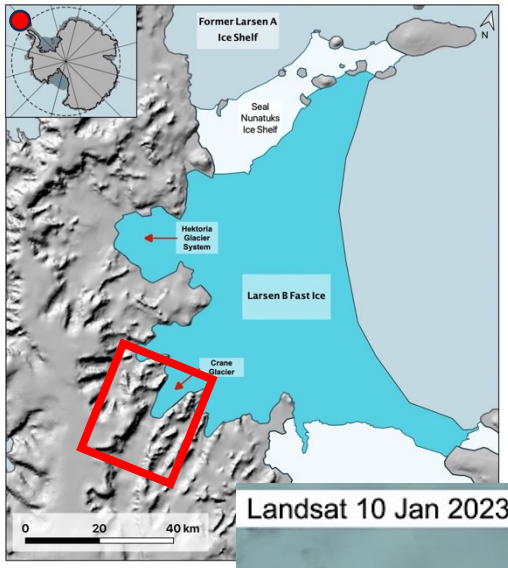
US-Argentina Antarctic Research – Crane Glacier



Breakout of landfast ice that filled the Larsen B embayment from March 2011 to January 2022 led to rapid acceleration and drawdown of the major tributary glaciers for the former Larsen B Ice Shelf. A tidewater-style retreat is underway and rapid calving appears to have reactivated some level of ice-cliff failure

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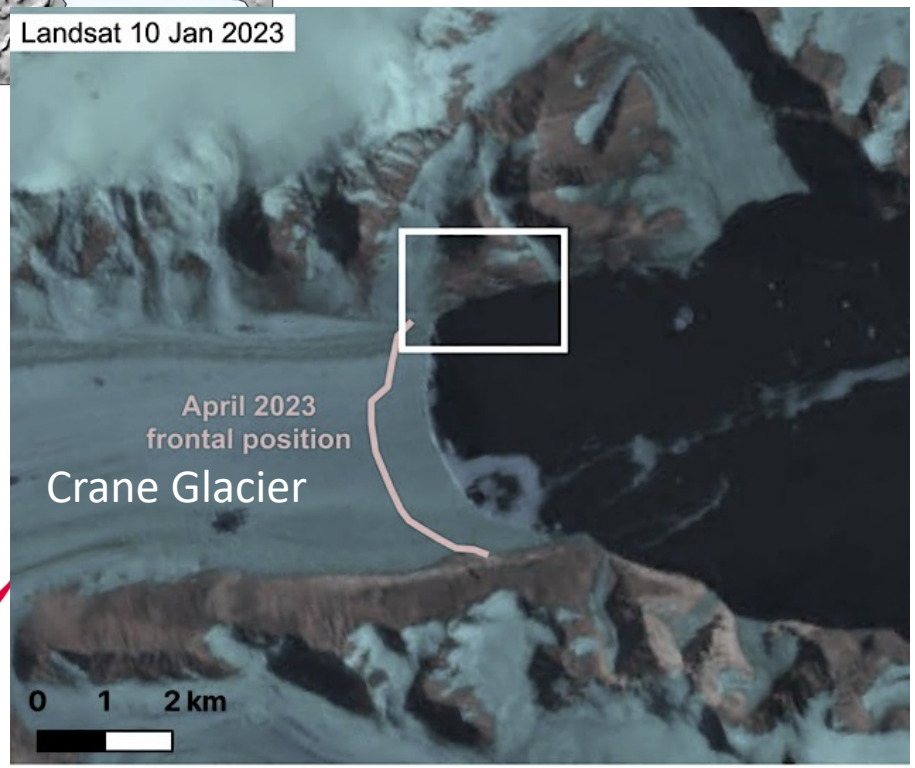

We plan a helicopter-supported visit to a rock outcrop adjacent to the glacier front to install a number of monitoring instruments, and collect data on the shape and height of the ice front. Jan-Feb 2024

Field Team –

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Field data collection plan:

- drone – images and DEM of ice front
- Iridium time-lapse camera – calving as ice front evolves
- GPS-on-rock – glacioisostatic uplifts (expected to be very strong)
- GPS-on-ice – ice flow speed, tidal flexure, grounding line migration
- cosmogenic age dating of past Crane drawdowns.