

Sea Ice Advisory to 34th Indian Scientific Expedition to Antarctica

Highlights

Feb 17, 2015

1. The current scenario indicates that the ship may not face major resistance due to sea ice before reaching India Bay.
2. Some deformed sea ice packs are present on the way, but enough opening/high deformation locations are available. Ship may sail through these locations.
3. At Maitri coast near ISEA unloading point, there exists a large patch of fast ice. This may stop ship from further sailing. In that situation the ship will be almost 25km from the unloading point.

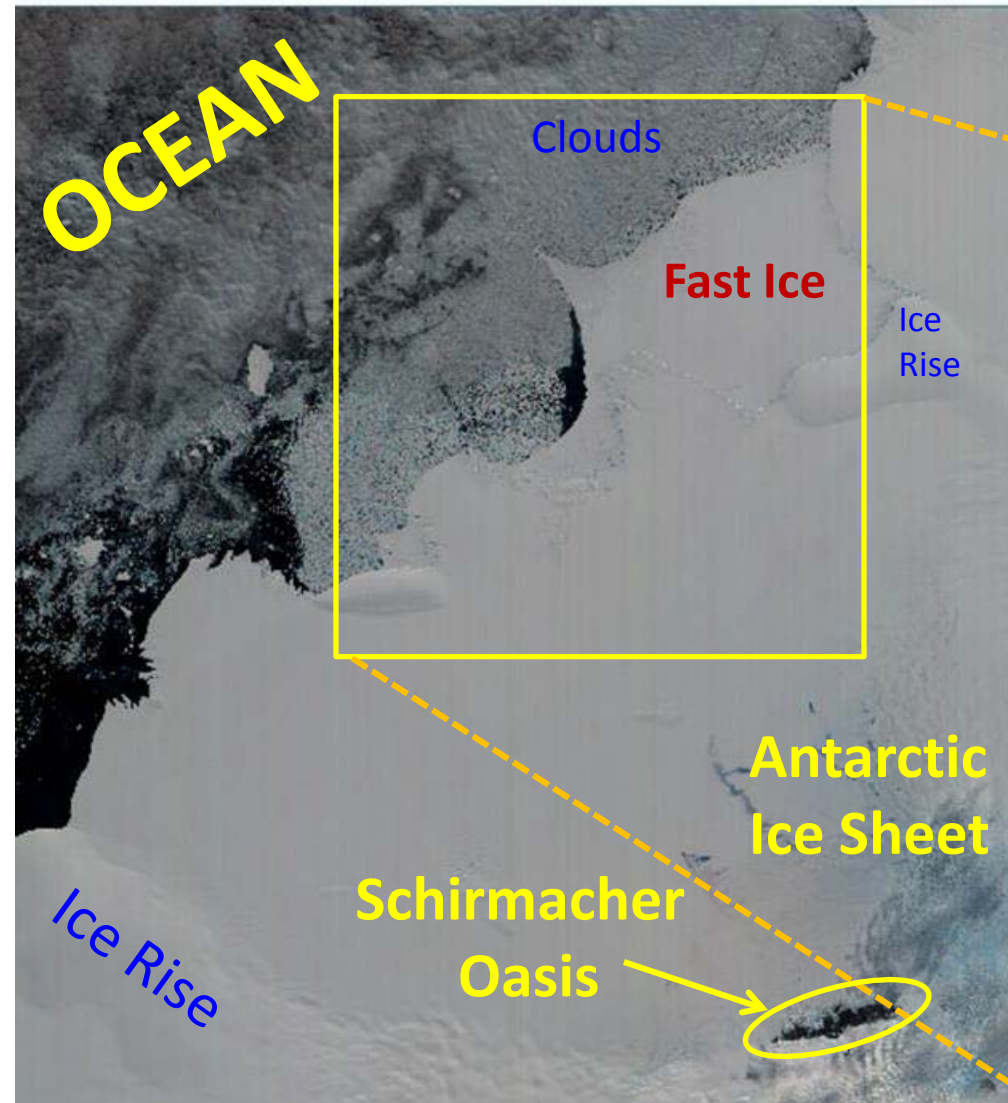
Oceanic Science Division (OSD),

Atmospheric & Oceanic Sciences Group (AOSG), EPSA,

Space Applications Centre (SAC), ISRO,

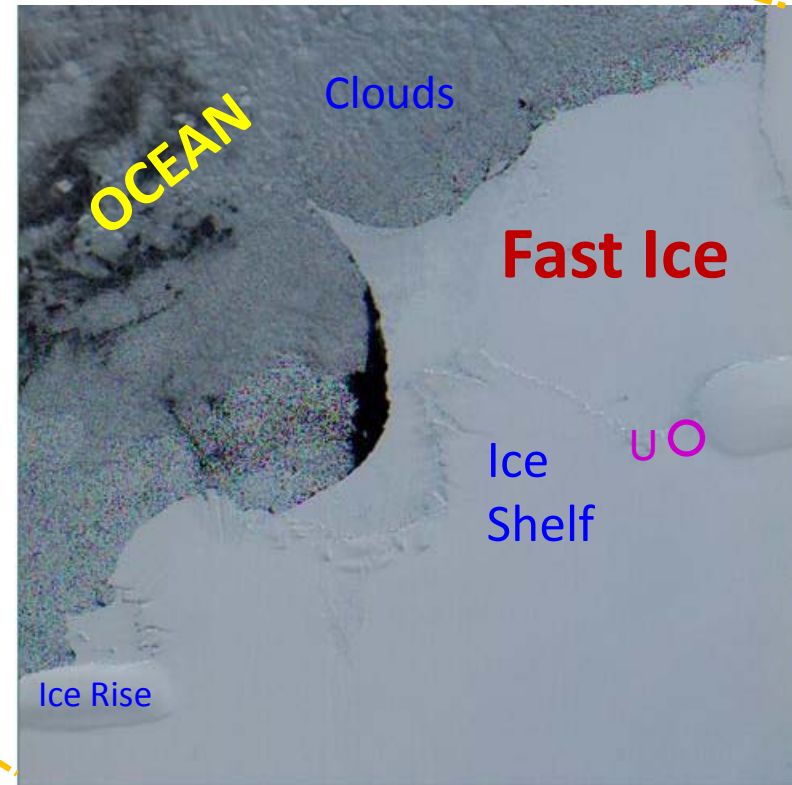
Ahmedabad - 380015, India.

Antarctic Ice Features from Indian Optical Remote Sensing Data



Resourcesat-2 LISS-III Scene over India Bay region near Antarctic coast (Feb 05, 2015). Path/Row: 068/135.

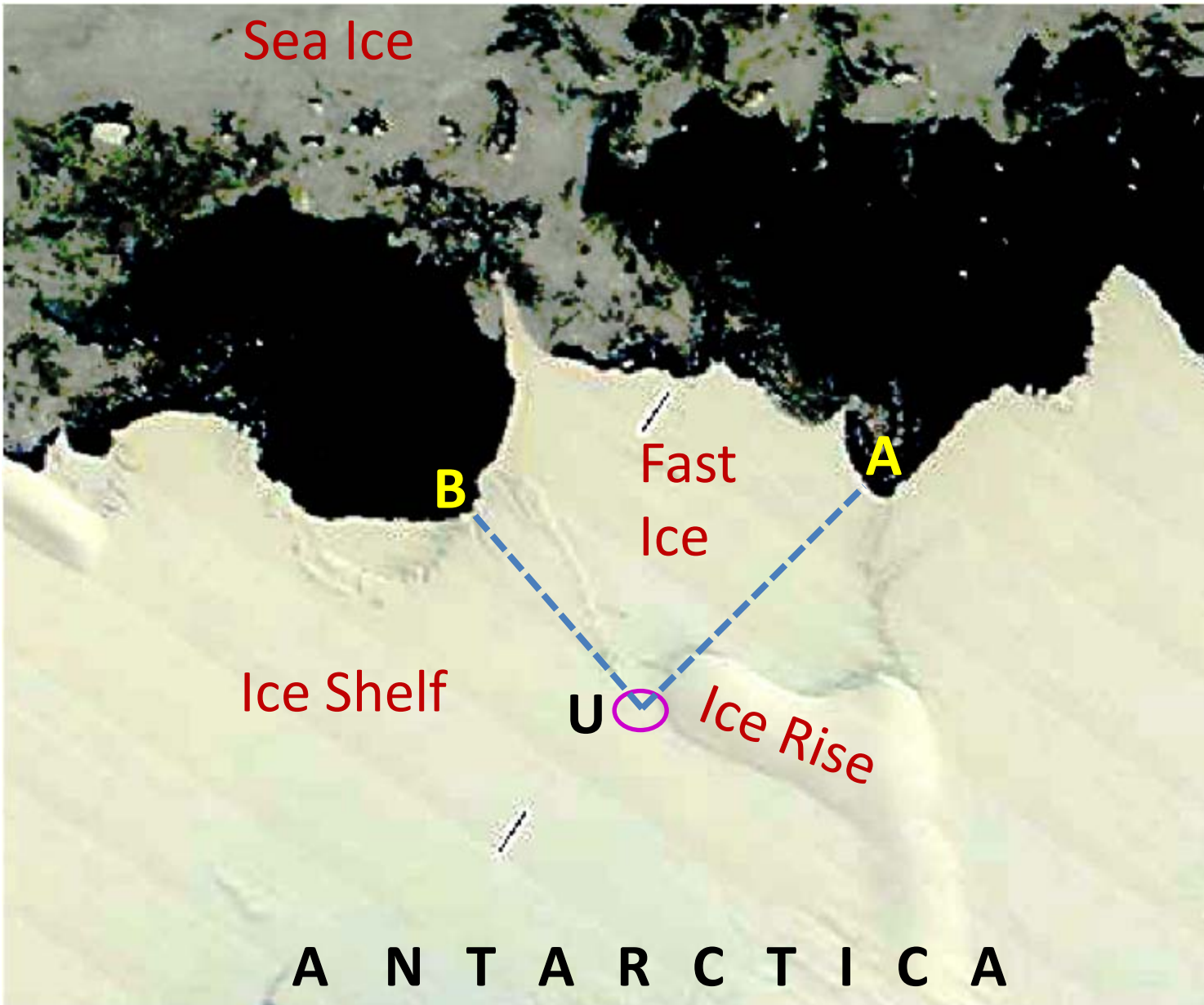
Circle U (Magenta colour) shows the location of ISEA cargo unloading near India Bay (~ 100 km from Maitri)



Resourcesat-2 LISS-IV Data: Feb 05, 2015 (P/R: 068/135, Quad=B)

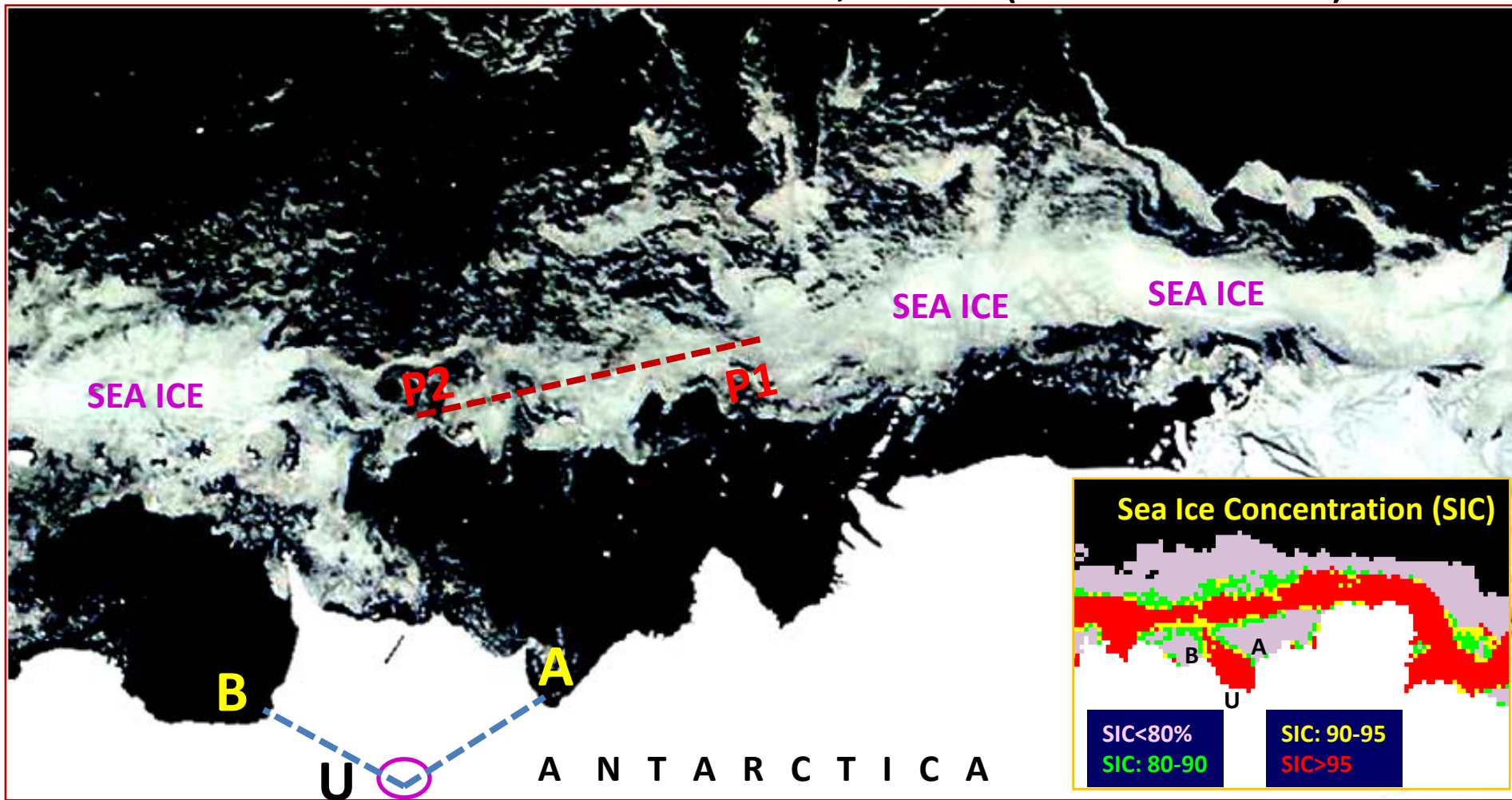
FAST ICE STATUS AS ON FEB 14, 2015

MODIS Mosaic



Points A and B are the locations where ISEA ship may reach without much resistance from sea ice. Fast sea ice exists between Point A and ISEA ship unloading location U (it is almost 28 km). Ice Shelf between Point B and location U is almost 24 km.

SEA ICE STATUS AS ON FEB 14, 2015 (MODIS & SIC)



The latest available cloud-free MODIS scene shows that there exists deformed sea ice in India Bay. Ship may not face much difficulty in passing through it. P1 and P2 are the suggested Entry Points for ship to reach Points A or B. Sea ice concentration i.e. SIC as on Feb 15, 2015 is shown in 4 classes (<80%, 80-90%, 90-95%, and >95%).