

Annex to the FRINGE 2015 Abstract

“Interferometric control for mapping and quantifying the 2011-14 breakup of Matusевич Ice Shelf, Severnaya Zemlya”

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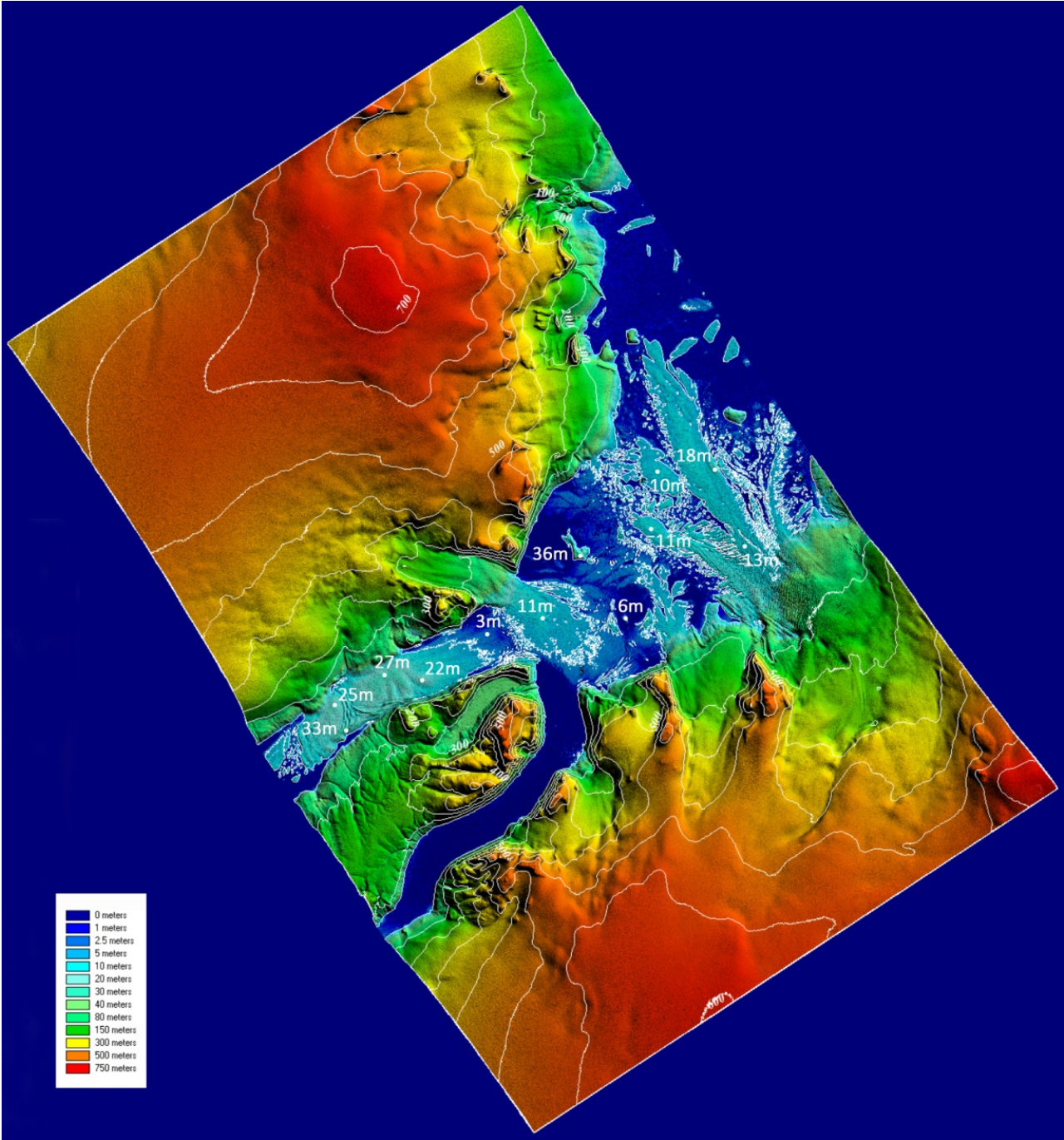


Figure 1. TDX DEM of Matusевич Ice Shelf (05.05.2011)

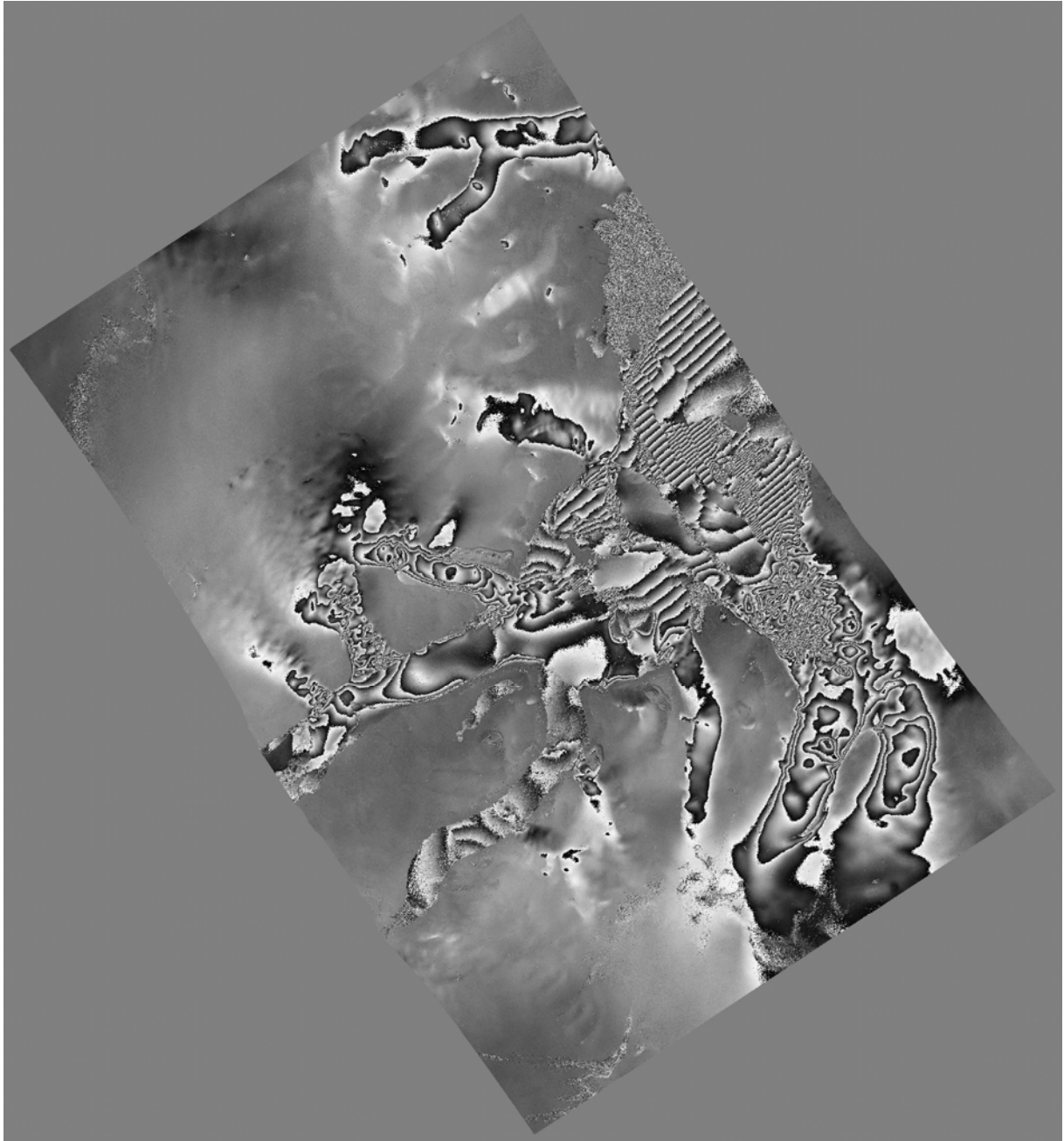


Figure 2. ERS-1/2 differential SAR interferogram of MIS (23/24.09.1995)



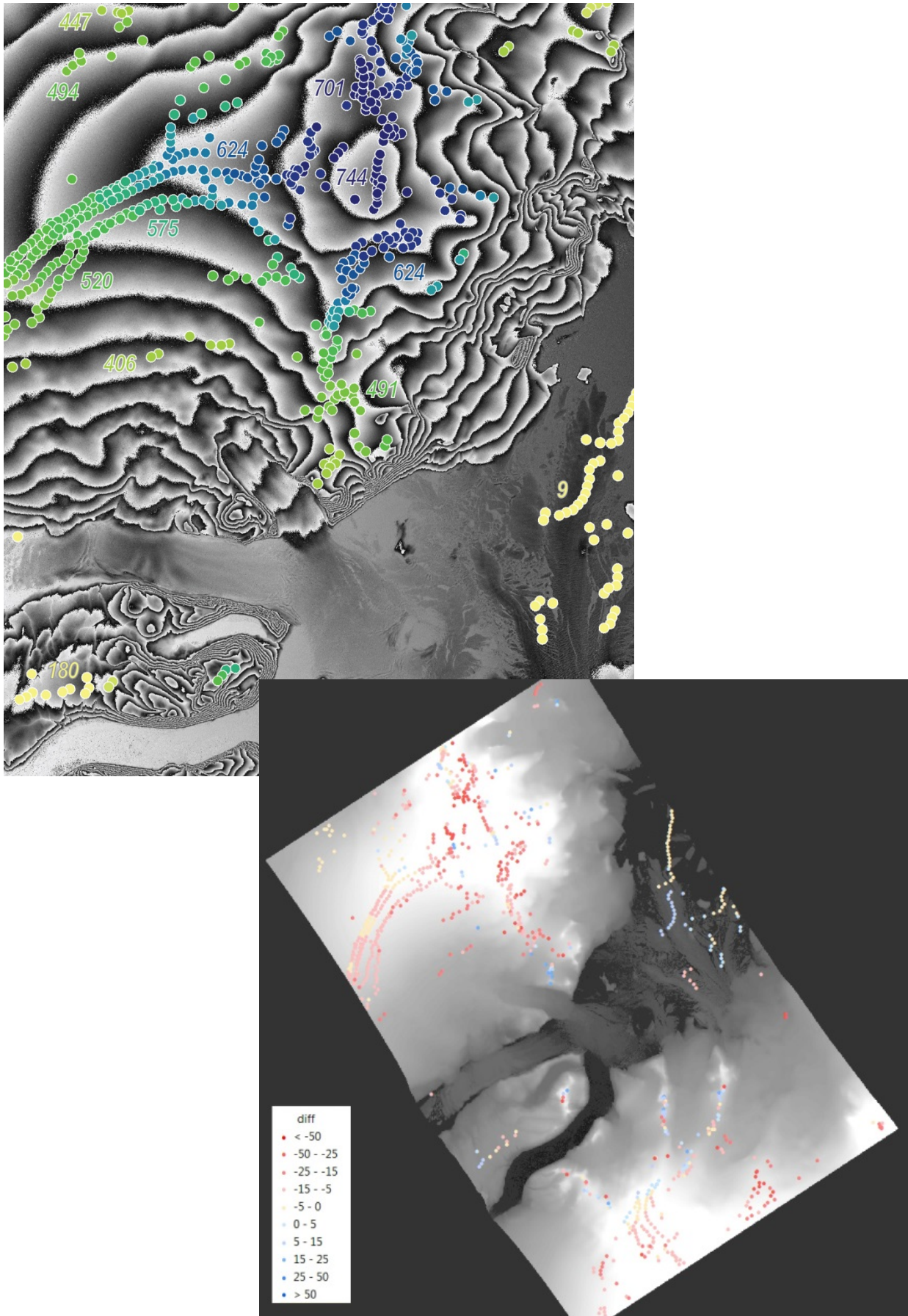


Figure 3. TDX fringe image (top) and DEM (bottom) overlaid with CryoSat-2 data (elevation spots 2012; elevation change for 1984-2012)

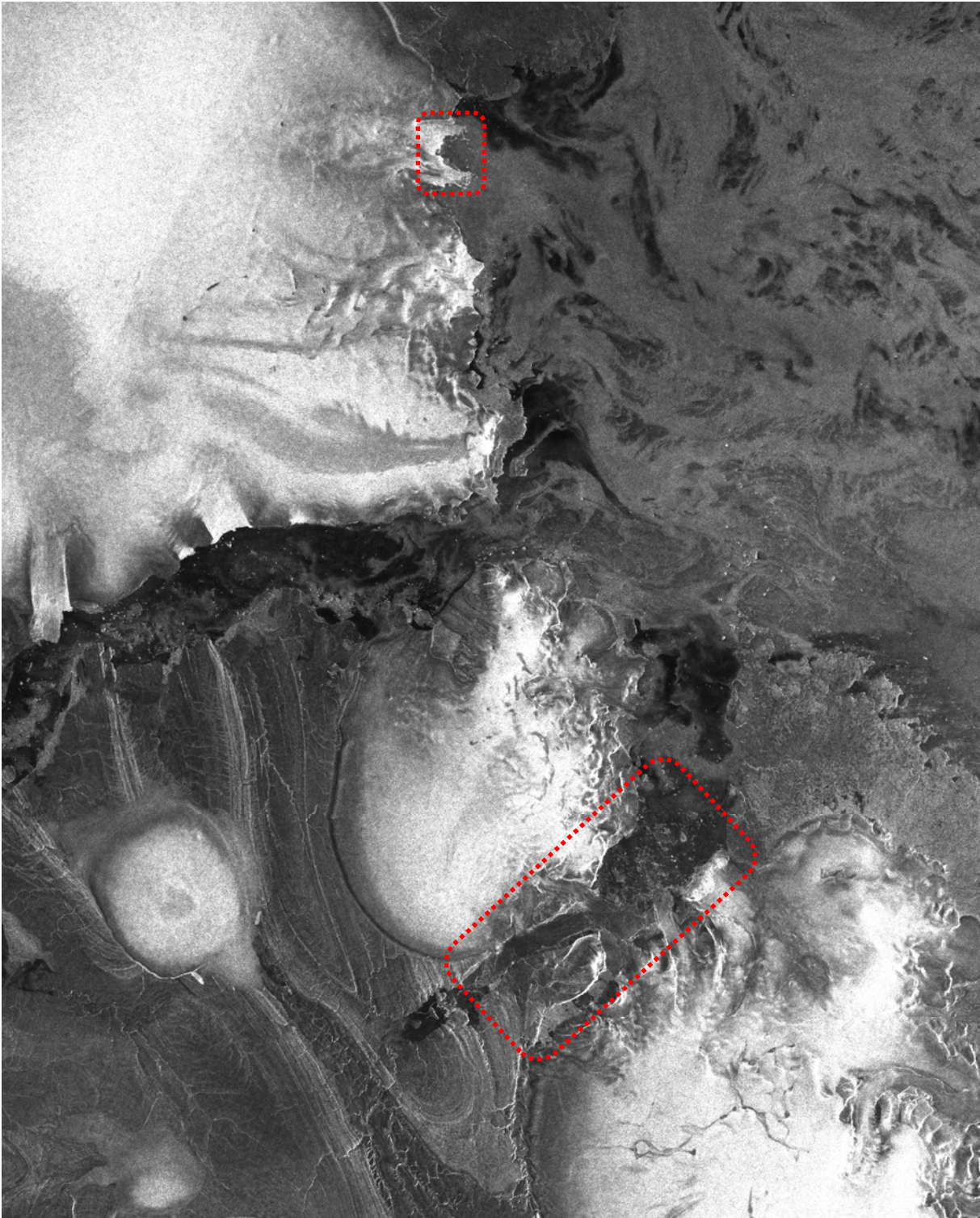


Figure 4. Figure 5. MIS and Ice Shelf No.19 in Sentinel SAR-C scene of 09.10.2014



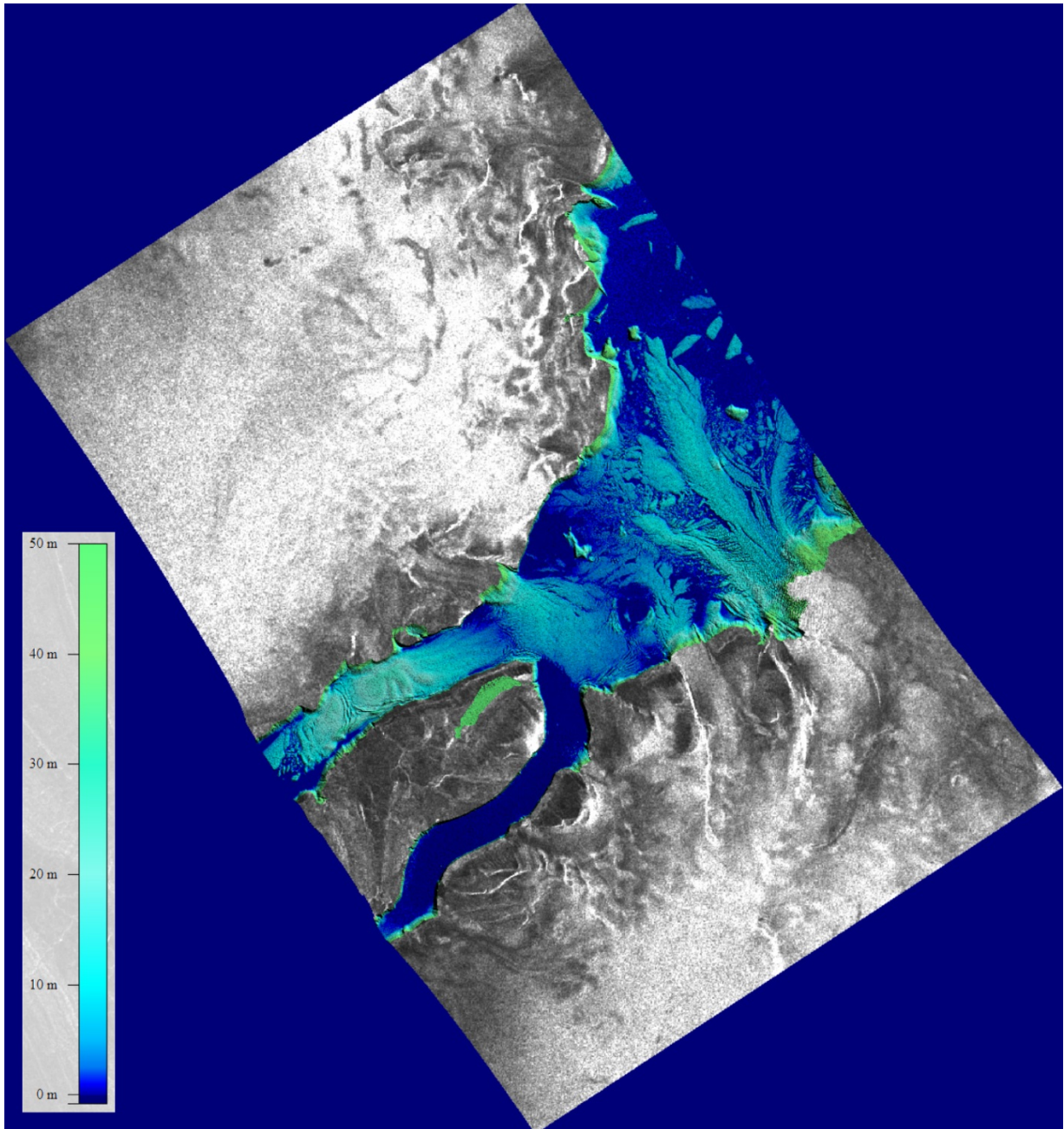
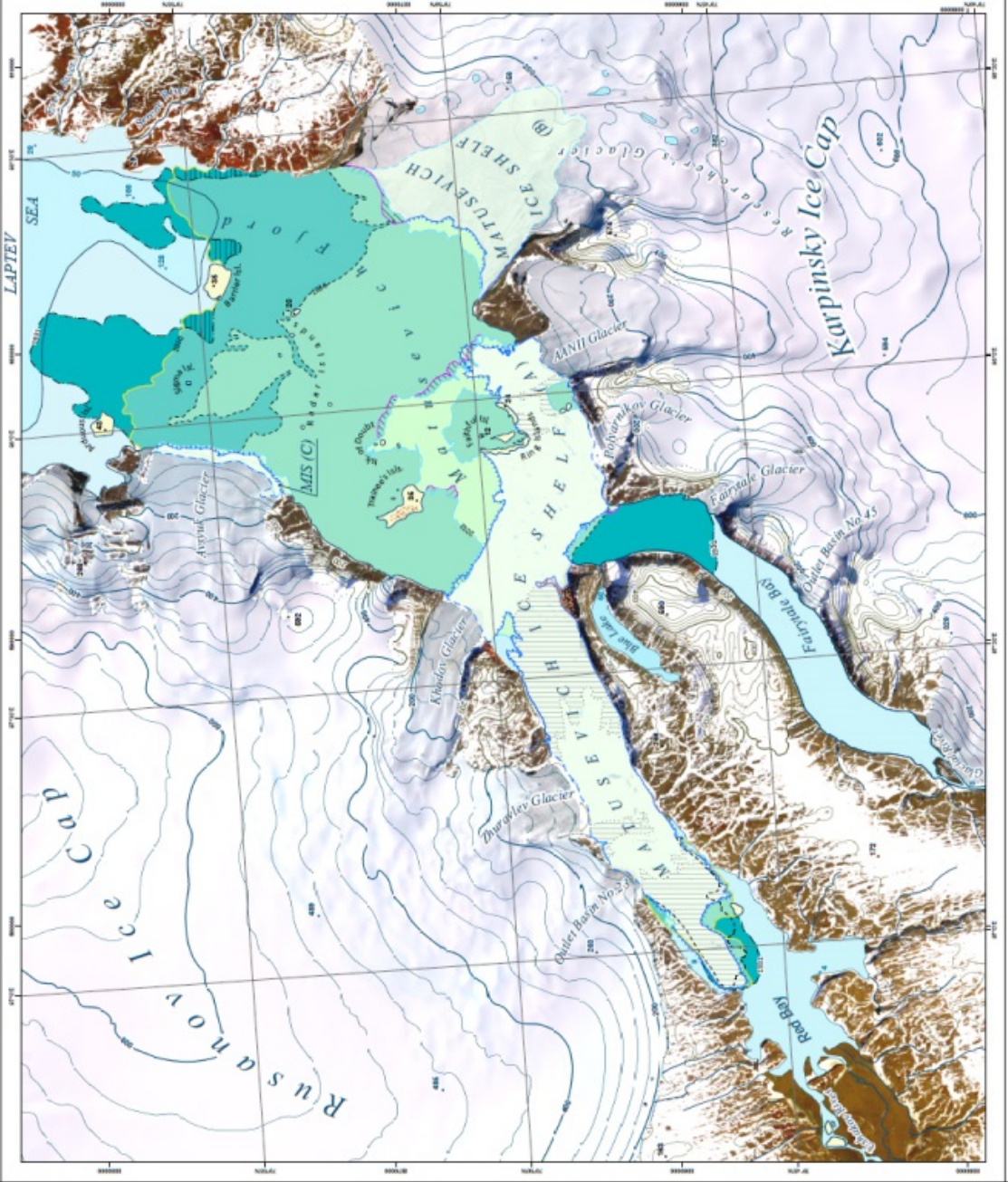


Figure 5. Sentinel SAR-C scene of 09.10.2014 geocoded and overlaid with TDX DEM (fragment)

### C. Disintegration of Matusevich Ice Shelf in Severnaya Zemlya (1931-2014)



**Data sources**  
 Satellite imagery: Landsat-8 (01.07.2013), Landsat-5 (02.07.2014), Landsat-7 (07.09.2013, 12.07.2013, 26.04.2014), Landsat-4 (01.07.2014), Landsat-5 (16.04.2011) (thin-ice areas, new islands), ©ERS;  
 Topographic map: 1:200 000 (1992), glacial state 1984; Others: M. Williams, I. Dowdeswell, A&AR, v. 33, No. 22, 2001

**Map:**  
 "Severnaya Zemlya. MIS change in 1931 - 2014" Inv. No. 295068, 03.02.01 (R);  
 "MIS. Glacier changes in 1984 - 2014" Inv. No. 263305, 07.07.14;  
 Russian topographic map 1:200 000 (1992), glacial state 1984  
 Others: M. Williams, I. Dowdeswell, A&AR, v. 33, No. 22, 2001

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**Cartography & Data processing:** Z. Zepelidze (MSU, RI)  
**Print & Copyright:** Joazeiro Research, 2014  
 Inv. No. 295068, 2014, 03. The work was funded from the  
 EU FP7 project EURLCAS (Contract No. 295068)

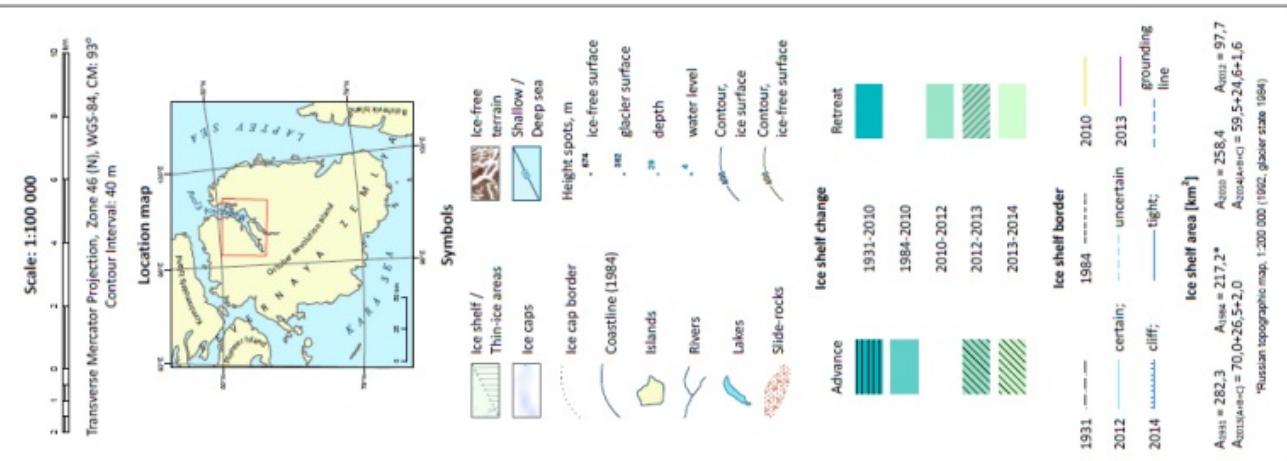


Figure 6. MIS Disintegration in 1931-2014. Satellite image map 1:100,000