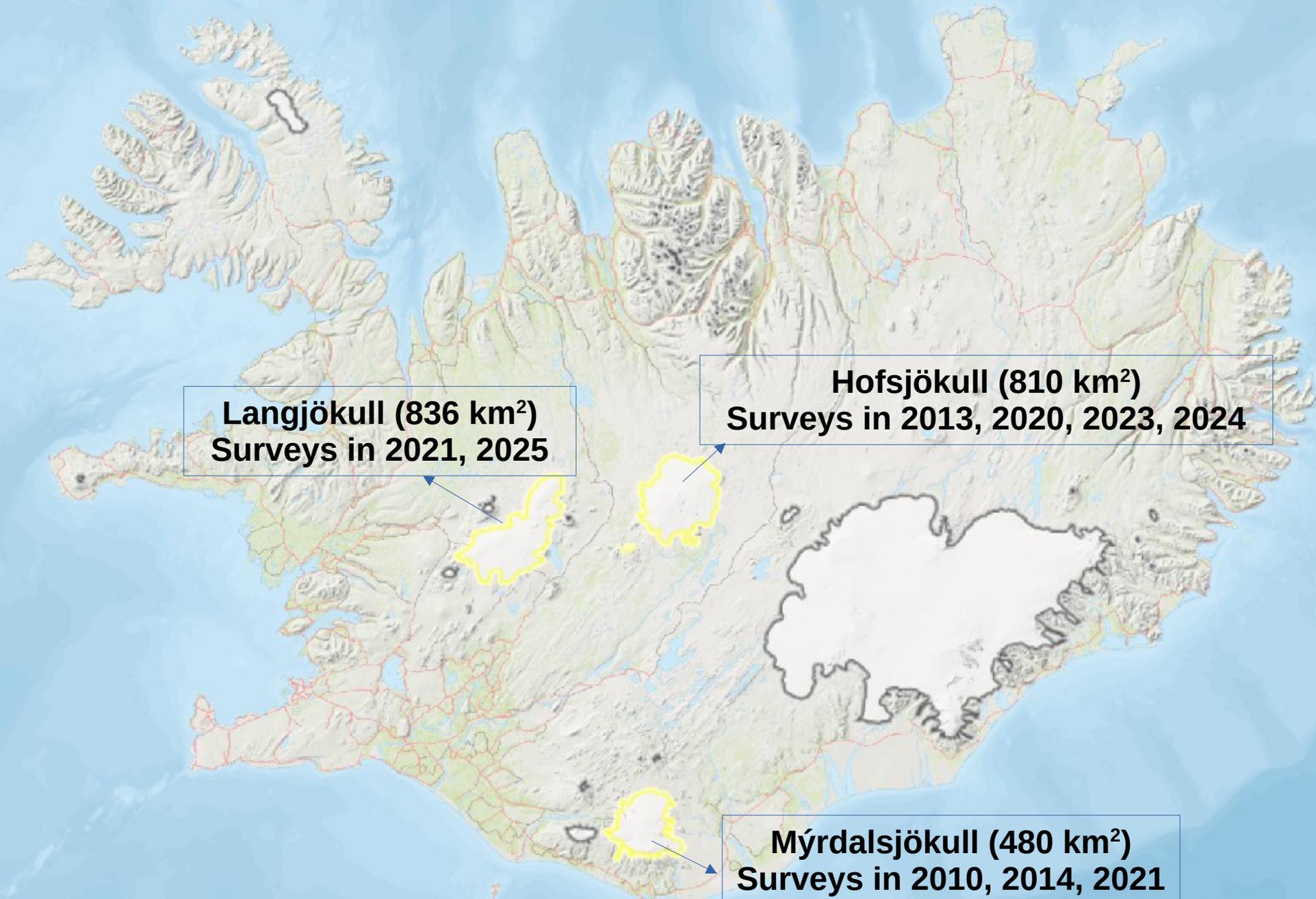


# HR Reference data Iceland: Hofsjökull, Langjökull and Mýrdalsjökull





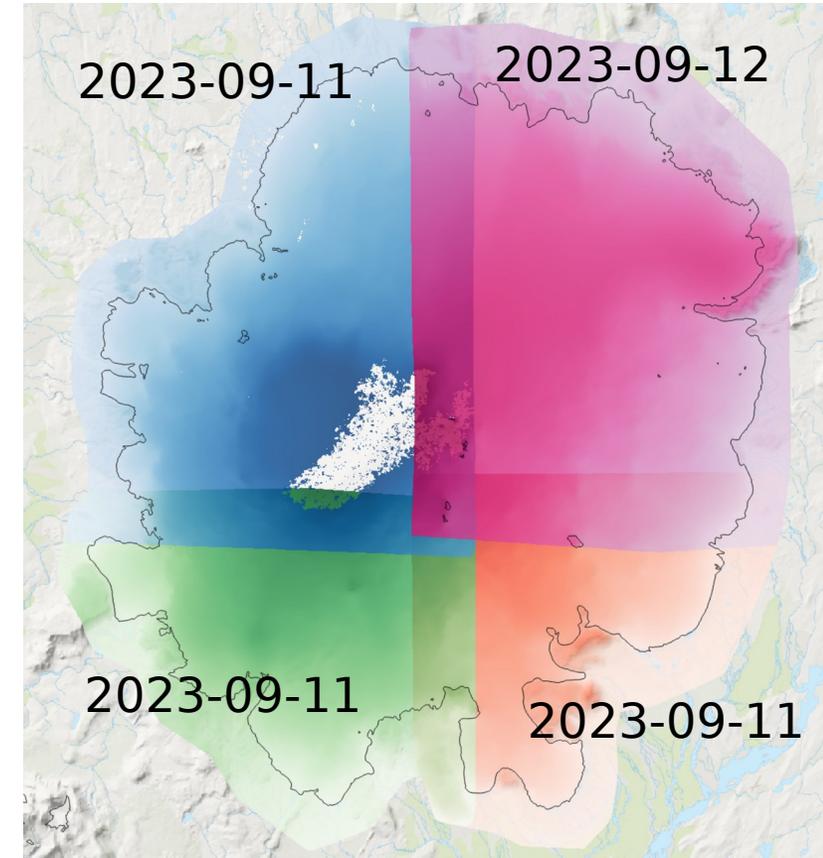
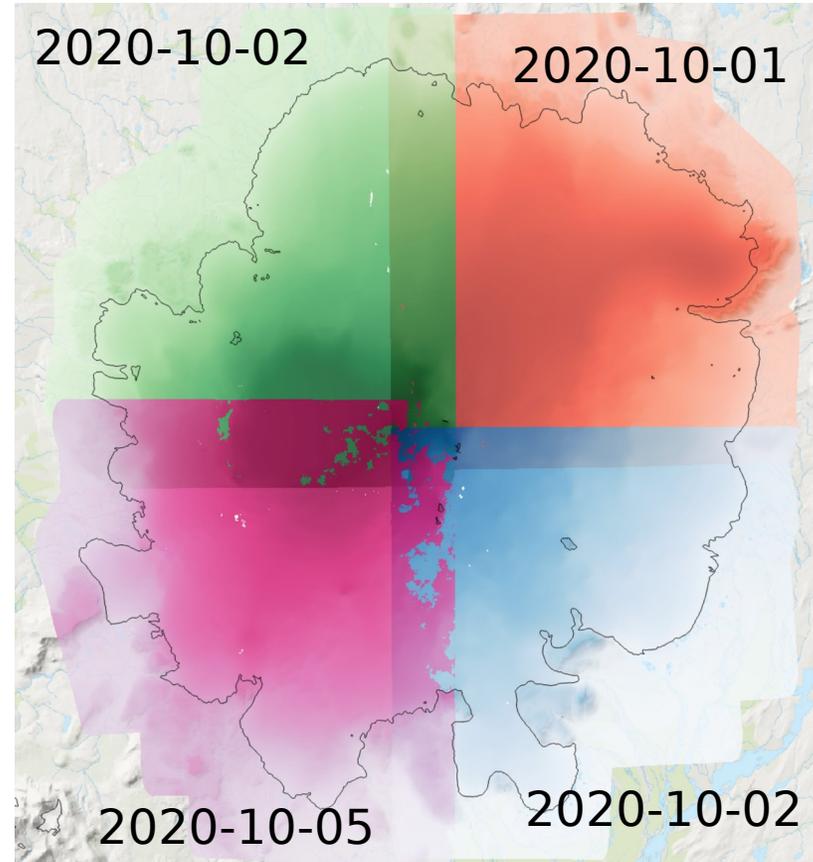
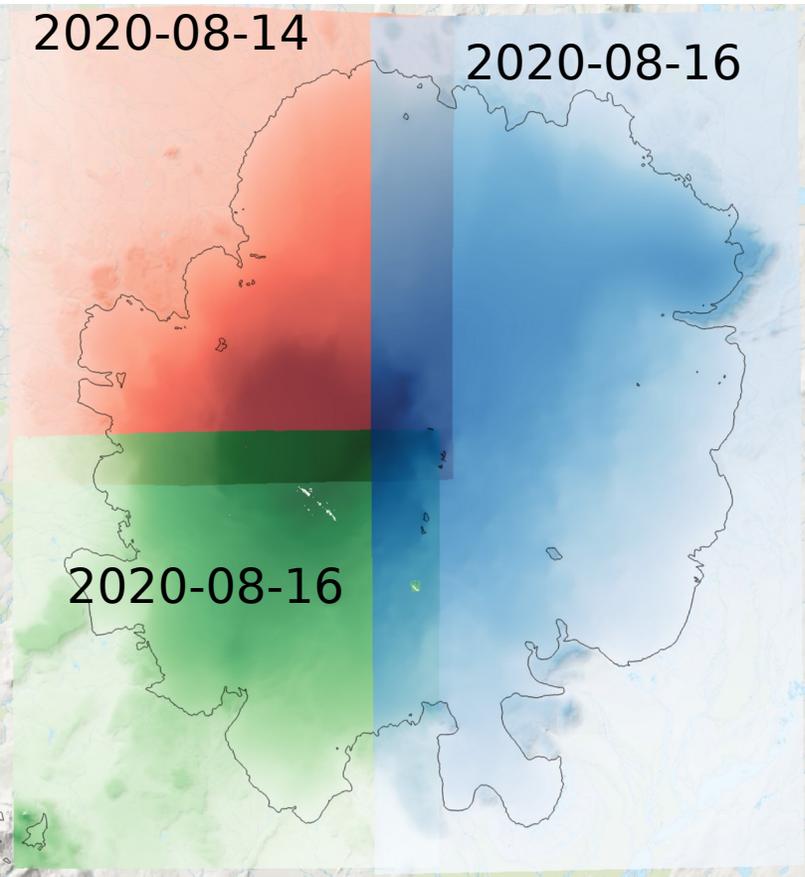
**Langjökull (836 km<sup>2</sup>)**  
Surveys in 2021, 2025

**Hofsjökull (810 km<sup>2</sup>)**  
Surveys in 2013, 2020, 2023, 2024

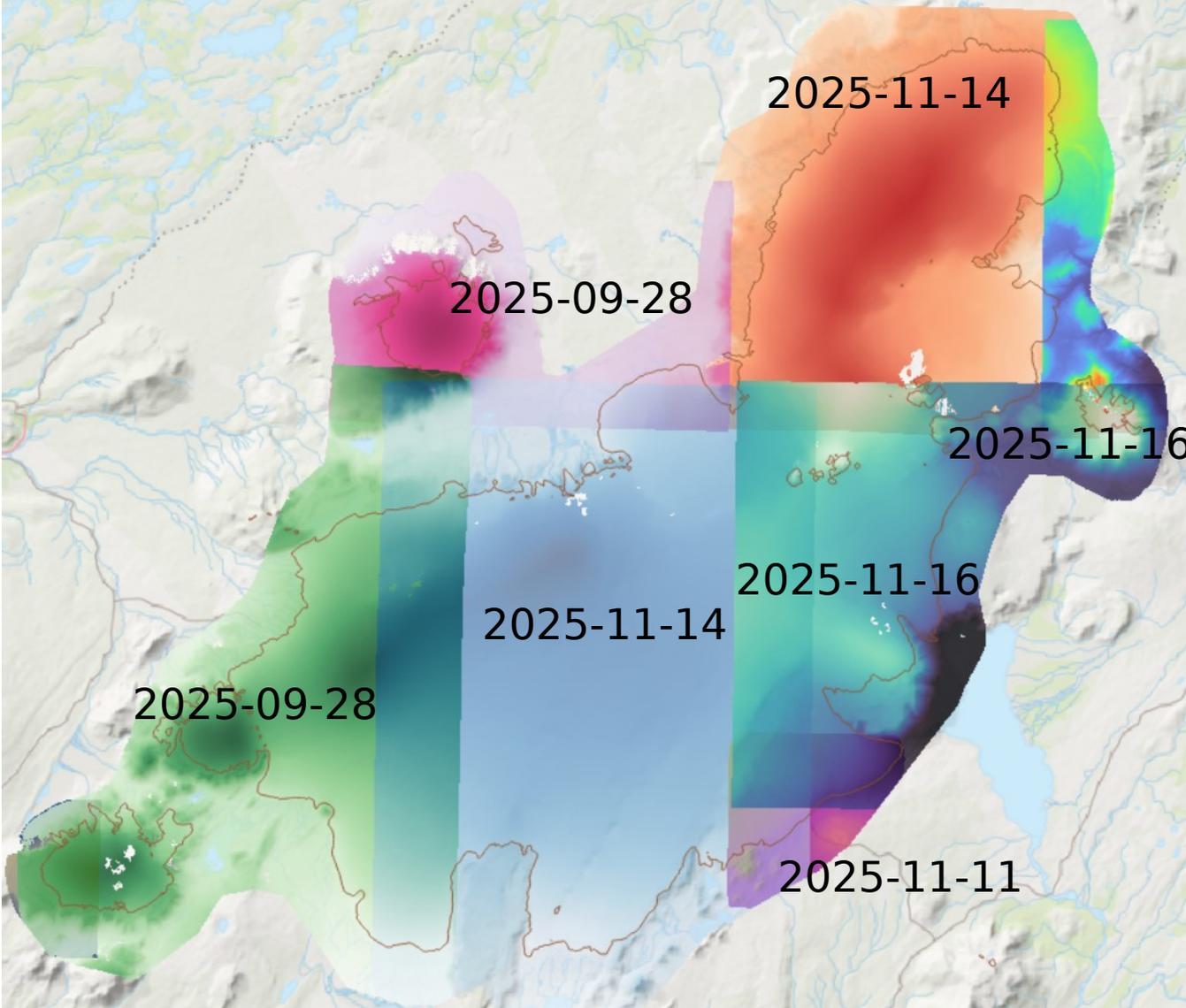
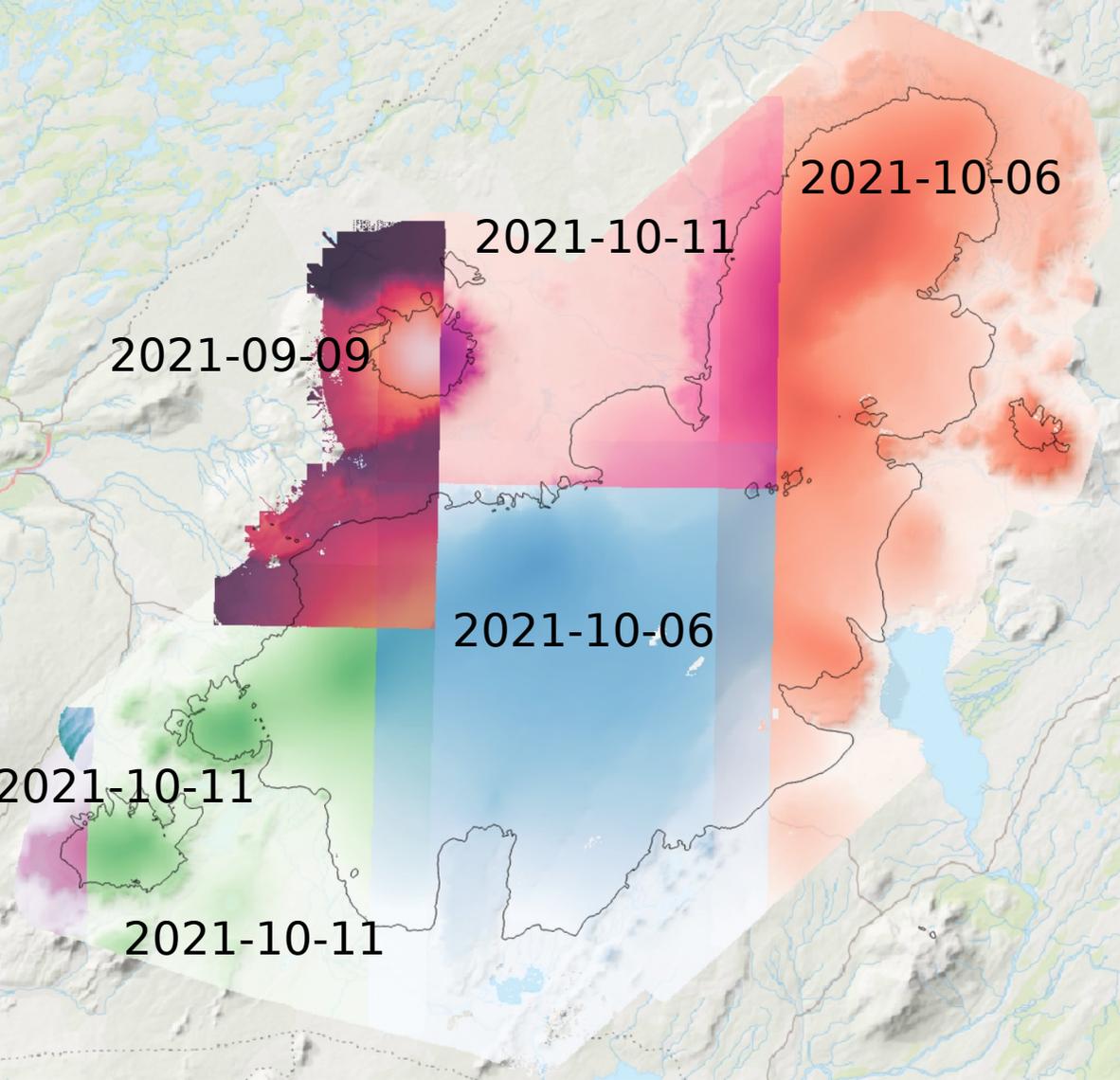
**Mýrdalsjökull (480 km<sup>2</sup>)**  
Surveys in 2010, 2014, 2021

# Hofsjökull data overview: Pléiades

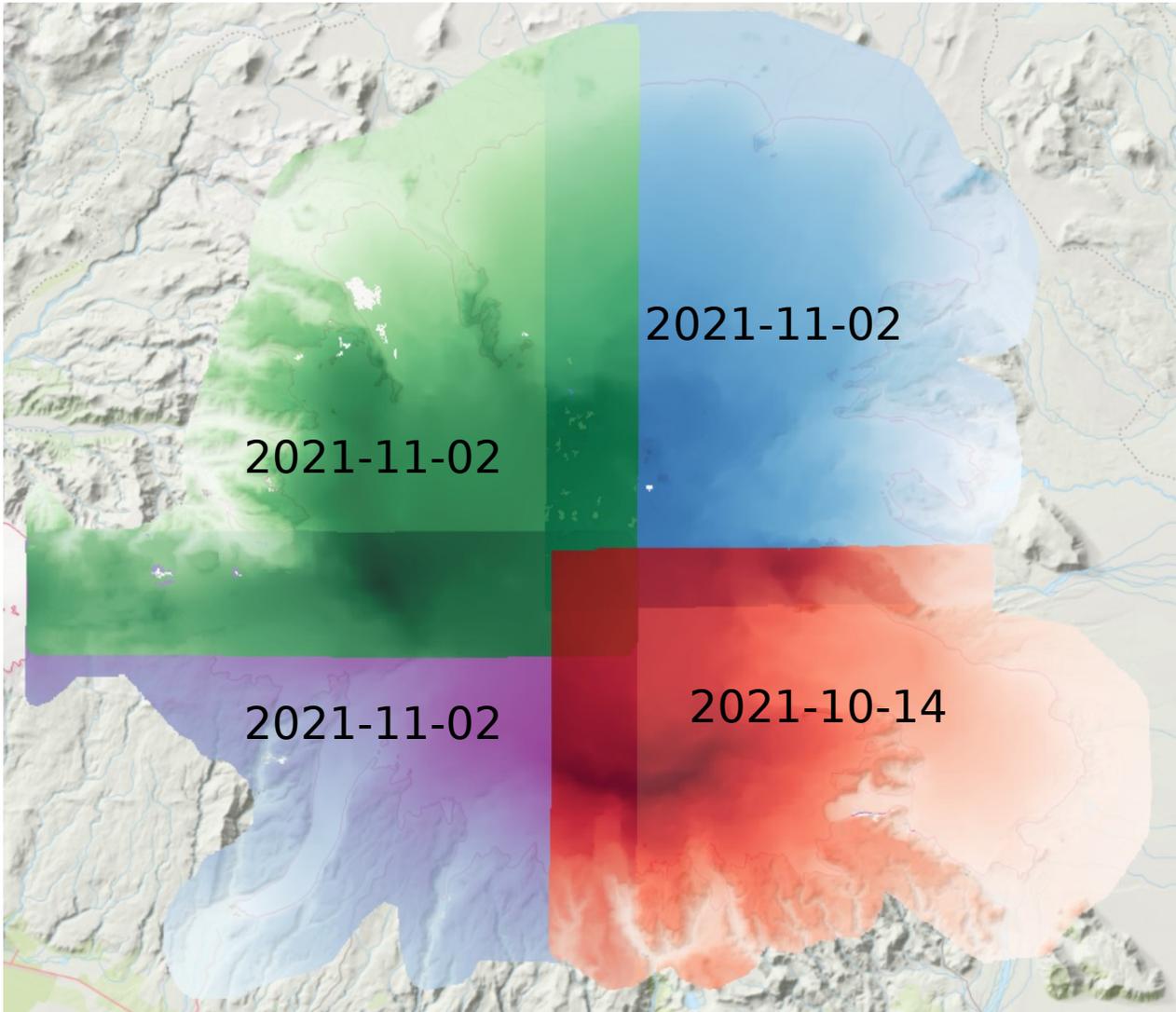
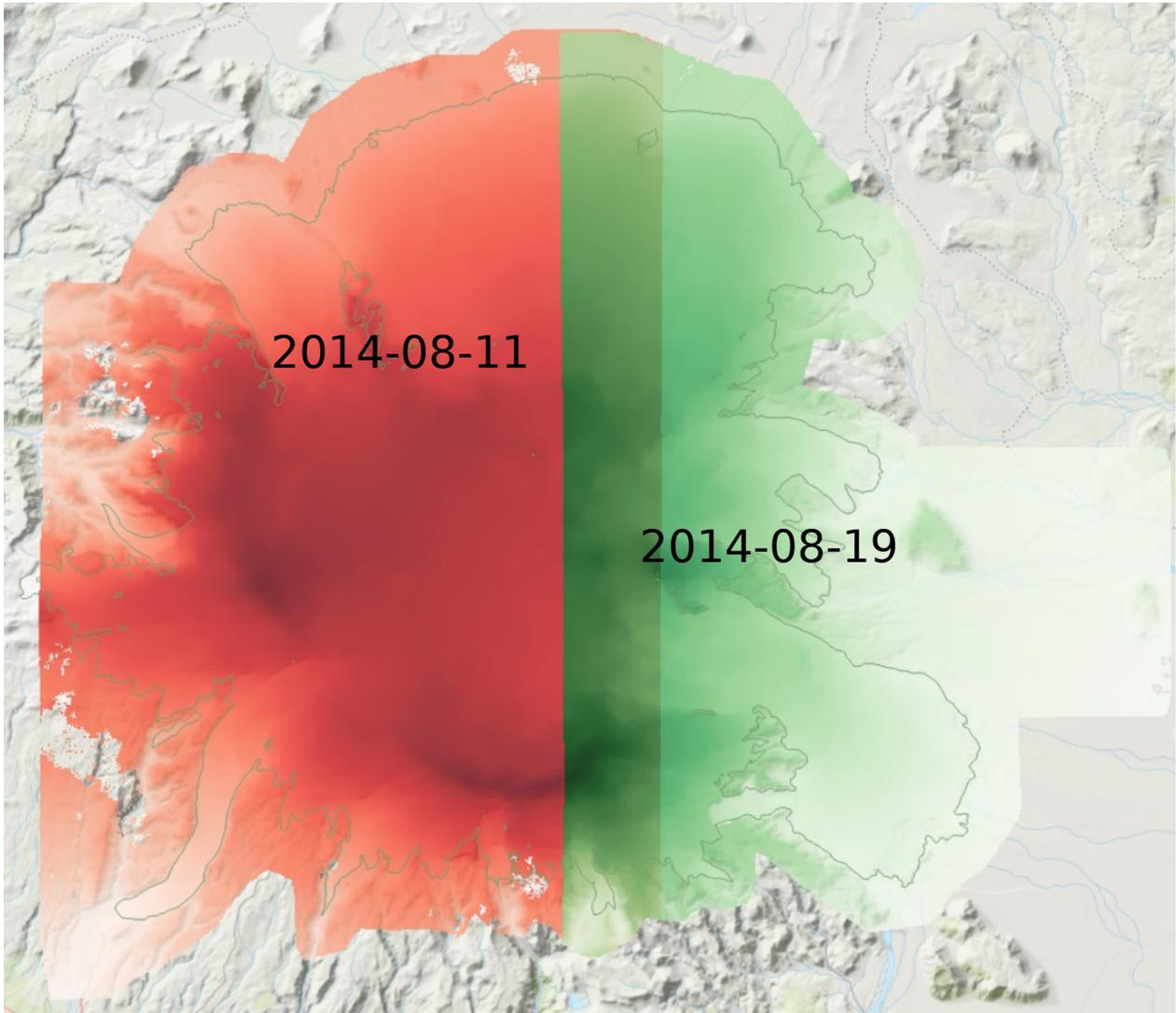
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# Langjökull data overview: Pléiades



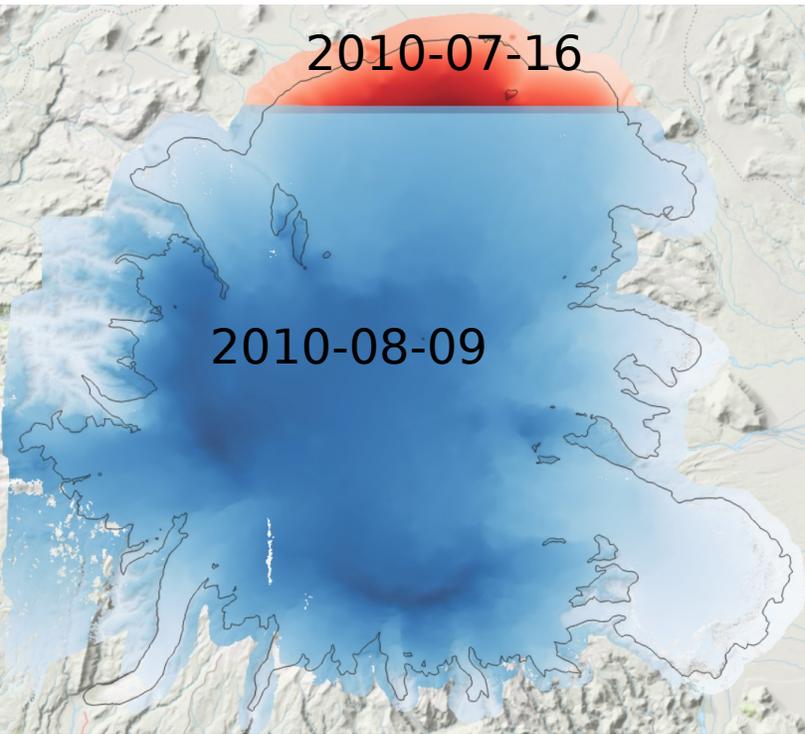
# Mýrdalsjökull data overview: Pléiades



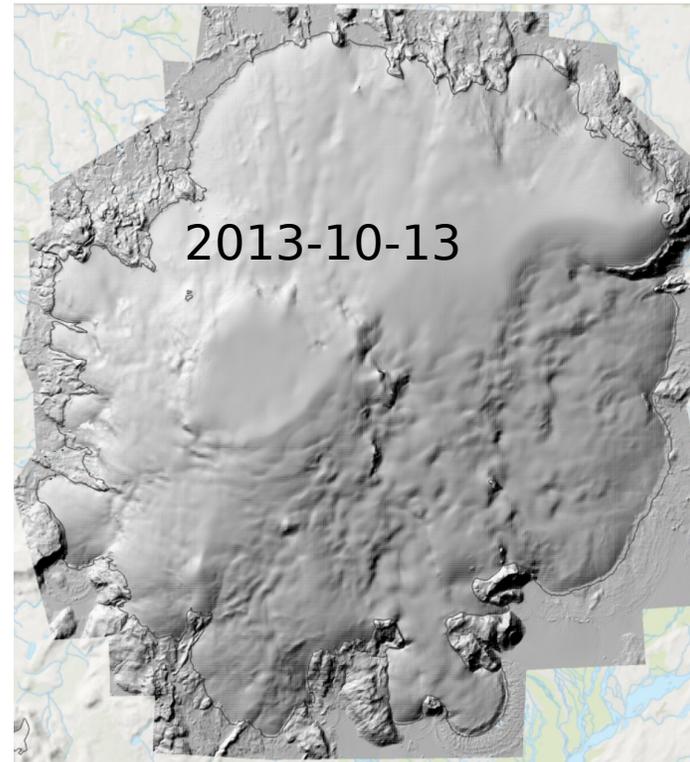
# Other HR data: Lidar & ArcticDEM

---

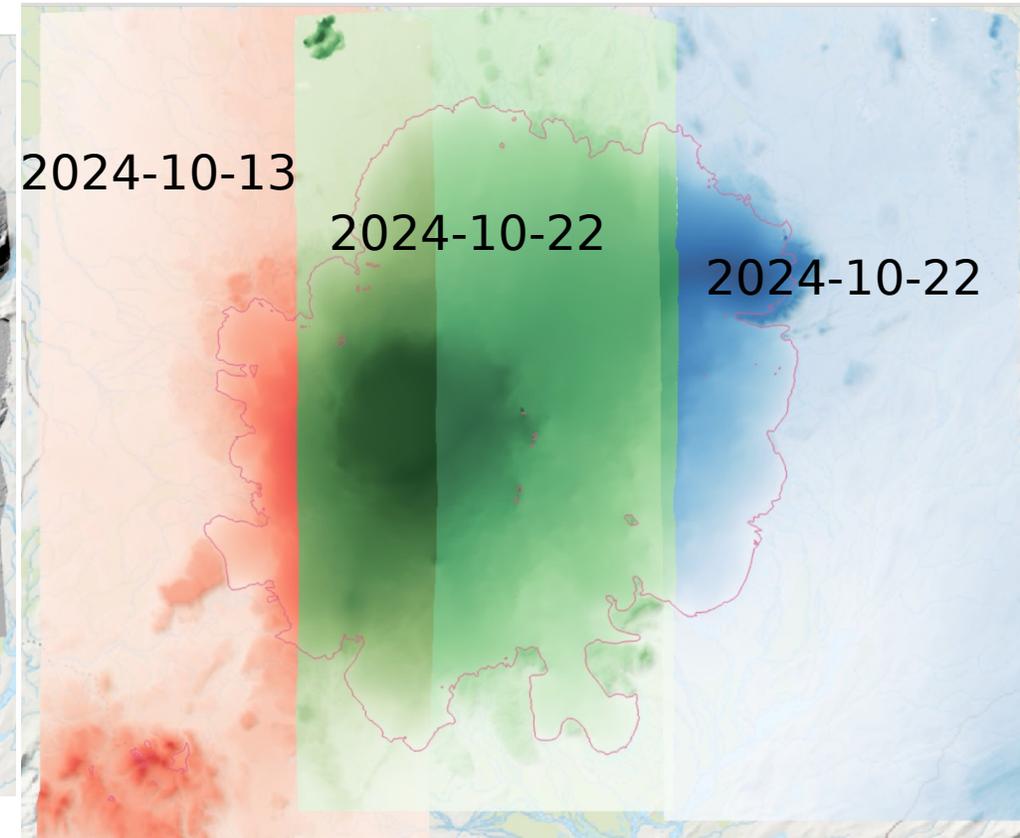
Lidar (Mýrdalsjökull)



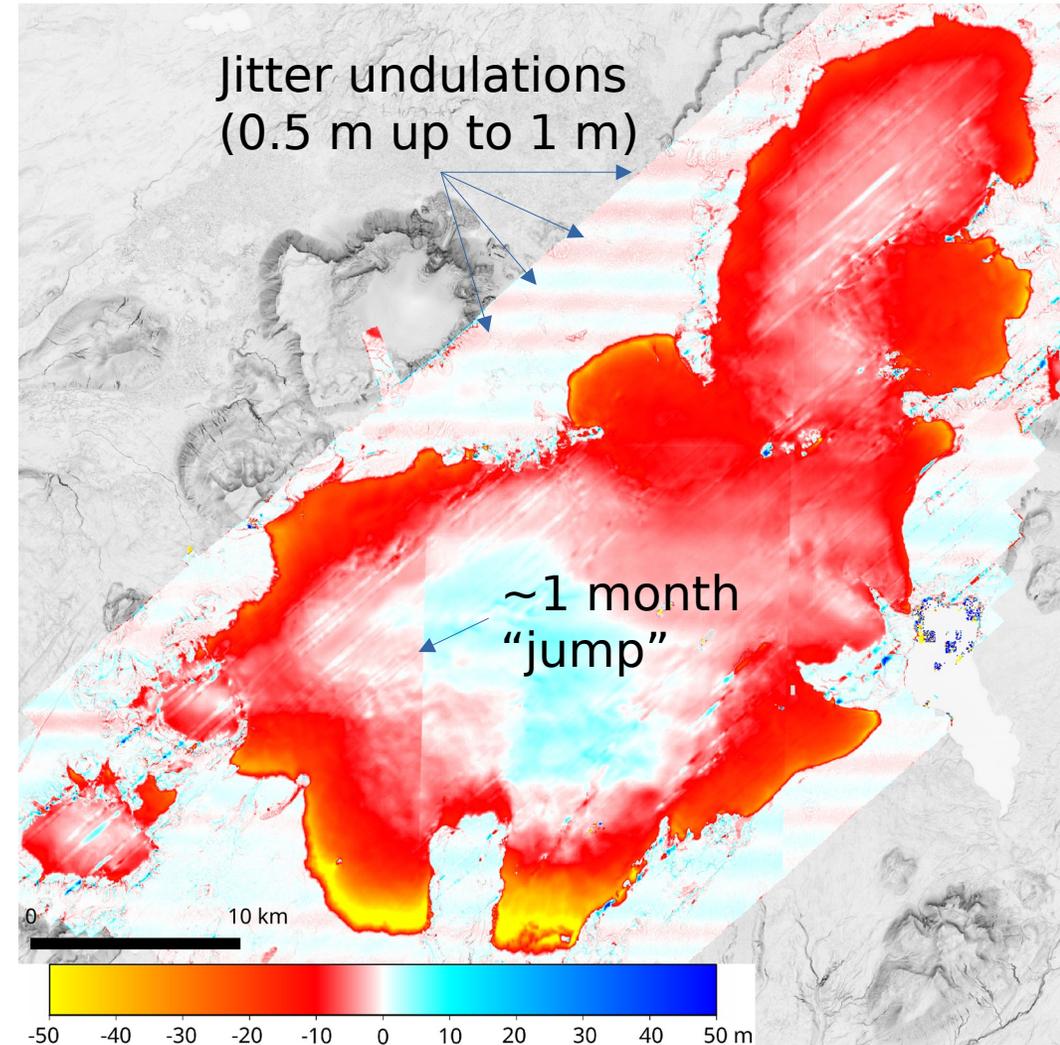
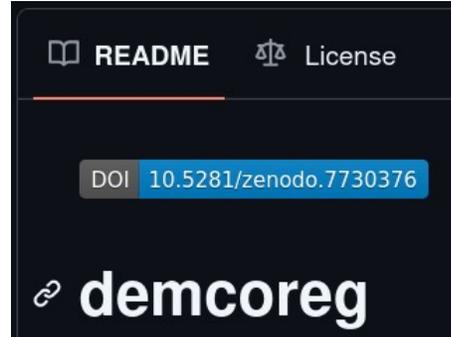
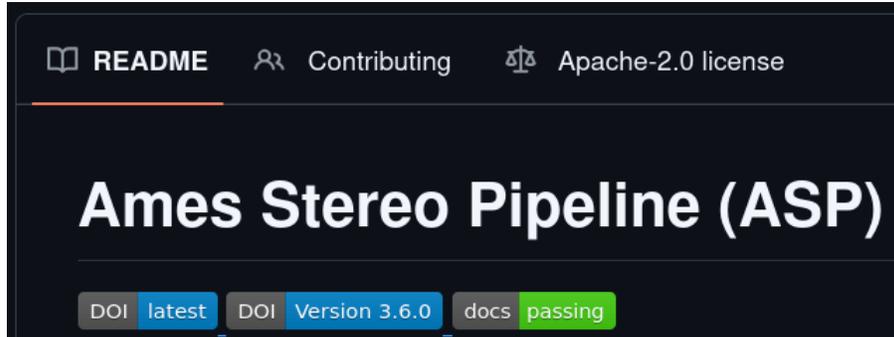
Lidar (Hofsjökull)



ArcticDEM (Hofsjökull)



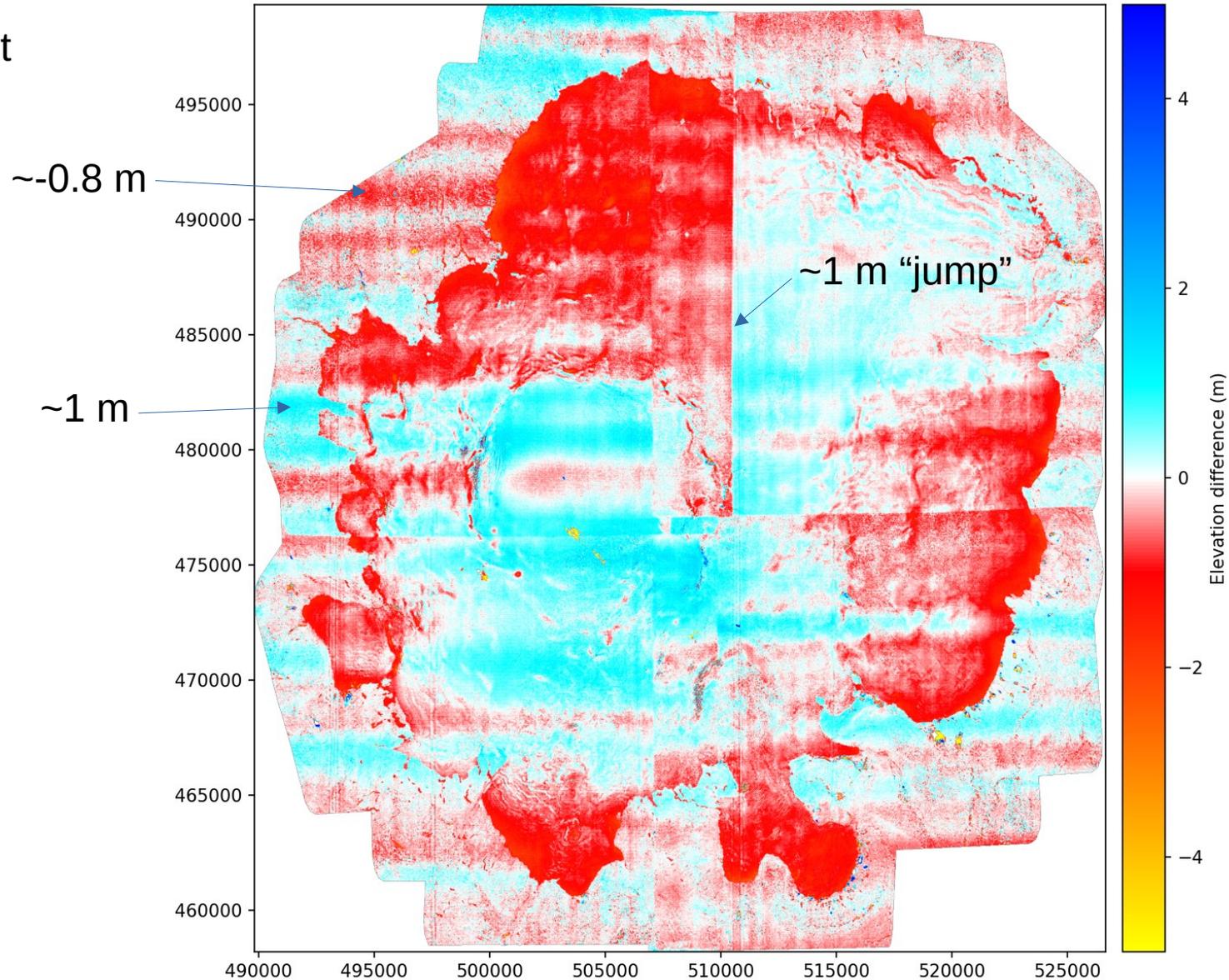
# Data processing: DEM creation & Co-registration



```
mapproject img1.tif rpc1 --ref refdem.tif  
mapproject img2.tif rpc2 --ref refdem.tif  
parallel_stereo img1mp.tif img2mp.tif rpc1 rpc2 refdem.tif  
point2dem langj-PC.tif langj-DEM.tif  
dem_align.py -tiltcorr -mask RGI6 dem.tif refdem.tif
```

# Results without jitter correction

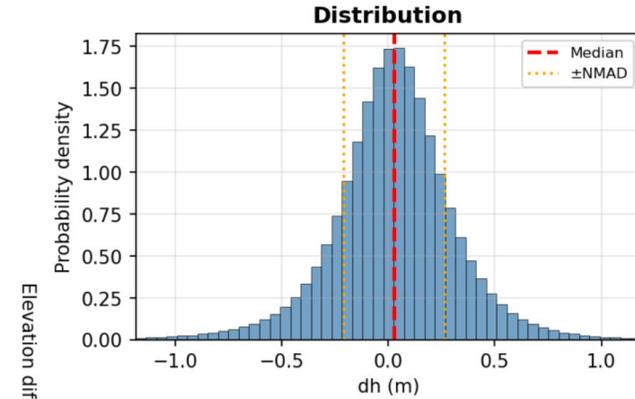
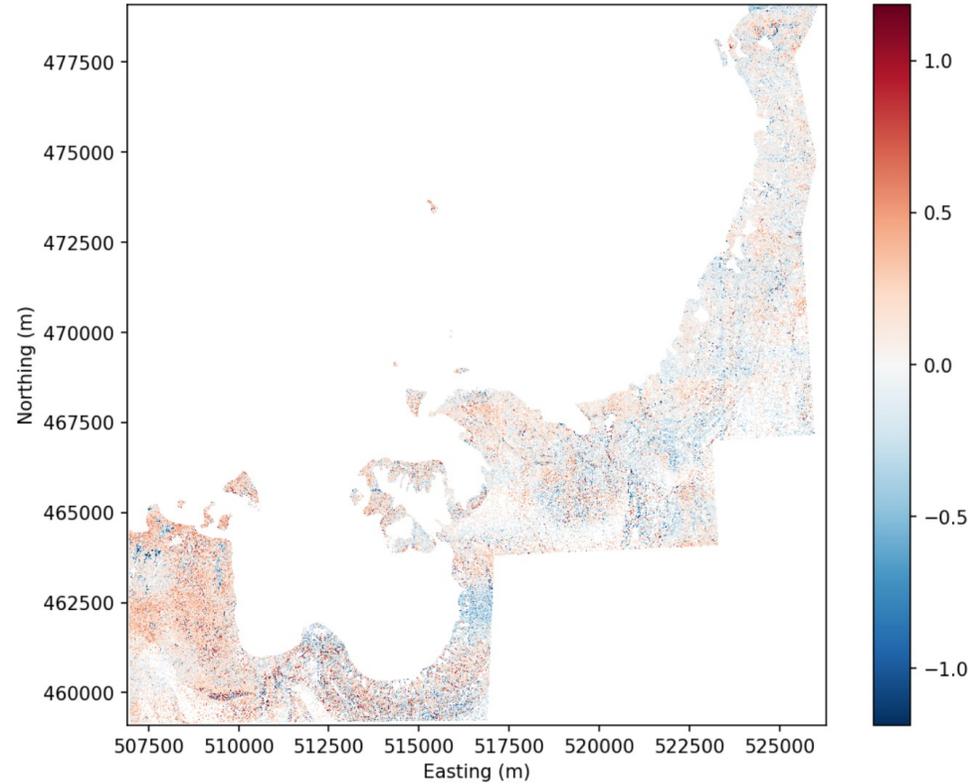
Dates:  
Mid-Aug to early Oct  
(45 days apart)



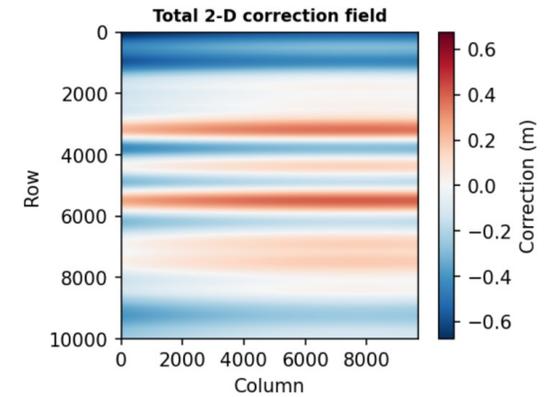
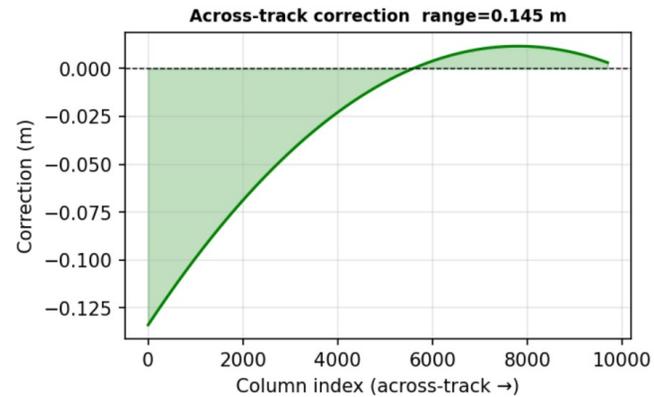
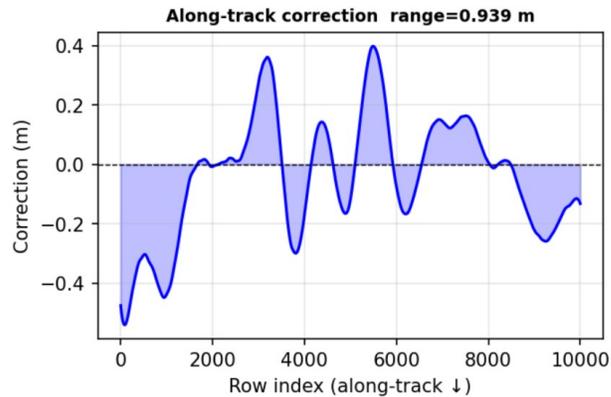
Phase 1 - Per-slaye

# Data processing: Jitter

Phase 1 result: iter1\_d1002\_2\_al  
Median = 0.027 m NMAD = 0.237 m

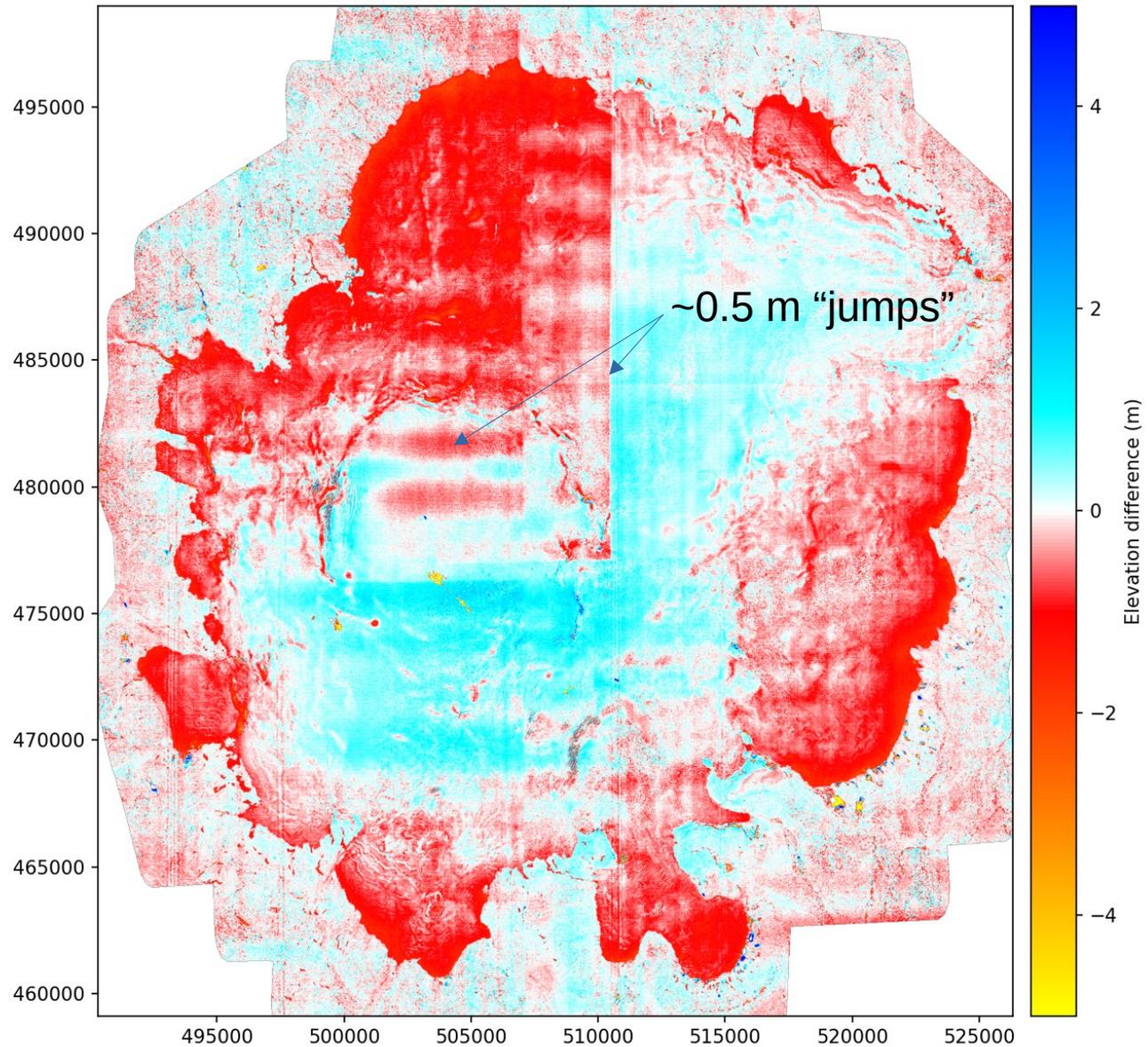


Phase 1 - iter1\_d1002\_2\_al  
Stable pixels : 18,173,588  
Median : 0.027 m  
NMAD : 0.237 m  
Mean : 0.024 m  
Std : 0.301 m  
Min : -2.115 m  
Max : 2.222 m



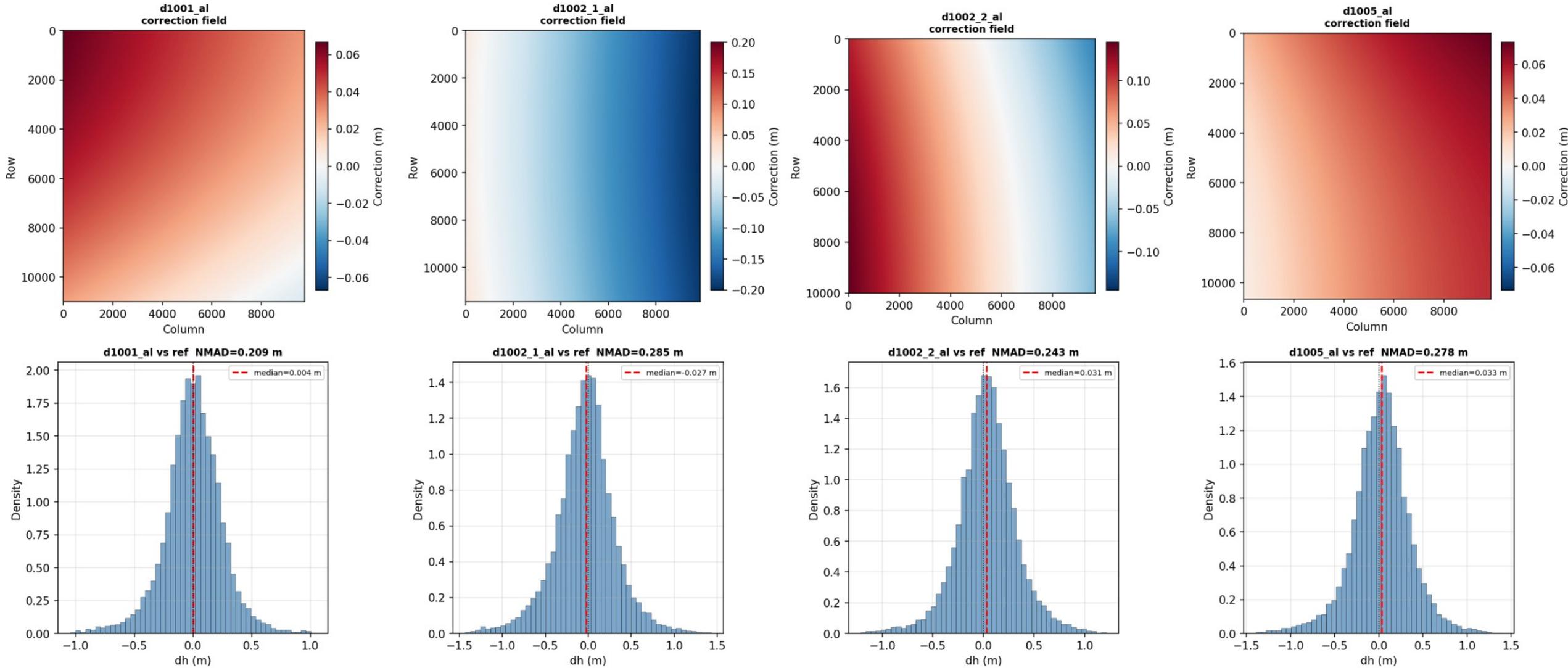
# Jitter correction: phase 1

Dates:  
Mid-Aug to early Oct  
(45 days apart)



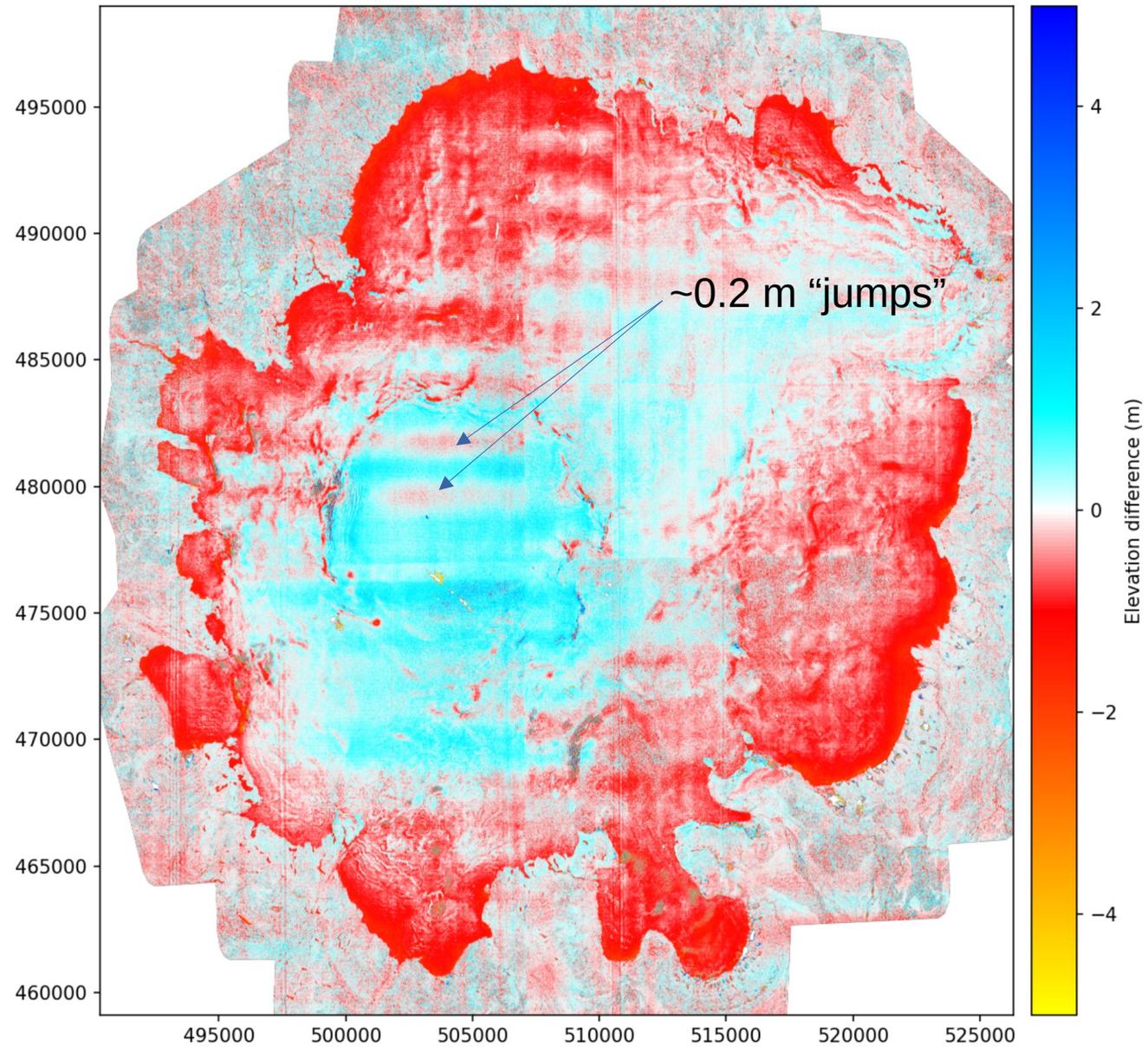
# Jitter correction: Phase 2 (combined)

Phase 2 combined corrections (outer iter 1)



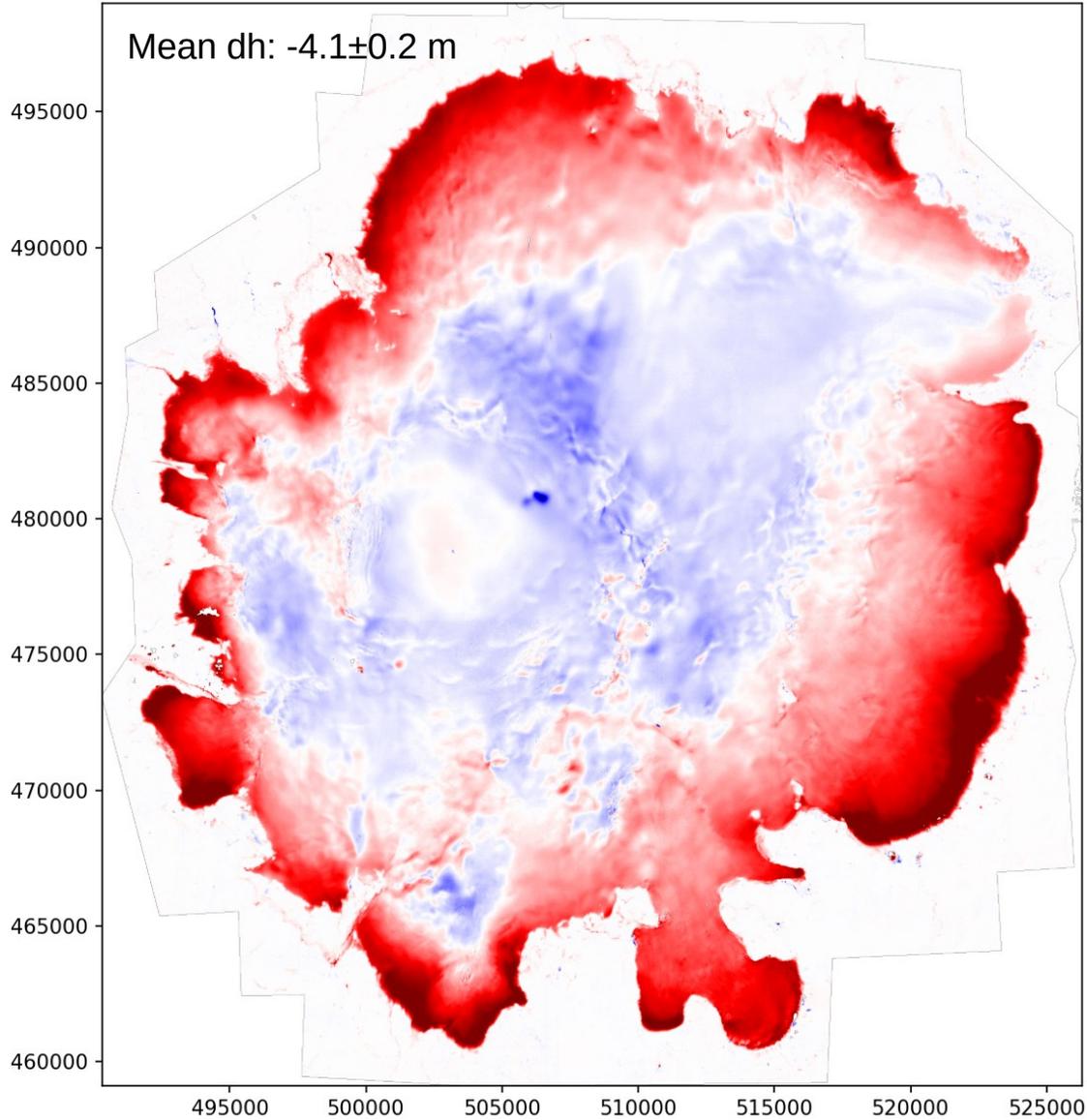
# Jitter correction: phase 1 + phase 2

Dates:  
Mid-Aug to early Oct  
(45 days apart)

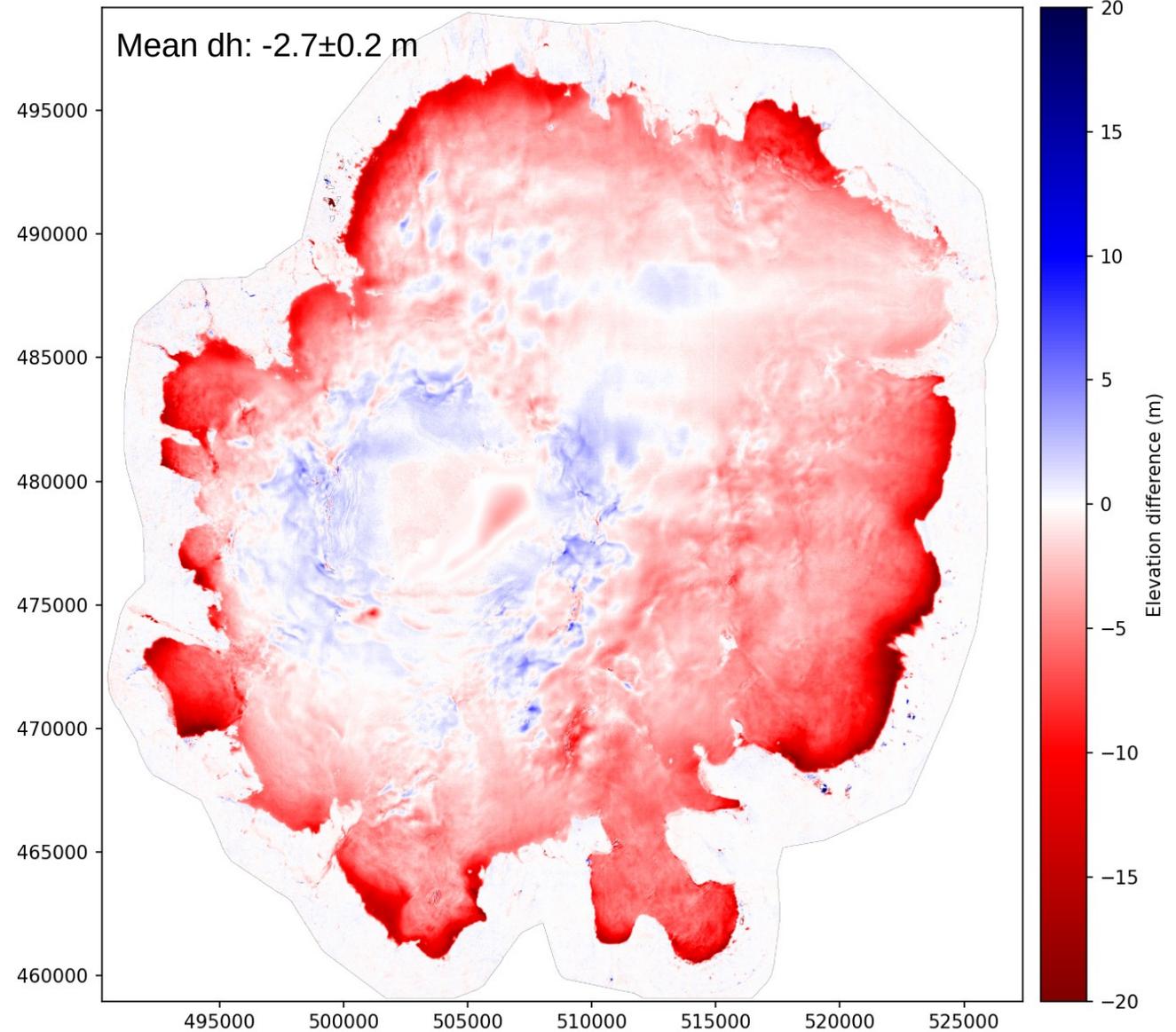


# Examples of “final” products

2013-2020



2020-2023



Merci!

