00003 Glacier Info

Input data files

| DEM file | RGI1_DEM/RGI60-01.00003_dem.tif |
|--------------------------|--|
| Change in thickness file | 00003_dhdt.tif (Hugonnet, 2000-2020) |
| Thickness file | 00003_h.tif (MillanThickness) |
| Velocity file(s) | [ITS LIVE 2017-2018', 'MillanVelocity 2017-2018', 'RETREAT 2017-2018'] |

Input Constants and Assumptions

| Resolution (m) | Density (kg/m3) | Vel Col Scaling Factor | Elevation Bin Width (m) | Coordinate system |
|----------------|-----------------|------------------------|-------------------------|-------------------|
| 20 | 850 | 0.8 | 50 | EPSG:32606 |

Input Calculation Settings

| Smoothing Filter | Smoothing Factor (raw data) | Smoothing Factor (divQ product) |
|--------------------------------|-----------------------------|---------------------------------|
| Dynamic Window Gaussian Filter | 4x local thickness | 1x local thickness |

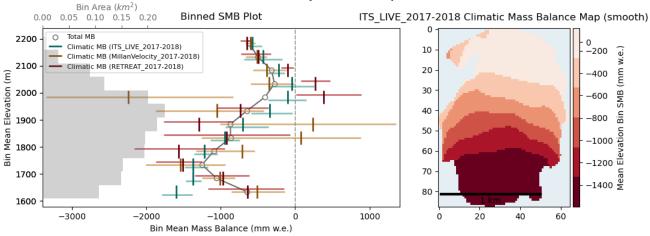
^{**}Smoothing is only done for velocity and ice thickness data. If dynamic smoothing uses 0 for both inputs, there is no smoothing**

Calculation Results

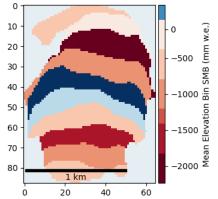
| Area | 1.69 (sq. km) |
|---------------------------------------|--|
| Total MB | -768.47 (mm w.e.) |
| Total MB, alt-resolved | -768.47 (mm w.e.) |
| Climatic MB: ITS_LIVE_2017-2018 | -768.35 (mm w.e.) |
| Climatic MB: MillanVelocity_2017-2018 | -767.35 (mm w.e.) |
| Climatic MB: RETREAT_2017-2018 | -768.45 (mm w.e.) |
| Scatter plot error bar value | percentile: lower bound at 25%, upper bound at 75% |

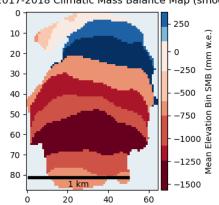
^{**}Climatic MB from emergence method does not use smoothed data**

00003 Velocity Product Comparison

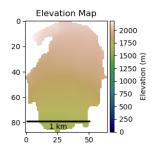


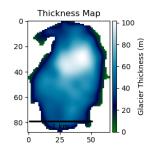
MillanVelocity_2017-2018 Climatic Mass Balance Map (smoo**RET**REAT_2017-2018 Climatic Mass Balance Map (smooth)

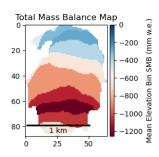




00003 Thickness, Elevation, Total MB Plots

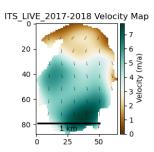


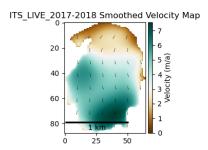




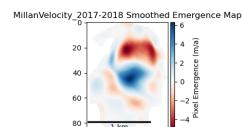
00003 ITS_LIVE_2017-2018 Velocity Products

ITS_LIVE_2017-2018 Smoothed Emergence Map 20 40 60 80

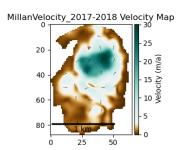


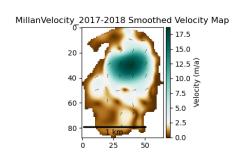


00003 MillanVelocity_2017-2018 Velocity Products



1 km





00003 RETREAT_2017-2018 Velocity Products

RETREAT_2017-2018 Smoothed Emergence Map 20 40 60 80

