

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Subsurface measurements in the Bowdoin Fjord. Meteorological measurements at Qaanaaq. Temperature and water-pressure measurements in the lake.

File Name: Supplementary Movie 1

Description: Time-lapse images of the plume area taken by a Sony camera. This movie synchronizes available time-lapse images of the plume area taken by a Sony camera with time-series. Owing to maintenance during the observations, the angle of view may have occasional step-like shifts.

File Name: Supplementary Movie 2

Description: The temporal evolution of the time-series of the 'deep' sensor in 3D space (temperature–salinity–pressure). The time-step between the frames is 1 min. The colourmap represents the associated density of water (kg m^{-3}). The largest green circle shows the conditions at the current time-step (t_i) and temporarily changes to a blue colour for indicating the timing of the GLOF event. The short tail of 5 green circles of decreasing diameter represents the past 1min of observations to give the viewer a reference for the most recent changes (from $t_i - 10$ s to $t_i - 60$ s). Similarly, the longer 'tail' corresponds to the past 20 min of observations (from $t_i - 1$ min to $t_i - 20$ min). Black crosses represent the projection of the current situation on each of 2D planes (i.e., temperature–salinity, temperature–pressure, and salinity–pressure). Grey circles simply leave a trace of animated data points for providing a summary of all the data.

File Name: Supplementary Movie 3

Description: Time-lapse images of the plume area taken by a GardenWatch-1 camera. This movie synchronizes available time-lapse images of the plume area taken by a GardenWatch-1 camera with time-series. The GardenWatch-1 Camera was susceptible to thermo-elastic swings.

File Name: Supplementary Movie 4

Description: Time-lapse images of the plume area taken by a GardenWatch-2 camera. This movie synchronizes available time-lapse images of the plume area taken by a GardenWatch-2 camera with time-series. The GardenWatch-2 Camera was susceptible to thermo-elastic swings.

File Name: Supplementary Movie 5

Description: Animated time-embedding results for deep-sensor pressure. This movie provides animated time-embedding results for subsurface time-series. They allow the viewer to detect distinct temporal changes in the dynamics. The time-step between the frames is 1 min. The colourmap represents the associated temperature. The largest green circle shows the conditions at the current time-step (t_i) and temporarily changes to a blue colour for indicating the timing of the GLOF event. The short tail of five green circles of decreasing diameter represents the past 1 min of observations to give the viewer a reference for the most recent changes (from $t_i - 10$ s to $t_i - 60$ s).

File Name: Supplementary Movie 6

Description: Animated time-embedding results for deep-sensor temperature. The legend descriptions are the same as in Supplementary Movie 5.

File Name: Supplementary Movie 7

Description: Animated time-embedding results for deep-sensor salinity. The legend descriptions are the same as in Supplementary Movie 5.

File Name: Supplementary Movie 8

Description: Animated time-embedding results for shallow-sensor temperature. The legend descriptions are the same as in Supplementary Movie 5.

File Name: Supplementary Movie 9

Description: Animated time-embedding results for shallow-sensor salinity. The legend descriptions are the same as in Supplementary Movie 5.