

Dynamic Planet Glaciology Information

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Dynamic Planet is an event all about glaciology. Glaciers are sheets of compressed snow. They are a huge source of freshwater since they have so much ice, and they are really important. They can tell us about climate change and they have also created many bodies of water from their melt water, such as San Francisco Bay.

These ice masses can recede and advance. A receding glacier is when the glacier is getting smaller in size, meaning that some of it is melting. An advancing glacier is a glacier that is getting larger in size, meaning that more snow is being added to it.

The glacier's mass balance is the difference between its ablation and accumulation. Ablation refers to how much the glacier melts and accumulation refers to how much the glacier grows. The glacier's equilibrium line separates the ablation and accumulation zones. The ablation zone is where ablation is more than the accumulation, and the accumulation zone is where vice versa occurs. This line is also where the amount of ablation equals the amount of accumulation.

There are many types of glaciers. The main types are alpine, valley, and continental glaciers. Glaciers are put into these categories based on the location of the glacier.

Alpine glaciers are located in mountains. They can sometimes span an entire mountain range! They sometimes have mountains poking up from it, and those are called nunataks. They are found on every continent, except for Australia.

Continental glaciers are glaciers that cover most of a continent. Types of continental glaciers include ice sheets and ice caps. Greenland and Antarctica are covered with these glaciers!

Valley glaciers are glaciers that spill down the valleys. These glaciers often look like tongues while moving down the valley. These glaciers rub off some much land that they create **U-shaped** valleys. An example of a valley glacier is Tonsina Glacier in Alaska.

There are many glacial landforms as well. First of all, U shaped valleys are significant landforms made by glaciers. The sides of the glaciers also tear away the land, causing the valley to be in a U shape. Another important set of landforms is the moraines. Moraines are the debris that a glacier pushes and bring along with it as it moves. Some types of moraines are lateral moraines, terminal moraines, medial moraines, and rogen moraines

Other glacial landforms include erratics, cirques, kettle ponds, horns, and drumlins.