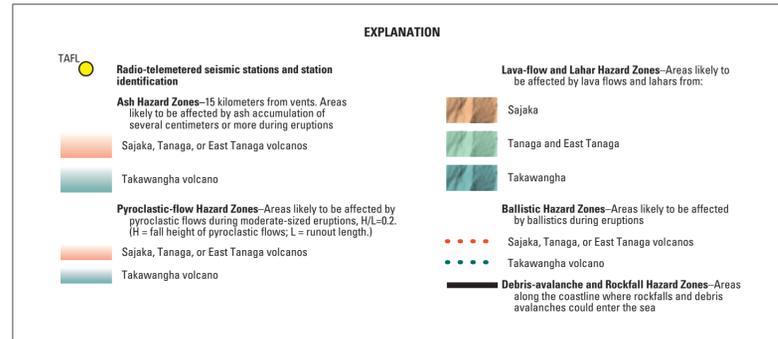


Map showing areas of potential ash fall during a moderate eruption of a Tanaga cluster volcano. Hypothetical ash fall contours, in millimeters, are generated for average summer (red) and winter (blue) winds. Ash fall during an actual eruption will depend on the wind direction at that time, and may deviate from these examples. See text for further explanation.



SUMMARY OF VOLCANIC HAZARDS AT TANAGA VOLCANIC CLUSTER

[See figure 12 and text for schematic representation and description of these processes. "Proximal" refers to northern Tanaga Island, "Distal" refers to areas offshore and the southern part of Tanaga Island, "Overhead" refers to the area above the volcano (for example, overflying aircraft)]

Type of Hazard	Degree affected			Comments
	Proximal	Distal	Overhead	
Ash clouds	Major	Major to slight	Major	Severe hazard to aircraft even hundreds or thousands of kilometers downwind.
Fallout	Major	Major to nil	Major	Significant hazard to anyone around volcano and to nearby communities. Minor hazard or nuisance in distant communities.
Ballistics	Major	Nil	Nil	Significant hazard to anyone on or around volcano during explosive eruptions.
Pyroclastic flows and surges	Major	Nil	Slight	Significant hazard to anyone on or near the volcano during explosive eruptions. Possible hazard to overflying aircraft during large eruptions.
Lava flows	Major	Nil	Nil	Significant hazard to anyone near flows; attendant pyroclastic flows, fallout, or ballistics increase the area potentially affected.
Lahars	Major	Nil	Nil	Significant hazard limited to drainages downstream from erupting vent.
Rockfalls and landslides	Major	Nil	Nil	Persistent hazard to anyone near steep slopes especially those that are hydrothermally altered.
Volcanic gases	Major	Nil	Slight	Significant hazard during periods of strong degassing from fumaroles or vents.
Debris avalanches	Major	Major	Nil	Significant hazard to anyone around volcano during event, especially in low-lying areas. Larger debris avalanches could extend offshore.
Directed blasts	Major	Major	Major	Very low probability, but significant hazard especially in path of directed blast; attendant pyroclastic flows, fallout, and debris avalanche would increase affected area.
Volcanic tsunamis	Major	Major	Nil	Very low probability, but significant hazard during large debris avalanche or eruption that produces large pyroclastic flows that enter the sea; could occur off the north or west shore of the island, affecting areas on nearby islands, shipping routes, and the Bering Sea.



Aerial view of Sajaka volcano summit, looking southwest. The older rim of Sajaka One, shown by dashed line, wraps around the new cone of Sajaka Two. A debris avalanche destroyed much of Sajaka One in the last few thousand years. Photograph by R.G. McGimsey, August 2003.



Looking to the north, a young basaltic lava flow from one of Takawangha's craters is partly covered by glacier ice. Photograph by M.L. Coombs, August 2003.



Sajaka, Tanaga, and East Tanaga volcanoes (from left to right) as seen looking west from the summit of Takawangha volcano. Dashed line shows the location of a collapse scar, formed between 240,000 and 120,000 years ago during a debris avalanche that swept away the western half of the island. Sajaka, Tanaga, and East Tanaga have grown up inside the scar. Photograph by M.L. Coombs, August 2003.

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