





Figure 1 Distribution of active volcanoes in Japan. Active volcanoes are classified into three ranks from A to C with decreasing scale of activity: A- most active includes 13 volcanoes, B- includes 36 and C- includes 36 volcanoes. Submarine volcanoes and those in the Southern Kurile Islands (Kunashiri and Etorofu) are excluded from this classification. Future survey may add more active volcanoes. Thick orange lines are volcanic fronts.

surrounding areas.

AIST has been making geological maps of past eruptions of active volcanoes since the time of our antecedent, the Geological Survey of Japan, and has been providing them as geological maps of volcanoes. Questions such as when, where and how a volcano erupted and affected can be determined based on our intensive study of past distribution of erupted products, eruption time and characteristics using field surveys and laboratory experiments.

Each volcano has its own varying characteristics, patterns, frequencies, and scales of eruption. The geological map of a volcano can be referred to as a resumé of the volcano since the

time it was formed by clarifying such differences mentioned above. The geological map of a volcano will help with prediction of shift in the activity when an eruption is imminent or

actually begins. The data on patterns and scales of past eruption are used as basic material to establish hazard map (a chart of expected damage due to an eruption) by local administration.

Figure 2 Part of the geological map of Asama volcano (1993 issue). Erupted products are color-coded according to time and type. Active part is in the Kama-yama crater inside the Maekake-yama cone. The latter is surrounded by somma of Kurofu-yama that was formed by a gigantic collapse of the mountain body. For this particular structure Asama volcano is often referred as a triple volcano. In 1783 eruption the volcano released a large amount of pumice fall, followed by pyroclastic flows and ended by the Onioshidashi Lava Flow.

