

Characteristic Eruption Sequence at the Main Stage of Nakamachineshiri in the Me-Akan Volcano, Eastern Hokkaido

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Throughout the eruption history of Me-Akan volcano on the Akan caldera, eastern Hokkaido, the largest eruptions occurred about 13000 years ago, referred to as Nakamachineshiri eruptive stage-I (Nak-I). Nak-I can be subdivided into two eruption stages. The initial eruptive stage is characterized by pumice-rich pyroclastic flows followed by lava eruptions (Nak-I-E), whereas the main eruptive stage by continuously eruptive sequence of lava fragments-rich pumice and scoria pyroclastic flows, Plinian pumice and scoria eruption, and pyroclastic flow eruption (Nak-I-M). From the observation of outcrop along the Me-akan river at eastern frank and analysis of eruption products, we report the characteristics of eruptive sequence and its magma plumbing system at Nak-I-M.

Nak-I-M is stratigraphically composed of scoriaceous pyroclastic flow layer containing plenty of lava rock fragments (M1 to M7), pumice and scoria pyroclastic flow layer (M8), Plinian pumice scoria fall layer (M9), pumice and scoria pyroclastic flow layer (M10), Plinian pumice scoria fall layer (M11), pyroclastic surge and volcanic ash fall layer (M12). These layers are piled up without gap of time, and are throughed by degassing pipe. The eruption sequence of M1 to M7 was formed by repeated basaltic andesite pyroclastic flows with scoria and agglutinate fragments accompanied by much of destructive lava fragments. The following eruptions (M8 to M12) are due to the magma mixing plumbing system of basaltic andesite and dacite magma. This eruption cycle of pyroclastic flows to Plinian falls, characterized by the increasing vesicularity and simultaneity of Plinian and pyroclastic flows eruptions, shows no typical eruption sequence but can be tentatively called "eruptive sequence of Me-Akan type".

Keywords: Me-akan volcano, Nakamachineshiri, eruption sequence, pyroclastic flow