

Japanese glaciological activity in Antarctica for the next six years (JARE Phase IX)

*Kenji Kawamura¹, Hideaki Motoyama¹, Kumiko Goto-Azuma¹, Shuji Fujita¹, Dome Fuji Ice Core Consortium

1. National Institute of Polar Research, Research Organization of Information and Systems

The Dome Fuji ice core covers the past 720,000 years, and its analyses have been conducted. During the Phase VIII of Japanese Antarctic Research Expedition, we made advancements in glaciological activities such as transportation of the second Dome Fuji ice core, shallow and intermediate drillings, and large-area glaciological surveys.

International Partnership in Ice Core Science (IPICS), to which Japan has participated, has identified the "oldest ice core" project, which aims to collect 1.5 million-years-old ice cores from Antarctica, as a most important and challenging project for the international ice core community. We plan to contribute to this project and started the consideration of next deep drilling site in the vicinity of the current Dome Fuji station.

During the next six years, we aim to conduct glaciological surveys, identify a suitable coring site, and start drilling to the first few hundred meters. In addition to the new drilling, a part of the second Dome Fuji core, stored at the station, must be transported to Japan for the study of this core.

In the presentation, we will also introduce our planned coastal activities and updates on international circumstances about the oldest ice project.

Keywords: Japanese Antarctic Research Expedition, Climate change, Ice core