Tokachidake volcano, that is located in central Hokkaido, Japan, is one of the most active volcanoes in Hokkaido. Recent eruption had occurred from 1988 to 1989. And after that, thermal activity had been on the decline until 1993. However, in the end of 1994, thermal activity in Tokachidake volcano had incline again.

The main phenomenon in active crater is described as followed.
1. In the February 1995, fuming area had formed in 62-0 crater that didn’t have any thermal activity.
2. From 1996 to 1998, 62-2 crater had been observed increase of fumaroles and its temperature.
3. Especially in 1998, fumaroles from 62-2 crater flowed along the northwest-facing slope of the mountains and that was withered leaves of trees.
4. In the February 2003, volcanic tremor was observed between 37 minutes. This is the first time such a long time tremor we observed.
5. In the February and April 2004, we observed volcanic tremor again. At the same time, small ash eruption had been observed.

Geological Survey of Hokkaido have operated volcanic observation, for example, VLF-survey, continuous observation of ground temperature, thermo tracer observation and so on. Furthermore, we have started continuous GPS observation since July 2003 that situated in the neighborhood of crater and about 1km northward of crater.

In this presentation, we will show the features of thermal activity of Tokachidake volcano from comparison of these results and the transition of activity.