

Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

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ACG032-22

Room:105

Time:May 27 15:30-15:45

Historical typhoon track dataset during the early 20th century over the western north Pacific

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Typhoon provides fresh water to the land but it can cause disaster when it makes landfall due to strong winds and heavy rain. Recently the variability of typhoon activity becomes a great concern because it may be affected by global warming. Over the Western North Pacific (WNP) basin, typhoon best track data are available from 1945. Before that due to the difference of typhoon definition, there is no available database. In this study, we collected and digitized the historical typhoon track data during the early 20th century. We created new typhoon definition, performed quality check by comparing station pressure data, connected to the current best track data and made 100 years typhoon track dataset over the western north Pacific. The purpose of this study is to understand the typhoon variability during the 20th century. Now we have four different sources of historical typhoon track data. By comparing different sources we are improving the typhoon track data.

It is important to keep the quality of the historical typhoon track data as close as current best track data to make the dataset reliable. We would like to discuss how to keep this quality of the dataset and the availability of the dataset to other communities.

Keywords: typhoon, western north Pacific, data rescue, climate change