

The origin of "Fujiwhara effect" which describes interaction between two close tropical cyclones

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"Fujiwhara effect" which describes interaction between two close tropical cyclones including typhoons, is one of the few eponyms in meteorology with Japanese name. It is known that this is named for Japanese meteorologist Sakuhei Fujiwhara (1884-1950) who served as Director of Central Meteorological Observatory of Japan from 1941 to 1947. The origin of this word was investigated by bibliographic survey.

The interaction between two typhoons was first studied theoretically by Diro Kitao (Kitao, 1889). Fujiwhara published numerous papers, including Fujiwhara (1923), about interaction between two vortexes in 1920's and 1930's with the knowledge of Kitao's studies in style of his own.

During World War II, U.S. forces were damaged by typhoons several times including twice devastation of Third Fleet. This was a motive that they established a center for typhoon tracking in Guam in June 1945 that performed aircraft reconnaissance and warning operation in North West Pacific.

Two typhoons (Susan and Ruth in U.S. name) that progressed slowly in the western Pacific between Okinawa and Japan, interacting each other, in late August 1945 postponed McArthur's occupation plan of Japan for 48 hours. They could observe and analyze the detailed motion of two typhoons by aircraft reconnaissance.

It is inferred that therefore some experts in meteorological services in U. S. gave this process the name of a chief of meteorological service of the enemy and also a meteorologist who had studied interaction between vortexes.

References

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