Pattern of occurrence of sea of clouds and waterfall cloud near Mt.Nishihotakadake

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The mountain ranges of 3000 m class are connected to the spear ·Mt.Yarigatake-Mt.Hotakadake mountain range, and the mountain ranging from Mt.Nishihotakadake located at the southwest end to Mt.Yakedake, Mt.Norikuradake ridgeline is also over 2000 m. Although it is said that the atmospheric boundary layer is within 1000 meters in the temperate region, situations where the atmosphere boundary layer between Gifu prefecture and Nagano prefecture is divided by continuous mountains often occurs in this area. Under such circumstances, when moist air flows into the lower layer from the Sea of Japan side, it becomes a form that can be stopped at Gifu prefecture side. Furthermore, when an event such as subsidence inversion layer due to high pressure occurs, stratocumulus cover the sky with the reversal layer as the boundary, and a sea of clouds occurs. Analysis of the weather conditions at the time of occurrence revealed that there are some patterns in the inflow of moist air in the lower layer. We also verified the supply of lower layer wetness to maintain the generated cloud sea and the influence of solar radiation at the time of disappearance of the sea of clouds.

In addition, waterfall cloud often occurs near Nishiho Sanso, but this is due to the lowest between Nishiho Maruyama and Mt.Yakedake in the ridgeline leading from Mt.Yarigatake-Mt.Hotakadake mountain range to Mt.Yakedake. It was found that there are two patterns in the waterfall cloud seen in this mountain region. Dynamic things, such as weakening of high pressure and strengthening inflow of moist air in the lower layer, are added at the time of the occurrence of the sea of clouds, the altitude of the sea of clouds rise, and from Nishiho Maruyama - Mt.Yakedake to Nagano Prefecture side It occurs by the cloud overflowing. On a small scale, it is caused by the air rising along the slope like the cap cloud and disappearing when it goes down, but in any case, it will be between Nishiho Maruyama and Mt.Yakutake The low altitude is a major factor in the occurrence.

Keywords: Mt.Yarigatake-Mt.Hotakadake mountain range, sea of clouds, waterfall cloud, inversion layer