

A wing-shaped captive balloon using the lift

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There are few precedent data for a vertical meteorological observation in a city area, so mechanism of city meteorological phenomenal such as heat island aren't clarified absolutely. A captive balloon is mainly used to a few meters from ground in a vertical meteorological observation. A small airship called a kytoon or an advertising balloon, for example. However a captive balloon is affected strongly by wind. So, we developed a new type of a captive balloon. The greatest characteristic of our captive balloon is making a use of wind force for its stability. In fact, our balloon use the lift to fly like a kite does. So, our balloon is wing-shaped. Then, we aim to clarify mechanism of heat island making a vertical observation with it.