Development of a wing-shaped captive baloon using the lift

Kosaku Ono[1]; Tatsuko Tsutsui[2]; Arata Yajima[3]; Satoshi Sakai[4]

[1] Human and Environ.Kyoto Univ; [2] none; [3] Env Man, Earth Env , Kyoto Univ.; [4] Human and Environ. ,Kyoto Univ

http://www.gaia.h.kyoto-u.ac.jp/˜minchika

There are few precedent data for a vertical meteorological observation of a city area. So, mechanism of city meteorological phenomena such as heat island aren't clarified bsolutely.

In a vertical meteorological observation as high as an altitude of a few hundred meters from the ground, a captive baloon is mainly used. A small airship called kitoon or an advertising baloon, for example. But a captive bloon is effected strongly by wind. So, we developed a new type of a captive baloon. The greatest charastiristics of our captive baloon is making a use of wind force for its stability. In fact, our bloon use the lift to fly like a kite does.So, our bloon is wing-shaped.

Then, we aim to clarify mechanism of heat island making a vertical observation with it.