

ARLISS 2006 REPORT

Open-Class

C-BOYs Team

Department of Aerospace

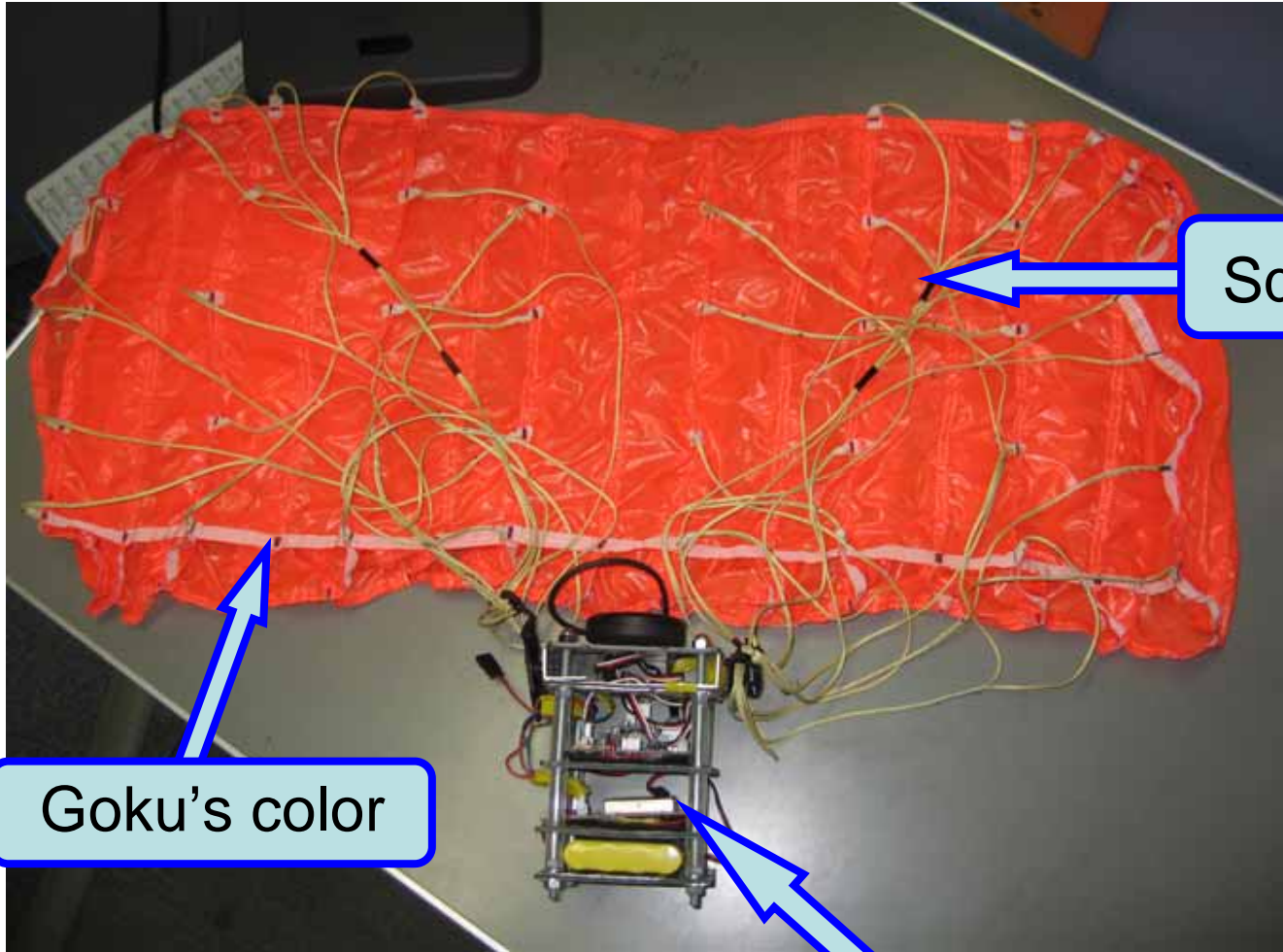
Engineering

Tohoku University



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Tetsuo Kamada
Satoshi Yamaguchi

- Flyback approach
- Objectives: (1) Satellite design/fabrication/test/
(2) project management/team work
- Participation in “Come back competition”
- Development period: July 7- Sept 18 (73days)



Square Parachute

Goku's color

Body





BOMB

6 Control Algorithm

Control mode

1. Acceleration mode
2. Left turn mode
3. Right turn mode
4. Spiral mode
5. Neutral



Acceleration



Left



Right

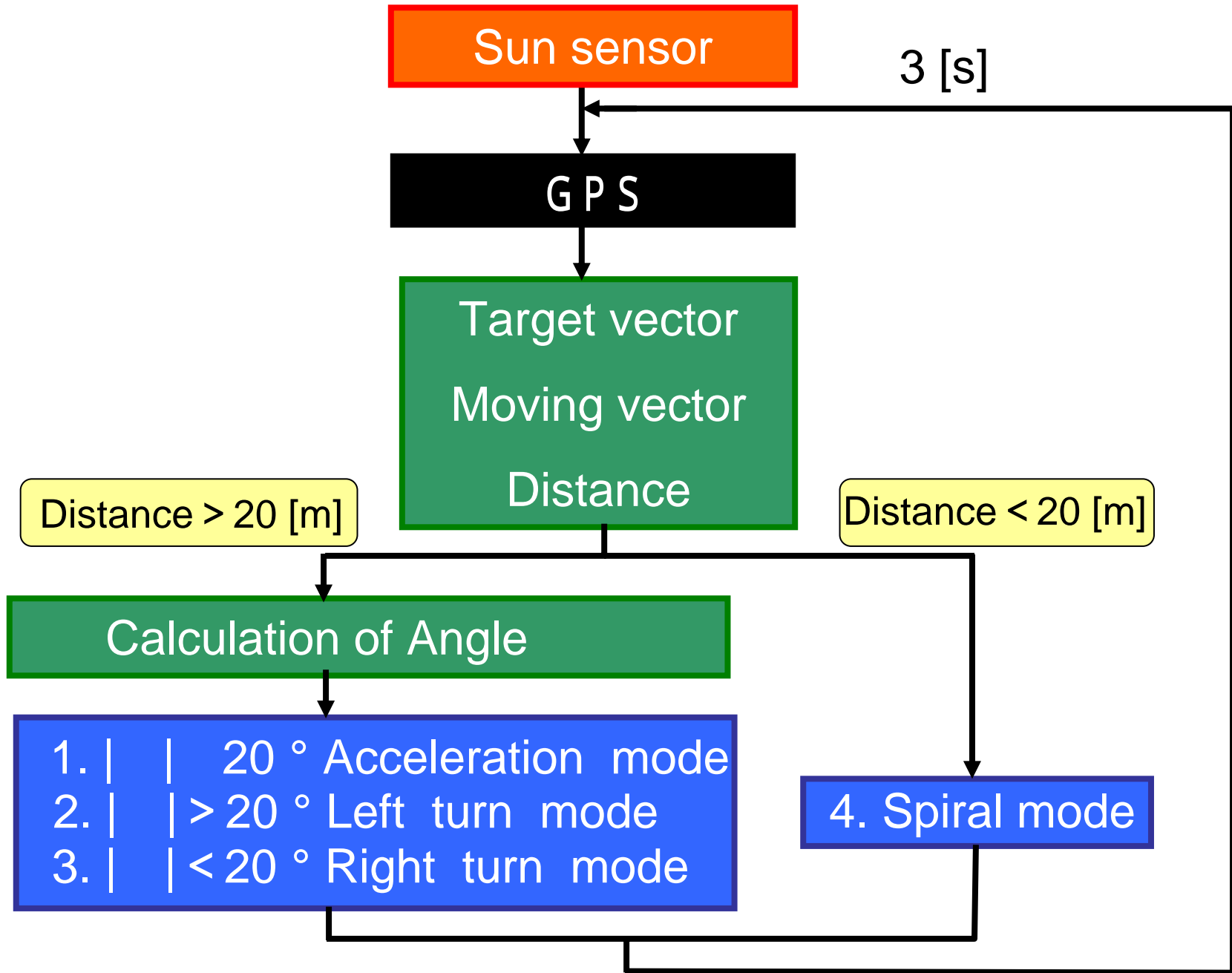


Spiral



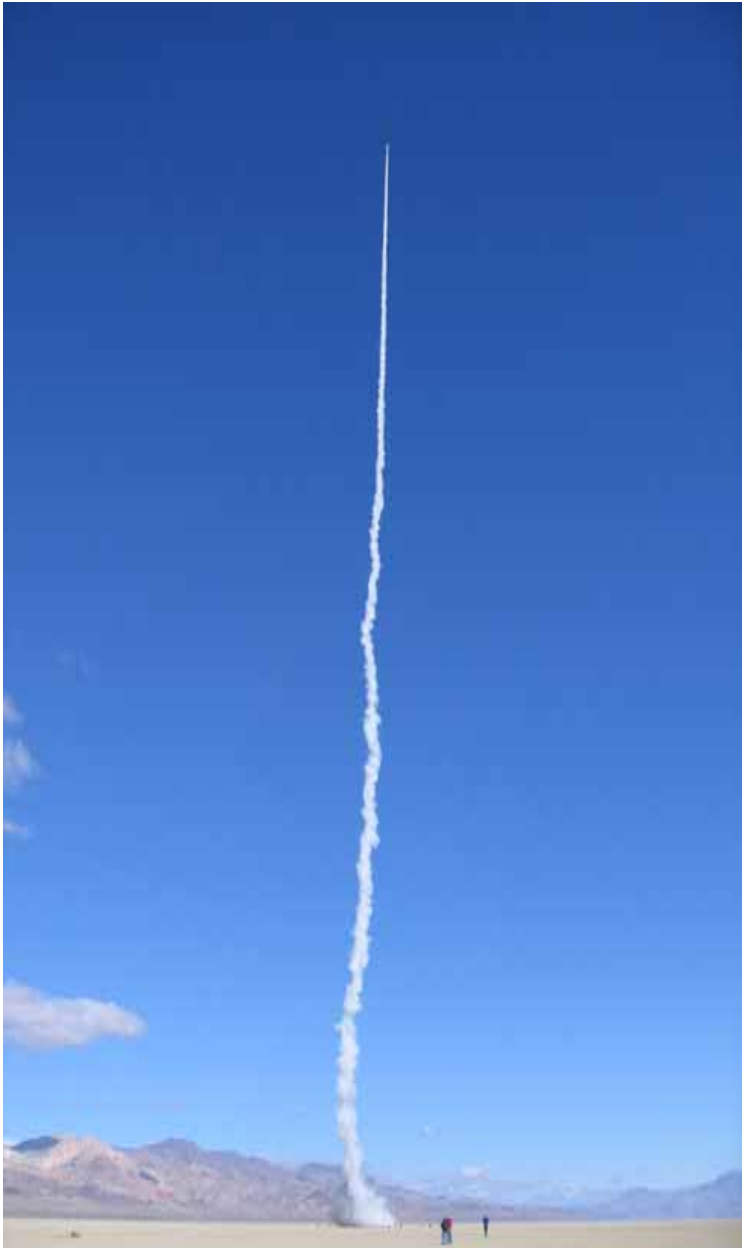
Neutral

7 Control Algorithm



8 First Launch

Oh, my
Godddd!!!!

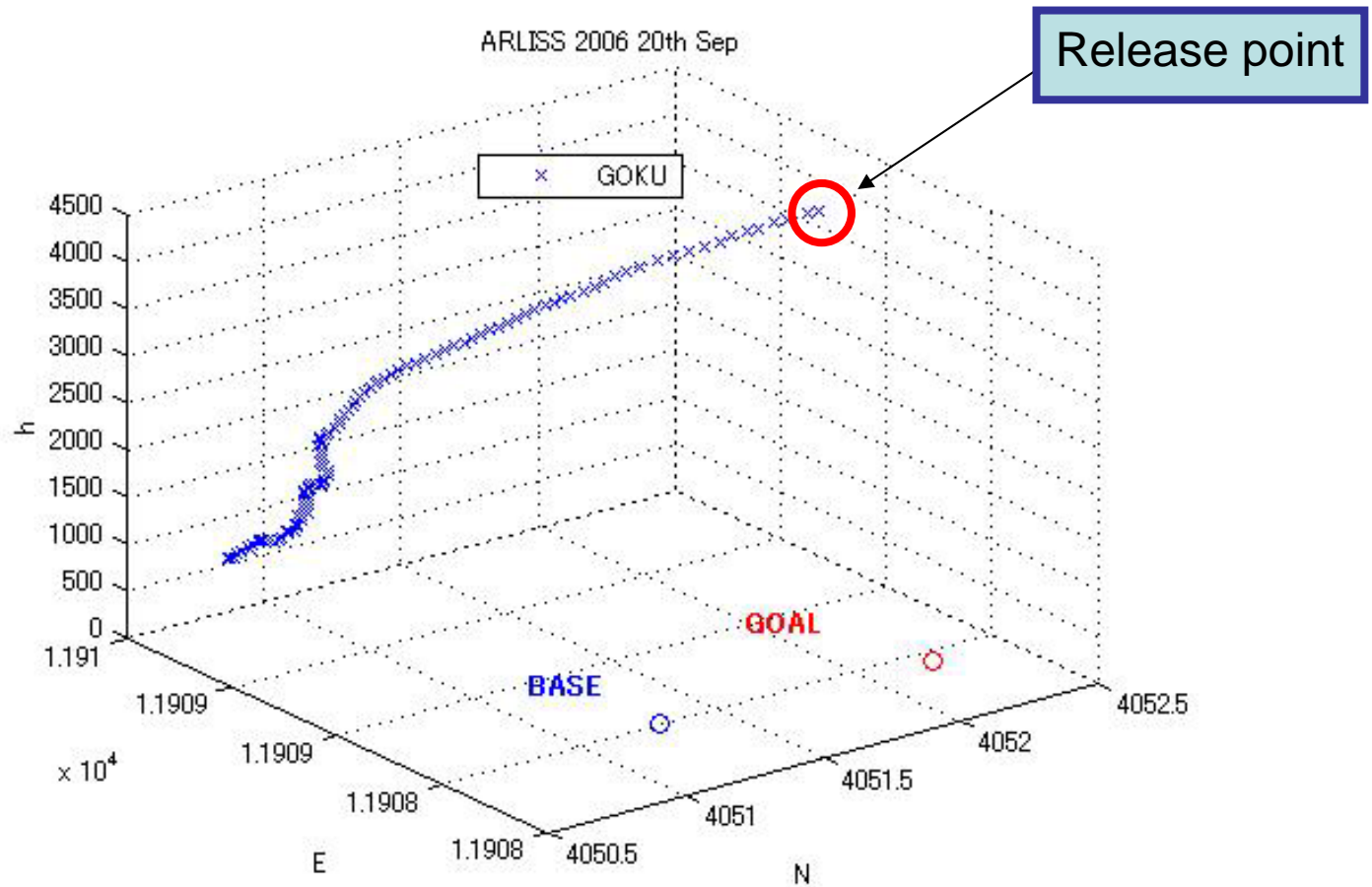


Sept. 21, 2006

3762 [m]

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9 (2) Result



Improvements

1. Spiral mode

We make Cansat fall by **spiral mode** around 2500 [m].

2. Control cycle

shorten control cycle from 3 [s] to **1 [s]** .

3. Optimize angle of attack

when wind is getting strong .

Today's Flight

4212 [m]

12 Special Thanks



K. Nagatani
K. Yamana
S. Shudo

Red Bull