

Open Class Cansat

ECHO



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ECHO's Concept (1)

◆ ECHO

- **E**xperimental **C**ansat for **H**andmade and **O**riginal transmitter-
- ECHO has both commercial transmitter and our **handmade transmitter**.
- ECHO is developed to evaluate the performance of our **handmade transmitter**.
- For evaluation, we compare the decode rates of commercial transmitter and handmade transmitter.



$$\text{Decode rate} = \frac{\text{Data decoded at ground station}}{\text{Data saved on EEPROM}}$$

- Downlink data for evaluation is GPS data.

ECHO's Concept (2)

- ◆ Currently . . . (case of using commercial transmitter)

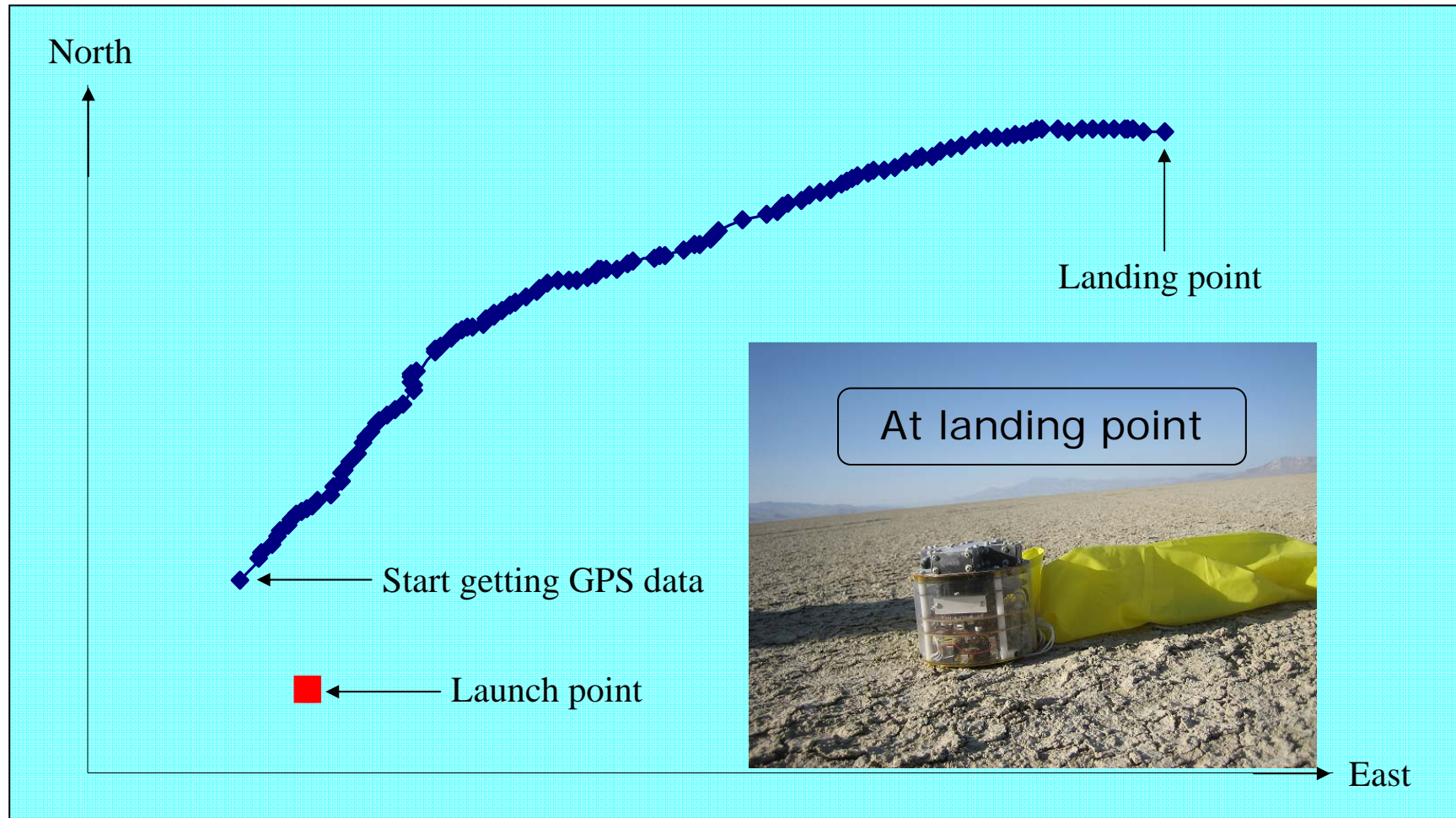
!! Limited space in Cansat.

→ Cansat missions can be limited.

- ◆ Therefore . . . (case of using our handmade transmitter)

→ Can have less-weight and volume, and flexibility in shape design.

Result of 2nd Flight at ARLISS(1)



Result of 2nd Flight at ARLISS (2)

DJ-C7 (commercial transmitter)

⇒ 87.4%

Handmade transmitter

⇒ 91.3%

The performance of our handmade transmitter was comparable to a commercial transmitter!

1st launch with Paul's rocket



* Thank you Paul *

2nd launch with James's rocket



☆ Thank you James ☆

Thank you for listening!