

OPUSAT Project in ARLISS 2011

Mission Name:

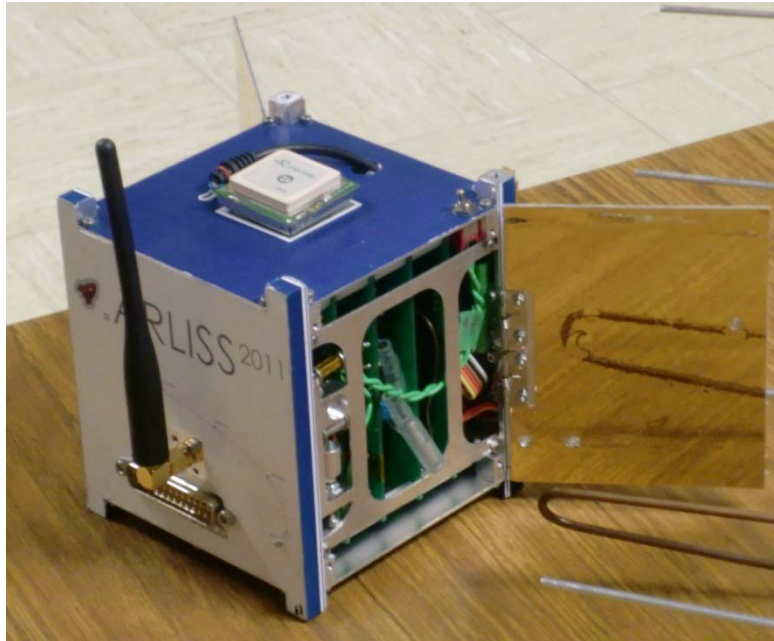
Demonstration of basic bus system of OPUSAT

Osaka Prefecture University

Small Spacecraft Systems Reserch Center

Date : 2011.09.16

Outline of OPUSAT



- ▶ **OPUSAT**

- ▶ SSSRC Original Satellite
- ▶ 1 Unit Cubesat
- ▶ Demonstrate Advanced Electrical Power System
- ▶ The Project Phase is BBM

- ▶ **In ARLISS 2011**

- ▶ Demonstration Basic Bus Systems
 - ▶ EPS, COM, C&DH, STR...
- ▶ Take First Step in Outer Space !

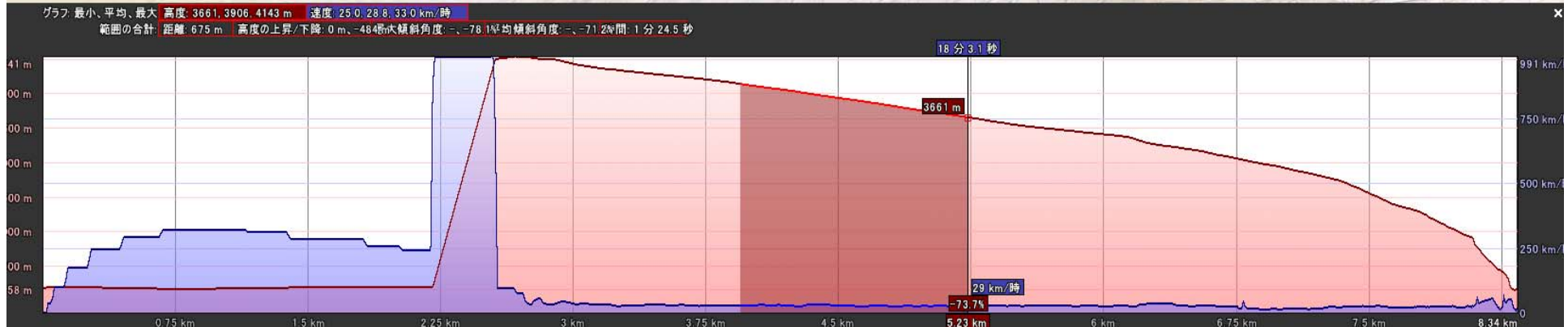
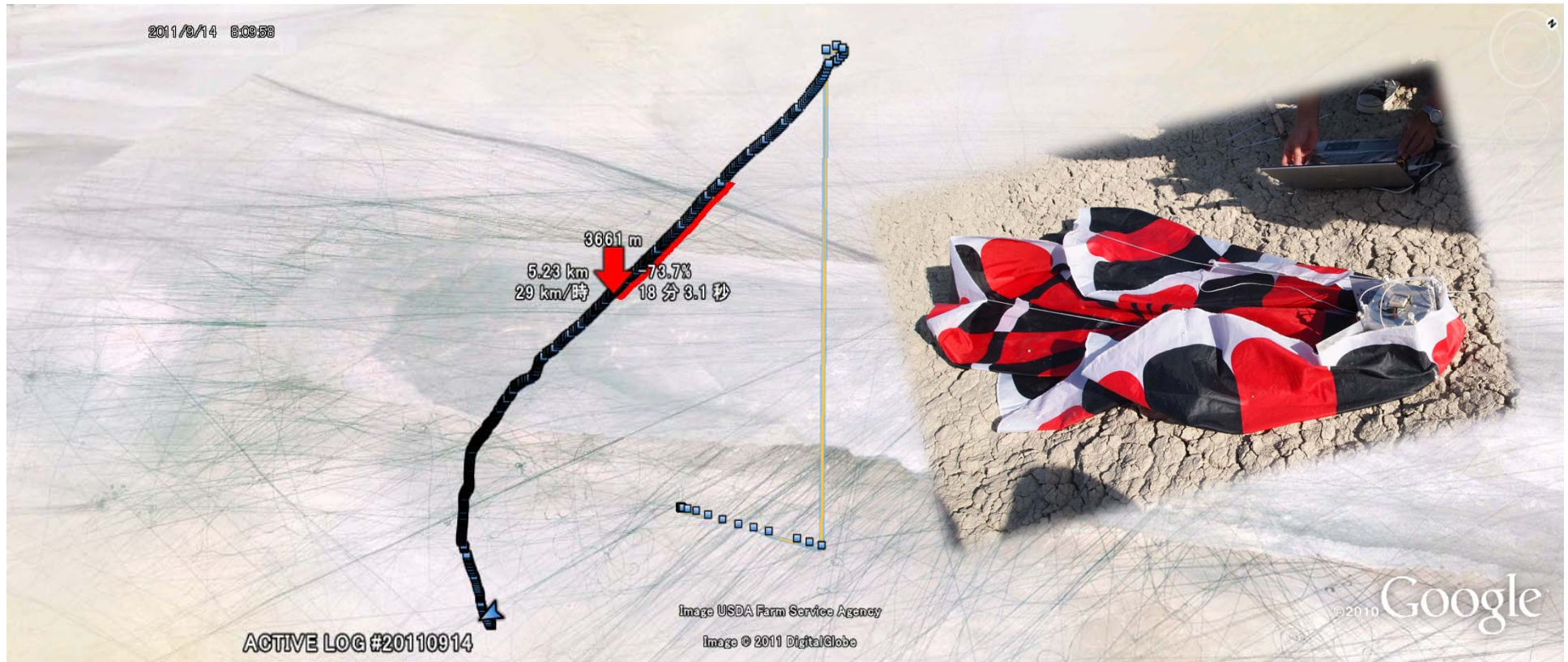
OPUSAT Missions in ARLISS 2011

SUBSYSTEMS	MINIMUM SUCCESS
EPS	Supply electric power to each instrument
COM	Send HK Log Data in Morse
C&DH	Save the House Keeping Data into SD Card Data Communication between C&DH and Each Subsystems Get HK date from each subsystem and save them on SD card

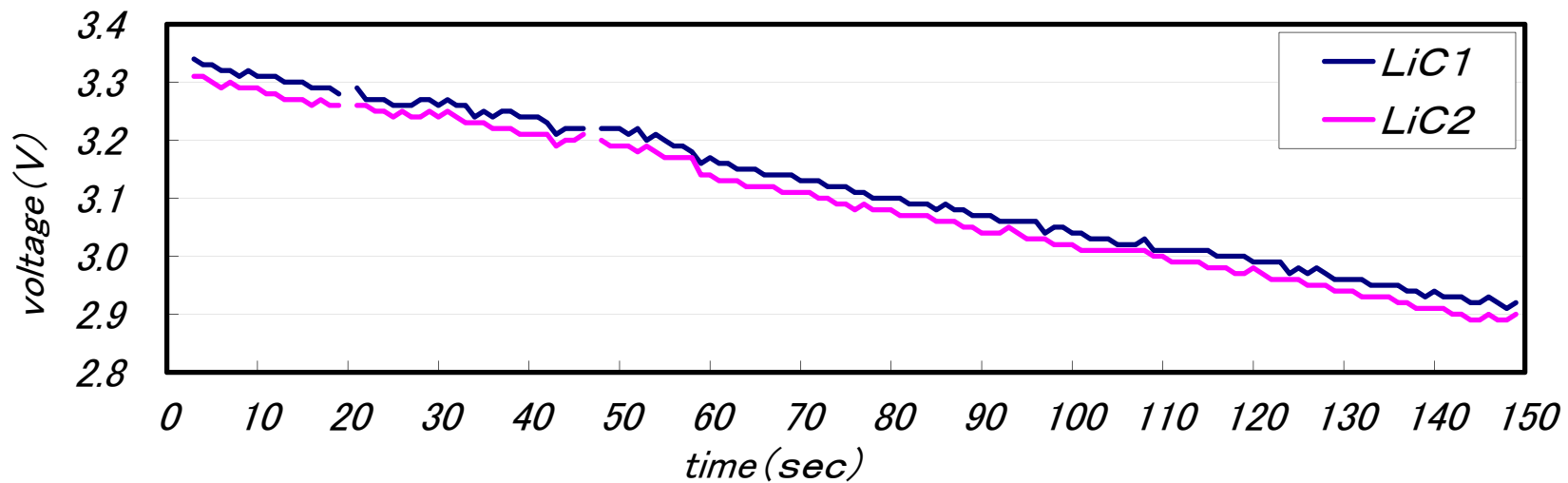
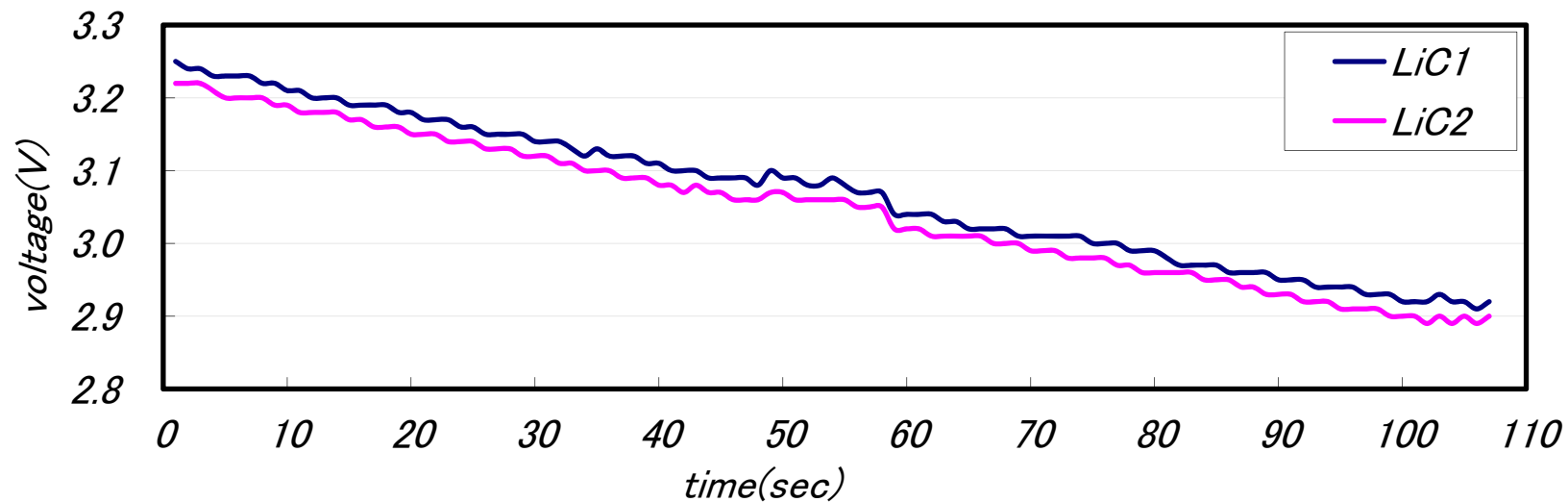
SUBSYSTEMS	FULL SUCCESS
EPS	Measure Own Bus System Voltage Measure LIC Voltage and Current in the Discharge Experiment (LIC : Lithium Ion Capacitor)
COM	Send HK Log Data in GMSK
C&DH	Save HK log data every seconds
STR	Deployment Solar Panels

Result 1 ~HK Data~

ex. GPS



Result 2 ~ LIC Discharge Experiment ~



Other Result

- ▶ Supply electric power to each instrument => **EPS Mission Success !**
- ▶ Send HK Log Data in Morse => **COM Mission Success !**
- ▶ Deployment Solar Panels => **STR Mission Success !**
- ▶ Save the House Keeping Data into SD Card => **C&DH Mission Success !**
- ▶ Data Communication between C&DH and Each Subsystems => **C&DH Mission Success !**
- ▶ Get HK data from each subsystem and save them on SD card => **C&DH Mission Success !**
- ▶ Measure Own Bus System Voltage => **EPS Mission Success !**
- ▶ Save HK log data every seconds => **EPS Mission Success !**



All Minimum Successes were Completed !
Almost Full Successes were Completed !

(Except the COM Full Success)

Thanks!

Becky, David, James, Joseph, and Everyone !



2012/4/24