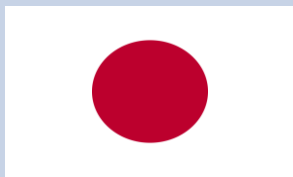




BIRDS-4

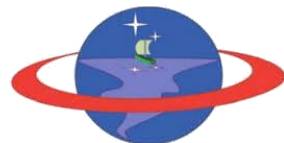
JOINT GLOBAL MULTI-NATION BIRDS
SATELLITE PROJECT



BIRDS-4 CW Format and Timing

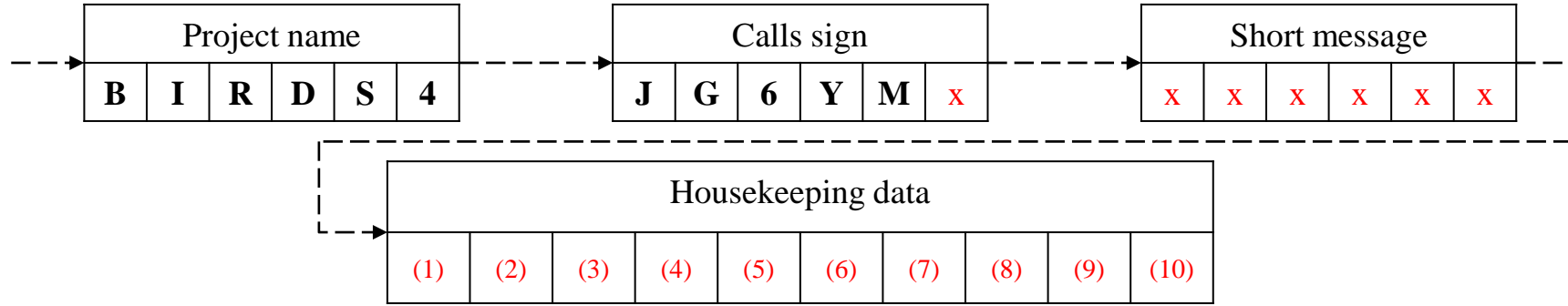


Kyutech
Kyushu Institute of Technology



La SEINE

11 March 2021



Call sign	Satellite name	Country
JG6YMX	Tsuru	Japan
JG6YMY	Maya-2	Philippines
JG6YMZ	GuaraniSat-1	Paraguay

Short message: BIRDS-4 satellites send short message to amateur radio community or organization

Housekeeping data: 5 bytes (40 bits) of data for satellite health monitoring. There are two data format, Type 1 and Type 2. See next page for details.

Housekeeping Data Format

Housekeeping data									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

CW Format Type 1

HEX number	No. of bits	Data	
1	8	Battery voltage (V)	
2			
3	8	Battery current (A)	
4			
5	8	Battery temperature (°C)	
6			
7	1	Format identifier	0: Type 1
	2	Operation mode	11: Normal 10: Low power
	1	Kill switch Main	0: Normal 1: Kill
8	1	Kill switch FAB	0: Normal 1: Kill
	1	Antenna deploy status	0: Not deployed 1: Deployed
	1	+X Solar cell	0: Shadow 1: Sunshine
	1	-Y Solar cell	0: Shadow 1: Sunshine
9	1	-Z Solar cell	0: Shadow 1: Sunshine
	1	+Y Solar cell	0: Shadow 1: Sunshine
	1	+Z Solar cell	0: Shadow 1: Sunshine
	1	Time after last reset (hours)	
10	4		

CW Format Type 2

HEX number	No. of bits	Data	
1	8	X-axis gyro (deg/sec)	
2			
3	8	Y-axis gyro (deg/sec)	
4			
5	8	Z-axis gyro (deg/sec)	
6			
7	1	Format identifier	1: Type 2
	1	HSSC automatic trial	0: Off 1: On
	1	CAM automatic trial	0: Off 1: On
	1	ADCS automatic trial	0: Off 1: On
8	1	MB automatic trial	0: Off 1: On
	1	Battery heater status	0: Off 1: On
	1	Reservation command	0: with 1: without
	1	Uplink status	0: Not success 1: Success
9	8	Mission status	
10			

CW Timing

