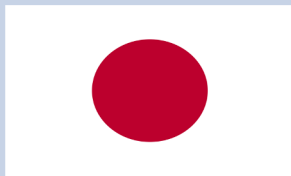




# BIRDS-4

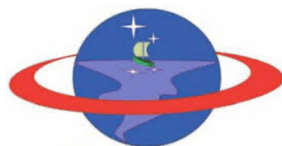
JOINT GLOBAL MULTI-NATION BIRDS  
SATELLITE PROJECT



# APRS Store and Forward Information



**Kyutech**  
Kyushu Institute of Technology



**La SEINE**

13 April 2021

- ☐ Frequency/ baud rate: 145.825 MHz/ 1200 baud
- ☐ Aliases: APRSAT, ARISS, WIDE
- ☐ Beacon interval: 45 seconds
- ☐ Beacon text message:

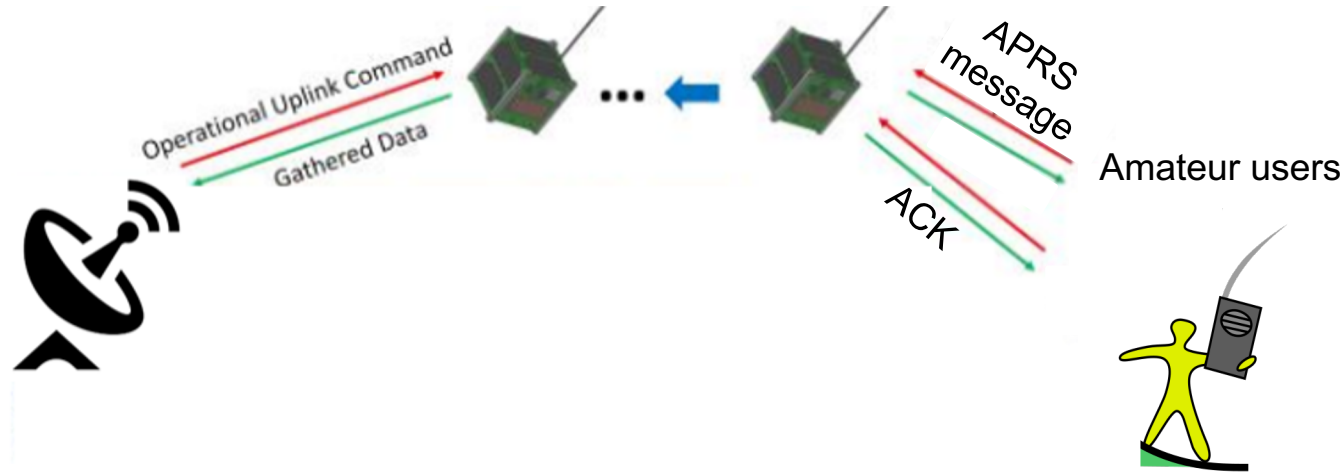
Satellite	Satellite ID	Message
Tsuru	JG6YMX	hello! this is birdjp
Maya-2	JG6YMY	hello! this is birdph
GuarniSat	JG6YMZ	hello! this is birdpy

- ☐ When sending message to satellite APRS payload:
  - ☐ Use satellite ID
  - ☐ Limit message to 50 characters
  - ☐ ACK message should be received

- ☐ SFward aims to demonstrate the ability to collect data/messages from Amateurs via the APRS protocol
- ☐ To prove the concept, amateur operators and satellite owners may access the satellite via VHF and save their data in a dedicated slot of the mission's memory. The collected data is downlinked using the UHF link.
- ☐ SFward follows the message format of APRS protocol.
- ☐ The collected SFward messages would be published to the BIRDS Project website once downloaded from the satellites.

- ☐ SFward Microcontroller saves all received APRS packets. Thus it can be used as an amateur mailing box.
- ☐ Uplink frequency is 145.825 MHz working only when APRS payload is activated.
- ☐ Total available data size is 67 characters in each packet. However, the first two bytes are reserved to identify the SFward packets from the rest of the APRS packets.
- ☐ Packets -which their data part starts with “SF” letters- are considered SFward packets (SF-packets).

# SFward - Concept of Operation



Example message format: SF <insert message up to 65 characters>

Destination: JG6YMX/Y/Z (Japan, Philippines, Paraguay)