



Group 3 Discussion

Follow up for BIRDS project

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November 19, 2018

6th UNISEC Global Meeting
International Space University, Strasbourg, France



BIRDS Program features



- 1U CubeSat constellation of
 - BIRDS-I: 5 satellites by **Bangladesh***, **Ghana***, Japan, **Mongolia***, and Nigeria
 - BIRDS-II: 3 satellites by **Bhutan***, Malaysia and Philippine
 - BIRDS-III: 3 satellites by Japan, **Sri Lanka*** and **Nepal***
 - BIRDS-IV: 3 satellites by Japan, **Paraguay*** and Philippine
 - Made by students at Kyutech
 - 2 years from concept design to disposal
 - Released from ISS
 - Network operation by multiple ground stations
- * First satellite for the country*



Released from ISS on July 7, 2017



Released from ISS on August 10, 2018



BIRDS ground station network



BIRDS constellations are operated by a network of GSs in BIRDS partners





BIRDS Network



- Made of BIRDS partners
- Human network
 - Formed during intensive two years project by “living under the same roof”
 - Assist the infant space programs survive the hard time
- Ground station network
 - The backbone of the inter-university network
 - Enable constellation operation in future
 - Space research using a small satellite constellation generating scientific outputs



Discussion points



- How do we make the new space program sustainable?
 - Long-term strategy and policy making
 - Needs finding
 - Public support and outreach
 - International collaboration
 - Infrastructure
 - CubeSat? Bigger?
 - The role of the first generations
 - Human resource continuity
 - Domestic industry base
 - Space eco-system
 - Others