



# **GROUND STATIONS OF BIRDS-2 PROJECT**



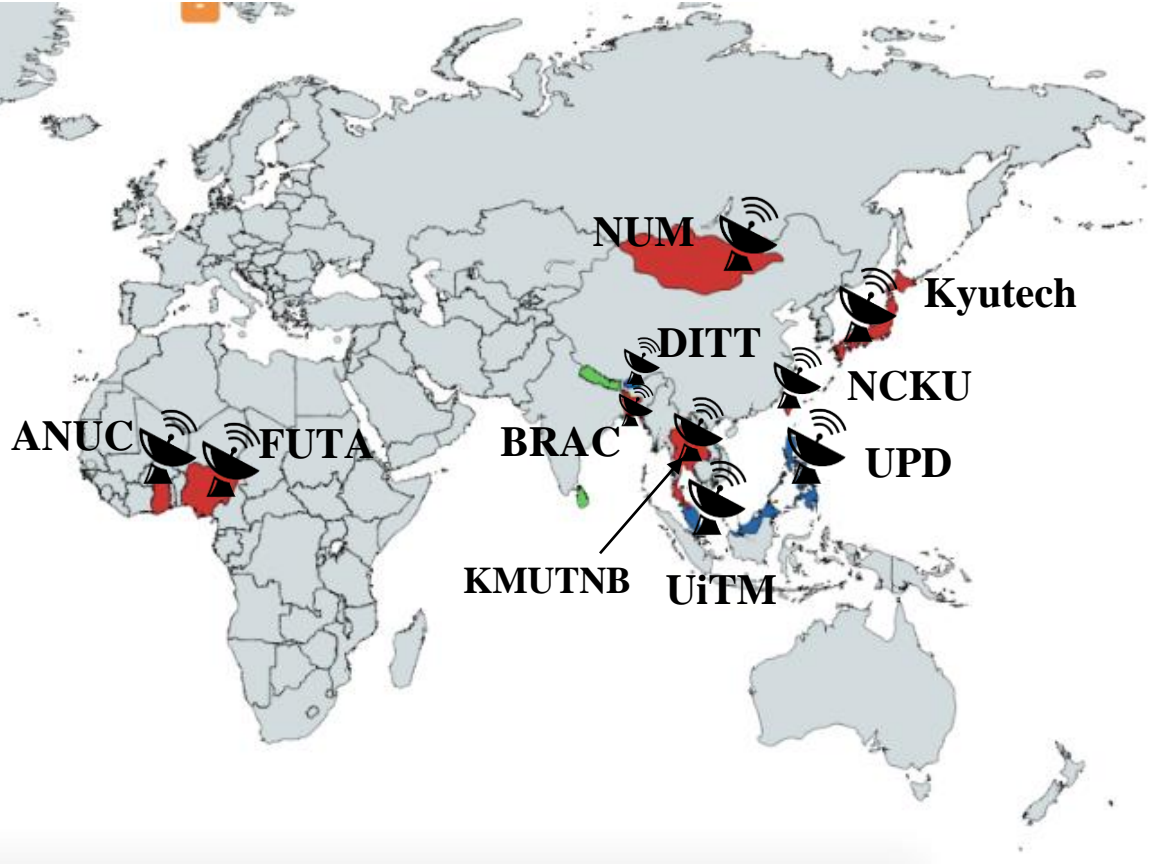
# BIRDS International Ground Station Network

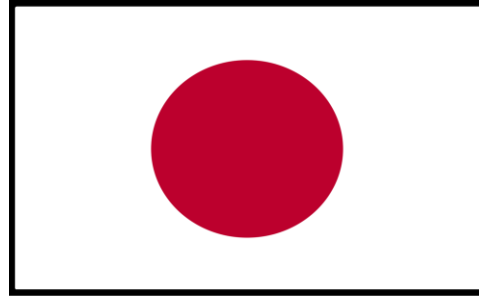


The BIRDS-2 CubeSats will be operated by 10 ground stations of the BIRDS GS Network, including that of Kyutech, BIRDS-2 member countries (UPD, UiTM, DITT), BIRDS-1 member countries and BIRDS partners.

-  BIRDS-2 countries
-  BIRDS-1 countries/  
BIRDS partners
-  BIRDS-3 countries/  
BIRDS partners

<https://mapchart.net>





# **JAPAN GROUND STATION KYUTECH**

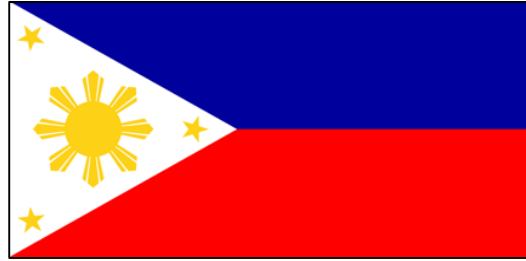


# BIRDS Ground Station, KyuTech



- Will serve as master ground station for operation of BIRDS-2 CubeSats
- Call Sign: JG6YBW
- Location:  $33.89^{\circ}$  N,  $130.84^{\circ}$  E





# **PHILIPPINES GROUND STATION UPD**



# UPD Amateur Radio and Satellite Station



- Located in UPD EEE Institute
- Location:  $14.655^{\circ}$  N,  $121.065^{\circ}$  E
- Operated by volunteer students and their mentors with amateur operator license







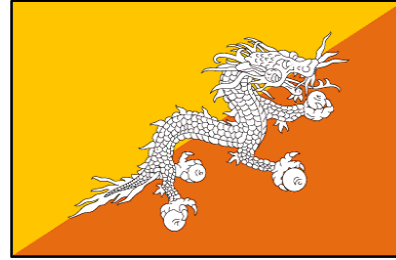
# Satellite Tracking and Communication Testing



- Transmissions received: ISS SSTV, XW-2F, XW-2B, IO-86, AO-85, AO-73, UKube-1, DUCHIFAT, Tanusha-1
- Received data from satellites such as ISS, AO-73, AO-85 and NO-44



Received SSTV image from ISS



# **BHUTAN GROUND STATION DITT**





# BIRDS-2 Ground Station, DITT, MoIC



Location: Ministry of Information and Communications (MoIC) Campus, Thimphu City:

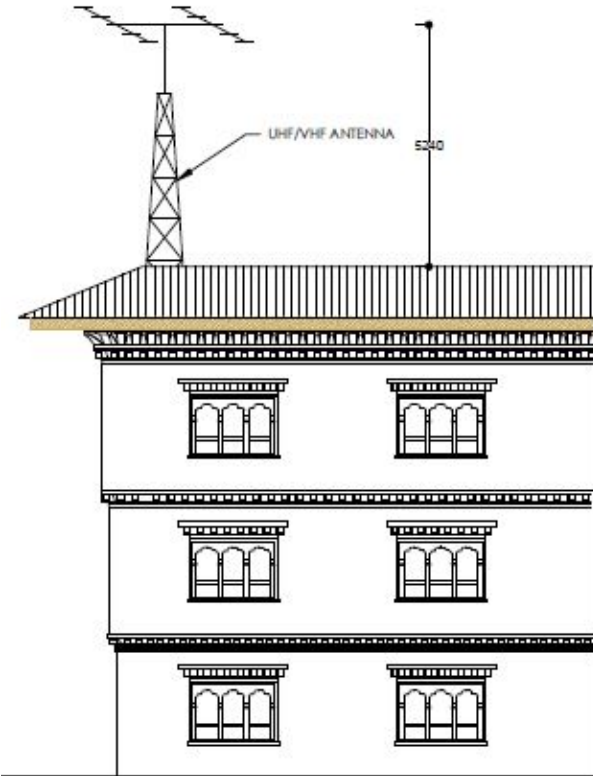
- Altitude: 2368 m
- Latitude:  $27^{\circ}28'$  N
- Longitude:  $89^{\circ}38'$  E



Hosted and operated by Division of Telecom and Space (DoTS), Dept. of IT & Telecom (DITT)



# BIRDS-2 Ground Station, DITT, MoIC

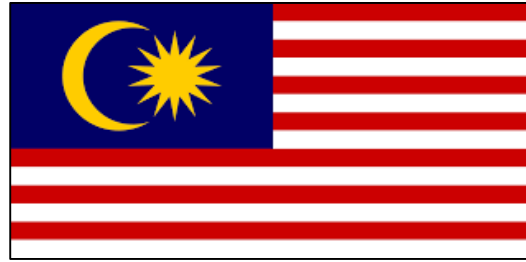


7 meters from the base



Control Room

GS operators: 6 officials from the DoTS has been identified for ground station operation.



# **MALAYSIA GROUND STATION UiTM**



# UiTM Amateur Radio and Satellite Station



Ground Station UiTM at Level 21,  
Tower 2, Engineering Complex



Roof top view

- Located in UiTM Shah Alam campus.
- Currently operated by 3 volunteer students and staff with amateur operator license
- Location: 3.0731, 101.4974
- Callsign: 9M4CTM



# Ground station Control room



*UiTM GS operation room at level 21, Tower 2 (above) and monitoring room at level 7, Center of Satellite Communication lab (right)*

- Tracked io-86, Tisat-1, Horyu4, and also BIRDS-1







# Other Ground Stations of BIRDS-1

## Countries and BIRDS Partners

### ❑ BRAC University (Bangladesh)

Address: CSE Department, 66, Mohakhali, Dhaka-1212, Bangladesh

Coordinates: 23.781°N, 90.407°E

### ❑ All Nations University College (Ghana)

Address: P.O. Box KF1908, Koforidua, Eastern Region, Ghana, West Africa

Coordinates: 6.113°N, 0.342°W

### ❑ Federal University of Technology (Nigeria)

Address: Federal University of Technology, Akure, Nigeria

Coordinates: 7.503°N, 5.231°E



# Other Ground Stations of BIRDS-1

## Countries and BIRDS Partners

### ❑ National University of Mongolia (Mongolia)

Address: Ikh Surguuliin gudamj-1, Baga toiruu, Ulaanbaatar-14201, Mongolia

Coordinates: 47.923° N, 106.917° E

### ❑ King Mongkut's University of Technology - North Bangkok (Thailand)

Address: 1518 Pracharat 1 Road, Wongsawang, Bangsue, Bangkok 10800, Thailand

Coordinates: 13.819° N, 100.514° E

### ❑ National Cheng Kung University (Taiwan)

Address: No.1, University Road, Tainan City 701, Taiwan (R.O.C.)

Coordinates: 22.999° N, 120.217° E