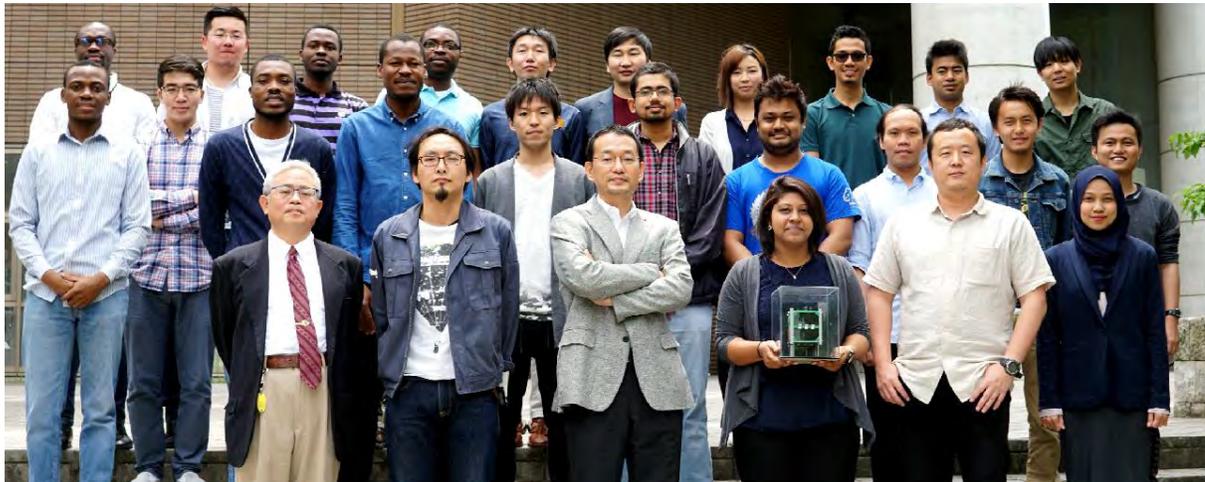




BIRDS Project Newsletter

Issue No. 17 (26 June 2017)

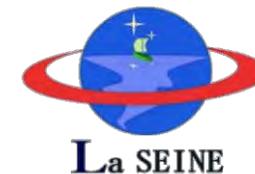


Members of BIRDS-1 and BIRDS-2 Teams (Tobata Campus) -- 16 May 2017.
Note the mock-up being held by Antara in the front row.

Project website: <http://birds.ele.kyutech.ac.jp/>
All back issues are archived at this website.

Edited by:

G. Maeda, Tejumola Taiwo, Joven Javier, M. Cho,
Laboratory of Spacecraft Environment Interaction
Engineering (LaSEINE)
Kyushu Institute of Technology (Kyutech)
Kitakyushu, Japan



All back issues of this newsletter can be easily downloaded. Go to here: <http://birds.ele.kyutech.ac.jp/>
At the top, click on the tab called NEWSLETTER. You will get a menu for all back issues.

Contents of this Issue

1. BRAC Founder and its Chairman Sir Fazle Hasan Abed formally inaugurated the ground station of BRAC University
2. Altitude of the ISS for the past year
3. How does the ISS orbit the earth?
4. BIRDS members participate in local sports events – experiencing more of Japan
5. The SpaceX@Florida launch that did not happen
6. Trip Report to Mongolia
7. Princess Mako's visit to Bhutan covered by the media in Japan and in Bhutan
8. BIRDS-Bangladesh covered by leading print newspaper in Bangladesh
9. Successful launch of the BIRDS-1 constellation aboard Falcon 9 rocket
10. CRS-11's Dragon successfully captured by the ISS
11. Photos from the launch site (Pad 39A of the NASA's Kennedy Space Center)
12. Some of the messages received regarding the successful launch
13. The launch is covered by Nigerian television
14. The launch is viewed by the FUTA community (in Nigeria)
15. The status of BIRDS-2 Frequency Coordination (FC)
16. Prof. Cho makes a presentation at June 2017 COPUOS Meeting in Vienna

17. YouTube site for viewing the deployment of BIRDS-1
18. What is Tana Bata Day?
19. Tobata Gion Oyamagasa Festival
20. BIRDS-1 of Ghana covered by its media
21. For SEIC and BIRDS students, Dr. Amelia Greig teaches rocket propulsion course
22. The BIRDS Session during recent ISTS meeting in Matsuyama
23. Kyutech BIRDS members conduct outreach at Kurume University
24. Some photos from Bhutan
25. Concerning the first signals of BIRDS-1 satellites after ISS release
26. BIRDS-2 student Adrian discusses store-and-forward during SEIC Lunch Time Seminar
27. Proposed BIRDS-1 QSL card by Ghana
28. Proposed BIRDS-1 QSL card by Mongolia
29. Proposed BIRDS-1 QSL card by Nigeria
30. Proposed BIRDS-1 QSL card by Bangladesh
31. Kafi is awarded second prize for Best Poster at ISTS
32. First meeting of the BIRDS Ground Station Operator Network
33. Team Bangladesh trip to home
34. BIRDS-1 news story on Nigerian television, as ISS deployment approaches
35. The current schedule of the BIRDS-2 CDR of 18th July, which starts at 13:00
36. Upcoming space technology events – message from the United Nations
37. The 2-day CDR event of BIRDS-2 on 18 and 19 July 2017

END

The Guest Box



This month Princess Mako of Japan visited Bhutan as an official guest of His Majesty. See Item #7 of this issue (**page 20**) for more details in Nihongo and in English.

1. BRAC Founder and its Chairman Sir Fazle Hasan Abed formally inaugurated the ground station of BRAC University

Star Online Report

12:22 PM, May 25, 2017 / LAST MODIFIED: 03:24 PM, May 25, 2017

The ground station for Brac Onnesha was inaugurated today in a fully functional state, with the only formality remaining is to launch the country's first nano-satellite in orbit.

Brac founder and its Chairperson Sir Fazle Hasan Abed formally inaugurated the ground station which is located at the rooftop of building no. 4, Brac University.

Also read: First nanosatellite ready for launch

The projected launch date of the nano-satellite is June 2, Bijoy Talukder, a member of the six-men ground station team, told The Daily Star. "We are ready and fully operational here."



Brac founder and its Chairperson Sir Fazle Hasan Abed cutting a cake to inaugurate the ground station of Brac Onnesha - Bangladesh's first nano-satellite - on **May 25, 2017** at Brac University campus.

Photo: Brac University.

The ground station is the main operation centre. It will download information from the satellite, said Khalilur Rahman, associate professor at Brac University and the project's adviser.

During launching today, Sir Fazle Hasan Abed urged the government to lend more support for research and said: "We have lots of potential in our country. We need to utilise them." "If the government spends even one percent of its GDP in research, Bangladesh will give birth to lots of talent. We must take initiative to keep these talents from going abroad," he said.

Onnesha is a 10 centimetre-edged cube-shaped satellite designed, developed and assembled by three Brac students in Japan's Kyutech. It is capable of completing one orbit 400 kilometres above the ground in 90 minutes and passing over Bangladesh four to six times every day.

It will allow high quality photographs of land to analyse vegetation, urbanisation, flood, water resources, forestry and other natural resources from overhead – most of which will be used for research purposes.

END

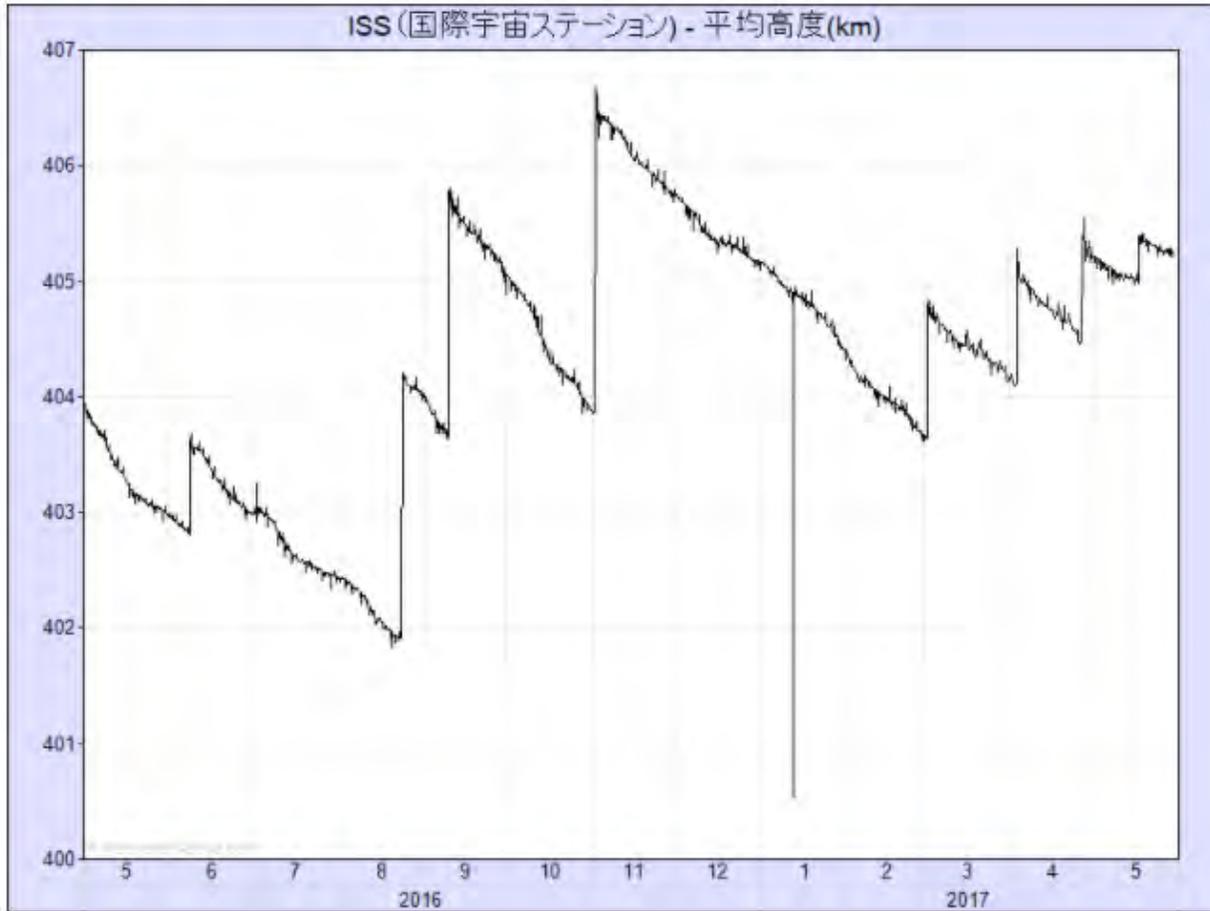
<http://www.thedailystar.net/country/now-wait-brac-onnesha-launch-1410655>

2. Altitude of the ISS for the past year (data from Heavens-Above)



ISSの軌道高度

<http://www.heavens-above.com/IssHeight.aspx>



Heavens-Above

www.heavens-above.com/ ▼ このページを訳す

Satellite predictions and other astronomical data customised for your location.

ISS

ISS - Visible Passes, Home | Info. | Orbit | Close encounters ...

Select location

The red marker shows your currently selected location. You ...

ISS Interactive 3D Visualization

An interactive 3D visualization of the ISS in orbit using WebGL.

Iridium Flares

Clicking on the time of the flare will give more details about the flare ...

Height of the ISS

This plot shows the orbital height of the ISS over the last year ...

Explanatory Notes

Observing Satellites When can satellites be seen? Observing ...

“... the ISS isn't very far from Earth, so there is still a little bit of gas that we have to fly through. Over time, the thin mist of gas molecules in orbit decelerate the spacecraft via drag forces. That deceleration causes the vehicle to lower its orbit. **The ISS loses up to 5 cm/s (0.1 mph) of velocity and 100 meters (330 ft) of altitude each day, because of the continual collisions with gas particles...**”

For full text see the next page of this newsletter.

このグラフは過去1年間の、国際宇宙ステーション(ISS)の航行高度を図解したものです。見て明らかなのは、リブーストによる急激な高度上昇と緩やかな減衰を繰り返している事です。高度は1つの軌道で平均化されており、徐々に降下しているのは大気の抵抗によるものです。グラフから解ることに、高度低下は一定ではなく、この変化は主に太陽活動による外圏大気の密度変化によるものと考えられます

3. How does the ISS orbit the earth?

Okay, I'm with you. Does it take a lot of fuel to stay up there?

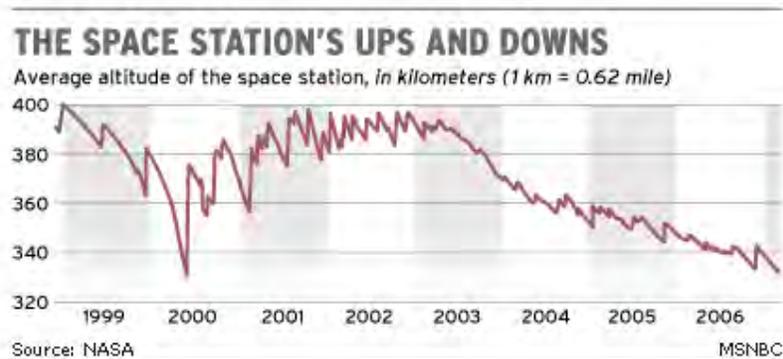
No. Unlike an airplane in the atmosphere, a spacecraft doesn't have to continuously use its engines to move forward. Let's go back to our friend Sir Isaac Newton. Newton came up with three laws of motion. The first is:

An object at rest will remain at rest unless acted on by an unbalanced force. An object in motion continues in motion with the same speed and in the same direction unless acted upon by an unbalanced force.

So, in the vacuum of space, an object can continue to move at its initial velocity until some forces act on it to slow it down.

But, the ISS isn't very far from Earth, so there is still a little bit of gas that we have to fly through. Over time, the thin mist of gas molecules in orbit decelerate the spacecraft via drag forces. That deceleration causes the vehicle to lower its orbit. The ISS loses up to 5 cm/s (0.1 mph) of velocity and 100 meters (330 ft) of altitude each day, because of the continual collisions with gas particles.

Here's an image showing about seven years history of the ISS altitude:



All text on this page is from the web link shown below.

Translational burns are thruster firings done by modules at the rear of the International Space Station (ISS), such as the Progress, ATV (pictured below), or if necessary the Service Module, itself. In the past, the Space Shuttle Orbiter was also used to provide translational burns.



← Each of those vertical spikes upwards is a thruster burn (reboost) performed to regain altitude because of the altitude lost due to decelerating. Today the ISS does those burns about once a month.

Go here for the complete story:

<https://www.quora.com/How-does-the-ISS-orbit-the-earth>

4. BIRDS members participate in local sports events – experiencing more of Japan

These members of the BIRDS Project

- Taiwo, Nigeria
- Ernest, Ghana
- Ibukun, Nigeria
- Azami, Malaysia
- Kiran, Bhutan

recently travelled south of Kyutech to engage in some international sport.



Campus of FIT, near Fukuoka City

International Sport Festival 2017



Fukuoka Institute of Technology
28th May 2017

This summary report was prepared by Azami and Kiran.

Held at FIT Arena



At opening ceremony, each university representative gave a speech



View of gymnasium building from outside

Sitting down for the Opening Ceremony



Excited for the events to start

Random pictures of sport activities

Right picture: *Outdoor mini soccer field*

Below picture: *Warming up before volley ball game*

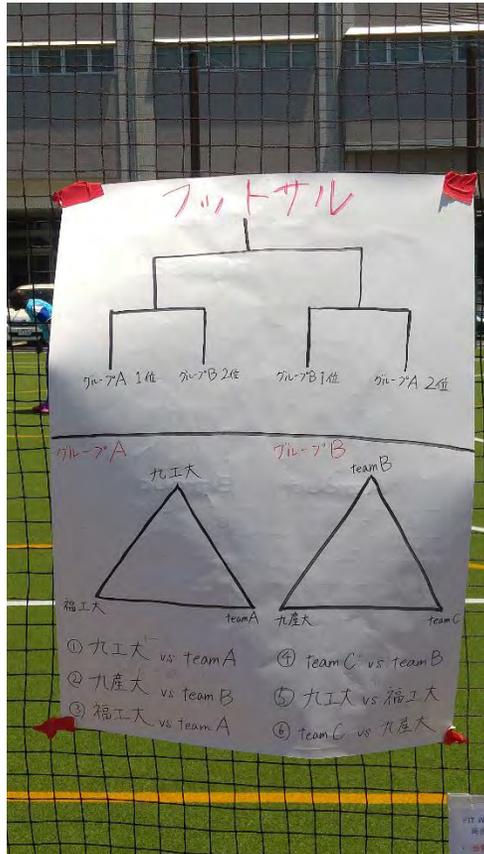


Above picture: *Semi-final mini soccer*

Left picture: *Line-up team from Kyutech*

Kyutech results

- Mini soccer: Semi-final
- Volley ball : Semi-final
- Tama-ire : Champion



Left picture: Playoff mini soccer game



Above picture: Signing off with a group picture.

Well done, Kyutech Team !!!
... The Editor.

5. The SpaceX@Florida launch that did not happen



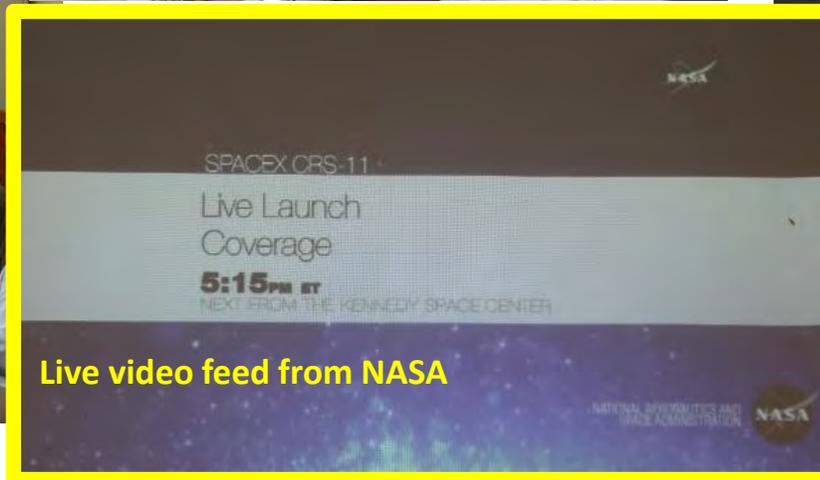
We prepared a “Launch Breakfast” (6AM) on 2 June 2017 – but the launch was scrubbed by NASA due to dubious weather.



Still, we enjoyed a very nice breakfast together – BIRDS-1 and -2 teams It was not a total loss.



Special guest: Mr Wakabayashi, Chief of International Affairs Division, back row, far right.



Trip Report to Mongolia

May 21 – 24rd , 2017, at
NUM (National Univ. of Mongolia)
Mongolia

by Turtogtokh Tumenjargal (BIRDS-1)

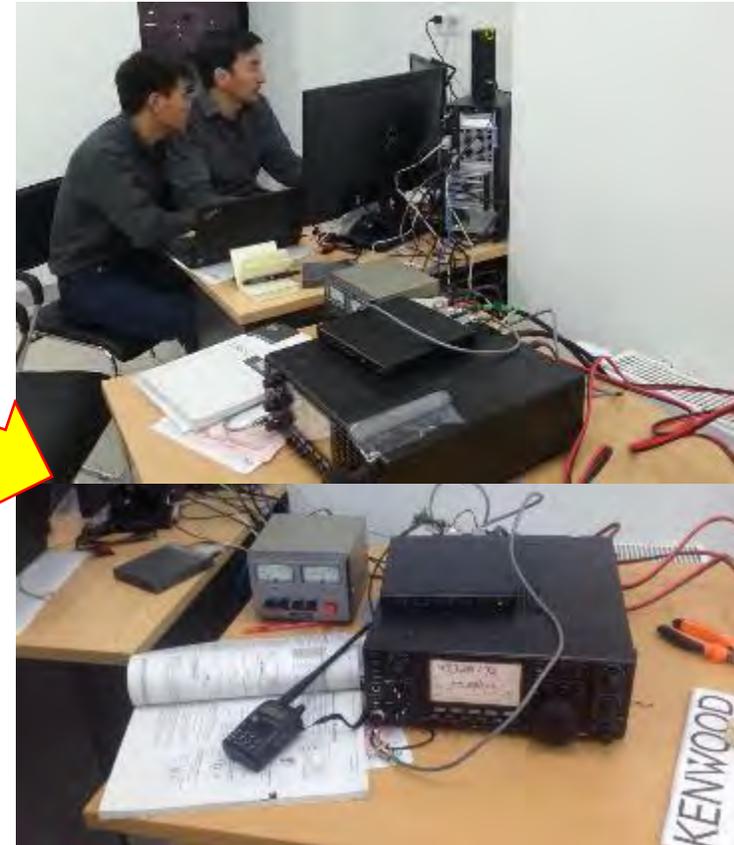
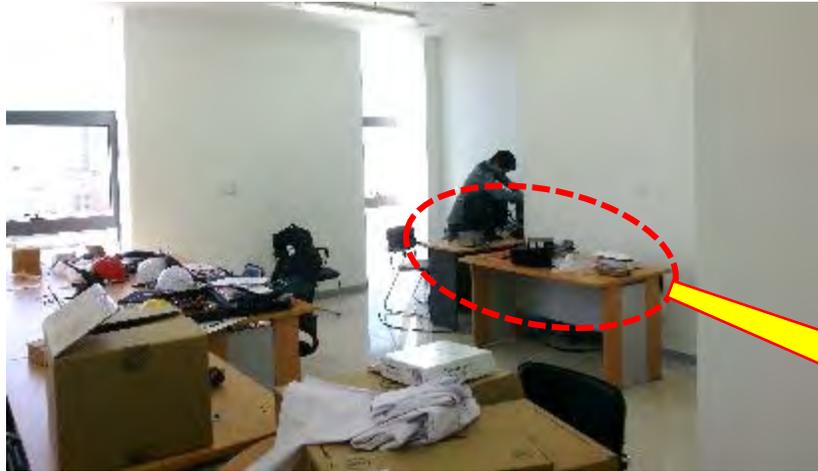
Purpose of the visit to NUM

- Configure local GS (ground station) at NUM
- Check functionality of GS
 - Satellite tracking
 - Controlling radio (receiving and sending signal)
- Receive signals from real satellites
- Connect InfoSteller GSN device, if arrived at NUM
- Present about MAZAALAI (BIRD-M) satellite to the NUM audiences

May 21 (Sunday) Antenna installation



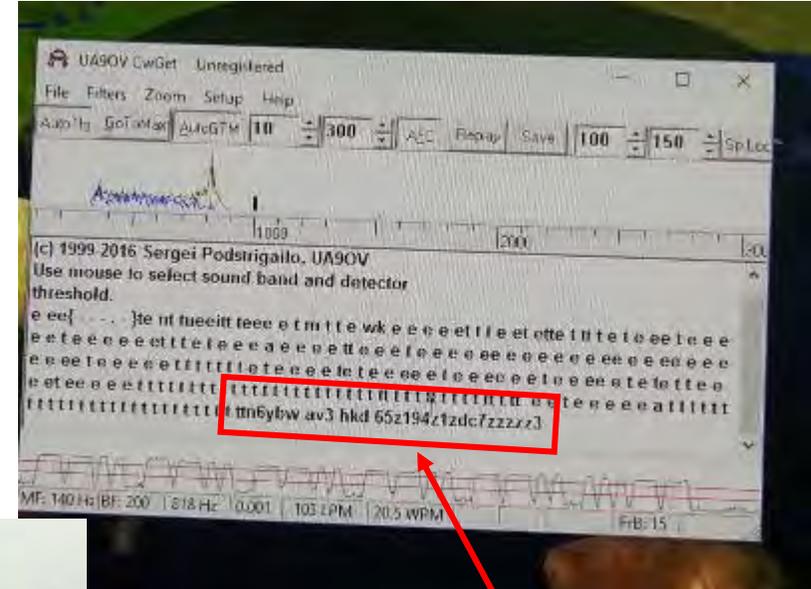
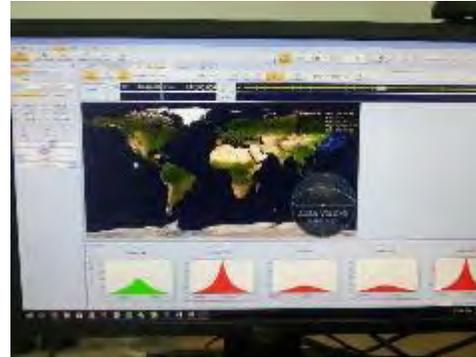
May 22nd (Monday) - Indoor installation



Tasks completed !

- RF Cable connection between antenna and radio
- Cable connection for rotator motor
- Cable connections for ICOM, Kantronics, PC

May 23rd (Tuesday) – Configuration



Tasks completed:

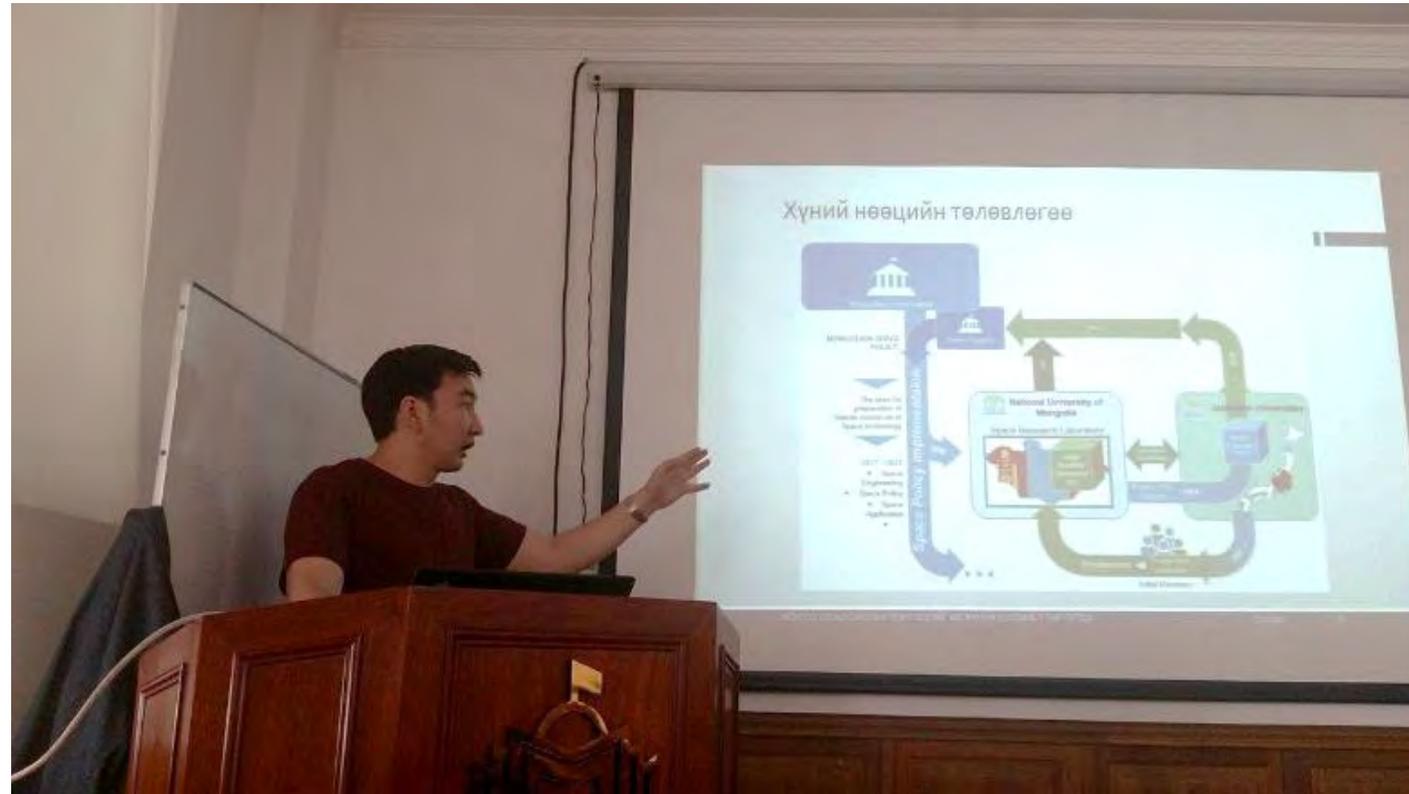
(Programs installed on PC already)

- Calibration for EL/AZ rotator
- ICOM setup
- Kantronics Setup
- Control everything from PC (motor and radio)
- Received real satellite signal



First beacon signal received on new Ground Station from AOBA-VELOX III

Meeting on 22nd of May



Presentation for NUM people including B.Ochirkhuyag, vice-president for research and innovation, and working group for launch first Mongolian satellite.
Presentation talks about: MAZAALAI first Mongolian satellite, opportunities for develop Space Technology in Mongolia

Invited some TV interviews and talks about Ground Station and BIRDS satellite missions



Bloomberg TV Mongolia



Eagle News

Meeting on 24th of May

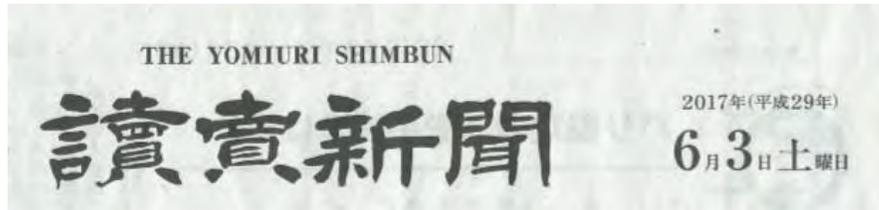


The author
of this trip
Report
-- Editor.

Ya. Tumurbaatar, NUM president,
and B.Ochirkhuyag, Vice president
for research, innovation and
international relations

END OF MONGOLIA TRIP REPORT

7. Princess Mako's visit to Bhutan covered by the media in Japan and in Bhutan



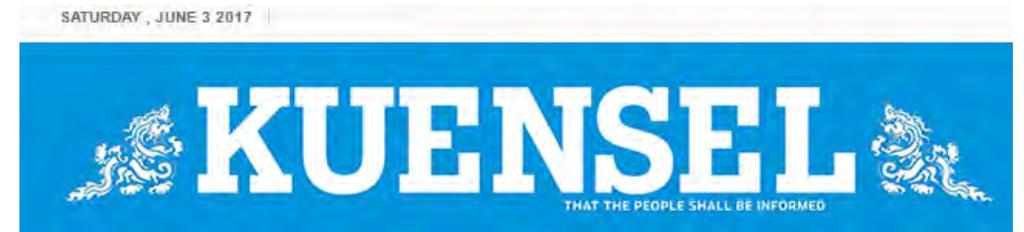
Yomiuri is a leading daily paper in Japan.



Princess Mako

These articles (Japanese newspaper and Bhutanese web edition) were both published on 3 June 2017.

を希望します」との天皇陛下からのメッセージを国王夫妻に伝えられた。
 ティンプルーでは2日、日本文化を紹介するイベント「日本週間」が始まり、眞子さまはオーピングの式典に出席。「様々な場所を訪れ、ブータンの魅力に触れることを楽しみにしております」と述べられた。



Princess Mako of Japan

Princess Mako arrives in Bhutan

June 1, 2017 | Lead Story, News | Leave a comment | 4,947 Views

Her Imperial Highness Princess Mako of Akishino of Japan arrived in Bhutan today. Her Royal Highness Princess Euphelma Choden Wangchuck received Her Imperial Highness at the Paro International Airport.

Her Imperial Highness is visiting Bhutan on the invitation of His Majesty from June 1 to 7.

Princess Mako, 25, is the eldest grand-daughter of Emperor Akihito and Empress Michiko.

While in the country, Her Imperial Highness will grace the opening of the third Royal Bhutan Flower Exhibition at the National Memorial Choeten in Thimphu.

8. BIRDS-Bangladesh covered by leading print newspaper in Bangladesh



Bangladeshi leading print newspaper **Prothom Alo** featured news about BIRDS and BRAC ONNESH A in its 3-June Saturday special edition "Chutir Dine" . This is its Cover Story for 3-June-2017.

Below: Maisun, Antara, and Kafi. Red frame at the left: With the president of Kyutech

9. Successful launch of the BIRDS-1 constellation aboard Falcon 9 rocket

Launch Complex 39A at NASA's Kennedy Space Center in Florida, USA.



SpaceX CRS-11 mission
Falcon 9 launches Dragon spacecraft &
Falcon 9 first stage landing
3 June 2017

View this 9-minute video here:

<https://www.youtube.com/watch?v=WXBFqFaECYA>



The 6:00-6:30 AM (JST) viewing at Kyutech; Benjamin is holding the flag of Ghana; note the clock on wall; these photos courtesy of Dr Kim.



10. CRS-11's Dragon successfully captured by the ISS

***Dragon* was successfully captured at ISS on 22:52 (JST) of 5th June 2017.**

SpaceX's CRS-11 Dragon captured by Station for a second time

June 5, 2017 by Chris Gebhardt



berthing a few hours later.

For the first time since 2011, a previously-flown spacecraft has arrived at the International Space Station. The CRS-11 Dragon from SpaceX – which was previously used on the CRS-4 mission in Sept.-Oct. 2014 – was capture and berthed to the ISS following a flawless 41-hour orbital rendezvous. The capture came ahead of schedule at 09:52 EDT to be followed by

<https://www.nasaspaceflight.com/2017/06/spacexs-crs-11-dragon-station-arrival/>

at 13:20 on 6 June 2017 JST.

The video of Dragon capture by the ISS

<https://www.youtube.com/watch?v=o9eDjo34tJo>

11. Photos from the launch site (Pad 39A of the NASA's Kennedy Space Center)



Visiting NASA Kennedy Space Center for launch of BIRDS-1 by Space-X11

June 1st 2017



- Mongolian government and members of BIRDS Project team visited NASA KSC for viewing launch of Space-X11. They visited some of the facilities in KSC such as SSPF, VAB and launch pad. The launch was postponed to June 3rd 2017 because of bad wether.



Mongolian interviewing to NASA



@SSPF



Renchin Tsolmon (POC)

@VAB



President of NUM Yadmaa Tumurbaatar

@39A

Visiting NASA Kennedy Space Center for launch of BIRDS-1 by Space-X11

June 3rd 2017

- The new launch time had been set and Space-X11 was launched successfully on 17:07(EDT), 3rd June.



Mongolian enjoy viewing launch of Space-X11

All photos and text on this page are from JAXA.

12. Some of the messages received regarding the successful launch

Dear Prof.Cho and Maeda san,
Greetings. To see launch it is indeed inspiration. As I am part of BIRDS project I feel that you all were here in NASA with us during launch.

I was proud of BIRDS team and I would like to thank all of you. BIRDS did great job! It is historical event. Please find the video as my thanks and best wishes to you and all students. Please share it with all students from BIRDS.

Many thanks. With greetings from NASA, June 4th,
Tsolmon, NUM of Mongolia.

CONGRATULATIONS! It was very heartening and exciting to see the launch from Cape Canaveral. This brings closure with deep satisfaction to all the hard work that the team has put into the project.

To all of you -- A JOB WELL DONE. Now for the next phase ... Good Luck!!

Please forward this email to our three gems
-- Kafi, Antara & Maisun.

Professor Syed Saad Andaleeb, Ph.D.
Vice Chancellor, BRAC University, Bangladesh
4 June 2017.

We wish to appreciate and congratulate all the members of the BIRDS team and stakeholders on the achievement. Thank you.

Dahunsi Olurotimi Akintunde
Department of Mechanical Engineering
Federal University of Technology
P. M. B. 704, Akure, Nigeria.

On 2017/06/04 15:48,
Rei Kawashima
(Secretary General of UNISEC) wrote:
> Congratulations on the
> successful launch!
>
> Rei Kawashima iPhoneから送信

From Korea on 6 June

Dear Prof. Maeda and the BIRDS Team,
Congratulations on the launch! Very happy for the BIRDS team.

Regards, Abhas

(PNST Fellow of Nepal; starts at Kyutech in Fall of 2017)

Dear BIRDS-1 team,
Heartfelt congratulations to all for the successful launch today. Your success has consolidated BIRDS-2 team's confidence and paved a historic way for many non-space faring developing countries.

04/06/2017 will be remembered and celebrated for times to come. Your hard work and determination has spoken for itself!!!

We hope that BIRDS-2 (Bhutan, Malaysia, Philippines) will be able to follow in your footsteps.

Best, Yeshey, BIRDS-2 Team, 4 June 2017.

13. The launch is covered by Nigerian television



Director General : Dr. S. O. Mohammed
National Space Research and Development Agency
(NASRDA)



Deployment of CubeSats from the ISS

NTA
Nigerian
Television
Authority



<https://www.youtube.com/watch?v=w6fNC1k-HMM&t=627s>

on 6 June 2017

14. The launch is viewed by the FUTA community (in Nigeria)



The launched is viewed by the FUTA community.



FUTA Vice-Chancellor and FUTA Management joined the viewing event.

Photos are courtesy of Prof. Dahunsi of FUTA.

15. The status of BIRDS-2 Frequency Coordination (FC)

by Yeshey Choden (Bhutan)

15 June 2017

What is frequency coordination?

Frequency coordination is an inevitable process that all satellites regardless of size and mission must undergo. It is significant due to the usage of radio frequency for all communication purposes of a satellite.

Why is frequency coordination necessary?

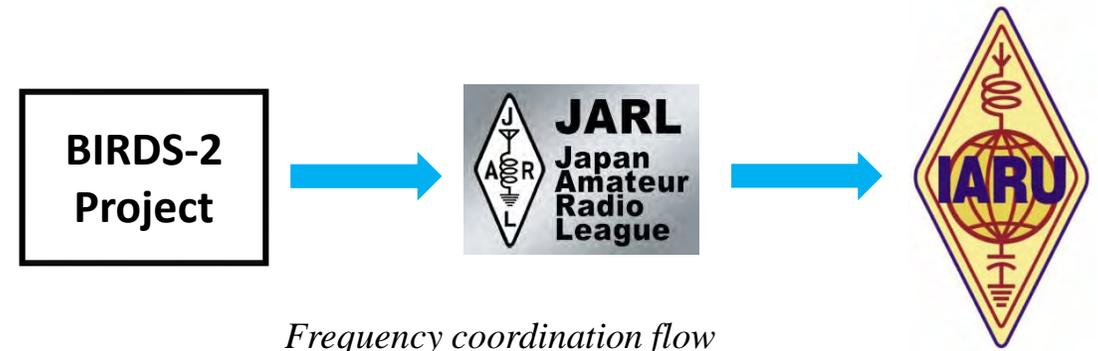
The importance of frequency coordination is confined in the aim to reduce and mitigate interference between satellites. Radio frequency bands are designated and planned in such a way that this limited resource is carefully and equally utilized by all with as little harm to other users as possible.

Why amateur radio frequency for BIRDS-2 CubeSats?

BIRDS-2 CubeSats are amateur satellites since their primary mission is to provide real-time message relay communication service to the amateur radio community. This service will be supported by the APRS DP (Automatic Packet Reporting System Digipeater) payload made up of low cost COTS (commercial off-the shelf) APRS DP. The objective of the mission is to test the functionality of such components onboard 1U CubeSat for the first time. The success of this mission will not only provide the said communication service but also act as a strong tool to educate the general public and youth about radio communication in general and amateur radio in particular.

BIRDS-2 Frequency Coordination Status Update

BIRDS-2 CubeSats frequency coordination process began in late April, 2017. The “Satellite Frequency Request” document was drafted and forwarded to the Japan Amateur Radio League (JARL). JARL is the local amateur radio association in Japan. After rigorous consultation with JARL, the document will be submitted to the International Amateur Radio Union (IARU) for approval. IARU recommends that all amateur radio frequency coordination processes must be carried out in close cooperation and collaboration with the local amateur radio association.



16. Prof. Cho makes a presentation at June 2017 COPUOS Meeting in Vienna



Capacity Building for Satellite Technology through UN/JAPAN Long-Term Fellowship Programme

Mengu Cho
Laboratory of Spacecraft Environment Interaction Engineering
Kyushu Institute of Technology
Kitakyushu, Japan

June 9, 2017
The 60th session of the Committee on the Peaceful Uses of Outer Space

 **Kyutech**
Kyushu Institute of Technology

20-page PowerPoint presentation



UNITED NATIONS
Office for Outer Space Affairs

9th June 2017

[About Us](#) ▾ [Our Work](#) ▾ [Benefits of Space](#) ▾ [Information for...](#) ▾ [Events](#) ▾ [Space Object Register](#) ▾

[Our Work](#) > [Secretariat of COPUOS](#) > [Committee and its Subcommittees](#) > [COPUOS Current Session](#)

The 60th session of the Committee on the Peaceful Uses of Outer Space

07 JUNE 2017 - 16 JUNE 2017



← BIRDS is part of the presentation.

Thank you Mr. Chairman.

My name is Mengu Cho. I am a professor and the director of the Laboratory of Spacecraft Environment Interaction Engineering at the Kyushu Institute of Technology, Japan.

Today I would like to report on the status of the UN/Japan long-term fellowship program on Nano-Satellite Technologies, which we call PNST.

This program was launched originally in 2010 and we will soon have the seventh class of students in October this year.

Today, I am pleased to introduce how this important program evolved over the past 7 years.



Presented from the seat of the Japan COPUOS Delegation

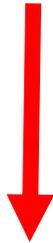
These photos are courtesy of Ms. Rei Kawashima of UNISEC-Global, who presented the day before. She made the case for her organization to become a Permanent Observer of COPUOS. And it was accepted.



17. YouTube site for viewing the deployment of BIRDS-1

To learn more about “Kibo”
Japanese Experiment Module:
<http://iss.jaxa.jp/en/kibo/>

*Mark you
calendar*



Deployment Time of BIRDS-1 satellites from ISS KIBO
7th July, 9:00-10:00 GMT (18:00-19:00 JST)

... which is Tanabata Day ... see the next page.



View the deployment here:

<https://www.youtube.com/watch?v=sP5YZi5usHc>

18. What is Tana Bata Day?



“La La Land” – the part of dancing among the moons and stars – imitated this ancient romance.



Listen in English | Japanese

View Article in English | Japanese

Star Festival or Tanabata (July 7)

Tanabata, also called the ‘star festival,’ is a romantic holiday based on an ancient legend from China that falls on the seventh day of the seventh month. According to the legend, Hikoboshi (‘Starboy’; Altair) and Orihime (‘Weaver Girl’; Vega) fell in love and spent all their time together, losing interest in their work. Enraged by their negligence, the king of heaven banished them to opposite sides of the Milky Way. Since then, the two lovers have been allowed to cross the Milky Way only once a year to meet each other on Tanabata. This is why people pray for a clear night on July 7th, so that the heavenly lovers will be able to meet. The history of Tanabata in Japan is very old. Manyōshū, the oldest existing book of poetry, contains many poems featuring this legend. Around the Tanabata festival, bamboo trees decorated with colorful strips of paper are a common sight. Each strip of paper bears a wish written on it. Many towns and cities in Japan host a Tanabata festival around July 7th, and the streets are festive with decorative bamboo displays.



Preschool children hang tanzaku paper with their wishes to bamboo branches.
Photo from Sakaide Ikkou Kindergarten website.

<http://www.crosscurrents.hawaii.edu/content.aspx?lang=eng&site=japan&theme=cal&subtheme=CULTURHOL&unit=JCAL023>



Cross Currents

See this too for an explanation of this romantic legend:
https://www.spinjapan.net/what_is_tanabata/

19. Tobata Gion Oyamagasa Festival

This local festival was covered by the *BIRDS Project Newsletter* last year. See **Issue No. 6**, page 19 of 21.

The official government website:
<http://www.city.kitakyushu.lg.jp/english/e20100100.html>



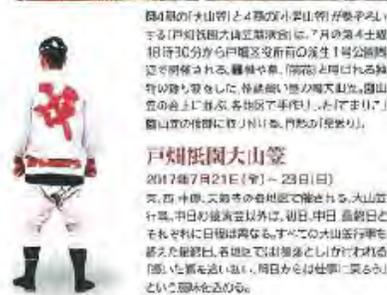
Tobata Gion Oyamagasa Festival

The Tobata Gion Oyamagasa Festival has over 210 years of history and is a traditional festival in Tobata ward. The Japanese government designated the festival as an important intangible folk cultural asset. The festival is known as one of the three largest famous festivals of Fukuoka Prefecture and is called "Chochinyama".

During the day, the floats (*yamagasa*) are in their original form called the *noboriyamagasa* and decorated with colorful flag banners and gold and silver wire embroidery art.

In the evening, the decorations are taken off and the floats transform into the *chochin oyamagasa* (pyramid of paper lanterns). The 12-tier float is about 10 meters tall with 309 paper lanterns and is like a magnificent glowing pyramid of light. The 2.5 ton glowing pyramid is courageously carried by around 80 people keeping in step with the beat of the cymbals and drums.

- Dates of the festival: July 22nd (Fri.) to July 24th (Sun.) ← **Dates**
- Venue: throughout Tobata ward



九州ものしり学

柱山から夜山へ
 変身する祭礼行事

延喜式太鼓の、にぎやかな祇園
 囃子や三ツカを由緒にのっ
 か、「ヨイトサ」の掛け声……

毎年7月の第2土曜を中日と
 した3日間、戸畑のまちは華麗
 でダンスミツクな戸畑祇園大
 山笠(一色)に染まる。「恵(二色)」「
 口原(三)」「又(四)」の因つ地区で
 それぞれ「飛騨八幡宮」「中原八
 幡宮」「菅原神社」の氏子たちが

氏神様の御霊を山笠にのせて町
 内を巡るのである。

古くは享和2年(1813年)、
 患疫退散を願い、須賀大神に祈
 願した村人たちが、この地に流
 行した疫病の終息を祝って山笠
 をつくり、お参りをしたのが
 始まりといわれる。以来210
 年余り、人口千人にも満たない
 小さな村で始まった素朴な祭り
 は、今や北九州市を代表する夏
 の風物詩として全県に知られる
 までになった。

戸畑祇園大山笠の写眞は、古
 式ゆかしい昼の「儀大山笠」から

夕方、氏子た
 ちが袴・縮み袴を職や草履た
 ど一切の飾りを外すと、本の
 釘も使わずに合座にやぐらを組
 み、足踏を連発プレーで23
 09個の提灯を取り付けていく
 そうして、提灯の灯り揺らめく
 重さ2.5トン、高さ10mの光
 のピラミッドが出来上がる

と、それを約80人の担ぎ手が
 息を合わせて、歩調をそろえて進
 むのである。

祭りの中、戸畑区役所南で
 は、東、西、中、大、小、山笠の4
 基の大山笠と、それらの地区の
 中学生が担ぐ4基の小山笠が
 が一帯に並び、この期、祇園大山笠
 競演会が開かれる。ここでは一
 斉に提灯を積み上げる様子も
 とよみ、追い抜きの音が響く
 自由競演も、技師の幻想的な光と熱
 気戸畑の夜を魅了する。

コネスコ無形文化遺産
 登録も覚悟してつくり
 られた、大山笠、山笠の結
 核(提灯)を一本も揺ら
 ず相対立する。
 (香川県、戸畑祇園大
 山笠競演会)

Tobata Gion Oyamagasa

This article in Japanese is from Issue No. 361 (June 2017) of "Please" magazine published by JR Kyushu.

祭

まつり

20. BIRDS-1 of Ghana covered by its media

GhanSat-1 to be deployed into orbit in July in Japan

SETH J. BOKPE / 12 JUNE 2017



The trio who designed GhanSat-1 proud of being Ghanaian

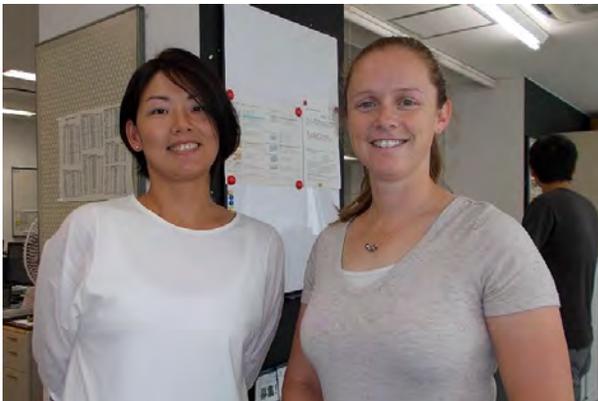
After a successful launch of Ghana's first satellite, GhanSat -1, on June 1, 2017, in Florida in the United States of America, the country's first space technology is set to be deployed into orbit tentatively on July 6 or 7, this year.

GhanaSat 1 will be deployed from the International Space Station (ISS) into orbit at an estimated altitude of 400 kilometres above the earth atmosphere via the Japan/Kibo Deployment System.



Ghana Daily Graphic, 12 June 2017.

21. For SEIC and BIRDS students, Dr. Amelia Greig teaches rocket propulsion course



Dr. Greig visits Ms Kennedy at the Graduate School Office.



Dr. Greig is a native of Australia. She now is a member of the faculty at Cal Poly in the USA.



Prof. Toyoda introduces Dr. Greig to the students.

This summer, she will deliver sixteen 90-minute lectures.

The first lecture – 13 June 2017, at 2:40 PM.

22. The BIRDS Session during recent ISTS meeting in Matsuyama

This is a 5-page report edited by Taiwo and G. Maeda

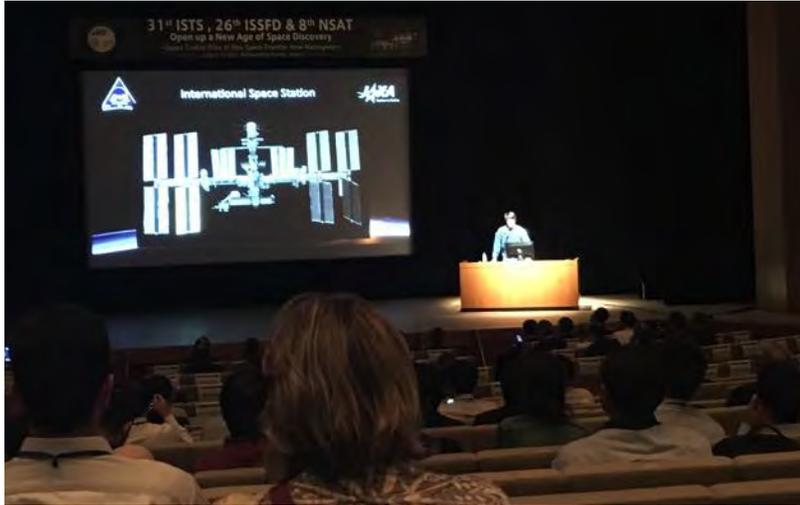


At the recent ISTS meeting in Matsuyama, Japan, there was a session [f-4] dedicated to the **BIRDS Project**. Members of the BIRDS-1 team (staff and students) travelled to there from Kyutech and gave technical presentations. The **BIRDS Project** thanks Dr. Kuwahara and Dr. Kameda for serving as chairpersons of this ISTS session.



Opening Ceremony

Opening presentation by: Kimiya Yui, ISS Expedition 44/45
(https://en.wikipedia.org/wiki/Kimiya_Yui)



City of Matsuyama



BIRDS Members reunion with Mohamed Yahia (PhD Kyutech) -- Presently with Egypt's NARSS (National Authority for Remote Sensing and Space Sciences)



Space
Engineering
International
Course



Exhibitions at ISTS



BIRDS Project Session

The BIRDS Session of 2017 ISTS, from 16:00 to 17:40 on 6th June, consisted of:

- 1. Overview of Joint Global Multi-Nation BIRDS Satellite Project
- 2. Design, Manufacture and Verification of CubeSat Structures for BIRDS Constellation
- 3. Design and Verification of BIRDS Project Mission Data Downlink System
- 4. Challenges in the Development of Backplane-Type Bus for 1U CubeSat
- 5. Atmospheric Density Modeling via Precise Satellite Tracking of Birds CubeSat Constellation
- 6. Precise Location of CubeSats Using Arrival Time Lag



The Venue

[f-4] BIRDS	
Session Date	June 6 (Tue) 16:00 – 17:40
Room	Pearl Room A
Chairpersons	Toshinori Kuwahara (Tohoku University, Japan) Toshihiro Kameda (University of Tsukuba, Japan)



It was also groovy!



We built network with best GUYS, (Matthew Richardson from University of Tokyo Got Japanese Rocket Society Award)



Kafi grabs the 2nd Prize for Best Poster Award

Editor: More about Kafi's award later in this newsletter issue.

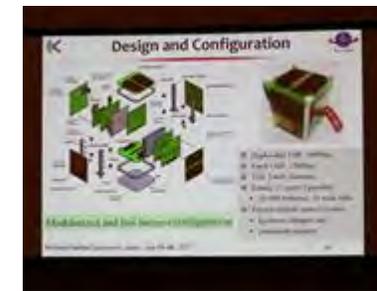


Making new friends



Nishi Kentaro (JAXA), Taiwo, Ibukun, Erka, Akihiro (Researcher, Keio Univ) Shota Iino (Keio Univ) Matthew (Utokyo), Joshua (Univ. Sydney)

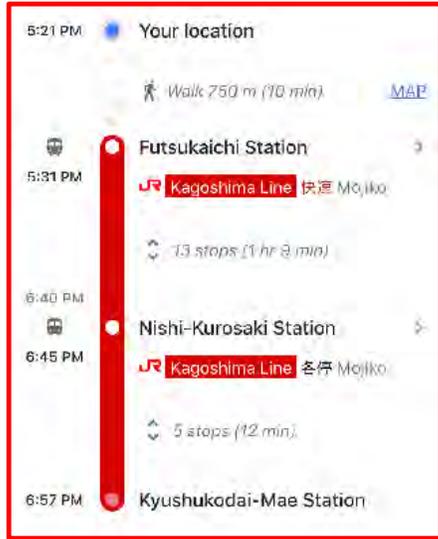
Random ISTS Shots from Antara's camera



23. Kyutech BIRDS members conduct outreach at Kurume University



Getting from Kurume to Tobata using JR railway



BIRDS-1 Project Manager Taiwo led a space-promoting outreach seminar recently at Kurume University; BIRDS-2 member Yeshey went along as an observer. The seminar was in the 5th in a series of English seminars organized by the Foreign Language Institute of Kurume University

<https://www.kurume-u.ac.jp/site/english/english-r04.html>

The series aims to support the university's students in gaining boldness to speak English and to encourage them to ask questions. The participants were from Law, Social Science, Humanities, Economics, and Sports departments of Kurume University. Details are as follows:

- * Date: Saturday 10th June 2017 , 13:00 - 14:30
- * Venue: LL2, 800 Building, Mii Campus, Kurume University
- * Attendees: About 30 students from all departments
- * Topic: *What is a Satellite and How it Works?*



Editor's Note:

It is laudable that Taiwo does so many of these local outreach activities. I take off my hat to this engineer and gentleman. GM.



久留米ラーメン



Yeshey and Taiwo check out *Kurume Ramen*, a local delicacy.



Taiwo passionately talks about space to college students.



24. Some photos from Bhutan

Article by Kiran of the BIRDS-2 Team; photos from Mr Phuntsho



Pic: Personnel involved in BIRDS-2.

From Left 1) Mr. Sonam Phuntsho 2) Mr. Pema Dhendup 3) Mr. Pema Rinchen 4) Mr. Jigme Thinlye Namgyal

- MoIC – Ministry of Information and Communications (MoIC) is the parent agency of the Department of IT & Telecom (DITT).
- **Mr. Jigme Thinlye Namgyal** is Director of DITT.
- **Mr. Sonam Phuntsho** is Chief of Telecom division under DITT.
- **Mr. Pema Dhendup** is one of the Sr. ICT Officers under DITT.
- **Mr. Pema Rinchen** is one of the officials outside MoIC involved in BIRDS-2 project. He is Director of Home Ownership Project Endowment (HOPE).





Pic: One of the buildings in MoIC Campus identified to host ground station for BIRDS-2 project



Pic: Assessing the roof top for antenna installation



Pic: Roof of the building making antenna installation a challenge



Pic: View of server room on the ground floor of the building which will house the ground station radio and other equipment.

End of photos from Bhutan.

First Signal Prediction time passes of BIRDS-1 Satellites at each BIRDS Local Ground Station on 7 July 2017

This article by: Benjamin Bonsu, BIRDS-1, Ghana.

16 June 2017.

Introduction

This predictive analysis was performed using STK Simulation software and Orbitron Tracking software.

Goals

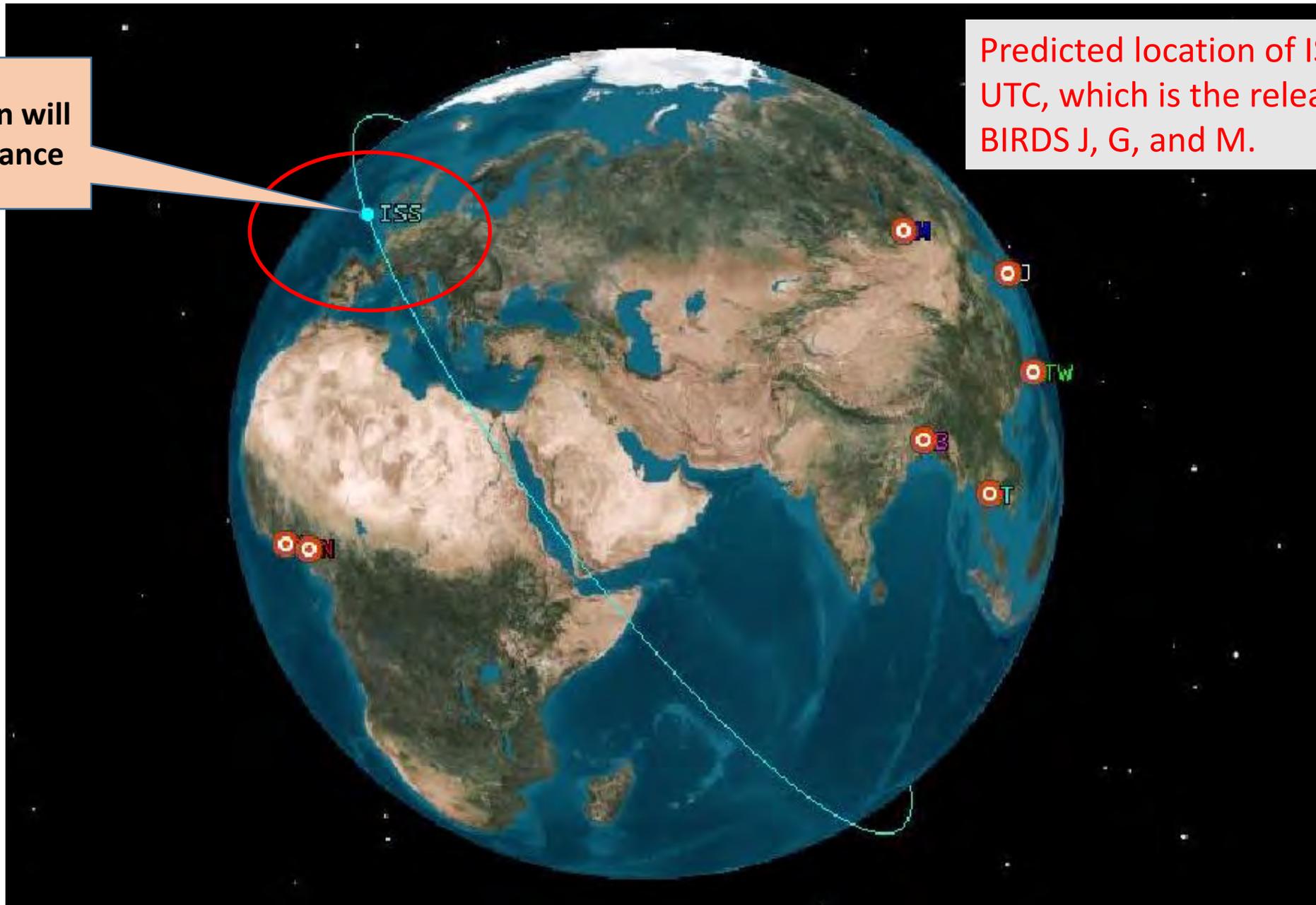
- Predict best condition for ISS location in day
- Predict best time to deploy BIRDS-1 satellites
- To predict time passes of BIRDS-1 satellites for each BIRDS ground station in each respective country

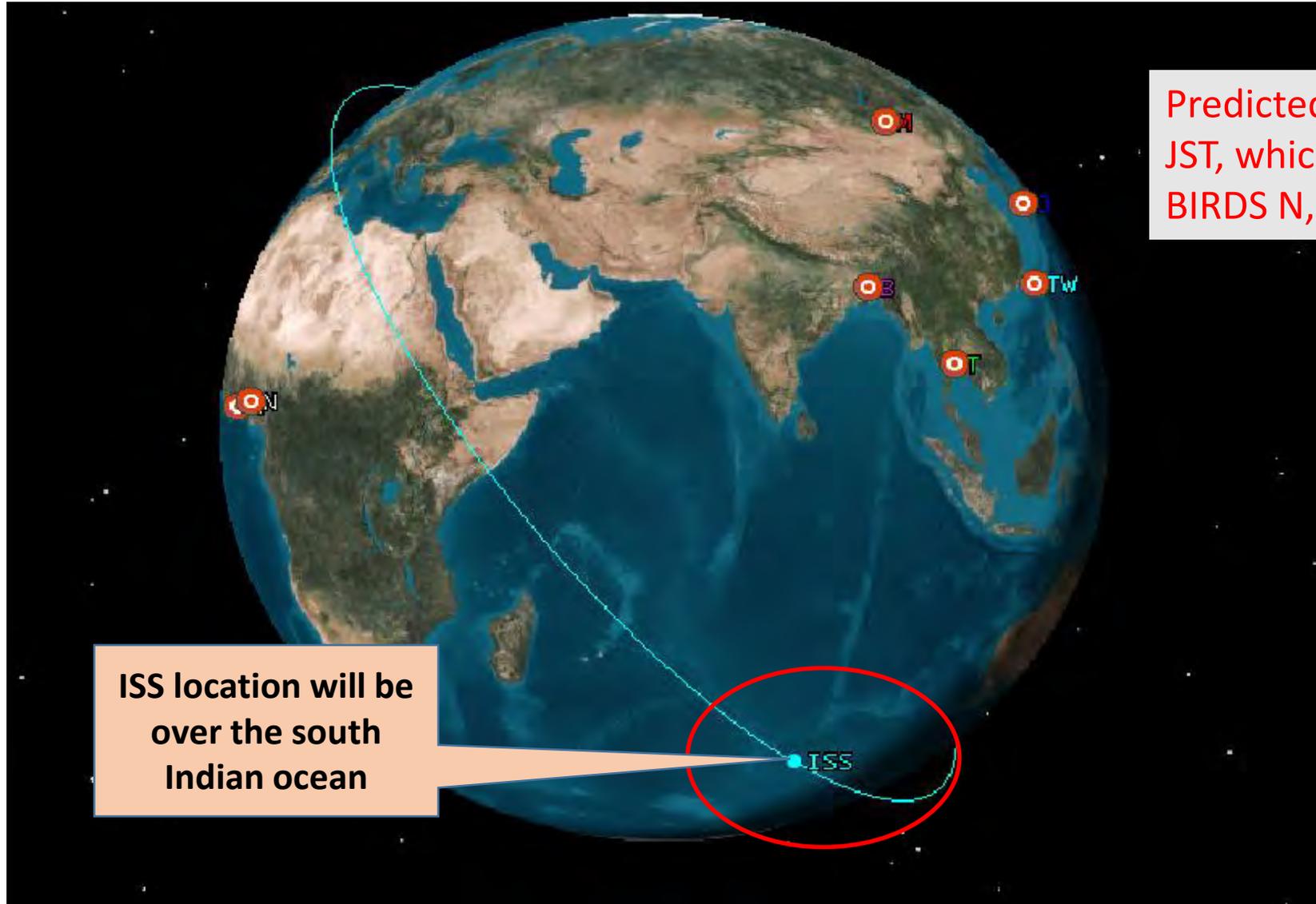
- BIRDS-1 satellites will be released into orbit on 7 July 2017 via Japan /Kibo Deployment System onboard the International Space Station.
- Order of BIRDS-1 Satellite Releases and Time window (9:00 am – 10:15 am UTC)
 - BIRDS-1 satellites of Japan , Ghana , Mongolia at 9:00 am UTC
 - Satellites of Nigeria and Bangladesh at 9:30 am UTC

These times are selected because at these periods the ISS position will be in the daytime side so it is possible to receive Live Broadcast from ISS

ISS location will be over France

Predicted location of ISS at 9:00AM UTC, which is the release time for BIRDS J, G, and M.





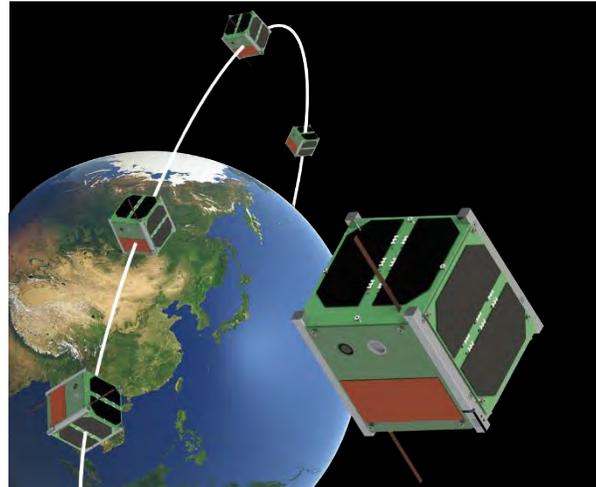
Predicted location of ISS at 18:30 JST, which is the release time for BIRDS N, G (Nigeria, Ghana)

ISS location will be over the south Indian ocean

This multi-slide report was produced by Benjamin Bonsu of Ghana.

- Editor

PREDICTED TIME PASSES FOR BIRDS-1 SATELLITES AT EACH BIRDS LOCAL GROUND STATION



From the Guest Box (Page 2) of Issue No. 12.

First Signal Prediction time passes of Birds Satellites at each Birds Local GS on July ,7 2017

- Kyutech_ GS, Japan

Satellite	Kyutech-GS Time Passes (UTC)		
BIRDS J ,G, M @ 9:00 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	7/7/17 4:19 PM	7/7/17 4:26 PM
	2	7/7/17 5:53 PM	7/7/17 6:04 PM
	3	7/7/17 7:31 PM	7/7/17 7:40 PM
	4	7/7/17 9:10 PM	7/7/17 9:16 PM
	5	7/7/17 10:48 PM	7/7/17 10:55 PM

Satellite	Kyutech-GS Time Passes (UTC)		
BIRDS N,B @ 9:30 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	7/7/17 4:19 PM	7/7/17 4:26 PM
	2	7/7/17 5:53 PM	7/7/17 6:04 PM
	3	7/7/17 7:31 PM	7/7/17 7:40 PM
	4	7/7/17 9:10 PM	7/7/17 9:16 PM
	5	7/7/17 10:48 PM	7/7/17 10:55 PM

First Signal Prediction time passes of Birds Satellites at each Birds Local GS on July ,7 2017

- ANU_ GS, Ghana

Satellite	ANUU-GS Time Passes (UTC)		
BIRDS J ,G, M @ 9:00 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	7/7/17 10:42 AM	7/7/17 10:46 AM
	2	7/7/17 12:15 PM	7/7/17 12:26 PM
	3	7/7/17 1:55 PM	7/7/17 1:59 PM
	4	7/7/17 11:53 PM	7/8/17 12:02 AM

Satellite	ANUU-GS Time Passes (UTC		
BIRDS N,B @ 9:30 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	7/7/17 10:42 AM	7/7/17 10:46 AM
	2	7/7/17 12:15 PM	7/7/17 12:26 PM
	3	7/7/17 1:55 PM	7/7/17 1:59 PM
	4	7/7/17 11:53 PM	7/8/17 12:02 AM

First Signal Prediction time passes of Birds Satellites at each Birds Local GS on July ,7 2017

- BRAC _ GS, Bangladesh

Satellite	BRAC -GS Time Passes (UTC)		
BIRDS J ,G, M @ 9:00 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	7/7/17 7:21 PM	7/7/17 7:32 PM
	2	7/7/17 8:58 PM	7/7/17 9:07 PM

Satellite	BRAC-GS Time Passes (UTC)		
BIRDS N,B @ 9:30 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	7/7/17 7:21 PM	7/7/17 7:32 PM
	2	7/7/17 8:58 PM	7/7/17 9:07 PM

First Signal Prediction time passes of Birds Satellites at each Birds Local GS on July ,7 2017

- KMUTNB_ GS, Thailand

Satellite	KMUTNB-GS Time Passes (UTC)		
BIRDS J ,G, M @ 9:00 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	7/7/17 5:45 PM	7/7/17 5:54 PM
	2	7/7/17 7:21 PM	7/7/17 7:31 PM

Satellite	KMUTNB-GS Time Passes (UTC)		
BIRDS N,B @ 9:30 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	7/7/17 5:45 PM	7/7/17 5:54 PM
	2	7/7/17 7:21 PM	7/7/17 7:31 PM

First Signal Prediction time passes of Birds Satellites at each Birds Local GS on July ,7 2017

- NUM_ GS, Mongolia

Satellite	NUM-GS Time Passes (UTC)		
BIRDS J ,G, M @ 9:00 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	07/07/2017 19:29	07/07/2017 19:38
	2	07/07/2017 21:04	07/07/2017 21:15
	3	07/07/2017 22:41	07/07/2017 22:52

Satellite	NUM-GS Time Passes (UTC)		
BIRDS N,B @ 9:30 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	07/07/2017 19:29	07/07/2017 19:38
	2	07/07/2017 21:04	07/07/2017 21:15
	3	07/07/2017 22:41	07/07/2017 22:52

First Signal Prediction time passes of Birds Satellites at each Birds Local GS on July ,7 2017

- NCKU_ GS, Taiwan

Satellite	NCKU-GS Time Passes (UTC)		
BIRDS J ,G, M @ 9:00 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	07/07/2017 16:16	07/07/2017 16:21
	2	07/07/2017 17:49	07/07/2017 18:00
	3	07/07/2017 19:28	07/07/2017 19:35

Satellite	NCKU-GS Time Passes (UTC)		
BIRDS N,B @ 9:30 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	07/07/2017 16:16	07/07/2017 16:21
	2	07/07/2017 17:49	07/07/2017 18:00
	3	07/07/2017 19:28	07/07/2017 19:35

First Signal Prediction time passes of Birds Satellites at each Birds Local GS on July ,7 2017

- FUTA_ GS, Nigeria

Satellite	FUTA-GS Time Passes (UTC)		
BIRDS J ,G, M @ 9:00 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	07/07/2017 10:41	07/07/2017 10:49
	2	07/07/2017 12:16	07/07/2017 12:27
	3	07/07/2017 23:53	08/07/2017 00:03

Satellite	FUTA-GS Time Passes (UTC)		
BIRDS N,B @ 9:30 UTC	Access	Start Time (UTCG)	Stop Time (UTCG)
	1	07/07/2017 10:41	07/07/2017 10:49
	2	07/07/2017 12:16	07/07/2017 12:27
	3	07/07/2017 23:53	08/07/2017 00:03

End of article by Benjamin Bonsu of Ghana

26. BIRDS-2 student Adrian discusses store-and-forward during SEIC Lunch Time Seminar



Adrian delivered this talk (title is shown at the immediate right) on 8 June 2017 as part of the **SEIC Space Engineering Seminar** series. It was 45 minutes long, including discussion time at the end.

Potential Use of Nanosatellites for Store-and-Forward (S&F) Remote Data Collection Systems

Presenter: ADRIAN C. SALCES
Student, Doctor of Engineering Program (SEIC),
Member, Cho Laboratory

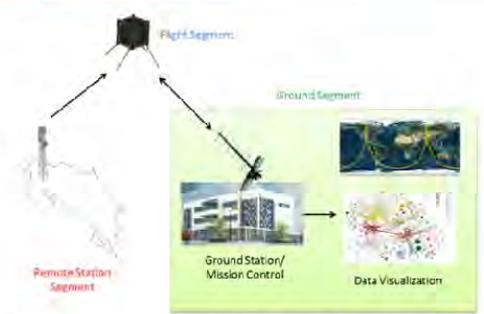
Space Engineering Seminar
June 8, 2017, Cho Lab Seminar Room

Laboratory of Spacecraft Environment Interaction Engineering (LaSEINE)
Kyushu Institute of Technology, Japan

Adrian's entire presentation can be found here:
<http://cent.ele.kyutech.ac.jp/seic/news.html>

Irazu Project

- Mission
 - "To develop a full life cycle space engineering project using CubeSat technology as a proof of concept of a communication platform able to transmit environmental variables measured from remote protected areas in Costa Rica's territory to a data visualization center for climate change research." [8]



Irazu project concept of operations. The overall system consists of three segments: remote station, flight and ground segments. The remote station will measure forest growth, carbon sequestration, humidity, other weather parameters. (Source: [8])

[8] "Irazu Project: The First Satellite Made in Costa Rica", posted at [KickStarter](https://www.kickstarter.com/projects/irazu/irazu-project-the-first-satellite-made-in-costa-ri).
<https://www.kickstarter.com/projects/irazu/irazu-project-the-first-satellite-made-in-costa-ri>

Store and forward is one of the big missions of BIRDS-2 satellite.

 **CONCLUSION** 

- To deal with technical constraints that impact system performance, especially low data rate, as well as the limited communication time, recent studies in literature investigate appropriate communication protocols and system optimization, albeit limited in theory and simulations.
 - Lack of practical engineering insights derived from actual systems
- The BIRDS-2 S&F mission comes into the picture by implementing an experimental proof-of-concept system consisting a 3-member 1U cubesat constellation S&F system, and investigating the actual system performance and technical challenges.

Kyushu Institute of Technology 38

27. Proposed BIRDS-1 QSL card by Ghana

What is a QSL card?

From Wikipedia, the free encyclopedia

A QSL card is a written confirmation of either a two-way radiocommunication between two amateur radio stations or a one-way reception of a signal from an AM radio, FM radio, television or shortwave broadcasting station. It can also confirm the reception of a two-way radiocommunication by a third party listener. A typical QSL card is the same size and made from the same material as a typical postcard, and most are sent through the mail as such. **Continued below.**

JG6YJP
GHANASAT-1
 (First Ghana Satellite)
 ALL NATIONS UNIVERSITY COLLEGE
 Space Science and Technology Laboratory
 P.O. BOX KF 1908
 KOFORIDUA
 EASTERN REGION
 GHANA
 ANU SSSL
 Space for Humanity
Downlink Frequency: 437.375MHz

SPECIFICATIONS

Name : GHANASAT-1
 Size : 10cm x 10cm x 10cm
 Mass : 1.12kg
 Launch to ISS : 3/06/2017 @ 9:07pm UTC
 Release from ISS : 7/07/2017 @ 9:00 am UTC
 Launch Vehicle : SpaceX Falcon -9 CRS 11
 Launch Site : Kennedy Space Center LC -39A
 Release by : Japan/ Kibo Deployment Unit
 Orbit Parameters : ISS orbit , Inclination 51.6 deg, Perigee 400.2km
 Apogee 409.5km
 Altitude : 400km

To :					
Date :	Day	Month	Year	UTC	
Mode					
Frequency					

 Thank you for receiving signals from Ghanasat-1.
 Your continue support is highly appreciated. 73s!!!!

Ghanasat-1 Project
 All Nations University College(ANUC)
 Space Science and Technology Laboratory
www.anusstl.com ,
www.anuc.edu.gh
www.birds.ele.kyutech.ac.jp

Dr. Samuel Donkor
 Founder /President , ANUC

Continued here . . .

QSL card derived its name from the Q code "QSL". A Q code message can stand for a statement or a question (when the code is followed by a question mark). In this case, 'QSL?' (note the question mark) means "Do you confirm receipt of my transmission?" while 'QSL' (without a question mark) means "I confirm receipt of your transmission."

See here for the full story:
https://en.wikipedia.org/wiki/QSL_card

28. Proposed BIRDS-1 QSL card by Mongolia

Send in your signal reports

“MAZAALAI”
The First
Mongolian
Satellite

NATIONAL UNIVERSITY OF MONGOLIA
1942

J
G
6
Y
J
Q

Amateur Radio Satellite GS,
NATIONAL UNIVERSITY OF MONGOLIA,
Ikh surguulijn gudamj-1, Ulaanbaatar 14200, Mongolia, P.O.BOX -46A/523
DOWNLINK FREQUENCY: 437.375MHz

To Radio:

Day/Month/Year	Time	Band	Mode
/ /	: (UTC)	437.375MHz	<input type="checkbox"/> CW <input type="checkbox"/> FSK <input type="checkbox"/> GMSK

SPECIFICATION:

Name: MAZAALAI (BIRD-M)
 Alternative name: NUMSAT-1U
 Size: 10cm x 10cm x 10cm
 Weight: 1.1kg
 Launch date: 03/06/2017
 Launch vehicle: SpaceX Falcon-9 (CRS-11)
 Release date: 07/07/2017
 Release by: Japanese Experiment Module (KIBO) - ISS
 Orbit: Altitude 400km, Inclination 51.6
 NUM GS Location: 47°55'21.5"N 106°55'11.9"E
 URL: <http://www.num.edu.mn/>
<http://birds.ele.kyutech.ac.jp/>



Thank you for receiving signal from MAZAALAI. Your continued support is very much appreciated.



For the explanation of this Mongolian bear (in the card at the left) see Page 8 of Newsletter Issue No. 9.

29. Proposed BIRDS-1 QSL card by Nigeria

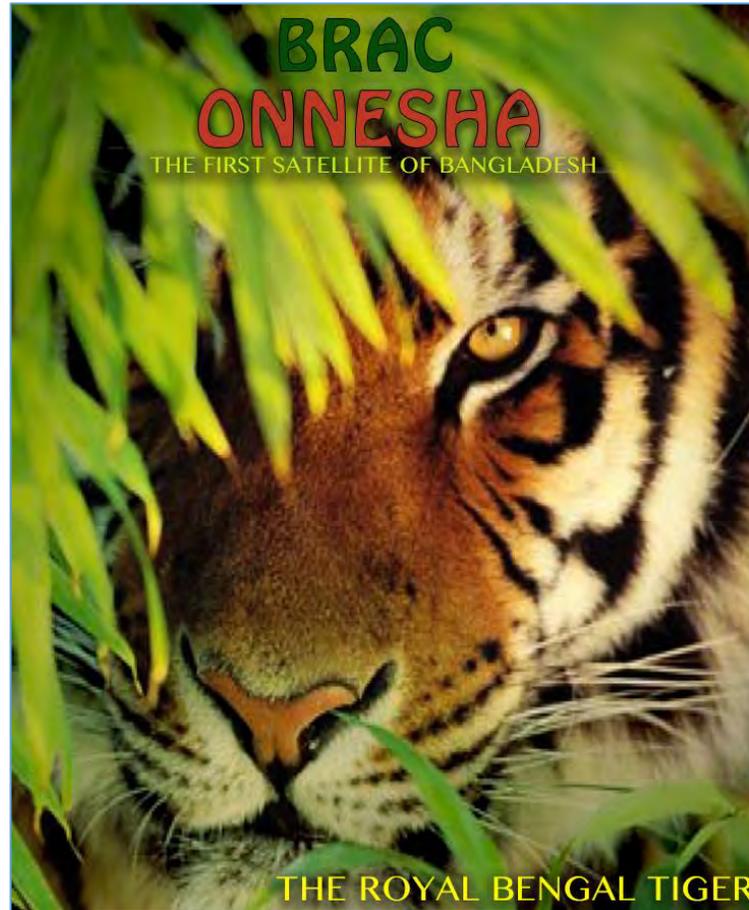


Fifty QSL cards were printed up on 22 June 2017. If you would like to receive one via Air Mail, you must (1) after the ISS release of **NigeriaEduSat-1** receive its signal, and (2) send a signal report (full details—date, time, location, signal quality, your name, call sign, etc.) to Ibukun care of BIRDS2017@googlegroups.com.



30. Proposed BIRDS-1 QSL card by Bangladesh

*Send in
your
signal
reports !!!*



To Radio

Date	Time
	: UTC : BST
Band	Mode
<input type="checkbox"/> 437.375 MHz	<input type="checkbox"/> CW <input type="checkbox"/> Digi-Singer <input type="checkbox"/> Telemetry
Specification	
Name: BRAC ONNESHA Call Sign: JG6YJS Size: 10cm*10cm*10cm Weight: 1.3 kg Orbit: LEO(410 km) Launcher: SpaceX Falcon 9 Launch Date: 04 June 2017 GS Location: BRAC University, Mohakhali, Dhaka, Bangladesh URL: http://www.nasterlab.org	
	

BIRDS2017@googlegroups.com

31. Kafi is awarded second prize for Best Poster at ISTS

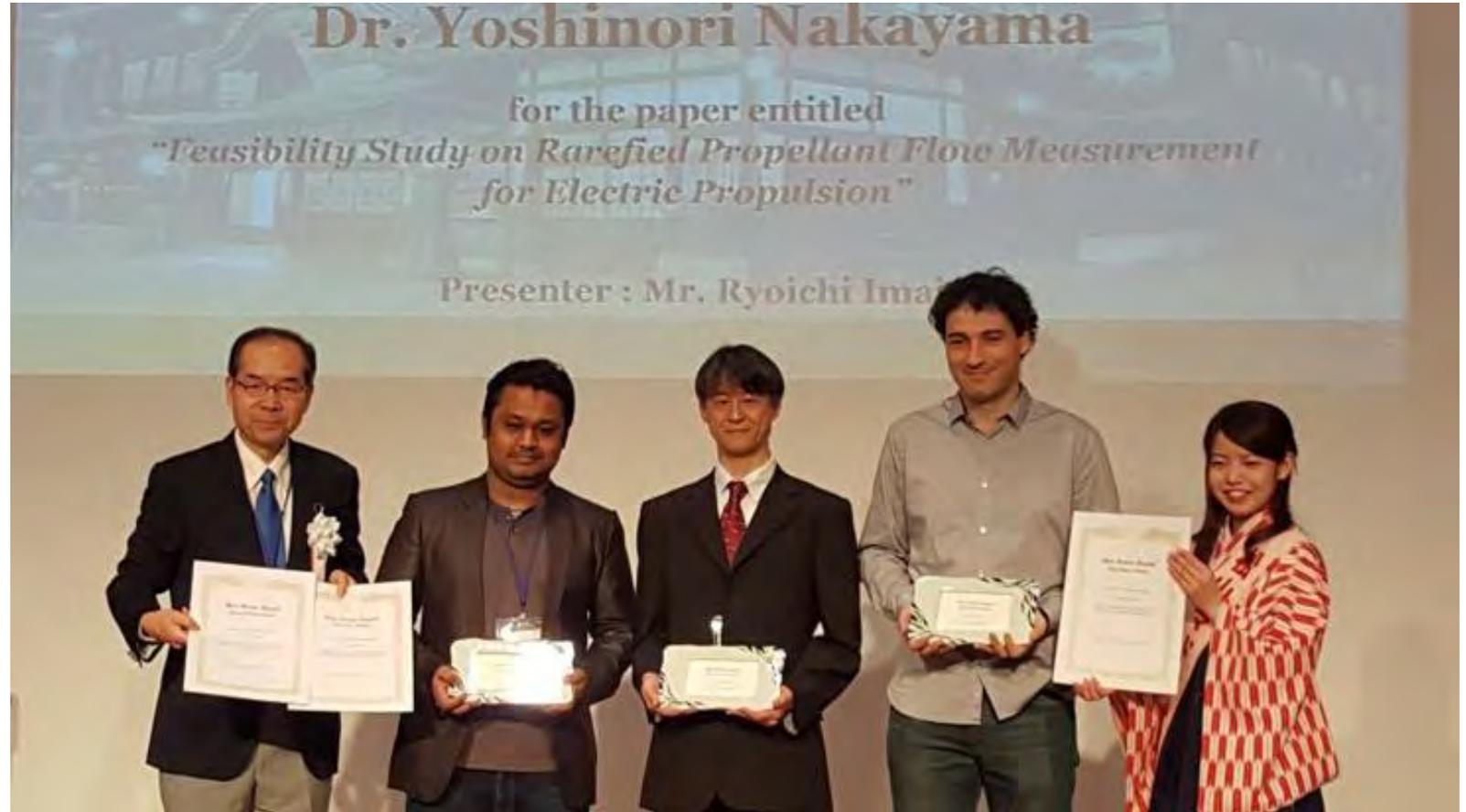
At the recent **ISTS** meeting in Matsuyama (described earlier in this newsletter issue), Kafi (BIRDS-1, Bangladesh) bagged the *second prize for Best Poster*.



Congratulations, Kafi !

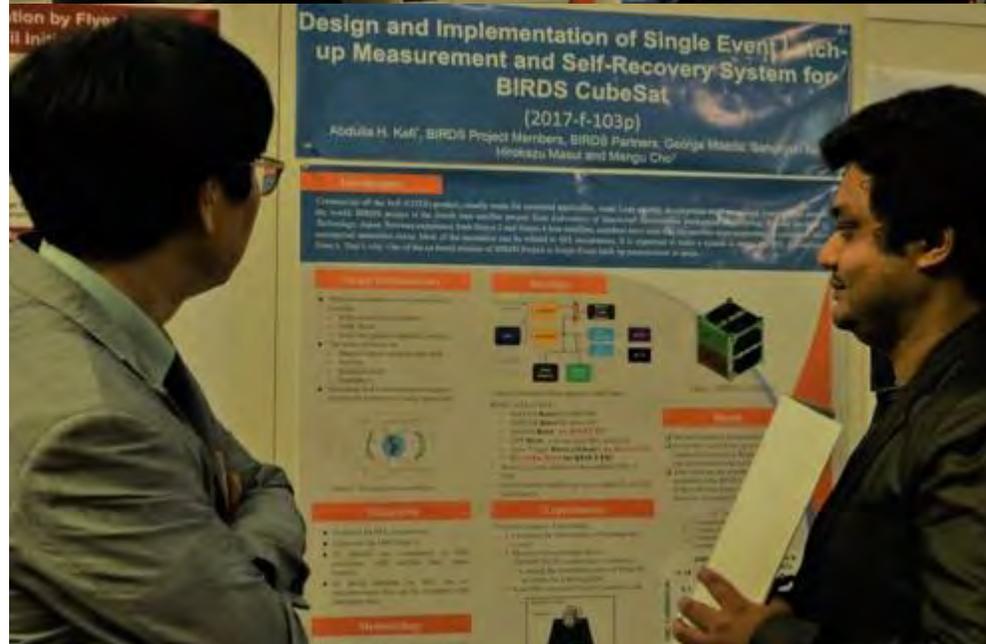
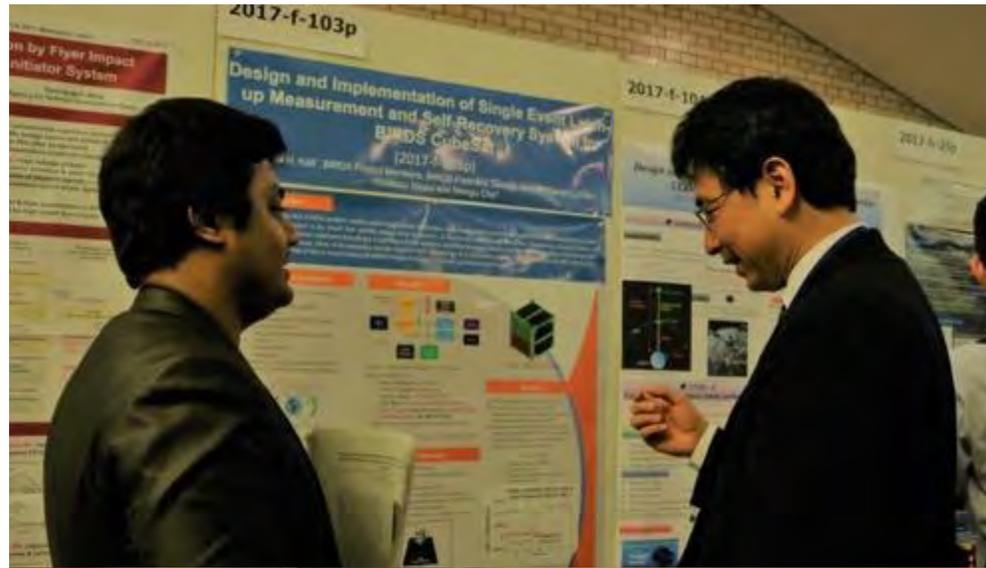


Awards and
closing
ceremony at
ANA Hotel
Matsuyama
on 9th June
2017



Kafi
of BIRDS-1
team

Explaining the research to ISTS participants via the poster



Space
Engineering
International
Course



First BIRDS GS Operator Network Meeting (via Internet)

Meeting Date: Wednesday 14th June 2017

Japan Time: 19:00 (JST)

Ghana Time: 10:00 (Morning)

Mongolia Time: 18:00 (Evening)

Nigeria Time: 11:00 (Morning)

Bangladesh Time: 16:00 (Evening)

Thailand Time: 17:00 (Evening)

Taiwan Time: 18:00 (Evening)

**GS =
Ground Station.**

This report was written by Kafi of Bangladesh on 17 June 2017.

The Agenda

1. Members introduction
2. GS Status report
3. Introduction to BIRDS Ground station network
4. Operators responsibility
5. Q&A

The Participants

- Ghana:
 - Aaron Yankey, Sharon Emelia Dornukie Quaye
- Bangladesh:
 - Md Mojammel, Jamil Arifin
- Mongolia:
 - Altasukh Mainbayar, Baatar Oyunomin
- Nigeria:
 - Dahunsi Akintunde, Joseph Akinyede
- Thailand
 - Apiwat Jiwattanaphol
- Taiwan
 - Kelvin Liu, Rita Hung
- Infostellar:
 - Kurahara san, Kobayashi san

Kyutech side:

BIRDS-1 Project team members



Cho Lab Seminar Room
(the Kyutech side of the meeting)



Comments by Kafi

- ◆ The meeting was very productive for all the BIRDS Network members around the world.
 - ◆ Everyone shared the knowledge about their own Ground Station.
 - ◆ This was a big step forward for the successful operation of the BIRDS-1 constellation.
- The meeting will occur again before deployment.

Kafi, Thanks for this fine report. Editor.

Seminar on
**"BRAC ONNESHA:
BEYOND THE
HORIZON"**

-- arranged by
BRAC University
at BRAC University

The poster features the BRAC University logo at the top left with the tagline "Inspiring Excellence". The main title "BRAC ONNESHA" is in a dark blue banner, with "Beyond The Horizon" in a red banner below it. A central image shows a green nano satellite. Below the satellite, three circular portraits of speakers are shown: Abdullah Hil Kafi, Maisun Ibn Monowar, and Raihana Shams Islam. A white banner reads "MEET THE MAKERS OF FIRST NANO SATELLITE OF BANGLADESH". At the bottom, logos for OMCEB, BRAC UNIVERSITY ELECTRICAL AND ELECTRONIC CLUB, and RUBU are visible, along with the event date and location: "16 MARCH | BRACU AUDITORIUM".

16 March 2017



Innovation Excellence

HOME | CALENDAR | SEMINAR ON "BRAC ONNESHA: BEYOND THE HORIZON"

SEMINAR ON "BRAC ONNESHA: BEYOND THE HORIZON"

Location:

BRAC University Auditorium

March 16th, 2017 - 11:00am to 1:00pm

Nano-satellite is the new horizon of cheaper and more affordable space technology for developing and developed countries in the world. With the pace of time, Bangladesh has also achieved this glory to be a proud holder of "BRAC ONNESHA" the nation's first Nano-satellite made by a university in Bangladesh. And the students, who made it possible through their tireless effort and dedication to accomplish the impossible quest of conquering space for Bangladesh as a Bangladeshi, are the pride of BRAC University. BRACU has received "BRAC ONNESHA", from the Kyushu Institute of Technology (Kyutech), Japan on 8 February 2017 at Kitakyushu, Japan.

Robotics Club of BRAC University (ROBU) and BRAC University Electrical & Electronic Club (BUEEC) together are going to arrange a seminar on "BRAC ONNESHA: Beyond the horizon". The speakers are the makers of the Nano-satellite Maisun Ibn Monowar, Abdulla Hil Kafi and Raihana Shams Islam Antara. They are going to brief us their journey towards this tremendous achievement. Honourable Vice Chancellor Professor Syed Saad Andaleed, Ph.D. will be there as the chief guest of the event.

Invite you to the seminar and would be highly honoured if you can spare sometime from your busy schedule to attend the seminar.

Event Schedule of "BRAC Onnesha: beyond the horizon"

Time: 11:00-11:05 am

Program: Welcoming Abdulla Hil Kafi, Maisun Ibn Monowar and Raihana Shams Islam Antara.

Time: 11:05-11:10 am

Program: Inauguration Speech + Video

Time: 11:10-12:30 pm

Program: Talking about the journey and technical construction of BRAC Onnesha

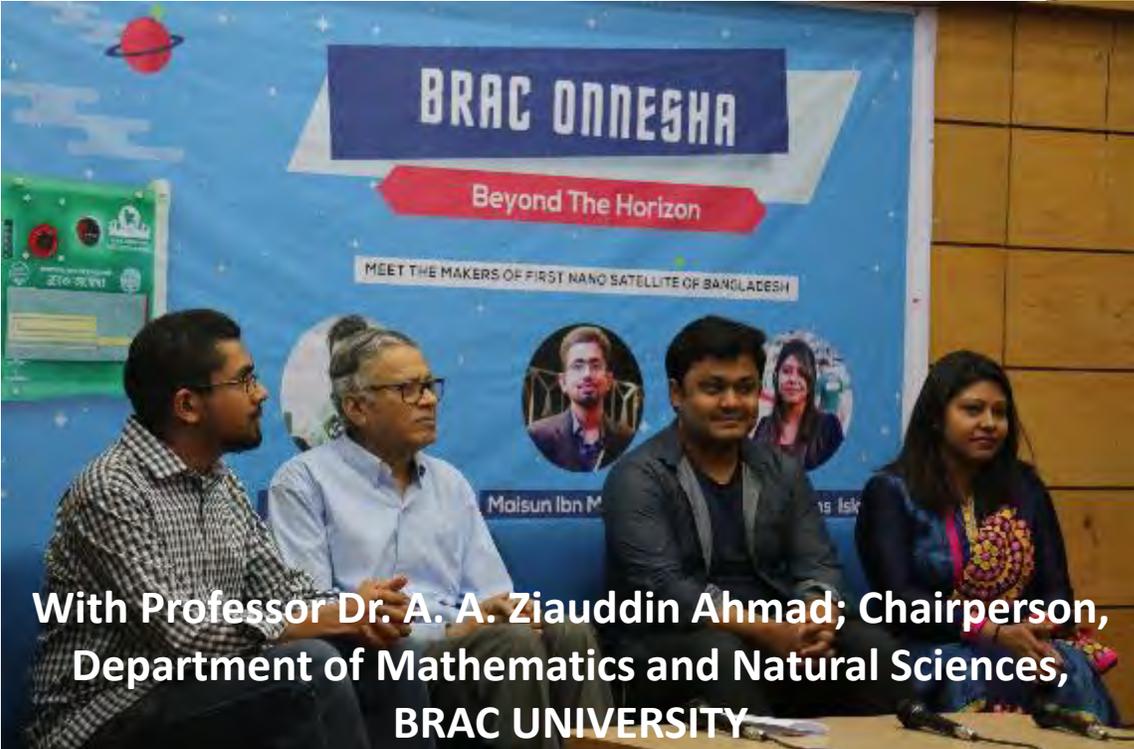
Time: 12:30-1:00 pm

Program: Meet the press

Time: 1:00 pm

Seminar
announcement on
BRAC UNIVERSITY
Website





With Professor Dr. A. A. Ziauddin Ahmad; Chairperson, Department of Mathematics and Natural Sciences, BRAC UNIVERSITY



Audience during the seminar



With Syed Saad Andaleeb, Vice-Chancellor of BRAC University and Professor Dr. A. A. Ziauddin Ahmad.



Interview with the press



the independent

POST TIME: 23 March, 2017 10:00:00 AM

BRAC ONNESHA: Beyond The Horizon

BRAC University (BRACU) brought together Masvun Ibn Monowar, Abdulla Hil Kafi and Raihana Shams Islam Antara to share their experience of building BRAC ONNESHA, the first nano-satellite by a Bangladeshi university, says a press release. Greeted with flowers, cheers and rapturous applause from fellow students at the BRAC University auditorium on March 16, the three narrated how they finished their undergraduate course in the electrical and electronic department before the idea came to them to do higher studies in space technology.

A video was played on the development of the satellite and its deployment. The three explained its components and the way they overcame hurdles, starting with the 14-month timeframe to complete all tasks before the launching.

Pointing out that on an average the three students spent around 16 hours every day in the lab at Kyushu Institute of Technology (Kyutech) in Japan, BRACU Vice Chancellor Syed Saad Andaleeb appreciated the dedication put up by the team. Antara has already patented a part of her research, he added.

AA Ziauddin Ahmad, Chairperson, Department of Mathematics and Natural Sciences, said Bangladesh had already tapped three vital areas of nuclear, space and oceanography and would soon start reaping benefits. He emphasised on increasing collaboration with government agencies as "youths can achieve miracles".

Six other students were introduced who graduated from BRAC University and are now working on building a ground station for the satellite, which is expected to be inaugurated next month.

During a question and answer session, it was pointed out that the money being spent to keep the satellite afloat for six months would repay in experience for years to come, and save a tremendous amount of effort in future endeavours and insight into everyday electronics. The talk on "BRAC ONNESHA Beyond the horizon" ended with the organisers, Robotics Club of BRAC University (ROBU) and BRAC University Electrical & Electronic Club (BUEEC), presenting crests of appreciation to the three satellite builders.

HOME COVER VOICE ICON INITIATIVE NEWS FEED

BRAC ONNESHA: Beyond the horizon

March 19, 2017 12:05 am | Categories: Gift on BRAC ONNESHA: Beyond the horizon | Views: 36

BRAC ONNESHA: Beyond the horizon

On March 16, 2017 BRAC University brought together Masvun Ibn Monowar, Abdulla Hil Kafi and Raihana Shams Islam Antara to share their journey into building BRAC ONNESHA — first nano satellite by a Bangladeshi university.

The vice chancellor of BRAC University, professor Syed Saad Andaleeb appreciated the dedication put up by the three, pointing out that on an average they spent around 16 hours every day in the lab at Kyushu Institute of Technology (Kyutech) in Japan.

Noting that Antara had already patented a part of her research, he welcomed the need for putting the focus on value addition in education instead of just granting certificates to universities.

Greeted with flowers, crests and rapturous applause from an audience, mostly consisting of students at the BRAC University auditorium, the three narrated how they finished their undergraduate course in the electrical and electronic engineering department and follow the idea of doing their higher studies in space technology.

A video was played on the development of the satellite and its deployment. Three accomplished students of BRAC U explained its components and the way they overcame hurdles,

FINTECH
Technology. Finance. Innovation.

HOME COVER STORY INTERVIEW TECH NEWS & EVENTS ON THE WEB ENTERTAINMENT WORK PLACE

Home > News & Events > Local Events > BRAC becomes first Bangladeshi university to launch satellite

BRAC Becomes First Bangladeshi University To Launch Satellite

Local Events - April 18, 2017

In collaboration with BRAC University Electrical & Electronic Club (BUEEC) and Robotics Club of BRAC University (ROBU), a program titled "BRAC ONNESHA: Beyond the Horizon" was organized at UBT Auditorium on March 16, 2017 to honour three BRAC students who developed the nano-satellite "Onnesha". Onnesha is the first ever satellite developed by any Bangladeshi university. The nano-satellite Onnesha – a 10 centimeter-edged cube-shaped satellite – designed, developed and assembled by three Brac students in Japan's Kyutech, is expected to be launched into low earth orbit by next month.

Vice Chancellor of the university Professor Syed Saad Andaleeb was present as the chief guest with the special guest Prof Dr Abu Abdullah Ziauddin Ahmad, Chairperson, Department of Mathematics and Natural Sciences.

Prof. A. Z. Ahmad welcomed the makers of the nano-satellite and said, "It is a matter of great happiness that BRAC students have been successful in making a nano-satellite for the first time in

AT THE VERY BEGINNING, WE HAD NO IDEA WHAT WE WERE ACTUALLY GOING TO DO. WE DIDN'T EVEN THINK THAT WE COULD GET SUCH OPPORTUNITY. BUT ULTIMATELY WE GOT THIS AND WITH LONG TIRING HOURS WE WERE ABLE TO

*Seminar news on FiNTECH:
<http://www.fintechbd.com/brac-becomes-first-bangladeshi-university-to-launch-satellite/>*

Kafi, Antara and Maisun with BRAC UNIVERSITY ground station team during their visit to ground station.

At that time the ground station was still under construction.



Editor's note: See page 3 of this newsletter for news about the opening of this ground station.

End of report by Antara about visit to home in March

34. BIRDS-1 news story on Nigerian television, as ISS deployment approaches

NigeriaEduSat-1
(BIRDS-1 of Nigeria)
news was broadcast via
Nigeria Television
Authority on 22 June
2017.

Below is the YouTube link.

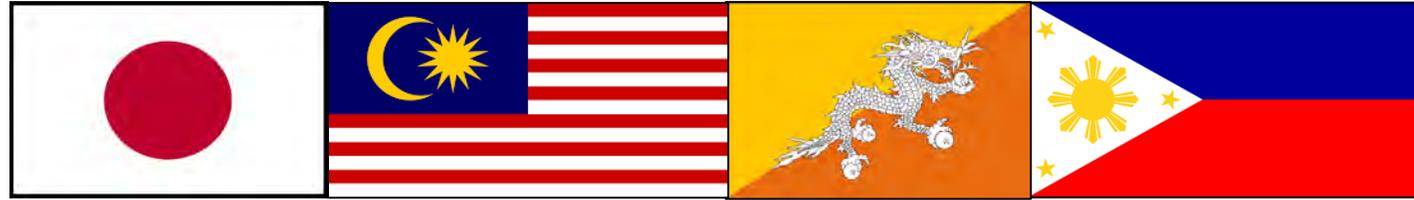


<https://www.youtube.com/watch?v=i4KXrUB041g>

BIRDS segment is from 32:15 min to 38:00 min

35. The current schedule of the BIRDS-2 CDR of 18th July, which starts at 13:00

Joint Multi-nation BIRDS-2 Project



BIRDS-2

Critical Design Review (CDR)

Japan Malaysia Bhutan Philippines

Tuesday, 18 July 2017, starting at 1:00PM

LaSEINE 4th Floor Seminar Room

Laboratory of Spacecraft Environment Interaction Engineering (LaSEINE)

Kyushu Institute of Technology

(Prepared by Joven, Project Manager of BIRDS-2)

CDR Timeline Summary

● Target time = 4 Hours = 240 minutes

● 1st half = 75 minutes + Q&A time

Total 1st half = 1.25 hours + Q&A time = 35 minutes

● Break = 10 minutes

● 2nd half = 90 minutes + Q&A time

Total 2nd half = 1.25 hours + Q&A time = 35 minutes

Total = 240 - 170 = 70 minutes (allocated for Q&A)

1. Joven - **CDR Progress Report** (7.5 minutes)
2. Yeshey - **APRS-DP Mission** (15 minutes)
3. Adrian - **Store and Forward Mission** (15 minutes)
4. Azami - **Camera Mission** (15 minutes)
5. Joven - **COTS GPS** (7.5 minutes) and **SEL** (7.5 minutes)
6. Syazana – **AMR-MM** (7.5 minutes)

< 10 minutes BREAK >

1. Syazana - **Antenna Design** (15 minutes)
2. Adrian - **COMS** (10 minutes) + **Ground Station** (10 minutes)
3. Uemura - **Structure** (15 minutes)
4. Kiran - **OBC** (15 minutes)
5. Cheki - **ADCS** (15 minutes)
6. Yamaguchi - **EPS** (15 minutes)

36. Upcoming space technology events – message from the United Nations

21 June 2017

Dear Colleagues,

We would like to take this opportunity to inform you about two upcoming events organized under the framework of the United Nations Programme on Space Applications and linked to UNISPACE+50 (see <http://www.unoosa.org/oosa/en/ourwork/unispaceplus50/index.html>):

1. United Nations/Russian Federation Workshop on Human Capacity-Building in Space Science and Technology for Sustainable Social and Economic Development, to be held in Samara, Russian Federation, 28 October to 2 November 2017

For more information on this Workshop and to apply for participation, please see http://www.unoosa.org/oosa/ourwork/psa/schedule/2017/workshop_russianfederation_capacity.html.

The application deadline is 23 July 2017 for applicants seeking funding support and 10 August 2017 for self-funded applicants.

2. United Nations/South Africa Symposium on Basic Space Technology, Stellenbosch, South Africa, 11-14 December 2017

For more information on this Symposium and to apply for participation, please see http://www.unoosa.org/oosa/en/ourwork/psa/schedule/2017/symposium_southafrica_bsti.html.

The application deadline is 15 August 2017 for applicants seeking funding support and 15 October 2017 for self-funded applicants.

For general news and announcements of the 2017 activities of the United Nations Programme on Space Applications please also see <http://www.unoosa.org/oosa/en/ourwork/psa/news.html>.

We would also like to take this opportunity to inform you about two associated events:

3. UNISEC-Global, Pre-5th Mission Idea Contest Workshop – Micro/Nano Satellites for Global Sustainable Development

The 5th Mission Idea Contest is seeking mission ideas to help achieve the United Nations Sustainable Development Goals. For further information please see <http://www.spacemic.net/>.

4. UNISEC-Global, 2nd Debris Mitigation Competition, 4 December 2017, Rome, Italy

For further information on how to participate in this competition, please see <http://uniseccglobal.org/dmc/>. The abstract submission deadline is 25 July 2017.

With best regards,
Werner Balogh



Dr. Werner Balogh
Programme Officer, Space Science & Technology
Space Applications Section
Office for Outer Space Affairs (OOSA)
United Nations Office at Vienna (UNOV)
E-0963, PO Box 500, 1400 Vienna, Austria
Tel.: (+43-1) 26060-4952
Fax: (+43-1) 26060-7-4952
Email: werner.balogh@unoosa.org
Website: www.unoosa.org

Tentative Agenda and Schedule

BIRDS-2 Project Critical Design Review (CDR)

Prepared by Kiran (BIRDS-2, Bhutan) – 23 June 2017

Date/Time	Activity	Presenters/Focal Person	Venue
Monday, July 17, 2017			
Arrival in Japan [public holiday in Japan]			
Tuesday, July 18, 2017			
10:00 – 12:00	Courtesy Call	Prof. Cho/Asst. Prof. Maeda	KyuTech
12:00 – 13:00	Lunch Break		Cafeteria, Kyutech
13:00 – 17:00	CDR Proper For details, see Article #35 in this newsletter issue.	BIRDS-2 members	Nakamura Hall, 2F
18:30 –	Reception Dinner	BIRDS-2 members	Nakamura Hall
	Photo Session	Everyone	
Wednesday, 19th July, 2017			
09:30 – 10:15	Panel Discussion 1 Topic: Ideas for Promotional and Outreach Activities at Home Countries	Moderator and Presenter: Ms. Yeshey Choden (BIRDS-2 Member)	Cho Lab Seminar Room
10:15 – 11:00	Panel Discussion 2 Topic: Development and Deployment of Magnetic Field Measurement Sensors	Moderator: Ms. Syazana (BIRDS-2 Member) Presenters: Dr. Huzaimy and Ms. Amirah1 (Mira) (UiTM, Malaysia)	Cho Lab Seminar Room

“BIRDS-2 members” includes all guests.

Date/Time	Activity	Presenters/Focal Person	Venue
11:00 – 11:15	Short Break		
11:15 – 12:00	Panel Discussion 3 Topic: Development and Deployment of Ground Sensor Terminals for BIRDS-2 Nanosatellite S&F Remote Data Collection System	Moderator: Mr. Adrian Salces Presenters: Mr. Adrian Salces (BIRDS-2 Member) and Ms. Amirah2 (UiTM, Malaysia)	Cho Lab Seminar Room
12:00 – 13:00	Lunch Break		Cafeteria, Kyutech
13:00 – 14:30	Facility Tour (KyuTech)	BIRDS-2 members	
14:30 - 15:15	Panel Discussion 4 Topic: Ideas on Capacity-Building and Educational Activities in Home Countries for Sustainability of Small Satellite Development	Moderator: Mr. Kiran (BIRDS-2 Member)	Cho Lab Seminar Room
15:15 –	Closing Remarks/Free Time for Other Concerns	Prof. Cho/Asst. Prof. Maeda	Cho Lab Seminar Room
Thursday, 20th July, 2017			
	Departure		Airport

End of tentative schedule by Kiran

End of **BIRDS Project Newsletter** - Issue Number Seventeen -

This newsletter is archived at the BIRDS Project website:

Project website: <http://birds.ele.kyutech.ac.jp/>

When a new issue is entered in to the archive, an email message is sent out over a mailing list maintained by the Editor (G. Maeda, Kyutech). If you wish to be on this mailing list, or know persons who might be interested in getting notification of issue releases, please let me know.

This newsletter is issued once per month. The purpose of it is to keep BIRDS stakeholders (the owners of the satellites) informed of project developments. Kyutech thanks the stakeholders for their ongoing support of the BIRDS Project.