Enriching the quality of life through innovative space programs

DATE:
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VENUE:
Berjaya Times Square Hotel,
Kuala Lumpur, Malaysia

CO-ORGANIZERS:
Malaysia: Ministry of Science, Technology and Innovation (MOSTI)
National Space Agency (ANGKASA)

Japan: Ministry of Education, Culture, Sports, Science and Technology (MEXT)
Japan Aerospace Exploration Agency (JAXA)

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Office of National Space Policy,
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Ministry of Foreign Affairs of Japan (MOFA)

GENERAL CO-CHAIRS:
Malaysia: Dr. Mustafa Din Subari,
Director General,
National Space Agency (ANGKASA)

Japan: Mr. Satoru Otake,
Deputy Director General,
Research and Development Bureau,
Ministry of Education, Culture, Sports, Science and Technology (MEXT)

WEB:
For further information including detailed program, presentation materials, etc., please visit the APRSAF website:
http://www.aprsaf.org/annual_meetings/aprsaf19/meeting_details.php
Message from General Co-Chairs

Dr. Mustafa Din Subari
Director General, National Space Agency (ANGKASA), Malaysia

First and foremost, on behalf of the Government of Malaysia and the ANGKASA, let me thank the Government of Japan and JAXA for the opportunity of hosting the APRSAF-19 meeting here at Kuala Lumpur, Malaysia. It has been an honor to host such an important meeting.

I cannot be claiming, but from various comments and feedbacks, I could say that APRSAF-19 was a success.

Based on the reports from the working groups as well as recommendations from the meeting, we can look forward to a more meaningful application of space in the Asia-Pacific region. Just to cite few examples, Sentinel Asia has successfully completed Step 2 of its initiative and is now embarking the final phase of its initiative, while SAFE initiative has welcomed new prototyping as well as good progress of the ongoing programs. Others include successful collaborations such as in Climate R³ and Kibo-ABC.

These successes are only the beginning. With our effective and continuous collaboration, we can celebrate more successes in the years to come.

Terima kasih.

APRSAF-19 was successfully held under the theme entitled “Enriching the quality of life through innovative space programs,” having approximately 400 participants. I would like to express my sincere appreciation to the Malaysian co-host organizations, the Ministry of Science, Technology and Innovation and the National Space Agency, and all the other concerned parties, for their considerable efforts to organize the APRSAF-19.

It is my pleasure that existing initiatives such as Sentinel Asia and SAFE have made steady progress and their outcomes are now actually utilized in participating countries. In addition, new approaches, such as Climate R³ and Kibo-ABC, have commenced, all of which have led to practical cooperation among the countries concerned.

Japan sees APRSAF as an important cooperative framework and intends to make efforts on its further improvement.

The next session, APRSAF-20, will be held in Hanoi, Vietnam. I anticipate that APRSAF will provide beneficial opportunities for each participating country and enhance cooperation in the Asia-Pacific region.
The SAFE Workshop, with 52 delegates from 10 international organizations, was held on December 10, 2012, and the APRSAF-19 EO WG, with 121 delegates from 20 countries, was held on December 11 and 12, 2012, in Kuala Lumpur. The co-chairs would like to offer our appreciation for all the efforts that contributed toward the success of the SAFE Workshop and the EO WG meeting at APRSAF-19.

1. SAFE
One new prototyping proposal was approved: Mangrove Forest Carbon Stock Monitoring in Indonesia. As for Myanmar’s proposal, SAFE Review Board suggested it to be revised by an expert team meeting, taking into consideration the review board comments. Eight SAFE prototype executors reported the status of their projects and the board confirmed the successful completion of prototyping by Thailand, Sri Lanka, Vietnam, and Pakistan. The Pakistan executor reported international donor agencies’ high interest in Pakistan’s prototyping application.

2. Climate R
Climate R continues to strengthen relationship between user agencies as stakeholders. At APRSAF-19, Climate R reported on its 2012 workshop and highlighted opportunities to enhance the understanding of Asia-Pacific earth observation needs through greater coordination and participation in global activity, such as the GEO initiatives, GFOI and GEO GLAM. As part of the Climate R discussion, the EO WG supported Australia’s CEOD-AP proposal.

3. EO WG
Recognizing the capacity of space technology to enhance rice crop monitoring, and the significance of this activity to the Asia-Pacific region, the EO WG will act as the institutional home for GEO GLAM Asia-RICE to enhance the linkage of APRSAF participating countries’ rice crop monitoring. The EO WG identified the goal for it to serve as an “umbrella” for regional space data coordination across a range of relevant activities, such as SAFE, Climate R, GFOI, GEO GLAM, and AWCI. To assist in progress of this activity, the EO WG agreed to explore an annual midyear meeting. The first midyear EO WG meeting, incorporating the SAFE workshop and the Climate R workshop, will be held in June 2013 at Nagoya, Japan, in conjunction with the 29th ISTS.

At this forum, we discussed several topics regarding not only communications satellite system, but also Global Navigation Satellite Systems (GNSS), space-based Automatic Identification System (AIS), space debris, small satellites, and so on. Satellite operators (Turksat and MEASAT), national agencies (ANGKASA, NICT, ETRI, and JAXA), and satellite manufacturer (NEC) presented information on their satellite systems and applications. On-going and planned ship monitoring activities, such as the space-based AIS, were introduced and we recognized the potential of ship monitoring activities. We welcome expansion of the space-based AIS in the Asia-Pacific region. We also confirmed the sound progress of the Multi-GNSS demonstration campaign in this region. Discussion on a new idea of “Multidisciplinary Space-based Services” activity in the APRSAF was proposed and we recommended to commence the feasibility study on this idea.

In the two-day meeting, we discussed the above topics on a wide range of satellite communications fields and shared useful information and experience. We look forward to promoting mutual cooperation in order to enhance new applications of communications and navigation satellites in the Asia-Pacific region.

Finally, we would like to express our thanks to all the members of the CSA WG for their participation and the APRSAF Secretariat for their support.

NICT: National Institute of Information and Communications Technology (Japan)
ETRI: Electronics and Telecommunications Research Institute (Korea)
The Space Education and Awareness Working Group (SEA WG) has promoted space education activities since 2001, with the aims as follows: effectively using space materials to enhance education for young people, providing education and training opportunities for young people in space science and technology, contributing to enhancing mutual understanding among countries in the region through exchange opportunities for young people, and increasing public awareness of the societal benefits and importance of space activities.

The SEA Working Group members gathered in Kuala Lumpur, Malaysia, on December 11 and 12, 2012, during APRSAF-19. The Working Group meeting was co-chaired by Ms. Azreena Ahmad (Malaysia) and Dr. Takashi Kubota (Japan). Forty-nine participants from 19 countries and 1 international organization attended the meeting this time, and we actively discussed how to promote space education. The attendees of the WG meeting widely exchanged their opinions on the items on space education activities and confirmed the promotions for various kinds of activities.

The eighth APRSAF Water Rocket Event had been held in SMK Putrajaya Presint 18(1) in Putrajaya, Malaysia, on December 8 and 9, immediately proceeding APRSAF-19, and hosted by ANGKASA and MOSTI. Fifty-six students and 31 teachers and leaders from the 16 countries had participated in the water rocket event. The participation of Republic of Korea was welcomed at the Event for the first time, reflecting the expansion of the Event to involve more countries in Asia and the Pacific region that shows the successful educational initiatives undertaken by the working group.

Furthermore, the working group organized the seventh Poster Contest during APRSAF-19. The theme of the Poster Contest was “Friends in Space” and 38 posters made by children from 13 countries were on display during APRSAF-19. We were moved when some people who were impressed by the developed creativity of the children gave them great applause.

We confirmed in this meeting that we all would promote various kinds of popularization activities for space education through this working group.

Finally, we are deeply grateful to the staff of ANGKASA and MOSTI who hosted this APRSAF-19 and side events, to the Secretariat of SEA WG, Ms. Yayoi Miyagawa and Mr. Takaaki Chris Okano, to the Science Officer of ANGKASA, Mr. Jong Tze Kian, and also to all the members of WG and the collaborators.

The International Space Station (ISS) is one of the very precious construction products humankind ever built under a worldwide collaboration. Kibo module is one of the contributions by Japan to the ISS program. The SEU WG aims to open the gateway to the utilization of the Kibo module in order to share the opportunity and value of the Space Environment for science experiment, technology development, education for young students, and cultural activities for our society.

In order to promote and accelerate the space environment utilization, SEU WG had launched a new initiative named Kibo-ABC on November 21, 2012. During the SEU WG meeting, we encouraged participants to promote awareness of the Kibo-ABC as well as enhance participation.

Forty-two participants from 12 different organizations, institutes, and companies of 10 countries were gathered and 24 presentations with discussions were made.

Space organizations and institutes of each country presented their activities and progress in the last years and expressed their expectation to the future plans. Private sectors from Japan and the United States presented what they can provide for the Space Environment Utilization. Office for Outer Space Affairs of the United Nations presented application program, especially the clinostats distribution program.

Participants shared information and confirmed to continue efforts and activities of Space Environment utilization on ISS/Kibo Module.

Working group members also recommended to hold a workshop specialized in Asian space environment utilization organized by Kibo ABC initiative in 2014.

Finally, we would like to express our deep appreciations to all participants as well as the APRSAF host and secretariat for their dedicated supports.
Panel Discussion:
“Enriching the quality of life through innovative space programs”

On the afternoon of Day 3, December 13, 2012, a panel discussion was held, focusing on the main theme of APRSAF-19, “Enriching the quality of life through innovative space programs.” Inviting heads of space agencies in the Asia-Pacific region as panelists, namely Dr. Mustafa Din Subaru, Director General, ANGKASA (Moderator), Dr. Vinary Kumar Dadhwal, Director, National Remote Sensing Centre, ISRO, India, Dr. Bambang S. Tejasukmana, Chairman, LAPAN, Indonesia, Dr. Keiji Tachikawa, President, JAXA, Japan, Dr. Talgat Mussabayev, Chairman, KAZCOSMOS, Kazakhstan, Dr. Darasri Dowreang, Executives Officer, GISTDA, Thailand, and Prof. Doan Minh Chung, Director, STI, VAST, Vietnam, this event had valuable discussion.

At the beginning of the panel discussion, Dr. Mustafa introduced theme-related activities in Malaysia, such as smartphone applications for emergency call, a fish forecasting system, and an automated vehicle location system, as successful examples. By showing the effective cases, he insisted the importance of promoting how beneficial space applications were to the public, to further space programs by acquiring national budgets.

Following Dr. Mustafa’s presentation, the panelists provided some existing cases and/or approaches that space programs contributed to public interests in their country. From the floor, Australia commented that space applications had not been widely used in the country, so some ways might be considered, and Myanmar added that it faced the same problem, although the country was lagging behind the most.

Space applications to the general public in each country vary in their way and extent, but panelists agreed on the importance of sharing successful examples to consider promoting space programs in their own country, which could lead to the improvement in the quality of life. And the conclusion was agreed by all the participants in APRSAF-19.
APRSAF Task Force Reports
at the Plenary

At the plenary session of APRSAF-19, Dr. Noordin Bin Ahmad, Deputy Director General, ANGKASA, made a presentation on behalf of APRSAF Task Force members, proposing some actions to the Plenary based on the discussion in Task Force meetings held in one year since APRSAF-18.

APRSAF Task Force was established at APRSAF-18 in Singapore to consider ways and means to make APRSAF more dynamic. Since its establishment, Task Force members, mainly from the agencies that have hosted an APRSAF annual meeting previously, such as ANGKASA (Malaysia), CRISP (Singapore), DIISRTE (Australia), GISTDA (Thailand), ISRO (India), JAXA (Japan), KARI (Rep. of Korea), LAPAN (Indonesia), SSTA (Singapore), and VAST (Vietnam), had several meetings to discuss the future vision of APRSAF and agreed to set a goal of promoting and expanding space activities and their applications for socioeconomic development in Asia and the Pacific.

As a result of the discussion, it submitted the following proposals to the plenary:

1. Establishment of an Executive Committee (ExCom), to uphold principles, shape the agenda, and help achieve objectives and implement decisions of APRSAF
2. Guidelines for initiatives, including the process to submit, review, and endorse proposals for new initiatives
3. Long-term visions, to develop APRSAF further
4. Short-term actions, to determine the venues of APRSAF annual sessions two sessions in advance, and to invite eminent researchers or high-skilled experts to deliver lectures at APRSAF annual sessions.

After its presentation, the proposals were approved by the APRSAF-19 participants as the recommendations: http://www.aprsaf.org/annual_meetings/aprsaf19/recommend.php

The presentation of Task Force at APRSAF can be read at: http://www.aprsaf.org/annual_meetings/aprsaf19/pdf/program/day4/10_APRSAFTaskForce.pdf

Side Events

There were also some other events in conjunction with APRSAF-19.
What is the benefit or purpose to host APRSAF?
Hosting APRSAF is a good opportunity for wider international cooperation with the countries in the Asia-Pacific region. We will have two big events in Vietnam next year (2013): the launch of the first Vietnamese earth observation satellite, VNREDSat-1, and the start of the Vietnam space center project, with Japanese support, in Hoa Lac Hi-tech Park. So this is a good opportunity to have space agencies from other countries. That is why we would like to host the next APRSAF annual meeting.

Having an earth observation satellite, Vietnamese contribution to the APRSAF community will become bigger than ever.
Yes, I believe so. With our earth observation satellite, I believe that Vietnam would contribute more to APRSAF activities. We continue to cooperate with other agencies supplying satellite data as a constellation, which is a benefit for each other.

On the other hand, do you have any request or expectation from APRSAF?
Recent years APRSAF has increasing participants. That means APRSAF is more and more useful and effective for the region. Last year (2011) APRSAF Executive Committee (ExCom) was established to make APRSAF activities more useful. I thought this is a good action. So VAST has contributed to this ExCom.

In that sense, will Vietnam play bigger role in ExCom and in the whole APRSAF activities? I think the progress of Vietnam is a good example in the region. Our big task is to build human resources for space technologies and applications. Because you can buy the satellites or the equipment but those who master them is more important. So we carry out international projects for the space technology engineers. We take part in Sentinel Asia and SAFE initiative. The engineers who participated in them are now key persons in our institute.

Do you have any message for the APRSAF community?
As the host country of APRSAF-20, we will coordinate friendship and traditional cooperation that will promote application of space technologies. Hosting an APRSAF annual meeting is a good opportunity and an honor for all the participating countries.