

FIRST ANNOUNCEMENT

The 19th Session of the Asia-Pacific Regional Space Agency Forum **(APRSAF-19)**

“Enriching the quality of life through innovative space programs”
11-14 December 2012, Kuala Lumpur, Malaysia

Dear Sir/Madam,

We are pleased to announce that the nineteenth session of the Asia-Pacific Regional Space Agency Forum (APRSAF-19) will be held from 11 to 14 December 2012 in Kuala Lumpur, Malaysia. APRSAF-19 will be jointly organized by the National Space Agency (ANGKASA) and the Ministry of Science, Technology and Innovation (MOSTI) of Malaysia, as well as the Ministry of Education, Culture, Sports, Science and Technology (MEXT) of Japan and the Japan Aerospace Exploration Agency (JAXA).

On behalf of the co-organizers, we would like to invite you to participate in APRSAF-19 to share your profound experiences as well as your valuable thoughts and insights. We trust that we can count on your support by ensuring the good representation of your organization at APRSAF-19 with as many experts and managers as possible to contribute to its work. As you might be aware, as an open and flexible framework for regional cooperation in space activities, APRSAF encourages voluntary participation by anyone interested in its work.

While APRSAF serves as an active forum to promote concrete cooperative space-related activities at the regional level, it aims to contribute to solving problems not only in the Asia-Pacific region but also the rest of the world. APRSAF also aims to expand the peaceful uses of space science and technology and their applications for sustainable development in the region.

As in the past years, APRSAF-19 will consist of sessions of the plenary and the four working groups, in the areas of the earth observation, communication satellite applications, space education and awareness, as well as space environment utilization. Progress reports on the APRSAF Initiatives, i.e. Sentinel Asia, SAFE, Climate R³ and the latest one established for Asian cooperation on Kibo/ISS, as well as APRSAF Supporting Programs and Activities, such as UNIFORM and GNSS activities, will also be presented at the plenary session. Further details of APRSAF-19, including logistical arrangements and any additional events, will be made available in due course.


We sincerely hope that you will join us at APRSAF-19, and we look forward to seeing you and your colleagues from your organization in Kuala Lumpur, Malaysia, in December this year.

With best regards,

On behalf of the co-organizers,



Prof. Datin Paduka Dr. Khatijah Mohd. Yusoff
Deputy Secretary General (Science)
Ministry of Science, Technology and Innovation



Mustafa Din Subari
Director General
National Space Agency of Malaysia



Satoru Otake
Deputy Director-General,
Research and Development Bureau
Ministry of Education,
Culture, Sports, Science and Technology



Keiji Tachikawa
President
Japan Aerospace Exploration Agency



The 19th Session of the Asia-Pacific Regional Space Agency Forum (APRSAF-19)

“Enriching the quality of life through innovative space programs”

11-14 December 2012, Kuala Lumpur, Malaysia

Background

The Asia-Pacific Regional Space Agency Forum (APRSAF) was established in 1993 following the declaration adopted at the Asia Pacific International Space Year Conference (APIC) in 1992 to enhance the development of space programs of countries in the Asia-Pacific region and to exchange information and views to explore possibilities for cooperation in space activities. APRSAF has held eighteen annual meetings, organized jointly by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) of Japan, Japan Aerospace Exploration Agency (JAXA) and the local organizations of the host countries, to discuss current space-related issues and possible cooperation mainly in the Asia Pacific region. To date, Australia, India, Indonesia, Japan, Malaysia, Mongolia, the Republic of Korea, Singapore, Thailand and Vietnam have hosted the APRSAF sessions. Through open and voluntary participation, APRSAF promotes concrete regional cooperation on space-related matters. To reflect a broad range of views and voices, APRSAF encourages the participation of a wide range of entities including space agencies, government entities, regional and international organizations and institutions that have activities relevant to space applications.

Under the theme entitled “A regional collaboration for tomorrow’s environment”, the last session, i.e. the eighteenth session of APRSAF (APRSAF-18), was convened in Singapore and organized jointly Singapore Space and Technology Association (SSTA), Centre for Remote Imaging, Sensing and Processing (CRISP) of the National University of Singapore, MEXT and JAXA. Approximately 280 participants from 28 countries and regions, and 11 international organizations. As a result of the discussions in the plenary sessions and those of the four working groups, i.e. Earth Observation Working Group (EO WG), Communication Satellite Applications Working Group (CSA WG), Space Environment Utilization Working Group (SEU WG) and Space Education and Awareness Working Group (SEA WG), APRSAF-18 adopted the recommendations as contained in Appendix-A of the present document.

Dates and Venue

Dates: 11-14 December 2012
 Venue: Berjaya Times Square Hotel
 1 Jalan Imbi 55100 Kuala Lumpur, Malaysia
<http://www.berjayahotel.com/kualalumpur/>

Organizers

APRSAF-19 will be co-organized by the following:

Malaysia: National Space Agency (ANGKASA)
 Ministry of Science, Technology and Innovation (MOSTI)
Japan: Ministry of Education, Culture, Sports, Science and Technology (MEXT)
 Japan Aerospace Exploration Agency (JAXA)

Objectives

While serving as an active forum to promote concrete cooperation to address issues of importance at the regional level, APRSAF aims to contribute to solving problems of not only the Asia-Pacific region but also the entire world by further expanding the use of space technologies and their applications toward sustainable development particularly in the region. With this in mind, the nineteenth session of APRSAF (APRSAF-19) will be held under the theme entitled “Enriching the quality of life through innovative space programs”.

Expected Participants

Space agencies, governmental bodies and international organizations, as well as universities, research institutes and private sectors, are expected to participate in APRSAF-19.

Overall Schedule of APRSAF-19 & Relevant Events

Dates	Event	Venue
8-9 December 2012	Water Rocket Event	National Planetarium, SMK Putrajaya Presint 18(1)
10 December 2012	SAFE Workshop	Berjaya Times Square Hotel
11 December 2012	Workshop on a new initiative for Asian cooperation on Kibo/ISS	Berjaya Times Square Hotel
11-14 December 2012	APRSAF-19	Berjaya Times Square Hotel
11-14 December 2012	Poster Contest	Berjaya Times Square Hotel

Tentative Program

Please refer to Appendix-B

Plenary and Working Groups

The plenary sessions will take place on the third and fourth days of APRSAF-19. Its first and second days will be devoted to the sessions of the four working groups, i.e. EO WG, CSA WG, SEU WG and SEA WG, which will meet in parallel. The concept paper and the provisional agenda of each working group will be made available in due course.

APRSAF Initiatives and Supporting Programs/Activities

The plenary sessions will feature reports by the Sentinel Asia (disaster management support system in the Asia-Pacific region), SAFE (Space Applications For Environment), Climate R³ (Climate Regional Readiness Review) and an initiative for Asian cooperation on Kibo/International Space Station (ISS).

During the plenary sessions, there will also be a report on progress made in UNIFORM (University International Formation Mission). STAR (Satellite Technology for the Asia-Pacific Region), which had been initiated following a proposal made at APRSAF-14, completed its merge into UNIFORM in March 2012. Activities of the Multi-GNSS Asia (MGA), an international entity to promote activities of the “Asia Oceania Multi-GNSS Demonstration Campaign” will also be presented.

Points of Contact for APRSAF-19

Participants from Malaysia should contact the local point of contact mentioned below to obtain more information concerning their participation.

For Participants from Malaysia:

If you have any inquires concerning the APRSAF-19, please contact:

Mr. Ahmad Ammar Bin Ahmad Termizi

Malaysia Space Centre, National Space Agency (ANGKASA)

Ministry of Science, Technology and Innovation

Lot 2233, Jalan Turi, Sungai Lang, 42700 Banting, Selangor, MALAYSIA.

Phone : 603 3180 4377 Website URL : <http://www.angkasa.gov.my>

E-mail: aprsaf19@angkasa.gov.my

For Participants from other countries:

If you have any inquires concerning the APRSAF-19, please contact:

Ms. Azusa Sakamoto, APRSAF-19 Secretariat

c/o Japan Aerospace Exploration Agency (JAXA)

Marunouchi Kitaguchi Building, 1-6-5 Marunouchi, Chiyoda-ku, Tokyo, 100-8260, JAPAN

E-mail: aprsaf19@aprsaf.org or FAX:+81-3-6266-6908



APRSAF-19 Side Events and other meetings

■ SAFE Workshop

Date: 10 December 2012
Venue: Berjaya Times Square Hotel
Reference: <http://www.eorc.jaxa.jp/SAFE/>

Contact for further information:

Mr. Tomoyuki Nukui
TEL : +81-50-3362-4116 **FAX :** +81-29-868-2961
Email: nukui.tomoyuki@jaxa.jp

■ Workshop on a new initiative for Asian cooperation on Kibo/ISS

Date: 11 December 2012
Venue: Berjaya Times Square Hotel
Reference: TBA

Contact for further information:

Mr. Kazuhiro Miyazaki
TEL : +81-50-3362-6369 **FAX :** +81-29-868-3956
Email: miyazaki.kazuhiro@jaxa.jp

■ Water Rocket Event

Co-organizers: ANGKASA, MOSTI and JAXA
Date: 8-9 December 2012
Venue: National Planetarium
Lot 53, Jalan Perdana
50480 Kuala Lumpur, Malaysia
Tel: +603-2273 4303; **Fax:** +603-2273 5488
Website: www.angkasa.gov.my/planetarium

Water Rocket Event Launch Site:

SMK Putrajaya Presint 18(1)
Jalan P18, Presint 18, 62150 Putrajaya, Malaysia
Tel: +603-8890 5420; **Fax:** +603-8890 5421

Reference:

Outline:

[http://www.aprsaf.org/data/aprsaf19_data/APRSAF19 Water Rocket Event-Outline.pdf](http://www.aprsaf.org/data/aprsaf19_data/APRSAF19_Water_Rocket_Event-Outline.pdf)

Rules for Launch Competition:

[http://www.aprsaf.org/data/aprsaf19_data/APRSaf19 WR Launch Competition Rules Tentative .pdf](http://www.aprsaf.org/data/aprsaf19_data/APRSaf19_WR_Launch_Competition_Rules_Tentative_.pdf)

■ **Poster Contest**

Theme: “Friends in Space”

Co-organizers: ANGKASA, MOSTI and JAXA

Date: 11-14 December 2012

Venue: Berjaya Times Square Hotel

Reference:

[http://www.aprsaf.org/data/aprsaf19_data/APRSaf19 Poster Contest-Announcement Rules Draft00606.pdf](http://www.aprsaf.org/data/aprsaf19_data/APRSaf19_Poster_Contest-Announcement_Rules_Draft00606.pdf)

Contact for further information on the Poster Contest and the Water Rocket Event:

Ms. Yayoi Miyagawa, JAXA Space Education Center

Tel: +81-50-3362-7590 **Fax:** +81-42-759-8612

E-mail: z-kokusai@edu.jaxa.jp

More information on the Water Rocket Event and Poster Contest will be made available in due course. Please check the APRSAF website (<http://www.aprsaf.org>) for any updates.

Other matters

Further details of APRSAF-19, including arrangements for logistics and updates of the program, will be made available in due course. Please check the latest information on APRSAF website at: <http://www.aprsaf.org>.

**Recommendations of the Eighteenth Session of
the Asia-Pacific Regional Space Agency Forum (APRSF-18)
“A regional collaboration for tomorrow’s environment”
6-9 December 2011 in Singapore**

Recognizing a regional collaboration for tomorrow’s environment as the overall theme of APRSAF-18,

Recognizing the importance of regional cooperation to cope with disaster management, environmental issues, capacity building, quality of human life, health, and other regional issues on the basis of utilization needs,

We, the participants of APRSAF-18;

<APRSF Initiatives>

[Sentinel Asia]

1. Welcome the launch of the final phase Step-3 of Sentinel Asia starting from 2013 with the concept; to promote further collaboration for Sentinel Asia operation; to expand preparedness and mitigation phase by Working Group activities for Tsunami, Flood, Glacial Lake Outburst Flood (GLOF), and Wildfire; and others.
2. Expect that lessons learned from emergency operations such as the Great East Japan Earthquake will be shared and utilized through Sentinel Asia activities and others.

[SAFE (Space Applications For Environment)]

3. Affirm the revision of SAFE Terms of Reference (TOR) to hold a stakeholder meeting to confirm, share and transfer the outcome of prototypes towards the operational use and to add the rule of SAFE prototype suspension/termination. (recognize the success stories)
4. Welcome the new Sri Lankan prototyping for mapping and change detection of wetlands, and promote knowledge sharing about the two successfully completed prototypings.

[STAR Program (Satellite Technology for the Asia-Pacific Region Program) and UNIFORM (University International Formation Mission)]

5. Confirm that 16 engineers and researchers from 6 organizations (ANGKASA, GISTDA, ISRO, KARI, LAPAN, and VAST/STI) in Asia and the Pacific region have participated in the STAR program hosted by JAXA since the STAR Program started.
6. Recognize that engineers and researchers in Asia and the Pacific region participated in the UNIFORM through the STAR Program, and capacity building by micro satellite development is shifting from the STAR Program to the UNIFORM smoothly.
7. Encourage young engineers and researchers who are interested in micro satellite development in Asia and the Pacific region to join the UNIFORM.
8. Encourage participation in the satellite development and the ground station network of the UNIFORM and utilization of the earth observation data taken by the UNIFORM satellites.

<APRSAF Working Groups>

[Earth Observation (EO)]

(APRSAF in support of Climate Change)

9. Confirm that the APRSAF Regional Readiness Review for Key Climate Missions (Climate R3) has been adopted as an ongoing initiative of APRSAF.

(EO Applications in Water Issues)

10. Recognize the importance of tackling water issues induced by climate change using space technology in Asia and the Pacific region; and encourage planning of a technical session in the 2nd Asia-Pacific Water Forum next year (in consultation with UN Secretary-General's Advisory Board on Water and Sanitation (UNSGAB) and other related entities) in order to promote the application of space technology to water issues and knowledge sharing.

(EO Applications in Food Security Issues)

11. Encourage the inclusion of rice crop monitoring in Asia within the GEO Global Agricultural Monitoring (GEO-GLAM) Initiative Work Plan.

[Communication Satellite Applications]

12. Recognize the significance and effectiveness of satellite communications in the disaster relief and restoration activities, and share the experiences learned from the recent activities.
13. Encourage more active interactions among space agencies, research institutions and private sectors with the aim of expansion of the communications satellite applications and researches including the space-based Automatic Identification System (AIS) for maritime activities.
14. Welcome the sound progress of the Multi-GNSS demonstration campaign such as the adoption of the first Multi-GNSS joint experiments including the QZS-1 satellite “MICHIBIKI” utilization, and look forward to the further deployment of the Multi-GNSS joint experiments in Asia and the Pacific region.

[Space Education and Awareness]

15. Encourage to enhance space education for youth development through continuous activities, such as collaboration with other working groups, enriching educational materials and tools, and implementing poster contest and water rocket competitions.
16. Encourage to promote awareness of space education by collaborating with all groups and organizations involved in space education activities and to share information on space education materials and tools through all means including internet and social media.

[Space Environment Utilization]

17. Confirm to launch the new initiative in order to promote the utilization of Kibo/ISS.
18. Recommend to enhance the efforts to create new cooperative projects through the new initiative in science, education and outreach of the space environment utilization, taking into account the progress of the cooperative activities such as the protein crystallization experiment, the Space Seeds for Asian Future (SSAF) 2010-2011, the parabolic flight micro-gravity experiments, the bilateral feasibility studies and the Try Zero G experimental demonstrations.

19. Recommend the agencies participated in the SSAF project started last year to continue their efforts to complete the project by making the best use of the seeds returned from space.

20. Recommend to enhance Earth observation of natural disasters and environment from ISS, sharing its importance through the joint session held by SEUWG, SEAWG and EOWG.

<APRSAF Supporting Programs and Activities>

[Asia Oceania Multi-GNSS Demonstration Campaign]

21. Welcome the establishment of the Multi-GNSS Asia (MGA) which is an international organization to promote the Multi-GNSS Demonstration Campaign; and encourage organizations in Asia and the Pacific region to participate in the MGA.

[Special Event: “Asians in Space: Achievements of Human Spaceflight in Asian Countries”]

22. Welcome that the event, hosted by APRSAF and Association of Space Explorers (ASE), took place in the 50th milestone year of human spaceflight in Asia.

23. Recognize that the expansion of space development and utilization and the accomplishment by Asian astronauts have mutually contributed to each other.

24. Recommend to ASE to consider jointly organizing similar events with APRSAF in the future, starting from APRSAF-19.

<Other Topics>

[International Organizations]

25. Welcome presentations from UNESCAP, UNCOPUOS, ASEAN-SCOSA and IAF that recognized the contribution from APRSAF, and hope that they will continuously participate in APRSAF to share further information.

[Reporting to UNCOPUOS]

26. Wish that the outcomes of APRSAF-18 be presented by the Chairman of UNCOPUOS at the meetings of the UNCOPUOS and others in 2012.

[Towards enhanced operation of APRSAF]

27. Note with satisfaction the success of APRSAF as shown by the growing number of participants from more countries and by the results of APRSAF Initiatives and other joint activities.

28. Endorse the establishment of a task force, consisting of organizations having experience with APRSAF sessions, to consider the continuous success of APRSAF and ways and means to make APRSAF more dynamic, with a view to making recommendations to APRSAF-19.

Tentative Program
The 19th Session of the Asia-Pacific Regional Space Agency Forum
(APRSAF-19)

~Enriching the quality of life through innovative space programs ~

11-14 December, 2012

Berjaya Times Square Hotel Malaysia

<Day 0> 10 December, Monday

Workshop

Start 9:00 End 17:00	
9:00-10:30	SAFE Workshop (A. Earth Observation Working Group)
10:30-10:45	Coffee Break
10:45-12:00	SAFE Workshop (A. Earth Observation Working Group)
12:00-13:00	Lunch
13:00-15:00	SAFE Workshop (A. Earth Observation Working Group)
15:00-15:15	Coffee Break
15:15-17:00	SAFE Workshop (A. Earth Observation Working Group)

Tentative Program

The 19th Session of the Asia-Pacific Regional Space Agency Forum (APRSAF-19)

~Enriching the quality of life through innovative space programs ~

11-14 December, 2012

Berjaya Times Square Hotel Malaysia

<Day 1> 11 December, Tuesday

Workshop & Working Group Session

	Start 9: 00 End 17:00	Start 9: 00 End 17:00	Start 9: 00 End 17:00	WS Start 9: 00 End 12:30 WG Start 13:30 End 17:00
9:00-11:00	A. Earth Observation Working Group	B. Communication Satellite Applications Working Group	C. Space Education & Awareness Working Group	Workshop on a new initiative for Asian cooperation on Kibo/ISS (D. Space Environment Utilization Working Group)
	Co-chairs: Assoc Prof Dr Abdul Rashid Bin Mohamed, President of Malaysian Remote Sensing Society (MRSS) Dr. Shinichi Sobue Manager, Earth Observation Research Center, JAXA	Co-chairs: Prof. Ir. Dr Ahmad Faizal Bin Mohd. Zain Fellow, Academy of Sciences Malaysia (AMS), University Malaysia Pahang Mr. Hiroki Kohhata Manager, Space Applications Program Systems Engineering Office, JAXA	Co-chairs: Ms. Azreena Ahmad Director of Education and Space Science Division, National Planetarium, National Space Agency (ANGKASA) Dr. Takashi Kubota Professor, Department of Spacecraft Engineering, Institute of Space and Astronautical Science (ISAS)/ Space Education Office, JAXA	
11:00-11:15	Coffee Break			
11:15-12:30	A. Earth Observation Working Group	B. Communication Satellite Applications Working Group	C. Space Education & Awareness Working Group	Workshop on a new initiative for Asian cooperation on Kibo/ISS (D. Space Environment Utilization Working Group)
12:30-13:30	Lunch			
13:30-15:00	A. Earth Observation Working Group	B. Communication Satellite Applications Working Group	C. Space Education & Awareness Working Group	D. Space Environment Utilization Working Group
				Co-chairs: Prof. Dr. Mohd Alauddin Mohd Ali Director of Space Science Institute, The National University of Malaysia (UKM) Mr. Shigeki Kamigaichi Director, Kibo Utilization Office for Asia (KUAO), Space Environment Utilization Center, JAXA
15:00-15:15	Coffee Break			
15:15-17:00	A. Earth Observation Working Group	B. Communication Satellite Applications Working Group	C. Space Education & Awareness Working Group	D. Space Environment Utilization Working Group

Tentative Program

The 19th Session of the Asia-Pacific Regional Space Agency Forum (APRSAF-19)

~Enriching the quality of life through innovative space programs ~

11-14 December, 2012

Berjaya Times Square Hotel Malaysia

<Day 2> 12 December, Wednesday

Working Group Session

	Start 9: 00 End 17:00	Start 9: 00 End 17:00	Start 9: 00 End 17:00	Start 9: 00 End 17:00
9:00-10:45	A. Earth Observation Working Group	B. Communication Satellite Applications Working Group	C. Space Education & Awareness Working Group	D. Space Environment Utilization Working Group
	Co-chairs: Assoc Prof Dr Abdul Rashid Bin Mohamed, President of Malaysian Remote Sensing Society (MRSS) Dr. Shinichi Sobue Manager, Earth Observation Research Center, JAXA	Co-chairs: Prof. Ir. Dr Ahmad Faizal Bin Mohd. Zain Fellow, Academy of Sciences Malaysia (AMS), University Malaysia Pahang Mr. Hiroki Kohhata Manager, Space Applications Program Systems Engineering Office, JAXA	Co-chairs: Ms. Azreena Ahmad Director of Education and Space Science Division, National Planetarium, National Space Agency (ANGKASA) Dr. Takashi Kubota Professor, Department of Spacecraft Engineering, Institute of Space and Astronautical Science (ISAS)/ Space Education Office, JAXA	Co-chairs: Prof. Dr. Mohd Alauddin Mohd Ali Director of Space Science Institute, The National University of Malaysia (UKM) Mr. Shigeki Kamigaichi Director, Kibo Utilization Office for Asia (KUAO), Space Environment Utilization Center, JAXA
10:45-11:00	Coffee Break			
11:00-12:30	A. Earth Observation Working Group	B. Communication Satellite Applications Working Group	C. Space Education & Awareness Working Group	D. Space Environment Utilization Working Group
12:30-13:30	Lunch			
13:30-14:30	A. Earth Observation Working Group	B. Communication Satellite Applications Working Group	C. Space Education & Awareness Working Group	D. Space Environment Utilization Working Group
14:30-14:45	Coffee Break			
14:45-17:00	A. Earth Observation Working Group	B. Communication Satellite Applications Working Group	C. Space Education & Awareness Working Group	D. Space Environment Utilization Working Group
TBD	RECEPTION			

Tentative Program
The 19th Session of the Asia-Pacific Regional Space Agency Forum
(APRSAF-19)

~Enriching the quality of life through innovative space programs ~

11-14 December, 2012

Berjaya Times Square Hotel Malaysia

<Day 3> 13 December, Thursday

Plenary

Morning Session : 9:00-12:00

Time	Title	Speaker
09:00-09:15	Opening remarks by General Co-chairs	MALAYSIA
		JAPAN
09:15-09:30	Photo Session	
09:30-09:45	Key note addresses by Co-organizers	MALAYSIA
09:45-10:00		JAPAN
10:00-10:15	Summary of APRSAF-18	SINGAPORE
10:15-10:30	Coffee Break	
10:30-12:00	Country reports (15 min. each)	
12:00-13:00	Lunch	

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11-14 December, 2012

Berjaya Times Square Hotel Malaysia

<Day 3> 13 December, Thursday

Plenary

Afternoon Session : 13:00-17:00

Time	Title	Speaker
13:00-13:45	Country reports (15min. each)	
13:45-14:45	Special Session (TBD)	
14:45-15:00	Coffee Break	
15:00-17:00	Reports on Initiatives	15:00-15:20 Sentinel Asia: Disaster Management Support System in the Asia-Pacific Region
		15:20-15:40 SAFE: Space Applications For Environment
		15:40-16:00 Climate R3: The Regional Readiness Review for Key Climate Missions
		16:00-16:20 Initiative for Asian cooperation on Kibo/ISS
	Reports by APRSAF supporting activities	16:20-16:40 University International Formation Mission(UNIFORM)
		16:40-17:00 Summary of the 4th Asia Oceania Regional Workshop on GNSS
TBD	Special Event (Astronaut Event)(TBD)	

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(APRSAF-19)

~Enriching the quality of life through innovative space programs ~

11-14 December, 2012

Berjaya Times Square Hotel Malaysia

<Day 4> 14 December, Friday

Plenary

Closing Plenary : 9:00-13:00

Time	Title	Speaker
9:00-10:15	Remarks by international organizations (15min. each)	
10:15-11:35	Summary reports by Working Groups	Earth Observation Working Group
		Communication Satellite Applications Working Group
		Space Education & Awareness Working Group
		Space Environment Utilization Working Group
11:35-11:55	Coffee Break	
11:55-12:40	Adoption of Recommendations of APRSAF-19	
12:40-12:50	Announcement of APRSAF-20	
12:50-13:00	Closing remarks	JAPAN
		MALAYSIA
Lunch		
TBD	Technical Tour	