

30 July 2014

## **FIRST ANNOUNCEMENT**

### **The 21st Session of the Asia-Pacific Regional Space Agency Forum** **(APRSAF-21)**

***“Leap to the Next Stage: Delivering Innovative Ideas and Solutions”***  
**2-5 December 2014, Tokyo, Japan**

Dear Sir/Madam,

We are pleased to announce that the twenty-first session of the Asia-Pacific Regional Space Agency Forum (APRSAF-21) will be held from 2-5 December 2014 in Tokyo, Japan, under the theme entitled “Leap to the Next Stage: Delivering Innovative Ideas and Solutions.” APRSAF-21 will be jointly organized by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) of Japan and the Japan Aerospace Exploration Agency (JAXA).

Last year, APRSAF celebrated its 20th anniversary, and the participants endorsed further discussion by the APRSAF Executive Committee (ExCom) to restructure the framework of working groups to the ones with the aim of bringing socio-economic benefits. This is reflected at the 21st session of APRSAF. At APRSAF-21, we are pleased to inaugurate the four newly-structured working groups, i.e. Space Application working group, Space Technology working group, Space Environment Utilization working group and Space Education working group, as described in Appendix-A in which participants from various backgrounds can further contribute to the activities of APRSAF.

We would like to invite you to participate in APRSAF-21 to share your profound experiences as well as your valuable thoughts and insights. We especially would like to welcome new participants, not only from space agencies, but also from relevant ministries, public institutions, private companies, and international organizations. We are certain that we can count on your support by ensuring the good representation of your organization at APRSAF-21, 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 continues to serve as an active forum to promote concrete cooperative activities at the regional level, as it has for the past 20 years, it now aims to also contribute to solving socio-economic benefits in the Asia-Pacific region.

Further details of APRSAF-21, including logistical arrangements and any additional events, will be made available in due course.

We sincerely hope that you will join us at APRSAF-21, and we look forward to seeing you and your colleagues in Tokyo, Japan, in December this year.

With best regards,

On behalf of the co-organizers,



Dr. Keisuke Isogai  
Deputy Director General,  
Research and Development Bureau  
Ministry of Education,  
Culture, Sports, Science and Technology



Dr. Naoki Okumura  
President  
Japan Aerospace Exploration Agency

## **The 21st Session of the Asia-Pacific Regional Space Agency Forum (APRSAF-21)**

*“Leap to the Next Stage: Delivering Innovative Ideas and Solutions”*

**2-5 December 2014, Tokyo, Japan**

### **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 twenty annual meetings, organized jointly by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) of Japan, the 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, Vietnam, Mongolia, the Republic of Korea, Singapore, Thailand and Vietnam have hosted the APRSAF sessions. Through open and voluntary participation, APRSAF promotes concrete regional cooperation using space technology. 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 “Values From Space: 20 Years of Asia-Pacific Experiences”, the last session, the twentieth session of APRSAF (APRSAF-20), was convened in Vietnam and jointly organized by the Vietnam Academy of Science and Technology (VAST), MEXT and JAXA. Approximately 420 people from 28 countries and regions, and 8 international organizations participated in the session. 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-20 adopted the recommendations as contained in Appendix-B of the present document.

## **Dates and Venue**

Dates: 2-5 December 2014

Venue: National Museum of Emerging Science and Innovation “Miraikan”

2-3-6 Aomi, Koto-ku, Tokyo 135-0064 Japan

<http://www.miraikan.jst.go.jp/en/>

Tokyo International Exchange Center “Plaza Heisei”

2-2-1 Aomi, Koto-ku, Tokyo 135-8630 Japan

[http://www.jasso.go.jp/tiec/index\\_e.html](http://www.jasso.go.jp/tiec/index_e.html)

## **Organizers**

APRSAF-21 will be co-organized by the following organizations:

**Japan:** Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Japan Aerospace Exploration Agency (JAXA)

APRSAF-21 will be also supported by the following organizations:

Office of National Space Policy, Cabinet Office, Government of Japan

Ministry of Foreign Affairs of Japan (MOFA)

Ministry of Internal Affairs and Communications (MIC) (*Planned*)

Ministry of Economy, Trade and Industry (METI) (*Planned*)

Japan International Cooperation Agency (JICA)

National Museum of Emerging Science and Innovation (Miraikan)

## **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 socio-economic 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 twenty-first session of APRSAF (APRSAF-21) will be held under the theme entitled “Leap to the Next Stage: Delivering Innovative Ideas and Solutions.”

## **Expected Participants**

Space agencies, governmental bodies and international organizations, as well as universities, research institutes and private sectors, are expected to participate in APRSAF-21.

## Overall Schedule of APRSAF-21

Dates	Event	Venue
29-30 November 2014	Water Rocket Event	Nihon University
1 December 2013	SAFE Workshop	Remote Sensing Technology Center of Japan (RESTEC)
1 December 2013	Kibo-ABC Workshop	“Miraikan”
<b>2-5 December 2014</b>	<b>APRSAF-21</b>	“Miraikan,” “Plaza Heisei”
2-5 December 2014	Poster Contest	“Miraikan,” “Plaza Heisei”
2-5 December 2014	Exhibition	“Miraikan,” “Plaza Heisei”

## Tentative Program

Please refer to Appendix-C

## Plenary and Working Groups

The plenary sessions will take place on the third and fourth days of APRSAF-21, i.e. on 4-5 December. It will feature reports by APRSAF participating countries as well as by the APRSAF initiatives, i.e. Sentinel Asia (disaster management support system in the Asia-Pacific region), SAFE (Space Applications For Environment), Climate R3 (Regional Readiness Review For Key Climate Missions) and Kibo-ABC (Asian Beneficial Collaboration Through “Kibo” Utilization). UNIFORM (University International Formation Mission) and MGA (Multi-GNSS Asia), the APRSAF related projects, will also report their activities at the plenary sessions. The first and second days of APRSAF-21, i.e. on 2-3 December, will be devoted to the sessions of the four new working groups, i.e. Space Application working group, Space Technology working group, Space Environment Utilization working group and Space Education working group, which will meet in parallel.

## APRSAF Activities

On December 1, workshops will be held by two APRSAF Initiatives, i.e. SAFE and Kibo-ABC. Water Rocket Event, Poster Contest and Exhibition will also be held prior to or in parallel with APRSAF-21.

## Side Events

Several side events will be held in conjunction with the APRSAF annual session. The relevant information of APRSAF-21 Side Events will be available on the APRSAF website in due course: [http://www.aprsaf.org/annual\\_meetings/aprsaf21/side\\_events.php](http://www.aprsaf.org/annual_meetings/aprsaf21/side_events.php)

## Points of Contact for APRSAF-21

If you have any inquiries concerning APRSAF-21, please contact:

Ms. Mami Sasamura

APRSAF-21 Secretariat, c/o Japan Aerospace Exploration Agency (JAXA)

ochanomizu sola city, 4-6 Kandasurugadai, Chiyoda-ku, Tokyo, 101-8008, Japan

E-mail: [aprsaf21@aprsaf.org](mailto:aprsaf21@aprsaf.org) or FAX: +81-3-5209-3205

## APRSAF Activities

### ■SAFE Initiative Workshop

**Date:** 1 December 2014

**Venue:** Conference room 1,

Remote Sensing Technology Center of Japan (RESTEC)

TOKYU REIT Toranomon Bldg. 2F

3-17-1 Toranomon, Minato-ku, Tokyo, 105-0001, Japan

**Reference:** <http://www.eorc.jaxa.jp/SAFE/>

<Contact for further information>

**Mr. Ko Hamamoto**

TEL: +81-50-3362-7938 FAX: +81-29-868-2961 E-mail: hamamoto.ko@jaxa.jp

### ■Kibo-ABC Initiative Workshop

**Date:** 1 December 2014

**Venue:** Conference Room 1, Miraikan

**Reference:** [http://www.aprsaf.org/initiatives/kibo\\_abc/](http://www.aprsaf.org/initiatives/kibo_abc/)

<Contact for further information>

**Ms. Yoshimi Osada**

TEL : +81-50-3362-3387 FAX : +81-29-868-3957 E-mail: osada.yoshimi@jaxa.jp

### ■Water Rocket Event

**Co-organizers:** MEXT and JAXA

**Date:** 29 November -30 November 2014

**Venue:** College of Science and Technology (Funabashi Campus), Nihon University  
7-24-1 Narashinodai, Funabashi, Chiba, 274-8501, Japan

TEL: +81-47-469-6249

**Website:**

<http://www.nihon-u.ac.jp/en/academics/undergraduates/cst/#Access%20and%20Contact>

### ■Poster Contest

**Theme:** “Space is the future”

**Co-organizers:** MEXT and JAXA

**Date:** 2-5 December 2014

**Venue:** Miraikan, Plaza Heisei

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

**Mr. Takaaki Okano, JAXA Space Education Center**

TEL: +81-50-3362-6438 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-21, including arrangements for logistics, updates of the program and online registration will be made available in due course. Please check the latest information on APRSAF website at: <http://www.aprsaf.org>.

The information on APRSAF can also be provided via APRSAF News Mail and APRSAF News Letter. Please visit [https://www.aprsaf.org/newsmails\\_newsletters/form/](https://www.aprsaf.org/newsmails_newsletters/form/) to subscribe them.

Participation in APRSAF-21 is free of charge while participants are responsible for covering their travel and accommodation costs.

# New Structure of APRSAF WG Framework

## < Original WGs >

(Technology oriented /  
Space agencies -led )

**Earth  
Observation  
WG**

**Communication  
Satellite  
Applications  
WG**

**Space  
Environment  
Utilization WG**

**Space  
Education and  
Awareness WG**

## < WGs after APRSAF-21 >

( Technology + solution of regional issues oriented /  
participation of more user organizations, development aid agencies )

**Space  
Application  
WG**

**Space  
Technology  
WG**

**Space  
Environment  
Utilization  
WG**

**Space  
Education  
WG**

To approach regional issues such as disaster management and environment, and to discuss how to solve them using space technology together with other technologies.

To exchange information on unmanned space technology to meet needs from Asian countries desiring to acquire space development technology. To provide information on opportunities for capacity building and tech demonstrations to expand space development utilization.

To continue encouraging and promoting utilization of ISS/Kibo in Asia. Will establish a new session on space exploration responding to increasing interest in this area.

To contribute to human resource development in Asia through activities of space education. To promote more effective activities in cooperation with international organizations and development aid agencies.



Integrating application of  
communication & positioning sats

Integrating Capacity Building



Recommendations of the Twentieth Session of  
the Asia-Pacific Regional Space Agency Forum (APRSAF-20)  
3 – 6 December 2013  
in Hanoi, Vietnam

Recognizing “Values From Space: 20 Years of Asia-Pacific Experiences” as the overall theme of APRSAF-20,

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-20;

<APRSAF Initiatives>

[Sentinel Asia]

1. Confirmed that Sentinel Asia Step 3 began in 2013 to support mitigation/preparedness, response and recovery activities, while utilizing many and various satellites including earth observation, communications and navigation satellites, based on the human network and further joint operation by the Joint Project Team;
2. Confirmed that frequent catastrophic disasters in the Asia-Pacific region, e.g. recent Typhoon Haiyan, and that we, who would like to enhance our efforts to mitigate the risk and damage caused by disasters, look to turn this desire into action, and that we arrive at the conclusion to evolve Sentinel Asia further and to establish a task force team to develop a plan of action and report it to JPTM 2014 and APRSAF-21;

[SAFE (Space Applications For Environment)]

3. Welcome two new SAFE prototypes with important societal benefits for the region, namely: Coastal Erosion (Vietnam) and Flood Forecasting (Vietnam): and recognizes the good progress of the ongoing SAFE prototypes;
4. Congratulate the Central Environmental Authority (CEA), Sri Lanka on the completion of their SAFE prototype on Wetlands Mapping and welcomes the interest of donor agencies to move forward to implement operationally;
5. Approved the new SAFE management procedure for evaluating compatibility

with donor agency projects from the outset, to increase appeal to donor agencies and to promote emergence of sustainable applications of SAFE results; Instructs the SAFE secretariat to put this procedure into effect for management of the SAFE prototypes;

[Climate R<sup>3</sup> (Regional Readiness Review for Key Climate Missions)]

6. Welcome the increasing cooperation between APRSAF EOWG and global initiatives such as the Group on Earth Observation's Global Agricultural Monitoring (GEO GLAM) and the Global Forest Observation Initiative (GFOI); Encourage all APRSAF participated agencies with ambitions in these domains to participate in these GEO initiatives. EOWG affirms its willingness to serve as a regional coordination body to ensure Asia-Pacific interests are best served in these initiatives;
7. Endorsed proposed Continuity of Earth Observation Data for Asia-Pacific (CEOD-AP) survey template of CSIRO, and the distribution of the survey to identify key Earth observation data requirements and priorities at the regional and national level. Invites feedback on the survey to Australian colleagues per their request. Recognizes the step-by-step progress of the CEOD-AP Survey in developing a broad understanding and evidence base for APRSAF EO activities;

[Kibo-ABC (Asian Beneficial Collaboration through Kibo utilization)]

8. Recognized the great educational effectiveness of synchronous space-ground mission like SSAF2013 and the necessity of its continuation;
9. Recommend to open proposal for CubeSat Joint Project deployed by ISS. LAPAN is interested in coordination for integration and testing;
10. Recommend to conduct simple experiment projects using Kibo facility. Activities will be proposed and coordinated by the member countries;
11. Recommend to establish an effective mechanism, including utilizations of other resources such as social networking services, to facilitate knowledge sharing and mutual information exchange among members.

<APRSAF Working Groups>

[Earth Observation (EO)]

(General)

12. Recognized that the EOWG mid-annual meeting was successfully organized in Nagoya and the necessary tasks have been accomplished; Welcomes the proposal to have individual meetings associated with each initiative in future,

synchronized with relevant international/academic conferences, instead of an EOWG mid-annual meeting;

(Climate change adaptation and mitigation using space technologies)

13. Recognized the potential and necessity for satellite Earth observations to support the insurance and re-insurance industries and their role in a market-based solution to climate change mitigation, and the multiple potential application areas such as agriculture, disaster, extreme weather etc. for satellite data; Climate financing mechanisms may support exploration of this potential and the EOWG recommends that these opportunities be studied by APRSAF;

(Integrated water resource management)

14. Welcome the continuous knowledge sharing and technical development in integrated water resource management through collaboration with the Asian Water Cycle Initiative of GEOSS, where projects are being successfully operated with donor agencies like JICA;
15. Recognized the demand for near-realtime rainfall product like GSMaP and highly anticipates the new datastream capabilities provided by the GPM mission to be launched in 2014;

(Agriculture and food security, Asia-RiCE crop monitoring)

16. Recognized the progress of the GEOGLAM Asia-RiCE team, including the provision of rice crop outlook to FAO AMIS using agro-meteorological information provided by JAXA and others from October 2013. This activity in collaboration with ASEAN+3 Food Security Information System (AFSIS) Project will improve the coordination of rice crop monitoring from space and includes rice crop outlook, rice crop area estimation, and rice growth monitoring;

(Utilization of geostationary/polar orbiting satellites)

17. Recommend exploration of a new programme for development of novel applications and services for benefit of APRSAF countries, exploiting Himawari-8/9 data stream in conjunction with polar orbiting missions such as GCOM-C;

(EOWG accomplishments and future)

18. Recognized the long heritage of accomplishments in the EO domain during 20 years of APRSAF and across multiple societal domains, including successful pioneering regional collaborations, disaster response (Sentinel Asia), climate (Climate R3), water and food security (SAFE) amongst many others;
19. Agreed to promote further partnerships, knowledge sharing and capacity building within the region, including with APEC Climate Centre, GEOSS Asia

Pacific; and to explore collaborative projects with donor agencies such as ADB and international cooperation agencies in Asia Pacific region. The EOWG aims to serve as the peak body for coordination of EO matters in the Asia-Pacific region;

20. Agreed to study the possibilities for evolution of the EOWG in the context of an evolving APRSAF and to ensure success in the above ambitions;

[Space Education and Awareness (SEA)]

21. Encourage to further enhance education activities by widely spreading space education materials among the field of education through various medium, including Information Technologies and collaboration with international cooperation agencies;
22. Encourage promoting the awareness of space education by continuing current activities including water rocket events, poster contests, teacher seminars, etc. and introducing age appropriate advanced space science programs such as CanSat or advanced rocket competition for the development of the youth;

[Space Environment Utilization (SEU)]

23. Encourage SEU WG participants to widely publicize the activity and the benefit of Kibo-ABC activity, and invite new members to join the initiative;
24. Encourage SEU WG participants to take the lead in planning and implementing new joint missions to produce beneficial outcome, by sharing the results, lessons learned and know-hows obtained through the activities including the student's parabolic flight program;
25. Recommend to add more educational materials on space environment utilization;

[Communication Satellite Applications (CSA)]

26. Confirmed to focus on the discussion about the approach to technical cooperation for not only "communications satellite" but also satellite related technologies into the future;
27. Encourage to build a cooperative relationship with the aim of expansion of the space-based Automatic Identification System (AIS) for ship monitoring;
28. Welcome the sound progress of the Multi-GNSS Demonstration Campaign and look forward to sustainable development of the Multi-GNSS applications;

<APRSAF Related Projects>

[Asia Oceania Multi-GNSS Demonstration Campaign]

29. Welcome the active progress such as the endorsement of additional Multi-GNSS Joint Experiments by Multi-GNSS Asia (MGA) which is an international organization to promote the Multi-GNSS Demonstration Campaign and encourage organizations in the Asia-Pacific region to participate in the MGA;

[UNIFORM (University International Formation Mission)]

30. Confirmed that the Satellite Technology for the Asia-Pacific Region Program (STAR program) was successfully completed and succeeded to the UNIFORM project. Last year, the UNIFORM project accepted 6 engineers and researchers from 3 organizations in Vietnam and Brazil. This year, the UNIFORM-1 satellite has been manufacturing by Japanese young engineers. The relation of the next year's long capacity building course has been discussed;
31. Recognized that one of the main missions of the UNIFORM-1 is wild fire detection; the UNIFORM-1 satellite will be launched, and capacity building course of the UNIFORM-2&3 satellites will be started in 2014;
32. Encourage young engineers and researchers in the Asia-Pacific region who are interested in developing micro satellites to join the UNIFORM;
33. Encourage new participants to contribute to the UNIFORM activities to develop the satellites and the ground station network;

[Special Session (Values From Space: 20 Years of Asia-Pacific Experiences)]

34. Noted with satisfaction that a special anniversary session with the participation of heads of space agencies in the Asia-Pacific region and of former organizers of APRSAF was held as part of the plenary to address the theme of APRSAF-20 "Values from Space: 20 Years of Asia-Pacific region";
35. Welcome the release of the Joint Statement, which is contained in Annex I, by heads of space agencies in the Asia-Pacific region and former organizers of APRSAF to reaffirm that, through the framework of APRSAF, significant progress in space cooperation in the Asia-Pacific region has been made and that we are committed to continuously expand space activities and their applications for socio-economic development in the region;

[New Cooperation Session]

36. Welcome the establishment of "New Cooperation Session," organized by the Executive Committee (ExCom), aiming to discover new cooperative projects

outside of the framework of existing working groups. These proposals are expected to be discussed by the ExCom or working groups after APRSAF–20, and we look forward to that being reflected in the next session of APRSAF;

[Special Speech]

(Asteroid/NEO Observation and Potential Future Space Exploration)

37. Encourage continued discussion on possible cooperation in the Asia–Pacific region in the fields of asteroid observation and future space exploration under the framework of APRSAF;

(Space Debris)

38. Recognized the importance for all countries that utilize outer space to work on issues related to protection of the space environment, such as space debris mitigation;

39. Encourage continued discussion on the protection of space environment under the framework of APRSAF;

[Special Event (Values From ISS)]

40. Welcome the message from Japanese astronaut Koichi Wakata onboard ISS who had deployed the Vietnamese cubesat “PicoDragon” from the Japanese Experimental Module “Kibo” in the International Space Station (ISS); Confirmed that utilization of “Kibo” is open to every country in the Asia–Pacific region. This special event was moderated by Japanese astronaut Satoshi Furukawa; and Vietnam and Malaysia introduced their space experiments on board;

[APRSAF Executive Committee (ExCom)]

41. Endorsed further discussion by the ExCom to renovate the framework of working groups toward socio–economic outcome oriented structure, and look forward to that being reflected in the next session of APRSAF;

[APRSAF–21&22]

42. Welcome the holding of APRSAF–21 in Japan in 2014, and APRSAF–22 in Indonesia in 2015.

End

## **Annex I: Joint Statement on the Conclusion of the Special Session by Heads of Space Agencies and Former Organizers of Asia-Pacific Regional Space Agency Forum (APRSAF)**

1. The Special Session by Heads of Space Agencies and Former Organizers of Asia-Pacific Regional Space Agency Forum (APRSAF) was held on 5th December 2013 in Hanoi, Vietnam on the occasion of the 20<sup>th</sup> anniversary of APRSAF.
2. We reaffirmed the importance of our long-standing friendship and working relationship aiming to promote and expand space activities and their applications for socio-economic development in the Asia-Pacific region. We noted with satisfaction the significant progress in regional space cooperation and acknowledged the progress of APRSAF over the past 20 years as a forum to discuss regional issues.
3. We reaffirmed our continuous commitment to expand information exchange and contribute to socio-economic development through the framework of APRSAF.
4. We underscored our intention to achieve a successful outcome from space technologies, integrating with other technologies whilst involving more user organizations and industries, to address global and regional issues and to accomplish a higher quality of life in the region.
5. We emphasized the importance of capacity building, and we look forward to continuously realizing our cooperative efforts.

**Tentative Program**  
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**- APRSAF Activities & Related Project -**

*<29 November, Saturday - 30 November, Sunday>*

■ **Water Rocket Event**

Place: Nihon University

*<1 December, Monday>*

■ **SAFE Initiative Workshop**

Place: Remote Sensing Technology Center of Japan (RESTEC)

Time: 9:00-17:00

■ **Kibo-ABC Initiative Workshop**

Place: National Museum of Emerging Science and Innovation (Miraikan)

Time: 9:00-17:00

*<2 December, Tuesday> (TBD)*

■ **New Cooperation Session**

Place: National Museum of Emerging Science and Innovation (Miraikan)

Time: 18:30 ~

*<2 December, Tuesday - 5 December, Friday>*

■ **Poster Contest**

Place: National Museum of Emerging Science and Innovation (Miraikan)

■ **Exhibition**

Place: National Museum of Emerging Science and Innovation (Miraikan)

**- Reception -**

*<3 December, Wednesday 19:00 ~ (TBD)>*

Place: National Museum of Emerging Science and Innovation (Miraikan)



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2-5 December, 2014

National Museum of Emerging Science and Innovation (Miraikan)

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**<Day 1> 2 December, Tuesday**

**Working Group**

Start 9:00 End 17:00				
	<b>Space Application Working Group</b>	<b>Space Technology Working Group</b>	<b>Space Environment Utilization Working Group</b>	<b>Space Education Working Group</b>
9:00-12:00	Co-chairs: <b>Dr. Keiji Imaoka</b> Manager for Earth Observation Research Center, Satellite Applications Mission Directorate I, JAXA	Co-chairs: <b>Dr. Yasuo Nakamura</b> Senior Advisor to the Executive Director, JAXA	Co-chairs: <b>Mr. Jun Gomi</b> Director, Program Management and Integration Department Human Spaceflight Mission Directorate, JAXA	Co-chairs: <b>Mr. Eijiro Hirohama</b> Director, Space Education Center „JAXA
	Coffee Break			
	<b>Space Application Working Group</b>	<b>Space Technology Working Group</b>	<b>Space Environment Utilization Working Group</b>	<b>Space Education Working Group</b>
12:00-13:00	Lunch			
13:00-17:00	<b>Space Application Working Group</b>	<b>Space Technology Working Group</b>	<b>Space Environment Utilization Working Group</b>	<b>Space Education Working Group</b>
18:30~ (TBD)	<b>New Cooperation Session</b>			

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2-5 December, 2014

National Museum of Emerging Science and Innovation (Miraikan)

Tokyo International Exchange Center (Plaza Heisei)

**<Day 2> 3 December, Wednesday**

**Working Group**

Start 9:00 End 17:00				
	<b>Space Application Working Group</b>	<b>Space Technology Working Group</b>	<b>Space Environment Utilization Working Group</b>	<b>Space Education Working Group</b>
9:00-12:00	Co-chairs: <b>Dr. Keiji Imaoka</b> Manager for Earth Observation Research Center, Satellite Applications Mission Directorate I, JAXA	Co-chairs: <b>Dr. Yasuo Nakamura</b> Senior Advisor to the Executive Director, JAXA	Co-chairs: <b>Mr. Jun Gomi</b> Director, Program Management and Integration Department Human Spaceflight Mission Directorate, JAXA	Co-chairs: <b>Mr. Eijiro Hirohama</b> Director, Space Education Center „JAXA
	Coffee Break			
	<b>Space Application Working Group</b>	<b>Space Technology Working Group</b>	<b>Space Environment Utilization Working Group</b>	<b>Space Education Working Group</b>
12:00-13:00	Lunch			
13:00-17:00	<b>Space Application Working Group</b>	<b>Space Technology Working Group</b>	<b>Space Environment Utilization Working Group</b>	<b>Space Education Working Group</b>
19:00~ (TBD)	<b>Reception</b>			

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**National Museum of Emerging Science and Innovation (Miraikan)**  
**Tokyo International Exchange Center (Plaza Heisei)**

**<Day 3> 4 December, Thursday**  
**Plenary**

**Morning Session : 9:00-12:00**

Time	Title
9:00-12:00	Opening
	Opening Remarks by General Co-chairs
	Keynote Addresses
	Summary of APRSAF-20
	Photo Session
	Coffee Break
	Special Speech
	Country Reports
	Coffee Break
	Country Reports
12:00-13:15	Lunch

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**<Day 3> 4 December, Thursday**  
**Plenary**

**Afternoon Session : 13:15-17:00**

Time	Title
13:15-17:00	<b>Special Session</b>
	<b>Country Reports</b>
	<b>Coffee Break</b>
	<b>Reports on Initiatives</b>
	<b>Reports by APRSAF Related Projects</b>

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JAPAN

2-5 December, 2014

National Museum of Emerging Science and Innovation (Miraikan)  
Tokyo International Exchange Center (Plaza Heisei)

**<Day 4> 5 December, Friday**

**Plenary**

**Closing Plenary : 9:00-13:00**

Time	Title
9:00-13:00	<b>Remarks by international organizations</b>
	<b>Summary reports by Working Groups</b>
	<b>Coffee Break</b>
	<b>Adoption of Recommendations of APRSAF-21</b>
	<b>Announcement of APRSAF-22</b>
	<b>Closing Remarks</b>
<b>Lunch</b>	
TBD	<b>Technical Tour</b>