
Chairman's Summary Report



24TH
APRSAF
ASIA-PACIFIC REGIONAL
SPACE AGENCY FORUM
INDIA

Space Technology Working Group
Co-chairs

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Objective

- To support space technology development in the Asia-Pacific region by active information exchange among experts from space agencies, academic institutions as well as from the private sector in the region
- To develop its activity from “information exchange base” to “concrete activity base” and to raise atmosphere of it
- To explore the possible new solutions to our social issues with the innovative small or cube satellites developed by the collaborative work of Asia-Pacific Regional Space Agencies.

Program structure

Item-1: Recent trends of technology development for satellites

Item-2: Capacity building ~Joint Session with SEUWG~

Item-3: Industry participation for innovation

Item-4: Space debris

Item-5: Exploring possibilities of collaborative development of small satellites in the Asia-Pacific region

Participants



210 (101+109) turnouts,
33 presentations, **14** countries

Session items

1) Recent trends of technology development for satellites

- Current space development activity and future plan of space technology development in respective countries
- 9 presentations by India, Japan, Thailand, Vietnam, Nepal, Phillipines, Bangladesh and international non-profit organizations;

2) Capacity building - Joint session with Space Environment Utilization Working Group-

- Efforts of capacity building through launch opportunity of KIBO in ISS;
- Own international capacity building program being provided by India and Korea;
- 12 presentations by India, Japan, Turkey, Singapore, Malaysia, Indonesia, Thailand and Korea;

3) Industry participation for innovation

- Report from various industries which have potential to contribute to major issues;
- 7 presentations by companies;

4) Space debris

- Counter-measures against increase of space debris;
- Activity report which United Nations are addressing
- 5 presentations by India, Japan, UNOOSA and companies;

5) Exploring possibilities of collaborative development of small satellites in the Asia-Pacific region

- Panel discussion for exploring the possibility of collaborative satellite development;
- Identification of global issues and expectations to the small satellites

Observations

1) Recent trends of technology development for satellites

- It was shared by members that each nation is trying to develop cutting-edge technology, while taking advantage of the capabilities of the private industry and academia;
- It was realized by participants that best practices which were introduced in STWG sessions could also be effective for other nations and STWG is requested to take a key roll in Asia-Pacific region to share those best practices.

2) Capacity building

- It was also shared that each countries' capability of space technology development is increasing with the capacity building initiatives taken, and can be used for the common benefit of all stake holders in the Asia-Pacific region.

3) Industry participation for innovation

- In order to facilitate innovation, it is key to find out and harness appropriate partners including private sector and STWG is expected to become one of the platforms to support above agenda in Asia-Pacific region.
- It was obvious that space industry and its business opportunities in Asia-Pacific region is expanding and large number of participants, in this session of APRSAF, from private sectors is a testimony of that.

4) Space debris

- Space debris is becoming a big threat for future space missions and business despite taking positive measures by all concerned. Asia Pacific region recognizes the need of global collaboration efforts.

5) Exploring possibilities of collaborative development of small satellites in the Asia-Pacific region

- Constructive discussion among panelists and audience was witnessed in the panel discussion, ended with promising success ; *See next page for details.*

Summary and recommendations of Panel Discussion(Item-5)

- With the aim of exploring the new solutions to our social issues, regional and global, discussion on collaborative development of innovative small or nano satellites was held;
- In the discussion, following potentials, challenges and expectations of small satellites was raised from panelists and participants of STWG;
 - SAR constellation mission
 - Various effective existing technologies available with ISRO and JAXA such as flexible solar panel, MEMS IMU, un-cooled IR Camera, launch opportunity, regional GNSS...
 - Funding on sharing basis by public and private or R&D project funding model
 - Different capacity & Maturity level among regional member countries
- STWG recognized the need to progress step-by-step from now and should take forward the ideas conceived in this session of STWG;
- STWG will ask APRSAF secretariat to identify a focal point from each countries which are interested in STWG's idea to work out the future action plan with regard to the above ideas.

Thank you for your attention.

