

DEVELOPMENT VISION 2030
OF
THE ASIA-PACIFIC SPACE COOPERATION ORGANIZATION
(APSCO)

14th November 2018, Beijing, China

Prelude

- I. We, the officials and the heads of the space agencies of APSCO Member States, have gathered in Beijing, holding the 10th Anniversary High-Level Forum of APSCO to commemorate its 10th Anniversary.
- II. In retrospect, APSCO, established at the right time, in 2008, had indeed opened new vistas of space cooperation in the Asia-Pacific region. Over the past decade, sticking to the principles and the purpose of the *Convention of the Asia-Pacific Space Cooperation Organization*, APSCO has remained committed to enabling its Member States to achieve common development in space science, space technology, and space technology applications; enhancing the regional space capability, and promoting the regional sustainable socio-economic development. 2015-Beijing Declaration, adopted at the APSCO Development Strategy Forum, held in Beijing on October 27, 2015, with the theme: “*the Belt and Road Initiative for Facilitating Space Capabilities Building of the Asia Pacific Countries*”, pledged a strong resolve for deepening comprehensive and cooperative partnership among APSCO's Member States; towards improving their space capacity, sharing services capability, quick response capability, industry driving capability and information inter-connection capability; contributing to the long-term development and common prosperity of the region.
- III. We are pleased to see that, establishing bases for multi-lateral space cooperation on the unique idea of voluntarism and equal consultations, and promoting systematic development while being flexible and pragmatic; APSCO has

successfully established the framework for space cooperation in the Asia-Pacific region and substantially promoted the implementation of such activities as project cooperation and education and training, despite significant diversity and different development stages among its Member States. In the context of ongoing global economic transition, with space activities getting multifaceted and challenging in view of new discoveries and scientific development, the global space cooperation is of far-reaching significance. The most dynamic Asia-Pacific region, has huge potential, and bright prospects for sound developmental momentum. Responding to the increased needs for space development, at this historic juncture, we are promulgating the *Development Vision-2030 of the Asia-Pacific Space Cooperation Organization*, steering APSCO to the next development phase, opening a new chapter for the space cooperation in the Asia-Pacific region and to further enhance prosperity of the region.

Vision Statement

- IV. APSCO shall significantly enhance capability in its Member States in particular, and the Asia-Pacific region in general; in peaceful uses of outer space, in the domain of space science, space technology and space technology applications; by establishing the basis of cooperation through voluntary sharing of financial, technological, and human resources. And, leading the regional cooperation, work with and contribute to the collective effort of the international space community towards space governance and long-term sustainability of the outer space activities.

APSCO's Achievements

- V. Over the past 10 years, APSCO has scored many productive achievements and amassed diverse experience:
- (1) Remarkable outcomes have been delivered as a consequence of interaction and sharing of superior resources. APSCO has built a Satellite Data Sharing Service Platform and user group for its Member States. With this platform, over 200,000 satellite images have been shared and over 8,000 scene data have

been used among its Member States, which have played a crucial role in scientific research, disaster monitoring and management of the region.

(2) Encouraging progress has been made in several joint research projects.

APSCO has launched 13 projects to enable its Member States to collaborate and participate in various space science - and technology - related application activities. Among these projects, the first phase of the Research on Determining Precursor Ionospheric Signatures of Earthquakes by Ground Based Ionospheric Sounding Project and the Asia-Pacific Ground-Based Optical Space Object Observation System (APOSOS) Project have been successfully completed; another 3 projects including the Ka-Band Rain Attenuation Modeling Project have been successfully finished; such major cooperation projects as the Joint Small Multi-Mission Satellite (SMMS) Constellation Program, the Student Small Satellite (SSS) Project and the Radiometric Calibration of Satellite Sensors Project are making steady progress; all of which have enabled its Member States to successfully pursue their developments in such areas as space technology application and space science research.

(3) Great success has been achieved in professional talent education and training with its scale continuously expanding. APSCO has set up Education and Training Center (ETC) and formal networks for training, and distance-education system covering its 8 Member States to share their resources and expertise in an effective way. With the support of the China Scholarship Council (CSC), APSCO offers masters' as well as doctorate degree education. APSCO has so far recruited 192 Masters and 55 PhDs, and trained over 1,000 trainees, laying a solid foundation for the talent cultivation augmenting its Member States' space capacity.

(4) APSCO's international influence has steadily increased. APSCO is permanent observer with: United Nations Committee on the Peaceful Uses of Outer Space (UN-COPUOS), Group on Earth Observation (GEO) and the International Committee on Global Navigation Satellite Systems (ICG); and has established cooperative relationships with UN-COPUOS, and such international

organizations as, International Astronautical Federation (IAF) and European Space Agency (ESA). APSCO has entered into meaningful cooperation with the Beijing Office of the United Nations Platform for Space-Based Information for Disaster Management and Emergency Response (UN-SPIDER), Regional Center for Space Science and Technology Education in Asia and the Pacific (China) and the Beijing branch of International Space Science Institute; and it continues holding Space Laws and Policy Forums and International Symposiums, seeking out well-known experts and scholars in the international aerospace industry for exchanges and cooperation. All of these actions have effectively increased the international reputation of the organization.

- (5) With the support of APSCO, recognizable progress in the capacity building of its Member States have been achieved. This includes more than 200 PhD and Masters' graduates, more than 1000 trainees of short courses, more than 10 universities participating in small satellite hands-on trainings, and about 100 young students engaged in space contests and summer schools. These individuals and institutions have a noteworthy impact on the capacity building of each Member State and continue the chain of learning at different levels and tiers. Many specialized training courses, as well as hands-on and field campaign activities have been actively conducted along with the cooperative projects. APSCO Member States are able to go through the whole process of space technology and its applications from the basic idea to the final implementation of the product; which is a substantial product of cooperative activities.

APSCO's Principles

- VI. APSCO Members, while respecting sovereignty, taking advantage of mutual strengths, improving capabilities and systematic development, shall fulfill the obligations under the *Convention of the Asia-Pacific Space Cooperation Organization*, and other legal instruments of the organization, in accordance with their domestic effective laws, regulations, and procedures, while executing

cooperative activities.

- VII. Promote and strengthen cooperation in Space-development in the peaceful use of outer space, which is mutually complementary and beneficial to the peoples in the Asia-Pacific region, involving inclusive and equal consultation.
- VIII. Adhere to the philosophy of mutual respect, fairness and justice, openness and inclusiveness, peace and cooperation, and mutually beneficial cooperation in achieving shared growth through discussion and collaboration, while respecting the core interests and major concerns of all parties and deepening mutual trust and expanding fields of common interests.
- IX. Welcome more Members to join in the Organization to amass the achievements of cooperation to benefit more peoples in the Asia-Pacific region.

APSCO's Goals and Priorities

- X. Emphasizing the perpetual promotion of resource-sharing, capacity-building, talent-cultivation and organizational-development, based on experiences obtained during the implementation of the *Development Plan of Space Activities of APSCO* and the *2015- Beijing Declaration of Asia-Pacific Space Cooperation Organization Development Strategy Forum 2015*, the following priorities are laid for the cooperation:
 - (1) Making full use of the existing resources and promoting resource-sharing while strengthening information inter-connection; constructing the Data Sharing Service Cloud Platforms by using the existing and the potential co-developed satellite resources to meet the needs of its Member States in such areas as urban planning, disaster monitoring and assessment, agriculture and forest surveys; facilitating the compatible application and services of satellite navigation terminals in the Asia-Pacific region; building Asia-Pacific space technology services network and professional application demonstration networks for crop growth monitoring, transportation and logistics with the support of the integrated application of such satellite technology and information as; communication, remote sensing, meteorology, navigation.

Based on remote sensing, meteorology, navigation and data acquisition satellite constellation information, constructing a space technology-based disaster monitoring and prevention network for its Member States and building a disaster monitoring and emergency response system that serves the Member States.

- (2) Promoting its capacity-building by making full use of geographic advantage in locations, of its Member States and by adhering to the principle of sharing common achievement by joint efforts; further promoting such key projects as the Joint Small Multi-Mission Satellite (SMMS) Constellation Program, the Student Small Satellite (SSS) Project, the Phase-II of Asia-Pacific Ground-Based Optical Space Object Observation System Project (APOSOS-II) and the Integrating Satellite and Ground Observations for Earthquake Signatures and Precursors (Earthquake Project Phase II); and joint development, and application of satellites and the joint construction of ground facilities.
- (3) Promoting talent cultivation by constantly conducting various education and training activities. Steadily enhancing and moderately expanding degree education. With the continuous sponsorship from China Scholarship Council (CSC), training Masters and Doctoral students for its Member States; continuously expanding the resource scale of degree education and enabling more universities to establish cooperation relationships with APSCO to train high-quality professionals for its Member States. Carrying out stimulated teaching, based on the rolling development of the Student Small Satellite (SSS) Project, to establish permanent innovation alliance among the universities of the Member States to strengthen actual practice and innovation.
- (4) Enhancing regional cooperation and APSCO's international influence towards promoting the organization's development. Facilitating the establishment of broader cooperation relations between APSCO and UNOOSA, UNESCAP, UNSPIDER, and other international organizations while participating in UNCOPUOS and its two Sub- Committees; promoting the peaceful uses of

outer space, and contributing to the space capacity-building for developing countries, while maintaining its leadership in the space cooperation in the Asia-Pacific region; contributing wisdom and strength to the development of Asia-Pacific region at large with its renowned exchange platforms; International Symposiums and Space Laws and Policy Forums Workshop and other related international cooperation High-level Forums.

- XI. APSCO's Member States pledge to achieve common development by closer practical cooperation and mutual help.
- XII. APSCO's Member States will maintain and strengthen vigorous and vital multilateral cooperation system and promote organization's contribution to the global governance of outer space activities.

APSCO's Objectives

- XIII. Constantly striving to improve capabilities in peaceful use of outer space, promoting industrialization of space technology and applications and facilitating resource-sharing and talent-cultivation, enabling its Member States to benefit more from socio-economic performances, assisting in identifying innovative and effective solutions for the use of space science, space technology and space technology applications in support of their sustainable development by increasing organizational and space capabilities of its Member States; the Member States of APSCO believe that their common objectives in the near future are as follows:
 - (1) Build capacity in the research and development of satellites to narrow down the gap in the development of space infrastructure;
 - (2) Build capacity in the space-based applications to enhance the acquisition and sharing of space technology benefits;
 - (3) Build capacity in the professional talents' training to promote space research level and development motivation;
 - (4) Build capacity in the organizational development to enhance the impact of the organization in the capability building of its members.

APSCO's Commitments

- XIV.** The governments of APSCO's Member States pledge to consistently support the organization's development and to make concerted efforts to accelerate its development.
- XV.** APSCO's Member States pledge to further open up their respective space resources and to constantly increase their space capacity, sharing services capability, quick response capability, industry driving capability and information inter-connection.
- XVI.** APSCO will keep exploring the development path and development patterns that suit its features; strengthen policy coordination and exchange of experience while maintaining its own independence to foster a sound environment for the diverse and common development of its Member States.
- XVII.** APSCO's Member States are willing to further the cooperative partnerships and to open wider, increase cooperation and to achieve common development through the international cooperation on the basis of equality and mutual benefit.

The Member States assert that, by making the aforesaid efforts, the space cooperation in the Asia-Pacific region will be more efficient, much stronger, much smoother and much closer before 2030. Furthermore, APSCO will definitely make active contribution to the sustainable development of Asia-Pacific region. The Member States further pledge to make unremitting endeavor for the next 10-year cooperation in the APSCO and to contribute their efforts in realizing the Asia-Pacific dream of common development, prosperity and improvement.



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