



“MECHANISMS FOR REGIONAL AND INTERREGIONAL COOPERATION AND COORDINATION”

**MSc. Romina Acevedo Galindo
Venezuela**

10th United Nations Workshop on Space Law

**“Contribution of Space Law and Policy to Space Governance and Space
Security in the 21st Century”**

Vienna, Austria 5 to 8 September 2016



OUTLINE

- I. Benefits from outer space.
- II. International cooperation schemes.
- III. Current mechanisms for space regional cooperation.
- IV. Status of space interregional cooperation.
- V. Opportunities to strengthen interregional cooperation: what can be done?
- VI. Conclusions.



PART I. BENEFITS FROM OUTER SPACE

- Space products and services.
- Role of international cooperation.





*10th United Nations Workshop on Space Law:
“Mechanisms for Regional and Interregional Cooperation and Coordination”*



Satellites

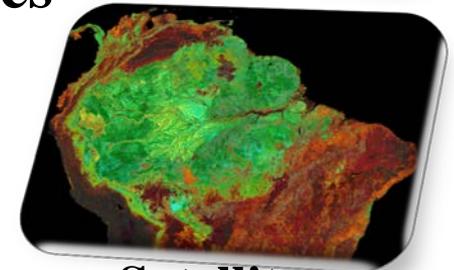


Space probes



**Reusable
space
vehicles**

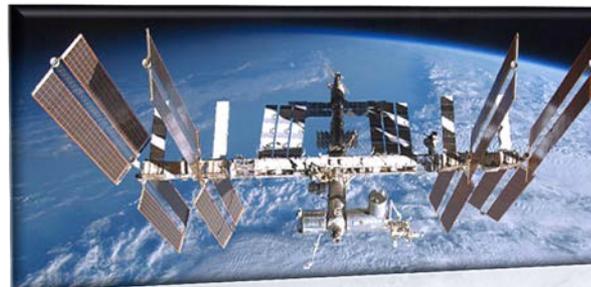
**SPACE
PRODUCTS**



**Satellite
images**



**Launch
vehicles and
launch pads**



Space stations



**Ground
stations**



*10th United Nations Workshop on Space Law:
“Mechanisms for Regional and Interregional Cooperation and Coordination”*



**Space
tourisms**



**Value
added
images**

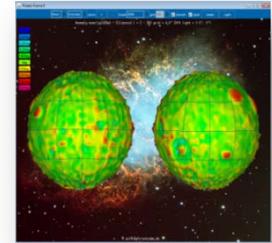


Telecommunication



**Global
positioning**

**SPACE
SERVICES**



Data for research



**Launch
services**



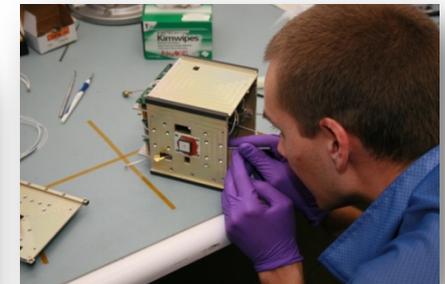
**Satellite
operation**



**Weather
forecast**



**Equipment
qualification and test**



Capacity building



ROLE OF INTERNATIONAL COOPERATION

Why is it good to cooperate in the space arena at international level?

- Peaceful uses of outer space.
- Establishment of win-win strategies.
- Sharing costs and risks.
- Technology development and capacity building.





PART II.

INTERNATIONAL COOPERATION SCHEMES

- Bilateral level.
- Multilateral level:
 - a. Regional.
 - b. Interregional.
- United Nations Regional Groups of Member States.





INTERNATIONAL COOPERATION SCHEMES: BILATERAL





INTERNATIONAL COOPERATION SCHEMES: MULTILATERAL





INTERNATIONAL COOPERATION SCHEMES: REGIONAL GROUPS

**African Group/
54 countries**

**Asian-pacific
Group/55 countries**



**Eastern European
Group/
23 countries**

**Latin American and
Caribbean Group
(GRULAC)/
33 countries**

**Western European
and Others Group
(WEOG)/
29 countries**



PART III. CURRENT MECHANISMS FOR SPACE REGIONAL COOPERATION AND COORDINATION





MECHANISMS FOR SPACE REGIONAL COOPERATION AND COORDINATION

- Asia-Pacific Regional Space Agency Forum (APRSAF).
- Asia-Pacific Space Cooperation Organization (APSCO).
- European Space Agency (ESA).
- Space Conference of the Americas (SCA).
- UN Regional Centers for space science and technology education.



The Asia-Pacific Regional Space Agency Forum (APRSAF)

- Established in 1993. Over 40 countries.
- Space Applications, Space Technology, Space Environment Utilization, and Space Education.
- Annual meetings hosted by countries/ MEXT and JAXA.
- The APRSAF-23. Manila, the Philippines. November 15-18, 2016.





The Asia-Pacific Regional Space Agency Forum (APRSAF)

- Open and flexible cooperative framework.
- Voluntary and cooperative activities.
- Space programs to solve regional needs:
 - a. Sentinel Asia for disaster management.
 - b. Space Applications For Environmental issues (SAFE).
 - c. Climate Regional Readiness Review for Key Climate Missions.
 - d. Kibo-ABC (Asian Beneficial Collaboration through “Kibo” Utilization).





The Asia-Pacific Space Cooperation Organization (APSCO)



- 1992. Asia-Pacific Workshop on Multilateral Cooperation in Space Technology and Applications (AP-MCSTA). Beijing-China.
- 2005. Signature of the APSCO Convention in Beijing, China. Officially inaugurated in 2008.
- 9 Member States.
- Headquarter in Beijing, China.





The Asia-Pacific Space Cooperation Organization (APSCO)

- To promote collaborative space programs among Member States to benefit the region and the rest of the world. Industrial development.
- Programs: Space Technology and Applications, Space Technology Development and Space Sciences.
- Data sharing, space segment and ground infrastructure network, disaster monitoring programs, capacity building.





EUROPEAN SPACE AGENCY (ESA)

- 1960s – 1970s. European space cooperation programs.
- Founded in 1975. The Convention on the establishment of ESA.
- European intergovernmental organization . 22 member states.
- Headquarter in Paris, France.





EUROPEAN SPACE AGENCY (ESA)

- 5 research centers: ESTEC (Netherlands), ESRIN (Italy), ESOC (Germany), EAC (Germany), ESAC (Spain).
- To promote, for exclusively peaceful purposes, cooperation among European States in the space area.
- Areas: Remote sensing, human space flight, launchers, navigation, space science, space engineering & technology, Operations, Telecommunications & Integrated Applications, Preparing for the Future, Space for Climate.



SPACE CONFERENCE OF THE AMERICAS (SCA)



- 1990s. Support of the UNGA.
- 7 Conferences. VIII Conference held in Managua, Nicaragua, 2015.
- To promote the peaceful uses of outer space among Member States; to use space applications to support regional social programs; to promote the development of space law, and finally to strength capacity building in space science and technology (Becerra, 2013; ABAE, 2015).



SPACE CONFERENCE OF THE AMERICAS (SCA)

- Organization: Pro-tempore Secretariat. Troika (3 member states).
- Regional forum for space coordination and cooperation.
- Regional Space Agency.



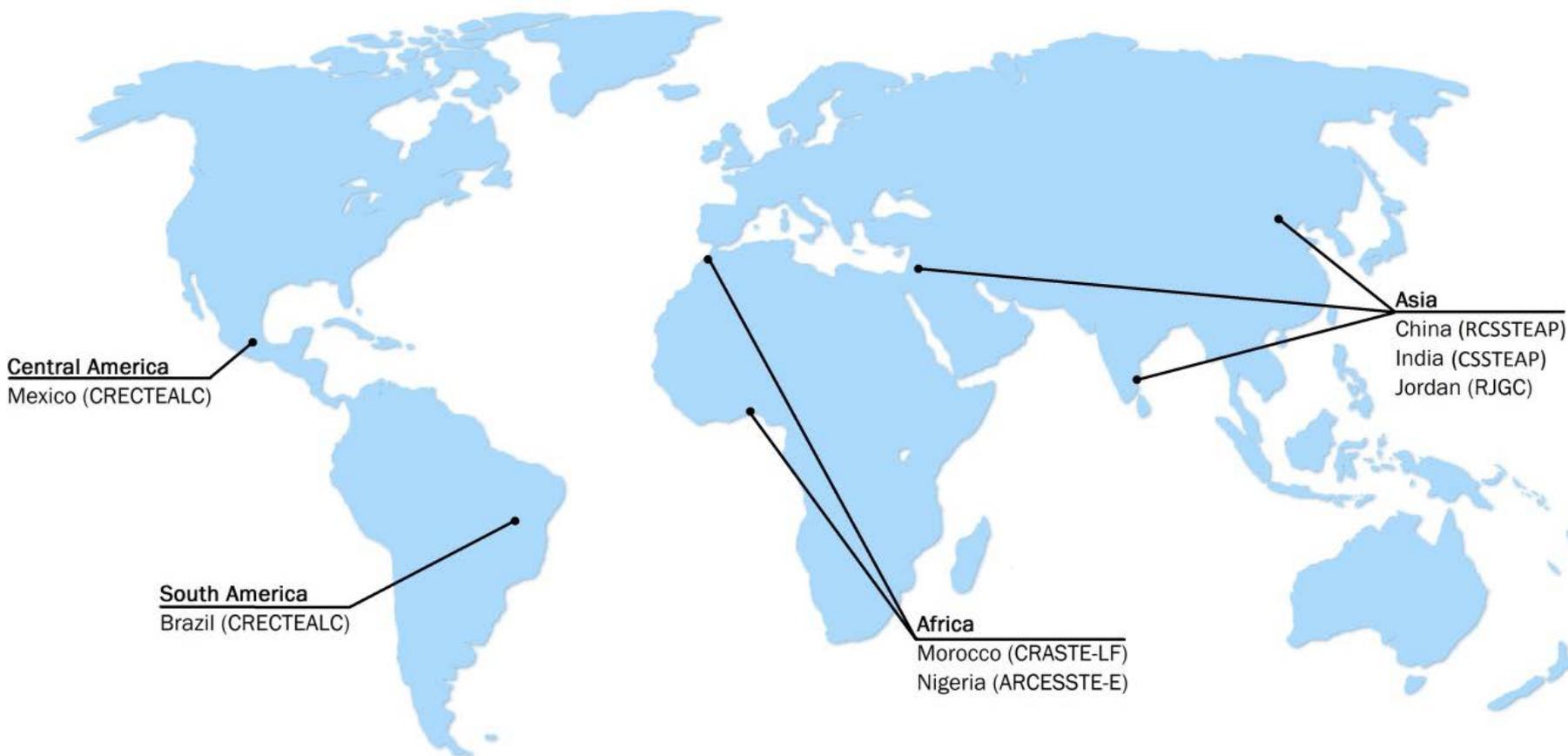


UN Regional Centers for Space Science and Technology Education

- Resolutions 45/72 and 50/27 of the UNGA.
- Programme of Space Application: objectives and action plan for the establishment of regional centers.
- Evaluation missions 1992-98. Assessment of locations.
- Six Regional Centers for Space Science and Technology Education.
- Capacity building in space science and technology to advance social and economic development.



UN Regional Centers for Space Science and Technology Education





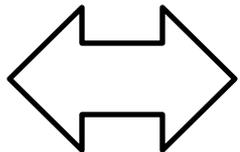
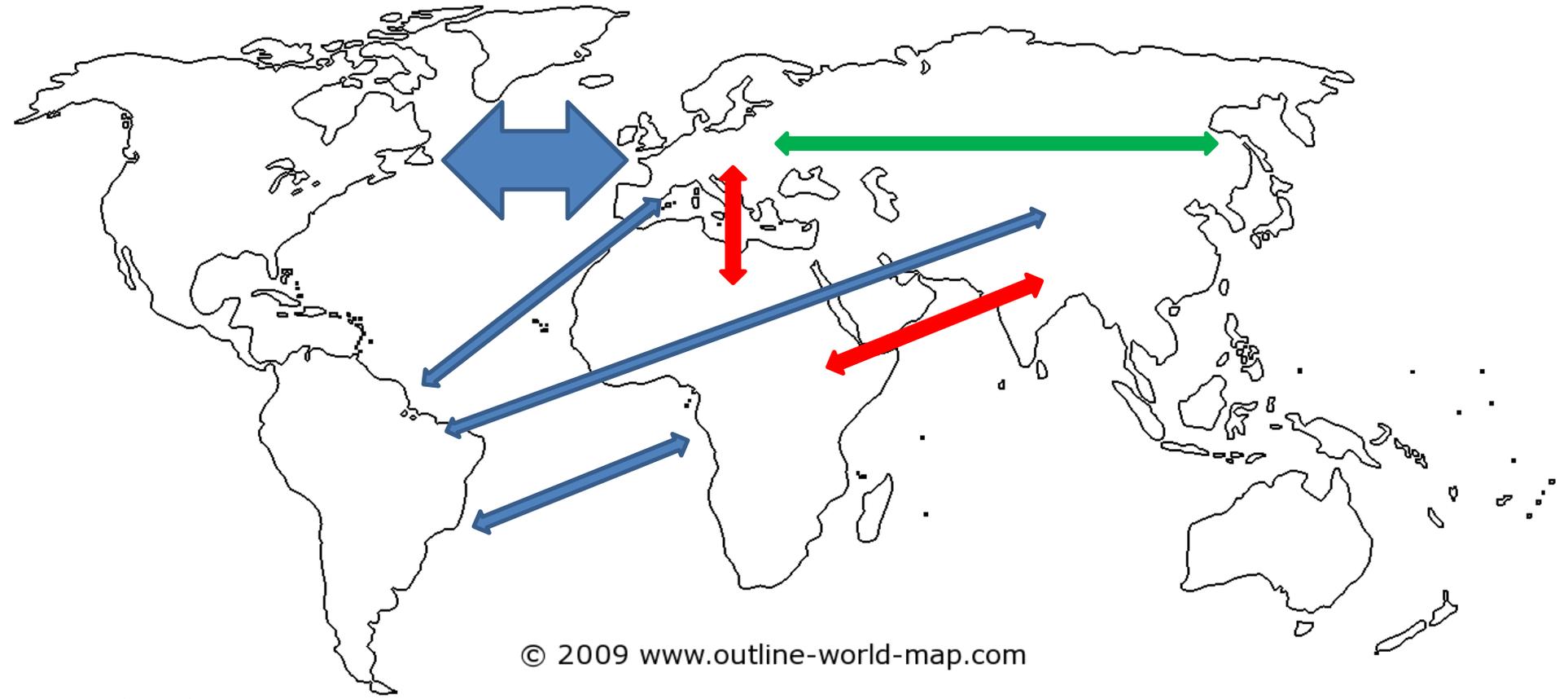
PART IV. SPACE INTERREGIONAL COOPERATION

- Current status.
- Possible reasons.





SPACE INTERREGIONAL COOPERATION: CURRENT STATUS



LEVEL OF INTERREGIONAL COOPERATION



SPACE INTERREGIONAL COOPERATION: POSSIBLE REASONS

- Availability of information.
- Weak interest on inter-regional alliances.
- Weak promotion of space infrastructure and capabilities installed in different regions.
- Political and cultural issues.



PART V. OPPORTUNITIES TO STRENGTHEN INTERREGIONAL COOPERATION

WHAT CAN BE DONE?





OPPORTUNITIES TO STRENGTHEN INTERREGIONAL COOPERATION

- Role of COPUOS.
- Diplomatic Missions.
- To identify common areas:
 - a. Space Law & Policy/capacity building.
 - b. Space Exploration/knowledge.
 - c. Space Applications/needs on Earth.
 - d. Space engineering/space debris.
 - e. Others.



OPPORTUNITIES TO STRENGTHEN INTERREGIONAL COOPERATION

- To expand opportunities for member states outside the region.
- To promote the benefits derived from interregional cooperation programs.
Space outreach and policy development.



PART VI. CONCLUSIONS





CONCLUSIONS: REGIONAL AND INTERREGIONAL COOPERATION

- Regional cooperation programs are effective mechanisms to enhance space capabilities and to solve specific needs within each region.
- Interregional cooperation mechanisms need to be reinforced.
- Potential reasons include availability of information, weak interest on inter-regional alliances, weak promotion of space infrastructure and capabilities installed in different regions, and finally political and cultural issues.



CONCLUSIONS: REGIONAL AND INTERREGIONAL COOPERATION

- UNCOPUOS and Diplomatic Missions play a key role in promoting interregional alliances.
- Interregional cooperation is a potential scenario to promote peaceful uses of outer space, to build transparency measures, to increase space security and governance (more coordination), and to strength space law and space policy development.
- **Long term sustainability of outer space activities.**



REFERENCES

- APSCO <http://www.apsco.int/apsco-ad/imapic/201662815404326181.pdf>
- APSCF. <https://www.aprsaf.org/>
- Becerra, R. 2013. Space Activities in the Bolivarian Republic of Venezuela. The Bolivarian Agency for Space Activities of Venezuela (ABAE).Caracas-Venezuela, 159 pages.
- ESA. <http://www.esa.int/ESA>
- The Bolivarian Agency for Space Activities of Venezuela (ABAE). 2015. Space Conference of the Americas. Caracas, Venezuela.
- The Bolivarian Agency for Space Activities of Venezuela (ABAE). 2014. Space Project Management Course. Caracas, Venezuela.
- UNOOSA:
 - a. Space Conference of the Americas.
<http://www.unoosa.org/documents/pdf/psa/hsti/CostaRica2016/>
 - b.Regional Centres for Space Science and Technology Education (United Nations) <http://www.unoosa.org/oosa/en/ourwork/psa/re>





MSc. ROMINA ACEVEDO GALINDO
The Bolivarian Republic of Venezuela
E-mail: dolphinrag@yahoo.com

THANKS...