

The Status Update on Multi-GNSS Asia

Multi-GNSS Asia (MGA) Secretariat
Satoshi Kogure

17th mtg. of the Providers' Forum
Sochi, Russian Federation, 6 November, 2016



Organization: What is MGA?

Multi-GNSS Demonstration Campaign

- “Multi GNSS Asia (MGA)” is an international organization to promote and support activities of the “Asia Oceania Multi-GNSS Demonstration Campaign” under United Nation International Committee on GNSS (UN-ICG).
 - ICG and PF decided to support multi-GNSS demonstration campaign at ICG-4 in 2009.
 - MGA was established in September 4th, 2011 in Tokyo as a host organization to promote this campaign.
 - Activity progress has been reported in the ICG provider’s forum which held every year.



public website: www.multignss.asia

- Main Objective

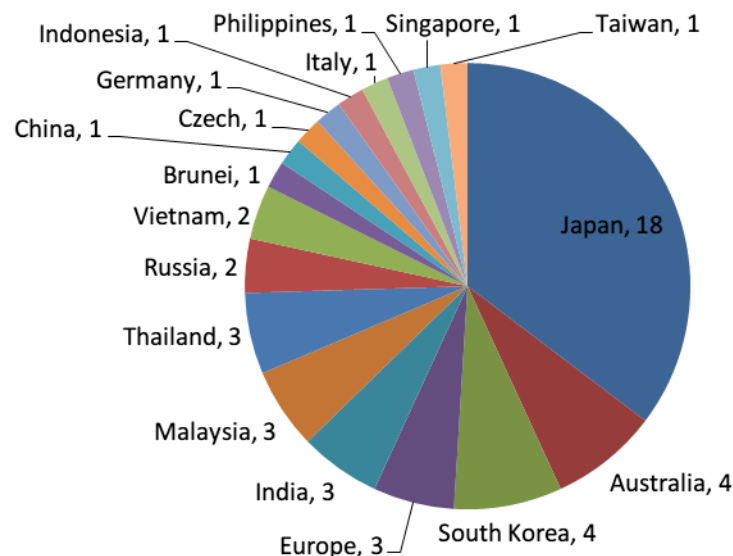
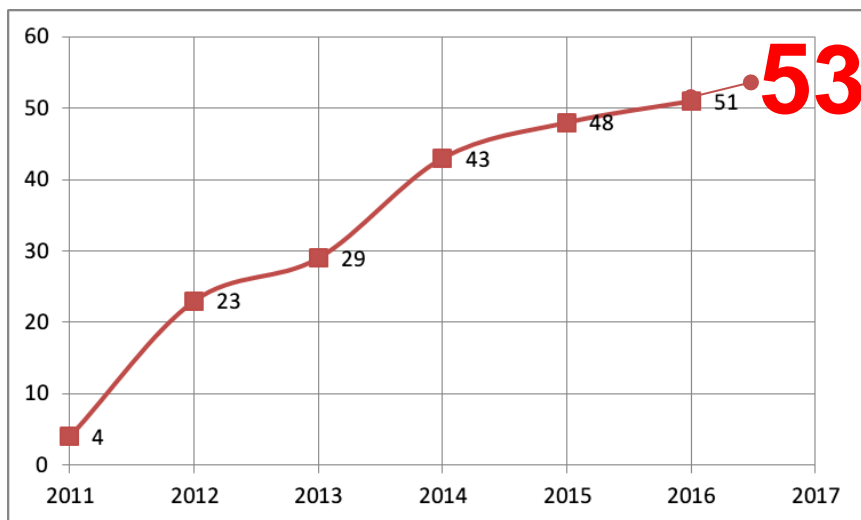
- Encourage GNSS signal and service providers and user communities in the Asia Oceania region to develop new applications, and to carry out experiments or demonstrations by using all available “Multi-GNSS” systems whose interface control documents are public, on a best efforts basis in the spirit of international cooperation.



1st meeting of MGA Steering Committee

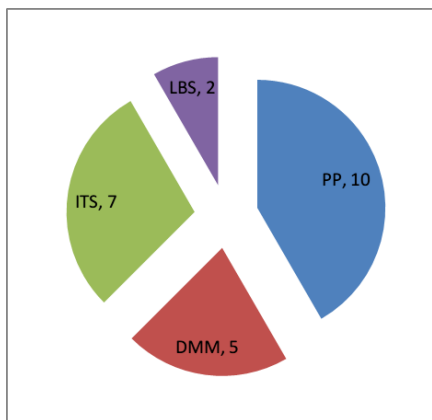
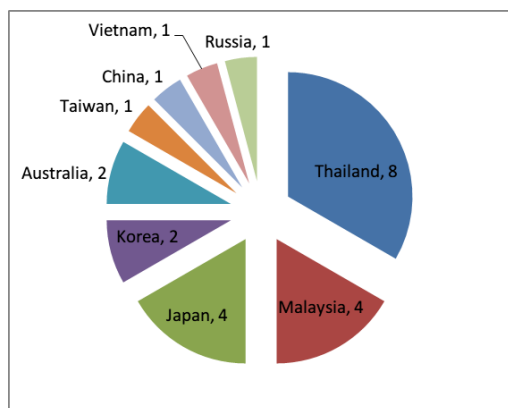
MGA Participating Organizations

Multi-GNSS Demonstration Campaign



Proposal Countries

Proposal Themes



Totally 24 proposals were endorsed by MGA and were conducted or now under going.

PP: Precise Positioning
 DMM: Disaster Mitigation / Management
 ITS: Intelligent Transportation System
 LBS: Location Based Services

Asia Oceania Multi-GNSS Demonstration Campaign

Multi-GNSS Demonstration Campaign

Establishment of Multi-GNSS Monitoring Network

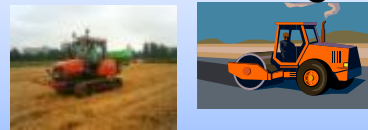


Application Demonstration

Disaster Mitigation



Precise Positioning



ITS



LBS



Other, ionospheric observation etc

Regional Workshop

6th Workshop,
Oct. 2014 @
Phuket, Thailand



5th Workshop,
Dec. 2013 @
Hanoi, Vietnam



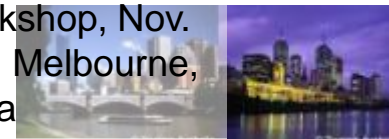
4th Workshop,
Dec. 2012 @
Kuala Lumpur,
Malaysia



3rd Workshop,
Nov. 2011 @ Jeju,
Korea:



2nd Workshop, Nov.
2010 @ Melbourne,
Australia



1st Workshop, JAN.
2010, @ Bangkok,
Thailand

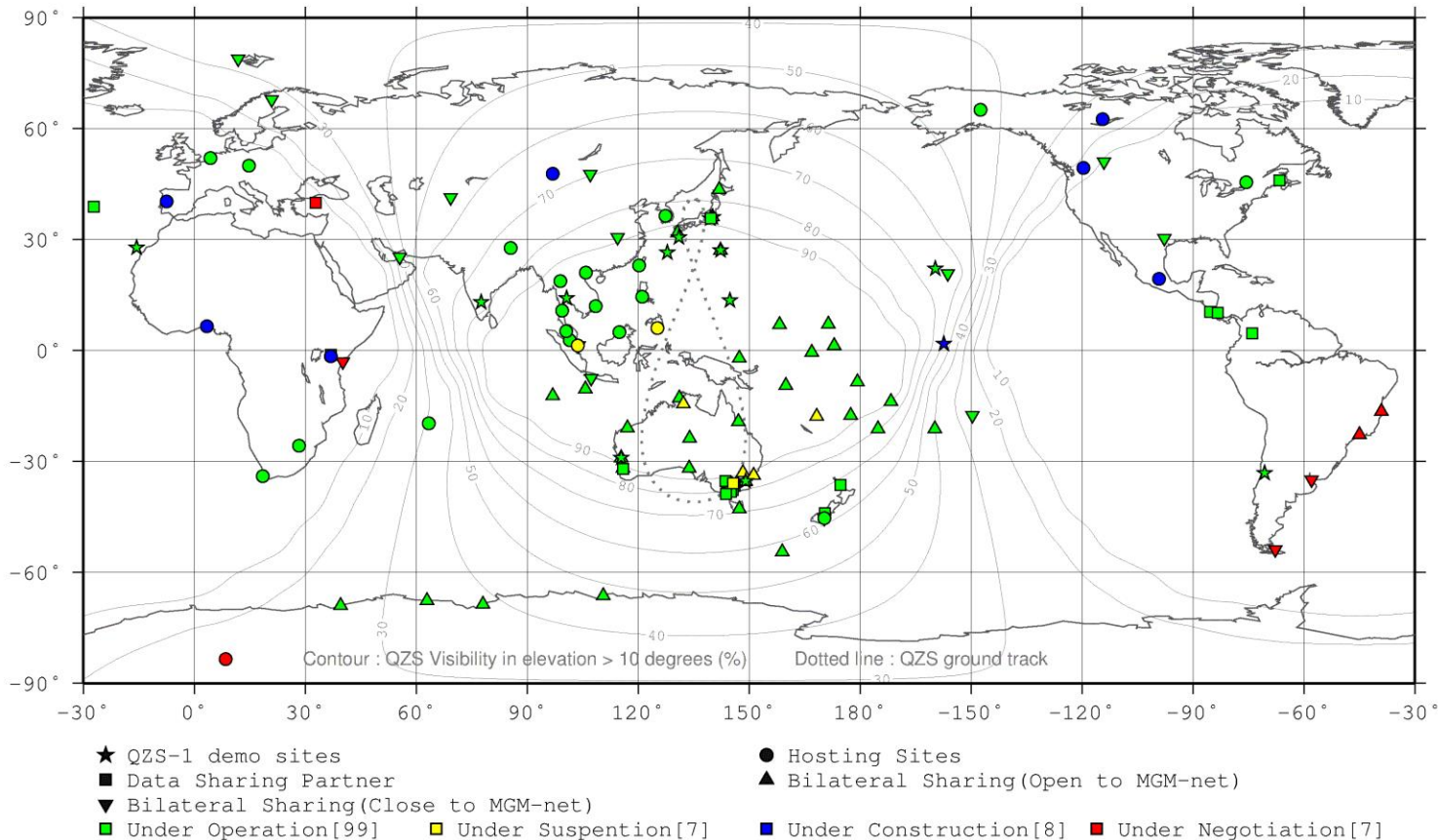


MGM-Net



MGM-Net has been deployed globally under collaboration with many organizations.

As of end of March, 2016



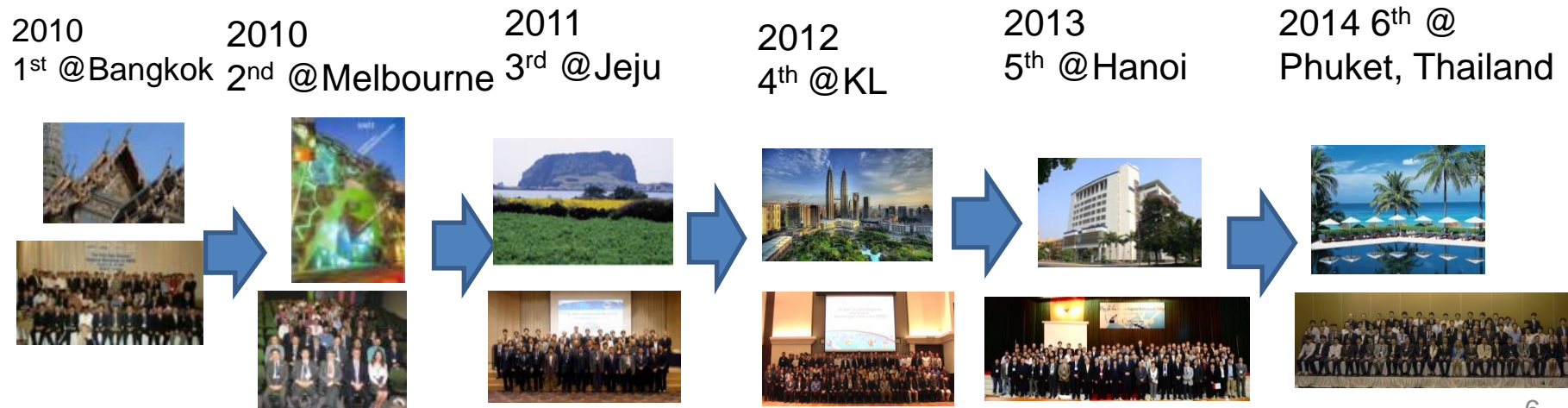
- 99 sites are operating including sites owned by data sharing organizations.
- 22 sites are expected to be available in 2016.

Annual Workshop in Asia and Oceania region



Multi-GNSS Demonstration Campaign

- ◆ Aim is to discuss the future joint project and share the status and the results of the existing projects annually.
- ◆ Contents
 - Current status of GNSS
 - Applications, introductions for the planned joint activities
 - Application working group discussion

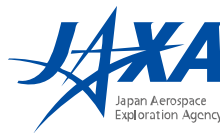


7th Multi-GNSS Asia (MGA) Conference



- It was held on December 7-9th, 2015 in Brunei Darussalam.
- Great honor to welcome his excellency Mr. Yang Mulia Dato Paduka Awang Haji Suhaimi bin Haji Gafar, Deputy Minister of Development of Brunei Darussalam.
- About 190 participants from many organizations including universities, related research institutes, government agencies, International organizations and companies gathered from 17 countries.

| | |
|----------|--|
| Dec. 7th | <ul style="list-style-type: none"> • Latest trends in GNSS Technology • GNSS.asia Industry Seminar • Special Agricultural Seminar in Brunei |
| Dec. 8th | <ul style="list-style-type: none"> • Welcome and Keynote Speech • What's New about GNSS • GNSS Applications, Network and Capacity Building • Status Report of the Multi-GNSS Joint Experiments |
| Dec. 9th | <ul style="list-style-type: none"> • Group Discussion • Geospatial Challenges in the Asia-Pacific Region • Closing Session |



QZSS Services





8th Multi-GNSS Asia (MGA) Conference

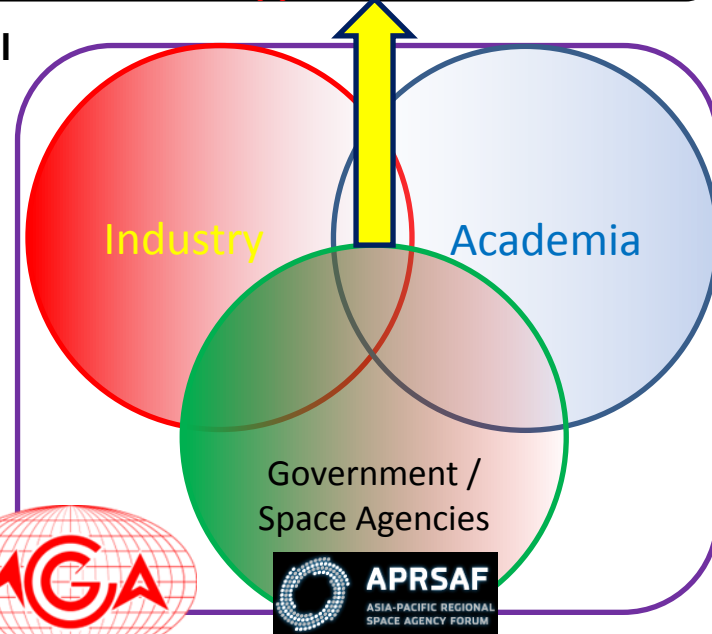


14th to 16th November, 2016 @Sofitel Philippine Plaza Manila, Philippines



- Industry-Academia-Governmental Cooperation.
- Discuss the solution for social issues in the Philippines
- BtoB matching .

Providing the Geo-Spatial Solutions using multi-GNSS and other space applications



Disaster Mitigation

Precise Positioning

ITS

LBS



Visit MGA website: www.multignss.asia
 Please contact to :
 mgac2016@multignss.asia

Programme at a glance



Monday, 14th

Tuesday, 15th

Wednesday, 16th

Mindanao

Harbor Garden

Harbor Garden

Harbor Garden

| | | | | |
|----|--|-------------------------------|--|--------------------------------------|
| 9 | | | Group Discussion (LBS) | |
| 10 | Opening Ceremony | | Group Discussion (DMM) | Opportunities for start-ups |
| | Photo Session | | | Joint Seminar w/ APRSAF-SAWG @ Luzon |
| 11 | Plenary Session (Panel Discussion) | | | MGA Annual Activities Report |
| 12 | Students and Young Professionals Forum (Ideathon) [Closed] | Exhibition Opening Lunch Time | Demo Session Lunch Time | Membership Forum (closed) Lunch Time |
| 13 | Academia Session | Industrial Session | Group Discussion (ITS) | Special Session for the Philippines |
| 14 | | | Group Discussion (PP) | |
| 15 | | | Students and Young Professionals Forum (Presentation) | Closing Session |
| 16 | | | | |
| 17 | | | | |
| 18 | | | MGA Reception ESNC GNSS.asia Challenge Ceremony ESNC BELS Prize Ceremony | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |

Link to the ICG activity

- MGA is now investigating its new work plan.
- Some of ideas are to be discussed in Steering Committee.
 - IGMA
 - Performance monitoring in the region can be an item for MGA joint experiment
 - MGM-net can provide multi-GNSS monitoring data
 - Outreach for young students and professionals



Calling new members

Join MGA



- We are calling following participants.
 - GNSS providers
 - GPS, GLONASS, Galileo, BeiDou, IRNSS, QZSS, and other countries who are planning to contribute GNSS
 - International organization related to GNSS utilization
 - IGS, FIG, IAG...
 - Government agencies and international organizations related to GNSS utilization in Asia Oceania region
 - Mapping, Transportation, GIS, Tourism, and relevant fields in each country
 - UN ESCAP, ADB
 - Industries
 - Receiver manufacturer, Service Provider
 - Universities and research institutes
- We believe that the Multi-GNSS Campaign can facilitate a close working environment where GNSS signal and service providers on the one hand, and users on the other hand, can take advantage of future multi-GNSS utilization.

<MGA Joining Flow Chat>

Send Letter of Intent (LOI) and Appendix to MGA Secretariat



Approval by MGA Steering Committee



- Receipt of Written Approval
- Receipt of Account to enter MGAwiki, information sharing Website
- Organization Name is posted on the Website
- Mailing List Member (1. MGA Participant / 2. Each Working Group)

Please visit to http://www.multignss.asia/howto_join_mga.html

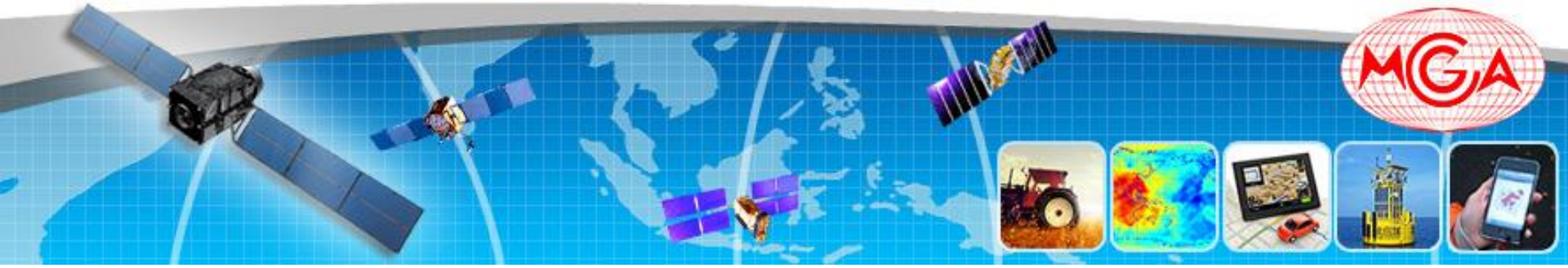


Summary



- The status of Multi-GNSS Asia (MGA) was updated. The latest number of the Participating organizations is 53 as of November, 2016
- 7th MGA Conference was held on 7-9 December, 2015 at Brunei Darussalam.

- Next (8th) MGA Conference will be held on 14-16th November 2016 in Metro Manila, the Philippines.
- MGA is investigating its new work plan.



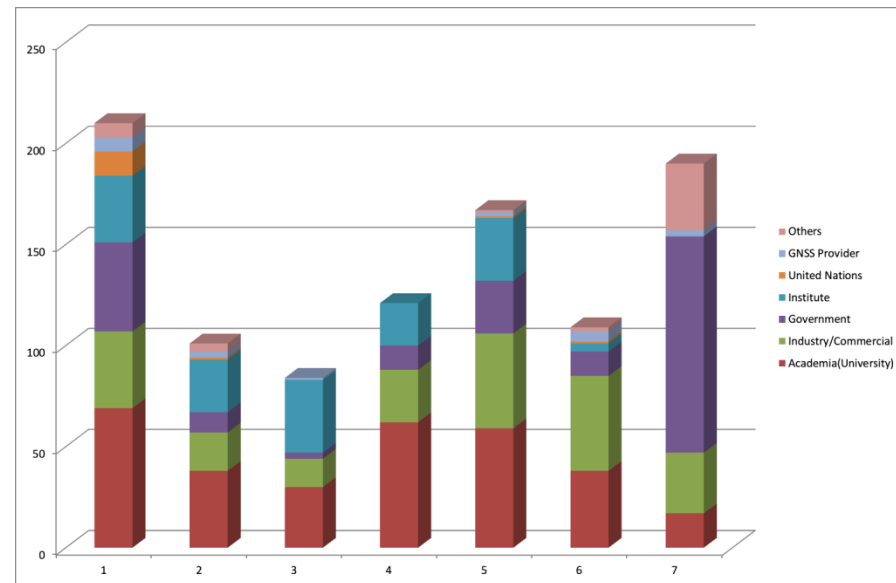
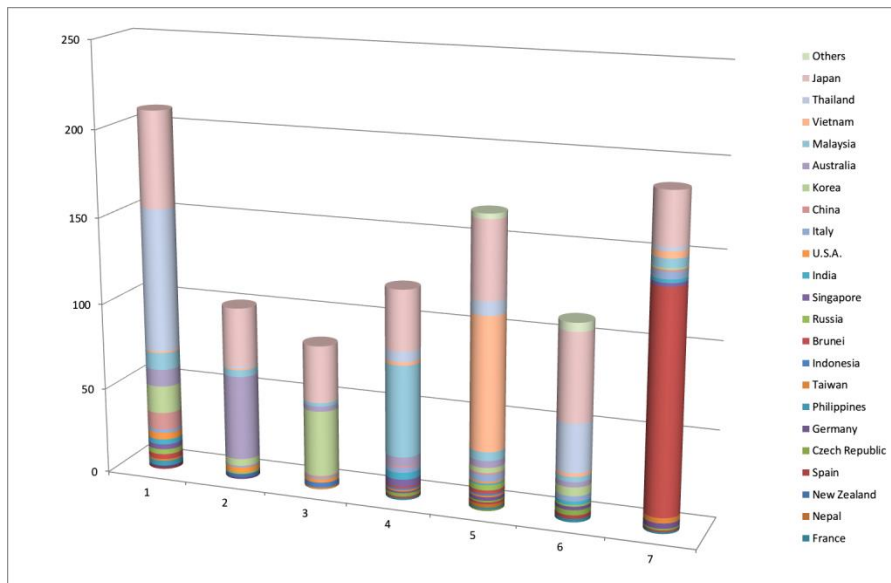
Thank you for your attention.

If you have any questions, please let us know.

secretariat@multignss.asia

Asia Oceania Regional Workshop on GNSS

Multi-GNSS Demonstration Campaign



Participants

Japan, Thailand, Vietnam, Malaysia, Australia, Korea, Italy, China, U.S.A., India, Russia, Singapore, Brunei, Czech Republic, Indonesia, Germany, Taiwan, Spain, France, Philippines, New Zealand, Nepal, Austlia, Israel, Fiji

Category

Academia (University)
 Industry / Commercial
 Government
 Institute
 United Nations
 GNSS Provider
 Others