

THE CURRENT STATUS OF ASIA OCEANIA MULTI-GNSS DEMONSTRATION CAMPAIGN

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Multi-GNSS Asia Secretariat
June 4th , 2012
8th ICG Providers'Forum

ASIA OCEANIA MULTI-GNSS DEMONSTRATION CAMPAIGN



Multi-GNSS Monitoring Network

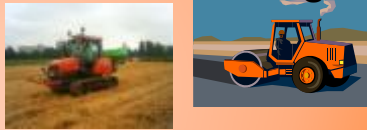


Application Demonstration

Disaster Mitigation



Precise Positioning



ITS



LBS



Other, ionospheric observation etc

Regional Workshop

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



2nd Workshop, Nov. 2010 @ Melbourne, Australia

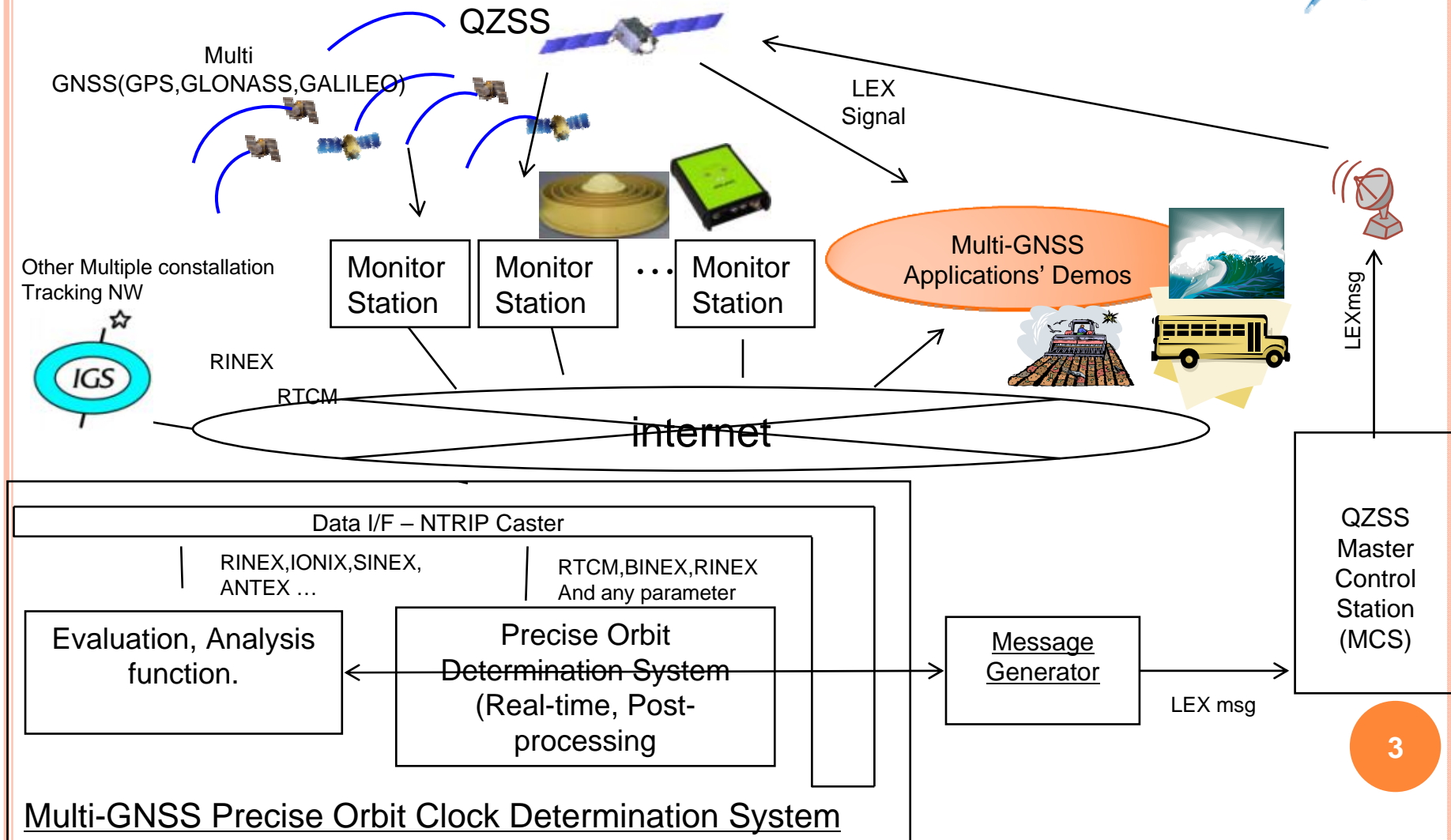


1st Workshop on GNSS, JAN. 2010, @ Bangkok, Thailand





Activities 1: MULTI-GNSS MONITORING NETWORK






THE CURRENT STATUS OF MULTI-GNSS MONITORING NETWORK



	City	Country
1	Bulit Kayu Arang	Brunei
2	Jakarta	Indonesia
3	Daejeon	Korea
4	Putrajaya	Malaysia
5	Waigani	Papua New Guinea
6	Taguig city	Philippines
7	Hanoi	Vietnam
8	Ondrejov	Czech Republic
9	Delft	Netherland
10	Tainan	Republic of China
11	Singapore	Singapore
12	Alaska	U.S.A.
13	Yanbu	Saudi Arabia
14	General Santos	Philippine

Call for application has been open continuously until enough number of sites are selected.

 Selected Sites (showed in above table)

 Applied and under selection process arrangement



CONTRIBUTION TO IGS MGEX PROJECT

- 10 sites in MGM-net were registered to IGS M-GEX
 - Installation process are going on.
 - The site which installation was completed has started operation and is preparing data provision to M-GEX
 - Data exchange conversion issue should be resolved for inclusion QZSS into M-GEX experiments

ACTIVITIES 2: APPLICATION DEMONSTRATION: WORKING GROUPS



Working Groups	Examples of GNSS applications
Disaster Mitigation and Management	Tsunami monitoring, GNSS Meteorology, Landslide Monitoring, Emergency Message
Precise Positioning	Precise Agriculture, Construction machine guidance/control
Intelligent Transportation Systems (ITS)	Probe-car, Mobile Mapping System, Road Pricing, Car-navigation,
Location Based Services (LBS)	Mobile phone, Pedestrian Navigation, Short message, Sightseeing application

THAT WOULD MULTIFUNDS JOINT EXPERIMENTS



- 8 Experiments were endorsed to be implemented <- 1st CALL

1	Evaluation of Multi-GNSS for Precision Agriculture in Korea, Chungnam National University	Korea
2	Sustainable Resource Utilization by Precision Farming of Oil Palm Plantation; RTK-Auto Guided Oil Palm Planter; On-the-Go Soil ECa Mapping, University Putra Malaysia	Malaysia
3	Automated rice transplanter guided by using Multi-GNSS including QZSS , Agricultural Research Center , National Agriculture Research Organization	JAPAN
4	"Joint QZSS/GPS positioning using L1/L5 band signals", National Cheng Kung University,	Republic of China
5	"Multi-GNSS Experiment at RMIT University in Melbourne", RMIT University	Australia
6	Evaluation of QZSS-LEX and L1-SAIF signals based positioning compared to DGPS and IGS PPP, positioning for Thailand	Thailand
7	Exploiting the use of QZSS and GNSS for navigational and high precision applications and their performance assessment (EQUATOR)	China
8	Development of Driver Behavior Measurement Method for Level of Safety Estimation from High Precision and High Resolution Global Positioning System with Quasi-Zenith Satellite System (QZSS)	Thailand

THE 4TH ASIA OCEANIA REGIONAL WORKSHOP ON GNSS

- Purpose

Discussion about new application experiments of GNSS and Information sharing of the results of the current status of the activities of Multi-GNSS Asia.

- Date

9-10th Dec. 2012

- Venue

Kuala Lumpur, Malaysia (Berjaya Times Square Hotel)

- Co-Host Organization: JAXA, ANGKASA, SPAC

- Support Organization: ICG, IGS

- Contents

- What's new about GNSS
- GNSS Applications presentations
- Reports of Activities of Multi-GNSS Asia (MGA)



MGA PARTICIPATING ORGANIZATIONS



No	Organizations	Countries
1	Beach Building & Civil Group (BBCG)	Australia
2	RMIT University (RMIT)	Australia
3	Japan Aerospace Exploration Agency (JAXA)	Japan
4	University Putra Malaysia (UPM)	Malaysia
5	National Cheng Kung University (NCKU)	Republic of China
6	Asian Institute of Technology (AIT)	Thailand
7	Chungnam National University (CNU)	Korea
8	SINGAPORE LAND AUTHORITY (SLA)	Singapore
9	The University of Nottingham Ningbo China (UNNC)	China
10	Tokyo University of Marine Science and Technology (TUMST)	Japan
11	National Electronics and Computer Technology Center (NECTEC)	Thailand
12	Ministry of Science and Technology (MOST)	Vietnam
13	National Agriculture and Food Research Organization (NARO)	Japan
14	Earthquake Research Institute, the University of Tokyo (ERI)	Japan

Multi-GNSS Demonstration Campaign



PARTICIPATION TO MGA

- The organizations which have interests in GNSS utilization in Asia Oceania region are expected to participate.:
 - Government agencies,
 - Universities, and research institutes
 - International organizations
 - Industries such as Receiver manufacturer, service providers
 - GNSS providers

Please visit to

http://www.multignss.asia/howto_join_mga.html

SEEKING THE POSSIBILITIES OF NEXT PROPOSALS FOR “2ND CALL FOR JOINT EXPERIMENT”

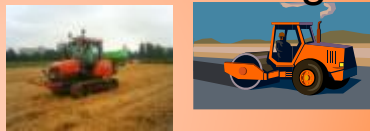


Application Demonstration

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- User requirements to GNSS utilization



- Proposal to demonstrate the Multi-GNSS benefits

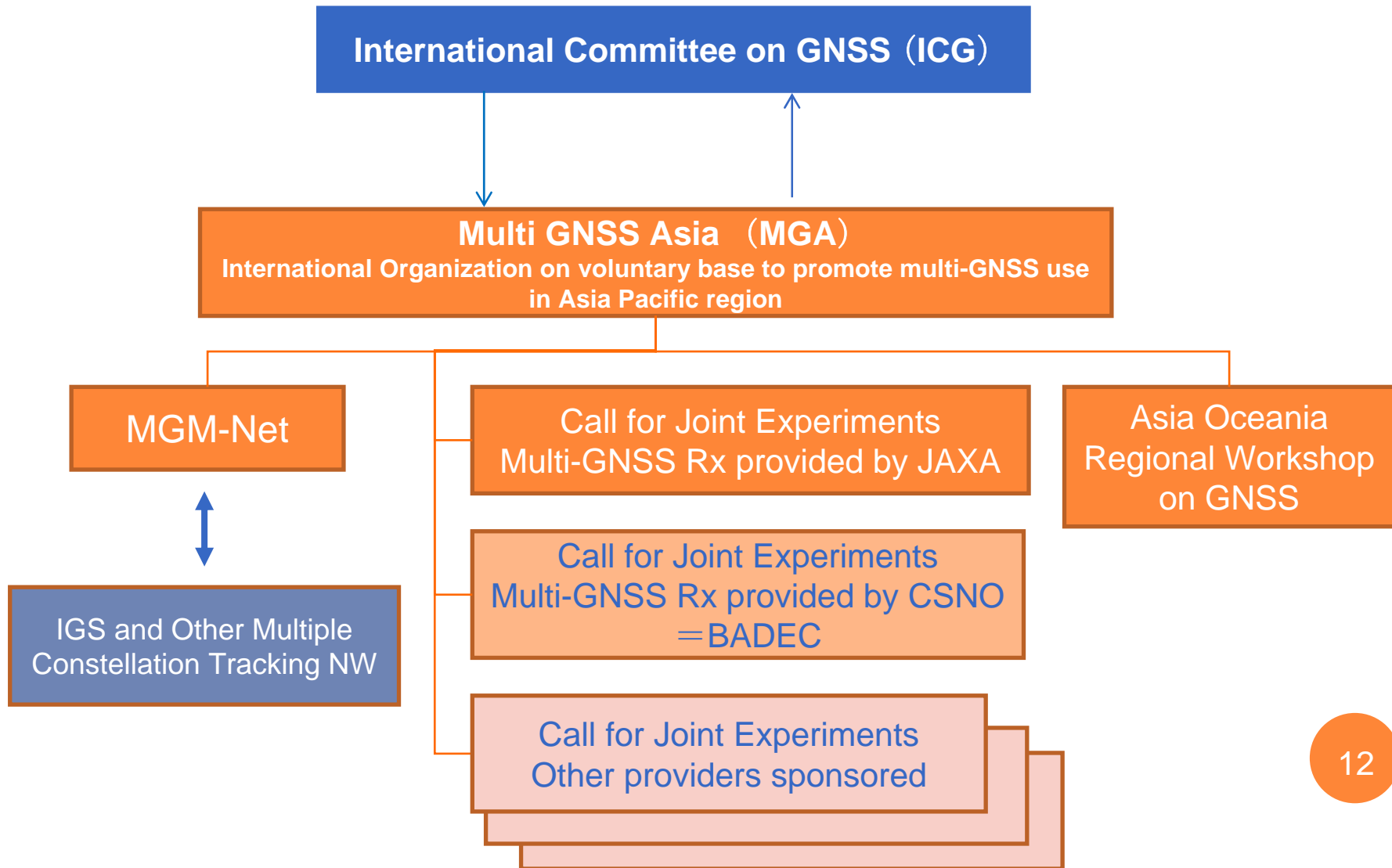


- The proposals should be discussed in 4th Asia Oceania Regional Workshop on Multi-GNSS



- The experiments endorsed by MGA Steering Committee in the workshop will be implemented in 2013.

WORK STRUCTURE FOR MULTI-GNSS DEMONSTRATION IN ASIA OCEANIA REGION





SUMMARY

- 14 stations were selected for hosting sites of MGM net and selection process for some stations are still under going.
- Call for application has been open until enough number of sites are selected.
- 8 Joint Experiments were to be implemented as MGA experiments
- The 4th Workshop will be held on Dec. 9-10, 2012 at Kuala Lumpur, Malaysia.
- Multi-GNSS Asia (MGA) was established to promote the Campaign activities. 14 organizations joined as of the end of May, 2012.
- Seeking possibilities of next joint MGA experiments.

Multi-GNSS Demonstration Campaign



ORGANIZATION: STRUCTURE

MGA Member

