

16th Meeting of the International Committee on Global Navigation Satellite Systems (ICG-16)

WG-B, Application Subgroup (AppSG)

6th AppSG meeting

Dr. Jun Shen (China), Dr. Izumi Mikami (Japan)
The AppSG Co-chairs

October 12, 2022



International Committee on
Global Navigation Satellite Systems

Agenda of meeting

1. Status report: Report on AppSG Activities-“GNSS Applications: for Present and Future”
2. Confirmation of MoM of 5th AppSG meeting
3. Presentations on use cases contributing to SDGs & G-warming
4. Time schedule up to Booklet publication
5. AppSG’s next contribution to UNOOSA GNSS WS
6. Budget availability for Booklet publication
7. Next meeting plan Co-Chairs of WG-B

Confirmation of MoM of 5th AppSG meeting

1. PARTICIPANTS

The 5th ICG Application Sub-working Group (AppSG) meeting (2022) was held virtually on September 9, 2022. The meeting was moderated by Dr. Izumi Mikami (Japan) and was attended by the AppSG members and invited experts per the list below.

China:

Dr. Jun Shen (UniStrong, AppSG Co-chair)

Dr. Rui Sun (Nanjing University of Aeronautics and Astronautics)

Ms. Xian Huang (UniStrong)

Chunming Fan (Beidou Spacetime (Shanghai) Big Data Fusion Application Industrial Base)

Japan

Ms. Chie Deguchi (CAO)

Mr. Yuichi Saida (CAO)

Ms. Yoko Sakai (CAO)

Ms. Asagi Sakai (CAO)

Mr. Koichi Tsuno (Kokusai Kogyo, Co. Ltd.)

Mr. Yasushi Sakurai (JSS)

Dr. Koki Asari (JSS)

Dr. Izumi Mikami (JSS, AppSG Co-chair)

European Union

Mr. Giovanni Lucchi (EUSPA)

India

Dr. Vimalkumar Bhandari (Vimal) (ISRO)

Korea

Dr. Jong Sun An (KARI, Korea)

2. SUMMARY OF DISCUSSIONS

2.1 Adoption of the Meeting Agenda and the 4th meeting MoM

The meeting agenda and the fourth meeting MoM were adopted by the attendees.

2.2 Presentations

Two presentations of use cases were made.

- “GNSS Application Case-Agricultural Auto-Steering Systems” by Dr. Shen
 - “Artificial Fishing Reefs Construction on Seabed Utilizing Michibiki CLAS” by Dr. Mikami
- It is emphasized that CLAS has an advantage over DGNSS in the ocean where cellular phone network is not available.

The presentations were well received as good examples of use cases.

2.3 Actions:

- Each member: To make feedback to “the Proposed Table of Contents of Booklet “, and “Role sharing” by e-mail. That information will be introduced at the coming ICG 16th by co-chairs.
- EUSPA: To collect information more about the GNSS and Earth Observation (EO) collaboration which contributes to SDGs and make some feedback for further discussion at next meetings.

2.3. Discussions

The participants held discussions on the next step activities for the AppSG, especially in the following topics:

- 1) Contribution of Earth Observation (EO) to SDG's: Whether, or not, the booklet should include the use cases of GNSS and EO collaboration, which were introduced by EUSPA at the previous meeting, are discussed. Since main purpose of the booklet is to provide guidance and lessons learned to potential GNSS users, or GNSS users' followers, such use cases might be informative and can be included. Based on information on such cases to be presented by EU and other member states, the decision will be made per each case.
- 2) Scope of the booklet: It is agreed that use cases not on the market but under development should be also added in the booklet, because those would contain useful information to potential GNSS users and new GNSS providers.
- 3) Proposed Table of Contents of Booklet: Discussions are made on Definition of Introduction and Purpose, length of contents before the main section titled "GNSS applications per area" and contents of Annexes. Member state should provide feedback to the table by e-mail in a timely manner so it can be reflected to the interim report on ICG-16.
- 4) Role sharing: The member's role is discussed on the "Role Sharing to edit Booklet" shown in "Focused Study Area Selection w.r.t. SDGs" which was presented by Japan in the meeting #3. Some states proposed their preferred App Study Areas where they mainly present use cases as summarized in the following table. This discussion will be continued to obtain information from all member states and bearing in mind there is another role sharing which is to edit the contents of booklet in each area utilizing presentations made by all member states.

Confirmation of MoM of 5th AppSG meeting

App Study Area	China	EU	India	Japan	Korea	(Others)
Fishery, Aquaculture, Animal farming & Agriculture	X		X (Fishery)	X		
Smart Mobility & Transportation	X			X		
Smart Construction				X		
Weather monitoring				X		
Land, Forest & Disaster Management			X			

3. Next AppSG Meetings

It is decided that the 6th AppSG meeting will be arranged by AppSG co-chairs during ICG-16 Annual Meeting, second week of October. The 7th AppSG meeting will be arranged by China about one month after ICG-16.

3. Presentations on use cases contributing to SDGs & G-warming

- Agricultural Auto-Steering and Guidance Systems; Dr. Jun Shen, Unistrong, China
- NavIC-based Safety-of-Life Alerts for Fishermen: Dr. Vimalkumar Bhandar, ISRO, India
- Autonomous Snow Removal System Utilizing Michibiki CLAS: Mr. Yasushi Sakurai, JSS, Japan
- Another Potential Provision for GNSS Application Enhancement toward SDGs: Mr. Koki Asari, JSS, Japan

4. Time schedule for the Booklet development

5. Next contribution to UNOOSA GNSS Workshop

The United Nations Office for Outer Space Affairs is pleased to announce that the application for the United Nations International Meeting on the Applications of Global Navigation Satellite Systems, 5 – 9 December 2022, Vienna, Austria, is now open till Sunday, 30 October 2022.

6. Budget availability and our policy for Booklet publication

7. Next Meeting

The 7th AppSG meeting will be arranged by China about one month after ICG-16.

Time Schedule for the Booklet Development

	2022				2023			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SG meeting		J C E ▽▽▽	I J ▽▽	C ▽▽	▽▽▽	▽▽▽	▽▽▽	▽
Report to WG-B			ICG-16 ▽			ICG-IM ▽	ICG-17 ▽	
Contribution to UNOOSA WS		the United Nations International Meeting on the Applications of Global Navigation Satellite Systems		▽				TBD ▽
Advertisement at International Conf.				▽				
Booklet Publication	Fix Presentation Template	▽ Kick Off ▽ Select Study Area	▽ Set Table of Contents Accumulate Presentations on GNSS App & Publish 1 st Draft			Edit for 1 st edition Booklet	Publish 1 st edition	