

ICG-19 WG-D Agenda

ICG Working Group D - Reference Frames, Timing, and Applications 19th Meeting of the International Committee on GNSS (ICG)

19 - 24 October 2025, Hybrid in Busan (South Korea) and Online

WG-D Co-Chairs

(in alphabetical order)

Richard Gross	International Association of Geodesy	IAG	in-person
Giulio Tagliaferro	Bureau International des Poids et Mesures	BIPM	in-person
Patrizia Tavella	Bureau International des Poids et Mesures	BIPM	in-person
Zuheir Altamimi	Institut National de l'Information Géo. [...]	IGN	online
Jérôme Delporte	Centre National D'Études Spatiales	CNES	online
Ryan Keenan	International Federation of Surveyors	FIG	online
Camille Martire	International GNSS Service	IGS	online
Suelynn Choy	International Federation of Surveyors	FIG	
Allison Craddock	International GNSS Service	IGS	
Pascale Defraigne	Royal Observatory of Belgium	BIPM	
Mikael Lilje	International Federation of Surveyors	FIG	

WG-D Task Force Chairs

Geodetic References	Zuheir Altamimi
Timing References	Jérôme Delporte
Applications of GNSS for Disaster Risk Reduction (<i>cf.</i> WG-B)	Camille Martire

Various Details and Links

All times are given in local time (Seoul, UTC+9). This [Time Zones Helper](#) is useful to schedule virtual participants in the best way possible ; prefer morning for virtual participants from the Americas; prefer afternoon for virtual participants from Europe/Africa.

Links: [\[link to the live version of this very document\]](#)
[ICG WG-D Recommendations latest](#)
[ICG-19 \(2025\) Busan icg19 agenda v251018.pdf](#)
[ICG-19 WG-D Minutes ICG-19 WG-D Final Statement](#)
[ICG-19 WG-D Recommendation X \(Template\).docx](#)
[ICG-19 WG-D Recommendation A \(Global Geodesy Supply Chain\).docx](#)
[ICG-19 WG-D Recommendation B \(Continuous Time at Day Boundaries\).docx](#)
[ICG-19 WG-D Recommendation C \(Proposed Redefinition of UTC\).docx](#)

WG-D Agenda (last updated : 251016 using [icg19_agenda_v251015.pdf](#))

Reminder: all times are given in local time (Seoul, UTC+9).

Key:

WG-D items	items fixed by main agenda	items fixed by coordination with other WGs	breaks
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Sun 19	1200-1530	On-Site Registration
	1300-1500	First Meeting of the Providers' Forum (Providers only) [Chair : Lu (China)] - Opening Remarks and Review of the Providers' Forum Agenda
	1500-1520	Coffee Break
	1520-1620	Meeting with the Working Groups Co-Chairs
	1620-1700	First Meeting of the Providers' Forum (Providers only) - Continued (as needed)
Mon 20	0800-1800	On-Site Registration
	0900-0910	Opening Session and Official Welcome [Plenary Zoom Link] [Chair : Byoung-Sun LEE, Republic of Korea ; Sharafat GADIMOVA, UN OOSA]
	0910-1110	Providers System and Service Updates
	1110-1130	Group Photo + Coffee Break
	1130-1305	Presentations by Members, Associate Members, Observers, and Invited Observers on Matters of Interest to ICG
	1305-1400	Lunch Break
	1400-1525	Presentations by Members, Associate Members, Observers, and Invited Observers on Matters of Interest to ICG - Continued
	1525-1545	Coffee Break
	1545-1825	Presentations by Members, Associate Members, Observers, and Invited Observers on Matters of Interest to ICG - Continued
	1830-2000	Welcome Reception
	0800-1800	On-Site Registration

Tue 21	0900-1030	Applications and Experts Seminar - Resilient GNSS [Chair : Republic of Korea]
	1030-1050	Coffee Break
	1050-1300 130 min	Working Group D Meeting [WG-D Zoom Link] Part 1/3 - Timing References [115 min] [Chair : Giulio Tagliaferro] - Introduction, Review of Actions and Recommendations <i>Jérôme Delporte</i> 10 min <Presentation Link> - The Overview of the KPS Time Scale Generation <i>Myoung-Sun Heo</i> 10 min <Presentation Link> - The Performance of BDT and BDS Timing <i>Haibo Yuan</i> 10 min <Presentation Link> - ESA GNSS Time Monitoring <i>Jörg Hahn</i> 10 min <Presentation Link> - GNSS Timing Performances Monitored by GEMOP <i>Jérôme Delporte</i> 10 min <Presentation Link> - BIPM Circular T Section 4 : Monitoring Broadcast Predictions of UTC by GNSS <i>Patrizia Tavella</i> 10 min <Presentation Link> - NavIC-Galileo Time Offset (NGTO) Determination <i>Rajath Sadasivan, Roopa M. V.</i> 10 min <Presentation Link> - Calibration of GNSS Receiver for Deriving NavIC GNSS System Time Offsets <i>Vimla Sharma, Anu Arora</i> 10 min <Presentation Link> - IPPP for UTC and the Availability of Continuous IGS products <i>Giulio Tagliaferro</i> 10 min <Presentation Link> - Discussing Recommendation B on “Continuous GNSS Time Transfer across Day Boundaries using IGS Products” <i>Giulio Tagliaferro</i> 10 min - Discussing Recommendation C on “Proposed Redefinition of UTC” <i>Jérôme Delporte</i> 5 min Discussion [15 min] [Safety Margin - 10 min]
	1300-1400	Lunch Break
	1400-1540 100 min	Working Group D Meeting [WG-D Zoom Link] Part 2/3 - Geodetic References [85 min] [Chair : Richard Gross]

		12. The ISO Geodetic Register <i>Michael R. Craymer, Larry Hothem</i> 10 min <Presentation Link> 13. The Nigerian Geocentric Datum : Progress and Development <i>Joseph Dodo</i> 10 min <Presentation Link> 14. NavIC-Enabled IGS Stations - An Update <i>Neelu Kasat, Manish Chawla</i> 10 min <Presentation Link> 15. Beidou Coordinate System (BDCS) Status and Accuracy Assessment <i>Fumei Wu</i> 10 min <Presentation Link> 16. Galileo Terrestrial Reference Frame Performance Updates <i>Erik Schönemann</i> 10 min <Presentation Link> 17. ESA's GENESIS Mission to the Entire World <i>Erik Schönemann</i> 10 min <Presentation Link> 18. News on the ITRF <i>Zuheir Altamimi</i> 10 min <Presentation Link> 19. Discussing Recommendation A on the Publication of the Statement on the Critical Role of the Global Geodesy Supply Chain for GNSS <i>Alison Rose, Camille Martire</i> 25 min <i>[Safety Margin - 5 min]</i>
1540-1600	Coffee Break	
1600-1800 120 min	JS1 : Lunar Reference Frames and Time (WG D+L) [120 min] [WG-L Zoom Link] <i>[Chairs : Patrizia Tavella (WG-D), Jörg Hahn (ESA)]</i> 1. Perspective of Lunar Exploration and Timing in Korea <i>Sung-Woo Kim & Myoung-Sun Heo</i> 10 min <Presentation Link> 2. LunaNet Perspectives on Reference Frames and Time Systems <i>S. Okamoto + C. Gramling</i> 15 min <Presentation Link> 3. ESA's Contribution to Reference Frames on Earth and Projection Towards the Moon <i>Erik Schönemann</i> 10 min <Presentation Link> 4. News from IAG IAU working group JWG 1.1.3: Lunar reference frames <i>Krzysztof Sośnica</i> 10 min <Presentation Link> 5. Realizing Reference Frame for the Moon : Lessons Learned from ITRF <i>Zuheir Altamimi</i> 10 min <Presentation Link> 6. BIPM/CCTF work on the definition of Lunar Time <i>Patrizia Tavella</i> 10 min <Presentation Link> 7. Defining a time scale for the Moon <i>Pascale Defraigne</i> 10 min <Presentation Link> 8. Theoretical framework for establishment of lunar reference time <i>Dongshan YIN</i> 10 min <Presentation Link> 9. Discussion 25 min	

Wed 22	0800-1300	On-Site Registration
	0900-1000 60 min	JS2 : Lunar PNT Compatibility/Spectrum (WGs L+S) [60 min] [Plenary Zoom Link] [Chairs : Joel Parker (WG-L), Jeff Auerbach (WG-S)] See WG-S Agenda for details. Other WGs are welcome to join the discussion.
	1000-1100 60 min	JS3 : Multi-GNSS Timing Interoperability and International GNSS Monitoring and Assessment (WGs D+S) [60 min] [Plenary Zoom Link] [Chairs : Giulio Tagliaferro (WG-D) + Jeff Auerbach (WG-S)] - ICG-19 Timing Interoperability : Questionnaire Results <i>Peter J. Buist</i> 10 min <Presentation Link> - The Summary of Survey Results on GGTO Requirements by Receiver Manufacturers <i>Haibo Yuan</i> 20 min <Presentation Link> - Discussion 30 min
	1100-1120	Coffee Break
	1120-1230 70 min	Working Group D Meeting [WG-D Zoom Link] Part 3/3 - Results of Joint Sessions and Remaining Discussions w.r.t. Timing and Geodetic References [60 min] [Chair : Richard Gross] - Discussing Recommendation A on the Publication of the Statement on the Critical Role of the Global Geodesy Supply Chain for GNSS <i>Alison Rose</i> 15 min - Discussing Recommendation B on “Continuous GNSS Time Transfer across Day Boundaries using IGS Products” <i>Giulio Tagliaferro</i> 15 min - Discussing Recommendation C on “Proposed Redefinition of UTC” <i>Jérôme Delporte</i> 5 min - Discussing Results of the “Lunar Reference Frames and Time” Joint Session <i>Patrizia Tavella</i> 15 min - Discussing Results of the “GGTOs” Joint Session <i>Jérôme Delporte</i> 15 min [Safety Margin - 5 min]
	1230-1330	Lunch Break
	1330-1400	n/a
	1400-1800	Technical Tour

Thu 23	0900-1030 90 min	Working Group D Meeting - Final Coordination [75 min] [WG-D Zoom Link] • <i>[Chair : Patrizia Tavella]</i> 25. Review of the ICG-19 WG-D Final Statement <i>Chairs</i> 30 min <Presentation Link> <i>[Safety Margin - 15 min]</i>
	1030-1100	Coffee Break
	1100-1300	Second Plenary Session [Plenary Zoom Link] • 1100 Presentation by WG-B • 1135 Presentation by WG-C • 1210 Presentation by WG-D
	1245-1345	Lunch Break
	1345-1455	Second Plenary Session - Continued [Plenary Zoom Link] • 1345 Presentation by WG-S • 1420 Presentation by WG-L
	1455-1530	Coffee Break
	1500	Deadline to submit the WG-D Recommendations to Shafa.
	1500	Deadline to submit the WG-D Final Statement to Shafa.
	1530-1800	Second Meeting of the Providers' Forum (attended by Providers only) • <i>[Chair: Lu, People's Republic of China]</i>
Fri 24	0900-1300	Meeting of Associate Members, Observers, and Invited Observers
		Final Plenary Session [Plenary Zoom Link] • <i>[Chair : Byoung-Sun LEE, Republic of Korea]</i> • Membership ○ Pakistan ○ UN-GGCE ○ Secure World Foundation • Terms of Reference • Next Meetings ○ 2026 ○ 2027 : Malaysia ○ 2028 • Review and Approval of the ICG-19 Meeting Conclusions - Joint Statement • Concluding Remarks

	1300-1400	Lunch Break
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