

# ICG-17 WG-D Agenda

## ICG Working Group D - Reference Frames, Timing, and Applications 17th Meeting of the International Committee on GNSS (ICG)

15 - 20 October 2023, Hybrid in Madrid (Spain) and Online

### WG-D Chairs

Zuheir Altamimi	International Association of Geodesy	IAG
Léo Martire	International GNSS Service	IGS
Jérôme Delporte	Centre National D'Études Spatiales	CNES
Pascale Defraigne	Royal Observatory of Belgium	BIPM
Ryan Keenan	International Federation of Surveyors	FIG
Giulio Tagliaferro	Bureau International des Poids et Mesures	BIPM
Suelynn Choy	International Federation of Surveyors	FIG
Allison Craddock	International GNSS Service	IGS
Mikael Lilje	International Federation of Surveyors	FIG
Patrizia Tavella	Bureau International des Poids et Mesures	BIPM

### 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)	Léo Martire

### Various Details

All times are given in local time (Madrid, UTC+02).

Virtual participation WG-D link: <https://u-sm-eu.zoom.us/j/82695555826>.

Links: [\[link to the live version of this very document\]](#)

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[\[ICG-17 WG-D Shared Folder\]](#)

[📄 icg17\\_agenda\\_draft\\_v231013.pdf](#)

[📁 ICG-16\\_WG-D\\_Leadership\\_Team\\_Attendance\\_and\\_Contact\\_Info](#)

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[📄 ICG-17\\_WG-D\\_recommendation\\_A.docx](#)

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[☰ ICG-17\\_WG-D\\_Final\\_Statement](#)

# Outline of Agenda

fixed by the main agenda	fixed by coordination with other WGs	breaks
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Sun 15	1200-1800	<b>On-Site Registration</b>
	1300-1400	<b>Ad-Hoc Working Group Meeting: ICG Terms of Reference</b>
	1400-1800	<b>Providers' Forum</b>
	1600-1620	<b>Coffee Break</b>
	1620-1720	<b>Meeting with the Working Groups Co-Chairs</b>
	1720-1800	<b>Providers' Forum - Continued</b>
Mon 16	0800-1800	<b>On-Site Registration</b>
	1000-1045	<b>Opening Session + Keynote Talk</b>
	1045-1110	<b>Group Photo, Coffee Break</b>
	1110-1240	<b>First Plenary Session <a href="#">[Zoom]</a></b>
	1240-1340	<b>Lunch Break</b>
	1340-1840	<b>First Plenary Session - Continued <a href="#">[Zoom]</a></b>
	1900-2330	<b>Reception</b>
Tue 17	0900-0945	<b>Keynote: History of the Global Positioning System (GPS) on the occasion of the 50th anniversary of gaining initial approval in 1973 <i>[Bradford PARKINSON]</i></b>
	1000-1100 (60 min)	<b>WG-D Internal Discussions - Timing References Task Force</b> <ol style="list-style-type: none"> <li>1. <a href="#">Status on Timing Task Force Actions and Recommendations</a> <i>[Jérôme DELPORTE (CNES) - 10 mins]</i></li> <li>2. <a href="#">Next BIPM Publication of (UTC - bUTC GNSS)</a> <i>[Giulio TAGLIAFERRO, Frédéric MEYNADIER (BIPM) - 10 mins]</i></li> <li>3. <a href="#">Towards a Continuous UTC</a> <i>[Giulio TAGLIAFERRO (BIPM) - 10 mins]</i></li> <li>4. <a href="#">Traceability to UTC from GNSS</a> <i>[Pascale DEFRAIGNE (ORB) - 10 mins]</i></li> <li>5. <a href="#">Status of GNSS Calibrations</a> <i>[Pascale DEFRAIGNE (ORB), Giulio TAGLIAFERRO (BIPM) - 10 mins]</i></li> <li>6. <a href="#">GNSS Timing Monitoring with Calibrated Receivers at ESA</a> <i>[Pierre WALLER (ESA) - 10 mins]</i></li> </ol>
	1100-1120	<b>Coffee Break</b>

1120-1300 (100 min)	<p><b>WG-D Internal Discussions - Timing References Task Force</b></p> <ol style="list-style-type: none"> <li>7. <a href="#">ISRO Installation of a NavIC Timing Receiver at PTB (Germany) and Characterisation of (UTC(PTB) - NavIC time)</a> [Anu ARORA (ISRO, ISTRAC) - 10 mins]</li> <li>8. <a href="#">Performance of the ISRO Indigenous RAFS on-board NVS-01 NavIC Satellite</a> [Maulik BHAVSAR, Sarthi MANDAL (ISRO, SAC) - 10 mins]</li> <li>9. <a href="#">Continuous UTC and its Impact from the NavIC Perspective</a> [Kalasagarvarma KANDUKURI (ISRO, URSC) - 10 mins]</li> <li>10. <a href="#">Comparative Experiment and Analysis of Different GNSS Time Offset Monitoring Methods</a> [Haibo YUAN (NTSC) - 10 mins]</li> <li>11. <a href="#">Draft Recommendation on Timing Interoperability</a> [Pascale DEFRAIGNE (ORB), Jérôme DELPORTE (CNES) - 10 mins]</li> </ol> <p><b>WG-D Internal Discussions - Geodetic References Task Force</b></p> <ol style="list-style-type: none"> <li>1. <a href="#">IGS Overview</a> [Léo MARTIRE (JPL; IGS) - 10 mins]</li> <li>2. <a href="#">Six Years of Precise Point Positioning (PPP) in WGS 84</a> [Todd KAWAKAMI, Steve MALYS, et al. (National Geospatial-Intelligence Agency) - 10 mins]</li> <li>3. <a href="#">GNSS Terrestrial Reference Frames Coincidence Level Since 2020</a> [Igor GUSEV (Russian Delegation) - 10 mins]</li> <li>4. <a href="#">ESA's GENESIS Mission</a> [Werner ENDERLE (ESA) - 5 mins]</li> </ol>
1300-1400	<b>Lunch Break</b>
1400-1500 (60 min)	<p><b>WG-D Internal Discussions - Geodetic References Task Force</b></p> <ol style="list-style-type: none"> <li>5. <a href="#">Beidou Coordinate System (BDCA) Status and Accuracy Assessment</a> [Shanshi ZHOU (Shanghai Astronomical Observatory (SHAO), Chinese Academy of Sciences) - 10 mins]</li> <li>6. <a href="#">ESOC Status Update on Galileo Geodetic Reference Frame</a> [Werner ENDERLE, Erik SCHÖNEMANN (ESA) - 10 mins]</li> </ol> <p><b>WG-D Internal Discussions - Any Remaining Items</b></p> <p>World Radiocommunication Conference 2023 coming up. Dubai, 20 Nov - 15 Dec; <a href="https://www.itu.int/wrc-23/">https://www.itu.int/wrc-23/</a>; Perhaps important for the IGS Clock WG and Timing Task Force (see, e.g., the ITU News article in <a href="#">online format</a> or <a href="#">PDF format</a>).</p> <p>Preparation for the Joint Sessions.</p>
1500-1600 (60 min)	<p><b>Joint Session <a href="#">Zoom</a></b> (WGs B+C+D+S) - Timing Interoperability [Xiaochun LU (China), Jérôme DELPORTE (CNES), Pascale Defraigne (ORB), Tatiana PRIMAKINA (Russia)]</p> <ul style="list-style-type: none"> <li>• Update the Distribution List of Timing Experts [Xiaochun LU (China)]</li> <li>• Review Previous Discussions and Actions from WG-S [Xiaochun LU (China)]</li> <li>• New Actions, Recommendations, and Next Steps <ul style="list-style-type: none"> <li>○ Discussion of WG-S Recommendation.</li> <li>○ Discussion of WG-D Recommendation A.</li> </ul> </li> </ul>
1600-1620	<b>Coffee Break</b>
1620-1820	<b>Joint Session <a href="#">Zoom</a></b> (WGs B+D+S) - Lunar PNT [WG-B]

		<ul style="list-style-type: none"> <li>• See WG-B agenda for details.</li> </ul>
Wed 18	0900-0930 (30 min)	<b>Joint Session <a href="#">[Zoom]</a></b> (WGs BCDS) - Disaster Risk Reduction [ <i>Léo MARTIRE (IGS; JPL)</i> ] <ul style="list-style-type: none"> <li>• Report from the “Applications of GNSS for Disaster Risk Reduction” Task Force [<i>Léo MARTIRE (JPL; IGS) - 15 mins</i>]</li> <li>• Discussion of WG-D Recommendation B [<i>Léo MARTIRE (JPL; IGS) - 15 mins</i>]</li> </ul>
	0930-1045 (75 min)	<b>Joint Session <a href="#">[Zoom]</a></b> (WGs BCDS) - PPP Interoperability [ <i>WG-S</i> ] <ul style="list-style-type: none"> <li>• See WG-S agenda for details.</li> </ul>
	1045-1100 (15 min)	<b>Joint Session <a href="#">[Zoom]</a></b> (WGs BCDS) - IGMA [ <i>IGMA Task Force Chairs, i.e., Satoshi Kogure (JAXA), Shuli Song (Shanghai Astronomical Observatory, Chinese Academy of Sciences), Erik Schönemann (ESA)</i> ] <ul style="list-style-type: none"> <li>• See WG-S agenda for details.</li> </ul>
	1100-1120	<b>Coffee Break</b>
	1120-1300	<b>WG-D Internal Discussions - Continued</b> Follow-Up Discussion on the Results of the Joint Sessions. Finalisation of Recommendations and of the WG-D Contribution to the Joint Statement.
	1300-1400	<b>Lunch Break</b>
	1400-1930	<b>Technical Tour / City Tour</b>
Thu 19	0900-1015	<b>WG-D Internal Discussions - Continued</b> Finalisation of the WG-D Contribution to the Joint Statement and of the WG-D Presentation.
	1100-1130	<b>Coffee Break</b>
	1130-1220	<b>Second Plenary Session <a href="#">[Zoom]</a></b> <ul style="list-style-type: none"> <li>• WG-C Presentations and Discussions</li> <li>• WG-D Presentations and Discussions</li> </ul>
	1300-1400	<b>Lunch Break</b>
	1400-1500	<b>Second Plenary Session - Continued <a href="#">[Zoom]</a></b> <ul style="list-style-type: none"> <li>• WG-B Presentations and Discussions</li> <li>• WG-S Presentations and Discussions</li> </ul>
	1530-1600	<b>Coffee Break</b>
	1600-1800	<b>Second Providers’ Forum</b>
Fri 20	0900-1100	<b>Final Plenary Session <a href="#">[Zoom]</a></b>
	1100-1130	<b>Coffee Break</b>
	1120-1330	<b>Final Plenary Session - Continued <a href="#">[Zoom]</a></b>