Commission GASS 2026 Report
Commission H

The Commission H Coordinating Activities (CCA) meetings for URSI GASS 2026 (Kraków, Poland) were held on Monday, 17 August 2026, and Wednesday, 19 August 2026. A third CCA meeting originally scheduled for Friday, 21 August 2026 was cancelled, after feedback from Advisory Committee members that fewer business meetings would be preferable.

1. Elections of Commission Officers

The election for the new Commission H Vice Chair and Early Career Representative (ECR) for the 2026–2029 triennium was conducted ahead of URSI GASS 2026, and the results were ratified at the Commission H CCA meeting on 19 August 2026. The results of the vote were as follows:

Vice Chair: Ivana Kolmašová (Czechia): 41; Chao Yue (China CIE): 21
Early Career Representative: Rachel Black (United Kingdom): 38; Mehmet Ökten (Turkey): 26

With the Chair and Senior ECR roles passing by succession from the outgoing Vice Chair and ECR, the new slate of Commission H officers for 2026–2029 is:

Chair: Robert Marshall (USA)
Vice Chair: Ivana Kolmašová (Czechia)
Senior Early Career Representative: Dave Hartley (USA)
Early Career Representative: Rachel Black (United Kingdom)

For reference, the outgoing 2023–2026 officers were:

Chair: Craig Rodger (New Zealand)
Vice Chair: Robert Marshall (USA)
Senior Early Career Representative: František Němec (Czechia)
Early Career Representative: Dave Hartley (USA)

2. Review of Terms of Reference

The Terms of Reference for Commission H were reviewed at the CCA meeting. The Commission's goals remain:

- To study waves in plasmas in the broadest sense, and in particular:
  - the generation, propagation, and detection of waves in plasmas,
  - wave-wave and wave-particle interactions,
  - plasma turbulence and chaos,
  - spacecraft-plasma interaction,
  - instabilities, heating, and diagnosis of laboratory plasmas;
- To encourage the application of these studies, particularly in the areas of solar/planetary plasma interactions, radiation belt processes, space weather, and an increased exploitation of space as a research laboratory.

The only substantive change from the 2023–2026 Terms of Reference is the addition of “radiation belt processes” to the second goal, reflecting the growing prominence of radiation-belt science within the Commission H community. For example, the H02 and H03 sessions on radiation-belt wave-particle

interactions and precipitation together accounted for 29 of the 118 oral presentations at GASS 2026 (see Section 6). No other changes to the Terms of Reference were proposed.

3. Any changes/confirmation in Working Groups and other organizations

Commission H currently has named representatives on the following working groups:

- **VLF/ELF Remote Sensing of the Ionosphere and Magnetosphere (VERSIM)** – a joint URSI/IAGA (Divisions II & III) working group.
  - URSI Co-Chair (Commissions H/G): Claudia Martínez-Calderón (Japan)
  - IAGA Co-Chair: František Němec (Czechia)
  - Website: https://versim.matfyz.cz/
  - VERSIM will continue into the 2026–2029 triennium.
- **Radio Diagnostics of Space Weather Plasma Processes (HGE working group)**
  - Commission H Co-Chairs: Mauro Messerotti (Italy) and Hanna Rothkaehl (Poland)
  - Co-Chair for Commission G: David Themens (UK) — to be confirmed
  - Co-Chair for Commission E: Yasuhide Hobara (Japan) — to be confirmed

Commission H raised interest in discussing with the GJFE Interdisciplinary Space Weather working group the possibility of Commission H re-joining that group, in place of continuing the HGE "Radio Diagnostics of Space Weather Plasma Processes" working group. This has been discussed informally with Commission G, but not yet with the organizers of the HGE working group; the matter remains open for further discussion before any change is finalized.

4. Technical Advisory Committee

Commission H's Technical Advisory Committee continues to be formed of: (1) past Chairs of the Commission; (2) past Early Career Representatives; (3) current candidates for Vice Chair and ECR who were not elected this time; and (4) current GASS Commission H session conveners and tutorial/general lecturers. The members are:

(1) Past Chairs

Robert Benson <robert.f.benson@nasa.gov>
Gordon James <james@phys.ucalgary.ca>
Umran Inan <uinan@ku.edu.tr>
Richard Horne <r.horne@bas.ac.uk>
Yoshiharu Omura <omura@rish.kyoto-u.ac.jp>
Ondrej Santolik <os@ufa.cas.cz>
János Lichtenberger <lityi@sas.elte.hu>
Jyrki Manninen <Jyrki.Manninen@oulu.fi>
Craig Rodger <craig.rodger@otago.ac.nz>

(2) Past Early Career Representatives

Wen Li <wenli77@bu.edu>
František Němec <frantisek.nemec@mff.cuni.cz>

(3) Current candidates for Vice Chair and ECR who were not elected this time

Chao Yue <yuechao@pku.edu.cn>
Mehmet Baran Ökten <baran.okten@sabanciuniv.edu>

(4) Current GASS Commission H session conveners and tutorial/general lecturers

Alexander Pitňa <alex@aurora.troja.mff.cuni.cz>

Allison Jaynes <allison-n-jaynes@uiowa.edu>
Bruce Fritz <bruce.fritz@nrl.navy.mil>
Clare Watt <clare.watt@northumbria.ac.uk>
David Hartley <david-hartley@uiowa.edu>
David Malaspina <David.Malaspina@Colorado.edu>
Divya Oberoi <div@ncra.tifr.res.in>
Esa Kallio <esa.kallio@aalto.fi>
Gary Zank <garyp.zank@gmail.com>
Hanna Rothkaehl <hrot@cbk.waw.pl>
Ivana Kolmašová <iko@ufa.cas.cz>
Jean-Francois Ripoll <jean-francois.ripoll@cea.fr>
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Mark Golkowski <mark.golkowski@ucdenver.edu>
Martin Fullekrug <M.Fullekrug@bath.ac.uk>
Mauro Messerotti <messerotti@oats.inaf.it>
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Yihua Yan <yanyihua@nssc.ac.cn>
Yohei Miyake <y-miyake@eagle.kobe-u.ac.jp>
Yoshiya Kasahara <kasahara@is.t.kanazawa-u.ac.jp>
Yoshizumi Miyoshi miyoshi@isee.nagoya-u.ac.jp

5. Preparation of Future Meetings/Identification of meetings to be supported (cfr. Commission budget)

No specific future meetings or workshops requiring Commission H budget support were raised as an agenda item at this cycle's CCA meetings. The 12th VERSIM Workshop (September 2026) has already been budgeted for support, and we fully intend to support the 13th VERSIM Workshop in 2028. Other meetings will be considered for support on a case-by-case basis.

6. Proposed sessions and conveners for AT-RASC 2027

Commission H sessions at the recently concluded URSI GASS 2026 (Kraków) drew strong participation, totaling 121 oral presentations and 24 posters across the following sessions:

- H01: Open session — 3 oral, 1 poster
- H02: Plasma waves, wave-particle interactions, and their multifold effects on the radiation belts — 16 oral, 4 posters
- H03: Drivers, Detection, and Ionospheric Impacts of Precipitation from the Radiation Belts — 13 oral, 1 poster
- H04: Recent advances in geospace research from wide-range to multi-point observations — 11 oral, 4 posters
- H05: Computer Simulations and Machine Learning methods in Space Plasmas — 6 oral, 4 posters

- H06: Turbulence and Instabilities in Space Plasmas — 11 oral, 1 poster
- HG1: Small satellites, suborbital experiments, and new instruments for near Earth space science — 13 oral, 0 posters
- HG2: Active Experiments in Space Plasmas — 12 oral, 0 posters
- HGE: Atmospheric, ionospheric, magnetospheric, and high energy effects of lightning discharges — 8 oral, 4 posters
- HGJ: Panel Discussion for Early Career Researchers — 3 oral presentations and a panel discussion
- HJ: Radio observations and diagnostics for the Sun, heliosphere and space weather — 18 oral, 4 posters
- EFGH: Natural Electromagnetic Noise and Radio Sensing Applications in Terrestrial and Planetary Environment — 5 oral, 0 posters
- GH: Planetary Space Weather — 2 oral, 1 poster

Based on this level of participation, Commission H proposes to run the same session line-up for AT-RASC 2027:

- H01: Open session
- H02: Plasma waves, wave-particle interactions, and their multifold effects on the radiation belts
- H03: Drivers, Detection, and Ionospheric Impacts of Precipitation from the Radiation Belts
- H04: Recent advances in geospace research from wide-range to multi-point observations
- H05: Computer Simulations and Machine Learning methods in Space Plasmas
- H06: Turbulence and Instabilities in Space Plasmas
- HG1: Small satellites, suborbital experiments, and new instruments for near Earth space science
- HG2: Active Experiments in Space Plasmas
- HGE: Atmospheric, ionospheric, magnetospheric, and high energy effects of lightning discharges
- HGJ: Panel Discussion for Early Career Researchers
- HJ: Radio observations and diagnostics for the Sun, heliosphere and space weather
- EFGH: Natural Electromagnetic Noise and Radio Sensing Applications in Terrestrial and Planetary Environment (led by commission E)
- GH: Planetary Space Weather (led by commission G)

Conveners for the AT-RASC 2027 sessions had not been finalized at the time of the CCA. The commission leadership will begin by asking previous session chairs if they wish to continue, and if they can identify other individuals who may be interested in convening their session, with the goal of including new individuals and giving opportunities to young scientists.

7. Commission Resolutions

Commission H does not propose any new resolutions for the 2026–2029 triennium.

8. Feedback on 2026 Kraków GASS Organization and Program

Commission H members raised the following feedback on the organization of URSI GASS 2026, for consideration by the URSI Council/Secretariat:

- Some talks appear to have lost their invited status in the programme; the invited designation was also not shown anywhere in the conference app.
- The conference programme website was reported by members as hard, inconvenient, and difficult to use, and required frequent re-login.

- Poster boards were spaced very closely together, making it difficult (in some cases nearly impossible) to access certain posters, despite the poster hall itself being spacious. Commission H requests that ample spacing between poster boards be ensured at future meetings.