



Astronomer Guides for Satellite Operators Engaged with The IAU CPS Industry & Technology Hub

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The IAU Centre for the Protection of the Dark and Quiet Sky from Satellite Constellation Interference (IAU CPS) was formed to enhance the understanding and collaboration between satellite stakeholders and astronomers. To support that mission, the IAU CPS' Industry and Technology Hub (I&T Hub) proposes to offer to participating satellite constellation operators a one-on-one pairing with designated astronomers to serve as their "Astronomer Guide."

The I&T Hub has proposed this direct relationship between an Astronomer Guide and a participating satellite company after noting the frequent disconnects between the assumptions and working approaches of the astronomy and satellite communities, and after observing the value of a similar trusted relationship with an early satellite company. The Astronomer Guides are then considered a benefit to satellite companies actively participating in the I&T Hub, and early previews of the concept with industry stakeholders have prompted positive feedback.

I&T Astronomer Guide Program:

Astronomer Guide pairings would be offered to companies participating in the I&T Hub as a routine step in their on-boarding process:

- Each satellite constellation operator that engages formally with the I&T Hub will be offered the option of being paired with their own Astronomer Guide;
- The I&T Hub leadership, along with support from the IAU CPS Management Team and other Hub leaders, will identify Astronomer Guide candidates to screen and propose appropriate pairings with participating satellite companies;
- Participating companies may request that their Astronomer Guide sign a Non-Disclosure Agreement (NDA) to broaden the scope of technical discussions while maintaining protection of sensitive or confidential design, operational or business information;
- Astronomer Guides may act as a pathfinder for the company within the astronomy community, recommending technical papers, introductions to specific experts, or suggesting collaborative work toward the end of mitigations;
- No formal reports on the technical collaboration between participating satellite companies and Astronomer Guides is expected; however, Astronomer Guides and companies will be encouraged to provide feedback on the nature of their engagement and its efficacy to the I&T Hub Leads and IAU CPS Management Team;
- The pairing is initially expected to extend for two years.

Chief Objectives of Astronomer Guides and Participating Companies:

- Astronomer Guides' chief objective will be to enhance satellite operators' understanding of the impacts on astronomy of their constellation or technology, and to provide context regarding scientific questions and resources;
- Satellite companies' chief objectives will be to deepen familiarity with the potential their spacecraft designs and constellation have to impact astronomy, and identify further mitigations.

Selection of Astronomer Guides:

- Relatively few Astronomer Guides are expected to be required, assuming one Guide paired with each company participating into the I&T Hub;
- Astronomer Guide candidates may be drawn from qualified volunteers or from nominations from the IAU CPS Management Team or any Hub leader;
- Astronomer Guides and their company pairings will be reviewed and approved by a selection panel named by the IAU CPS Management Team and that includes the I&T Hub leaders;
- Both the satellite companies and the Astronomer Guides would be presented with their proposed match, and either may request re-assignment by the I&T Hub if they wish, in the interests of ensuring an effective collaboration;
- Both the satellite company and the Astronomer Guide would be provided with any additional parameters or expectations from the IAU CPS.

Astronomer Guide Qualifications:

A strong Astronomer Guide candidate will be:

- Recognized as a post-doctoral Astronomer with at least 2 years experience;
- Known to have balanced approach to the issues and focused on solutions and mitigations;
- Have demonstrable technical familiarity with both optical/IR and radio astronomy concerns;
- Have demonstrable ability to understand current technology and resources relevant to solutions and mitigations;
- Familiar with relevant academic and technical literature;
- Well-versed in the outcomes, Best Practices and Recommendations from the SATCONS and D&QS conferences, as well as relevant successors;
- Staying current with the ongoing work of the other IAU CPS Hubs;
- Able to commit as below.

Astronomer Guide Commitments:

A strong Astronomer Guide candidate will be:

- Expected to endorse the IAU CPS Code of Conduct;
- Willing to uphold and familiar with CPS positions and principles
- Able to sign individual, bilateral NDAs and maintain necessary confidentiality (possible without, but with loss of value);
- Support a single satellite company only, to ensure confidentiality and maintain trust;
- Available for a minimum of 3 hours per month working with industry partner, plus additional time to provide any reporting into IAU CPS and Hubs, as appropriate;
- Provide brief quarterly reports on the collaboration back to the I&T Hub to assess efficacy and improvements to the program, while protecting confidentiality;
- Able to commit to a period of at least 2 years.

Benefits of Astronomer Guide Program:

Coupled with the frequent company concern of protecting proprietary information during evaluation of a satellite constellation's impact on astronomy, the I&T Hub envisions several benefits from this sort of direct relationship, including:

- 1) Advancing the analysis and technical exchange of a given satellite project by granting regular insights to technology and potential exchange of more detailed proprietary technical information under the protection of a Non-Disclosure Agreement (NDA);
- 2) Deepening satellite operators' understanding of the various astronomy scientific pursuits, facilities and observations, and their potential to be affected by satellite constellations.

Ultimately, good "Astronomer Guide" pairings would stand to advance our understanding of the intersection of satellite constellations and astronomy, build trust and spur development and adoption of effective mitigations.

More information on the IAU CPS generally is available at: <https://cps.iau.org/>

<p>If you wish to nominate an astronomer to be considered as an Astronomer Guide or wish to be considered yourself, please provide your credentials and statement regarding the qualifications and commitments above to the I&T Hub Co-Chairs at: industry-tech@cps.iau.org.</p>
