Communication and Social Science in the Satellite Needs Working Group (SNWG) Assessment

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SNWG Background

- Part of the U.S. Group on Earth Observations (USGEO)
- Surveys U.S. federal civilian agencies every two years about the Earth observation data they need to
- accomplish their high-priority objectives
- In 2024: 125 surveys from 25 agencies—a new record! • ~500 satellite needs received across all survey cycles



Figure 1. Requested geophysical observables from the 2024 survey.

SNWG Management Office

Located at NASA's Marshall Space Flight Center, the SNWG MO is responsible for:

- Managing and coordinating the assessment of agency needs
- Managing the implementation of **solutions**, or new activities NASA implements to meet agency needs
- Co-designing solutions with stakeholders to maximize impact

Assessing Agency Needs

- Each survey receives an in-depth evaluation by an assessment team of NASA, NOAA, and USGS scientists with relevant expertise
- The assessment takes place over 11 months and, after initial review and categorization of surveys, has three major phases:
- Hold agency interviews
- Develop solutions
- **Report-writing**

The SNWG assessment: At the nexus of science and people

Phase 1: Fully Understand Agency Needs

- Assessment teams interview the agency survey submitters to understand how satellite data can help inform their
- decision-making process and any limitations to the agency's ability to use satellite data.
- Conversation is key! To prepare, social scientists provide training to all assessment teams on how to hold a discovery interview.
- The Discovery Interview Blueprint (at right) was supplemented with tips and video clips from veteran SNWG interviewers.



Phase 2: Identify Solutions to Help Meet **Agency Needs**

- Collaboration is key!

 - agency needs across multiple thematic areas
- Participants can search across solutions and review solution details • Agency needs are tagged to solutions by their assessment teams • The goal: organically identify solutions that help meet multiple
- Brainstorming sessions are organized around specific geophysical observables or broader thematic areas, allowing teams to share new solution ideas and identify cross-thematic connections
- received

Figure 3. Identifying cross-cutting solutions using Asana.

Phase 3: Communicate Needs and Solutions

• Assessment teams write reports with a detailed evaluation of the satellite need and information/discussion of current and upcoming satellite missions and datasets that could help meet the need. • **Communication is key!** Reports are collaboratively written using the Report Generation Tool (RGT):

- Each survey has a report written by its assessment team
- Standardized information is automatically populated when a satellite mission or solution is recommended
- Reports are reviewed and copy-edited

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Discovery Interview Blueprint

- Arrive with a discovery mindset
- 2. Host a welcoming and open space
- Start with a purpose
- 4. Open the discussion
- 5. Explore all aspects and edges of the need
- Brainstorm possible solution options for validation
- . Wrap up by offering gratitude and **identifying** future ways to connect



Figure 2. The Discovery Interview Blueprint

• Assessment teams propose solutions and review other teams' solutions.

• Each solution idea is a separate card in the Asana tool

• A subset of solutions are proposed to OMB and implemented if funding is

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Agency Touchpoints

To better serve SNWG agencies, each assessment phase includes a touchpoint with the agency subject matter experts (SMEs) who submitted the survey:

- 1. Fully Understand Agency Needs Assessment teams hold discovery interviews with survey submitters.
- 2. Identify Solutions to Help Meet Agency Needs Agencies expected to benefit from a new solution have an opportunity provide feedback and are invited to co-design the solution with NASA, should it be implemented.
- 3. Communicate Needs and Solutions Agencies review drafts of NASA's synopsis of their needs. At the end of the assessment, they receive the final reports are invited to continue the conversation

Conclusions

• The SNWG assessment brings together

- cross-disciplinary science to creatively meet needs,
- facilitated by technology and automation
- Scientists across NASA, NOAA, and USGS:
- Interview end users about their unique satellite needs
- Brainstorm a range of solutions to meet those needs
- Communicate back to agencies about resources available for meeting their needs

• Innovative approaches to communication, organization, and team make-up are vital to the success of the SNWG assessment

Learn more about NASA's support for SNWG!

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