

Value of Participating Scientist Programs to NASA PSD:

Final Recommendations

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Adapted from:
White paper of the same title, Prockter et al.

Motivation

- Originated at OPAG due to concern about possible inconsistencies in how PS programs are offered and implemented, and that their value to the science community and NASA may not be fully appreciated
- This led to an OPAG finding:

“We encourage NASA to consider broader use of participating scientist programs and early career mission support. At NASA’s request OPAG (working with other AGs) will lead a white paper providing more detailed information to NASA about the importance and effectiveness of such programs.”
- All AG’s involved in the white paper

White Paper Authors

- OPAG: Louise Prockter, Michael Aye, Michael Bland, Carol Paty, Julie Rathbun (SC), Britney Schmidt (SC)
- VEXAG: Kevin Baines (also OPAG SC)
- MEPAG: Jeff Johnson (C), Serina Diniega
- CAPTEM: Hap McSween (Was C when study began)
- LEAG: Clive Neal (C)
- SBAG: Lori Feaga (SC), Dave Blewett

Our team includes social scientists who are expert in data analysis:
Janet Vertesi, David Schwartz, Meghan Wheeler

C = Chair; SC = Steering committee

Charge

Evaluate Participating Scientist programs

- Assess value added to NASA missions
- Understand uniformities and significant differences, and gather lessons learned
- Investigate how to maximize the usefulness of the programs

Write white paper of findings and recommendations and deliver to AG leadership and the community

- White paper complete
- Results passed on to NASA via AGs

Approach

- Phase 1 surveyed the community, i.e., existing/past Participating Scientists and/or anyone who has an interest in, or opinion about, these programs
 - We received ~ 200 responses to the community survey
- Phase 2 surveyed leadership, i.e., existing/past Principal Investigators and/or Project Scientists
- Found overwhelming support for PS programs in Phase 1 & 2 with many common themes

Themes of value of PS programs?

Respondents noted several benefits to NASA, including:

- Intellectual diversity
- Expertise throughout the mission timeline
- Increased science return
- Workforce development

They also commented on the personal value of the programs, including:

- Collaboration
- Data access
- Unique experience of mission team involvement
- Personal career development
- Development of skills for future mission leadership



Final recommendations

- Participating scientist programs bring **significant value** to NASA and to the scientific community, and **should be included on every planetary mission and extended mission**, whether competed or directed
- Expectations for timing, duration, and scope of PS program should be clearly communicated between NASA HQ, mission leadership, and the planetary community as early in mission timeline as possible
- Planetary community should be given as much time as possible to prepare for a PS call and sufficient information regarding payload, operations, scientific goals, and team
- Source of funding should be identified early and once allocated, PS funds should be held as inviolable
- PSs should be brought onto a mission as early as feasible, bearing in mind the trade between cost and integration issues, >1 yr before operations at major target
- Full integration of Participating Scientists onto a project should be given high emphasis by mission leadership and the mission team