

National Aeronautics and Space Administration

Heliophysics

Internal Scientist Funding Model

Mona Kessel
ISFM Lead
Heliophysics Division
Science Mission Directorate



NASA ISFM Context

- NASA has approximately 1000 civil servant scientists (this does not include JPL)
- The role of NASA's civil servant scientists is to
 - Contribute to the Agency's many missions by serving as program and project scientists, instrument scientists, mission planners, scientific data archivists and analysts, and leading researchers in their fields
 - Conduct a broad variety of activities in original research, in technology development, and in service to the outside scientific community, bringing to bear the unique facilities and capabilities of NASA Centers
 - Participate with their community colleagues in competition and peer review to keep NASA scientists up-to-date and on the forefront of their respective fields
- It is in the national interest that these activities be conducted and supported in a way that optimizes the NASA workforce's productivity and realizes its leadership potential
- Of the 1000 scientists, ~150 FTE (spread over ~350 scientists) are funded through competed research awards (R&A)
 - The majority of the funding for civil servant scientists comes from other sources, such as flight projects and instruments, science teams, community service, directed supporting research and technology, and Center internal funding

NASA ISFM Implementation

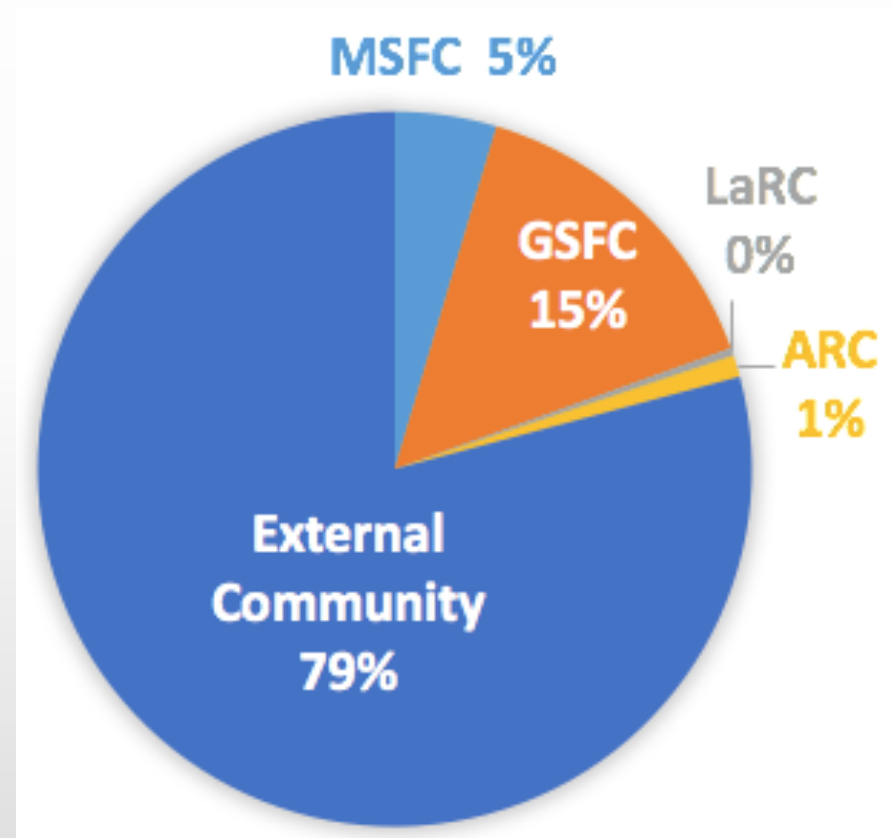
- NASA is adjusting its internal funding model for civil servant scientists to include more directed work for critical-sized groups
 - This is an internal realignment to use NASA civil servant scientists more efficiently
 - It focuses on work that can best be done or only be done at NASA Centers
 - All directed work will be externally reviewed
- Objectives and benefits of this new model
 - Enhance the value of Agency funds by having the NASA civil servant scientists work on tasks that are substantial, strategic, focused, and that enable the broader science community, rather than compete with the external science community
 - Ensure that NASA civil servant scientists advance tasks that meet NASA objectives and can best/only be done at NASA Centers, resulting in science, technology, capabilities, and missions that are tightly integrated
 - Ensure a critical mass of selected capabilities necessary to conduct complex research on key topics
 - Adopt a strategic implementation that will reduce the number of proposals written by NASA civil servant scientists and improve the efficiency of inherently governmental work
- There will be **no change** in the balance of the research budget allocated between NASA civil servant scientists and the external community
 - The new funding model is designed to be neutral regarding the fraction of funding going to the external scientific community

Heliophysics Context

R&A Program

- SR - Supporting Research
- GCR Grand Challenge Research
 - TMS - Theory, Modeling, Simulation
 - SC – Science Centers
- TIDS - Technology & Instrument Development
- GI - Guest Investigator
- LWS - Living With a Star
- HDEE - Heliophysics Data Environment Enhancements

R&A 2016 Funding



ISFM is designed to be **revenue-neutral**. That is: the fraction of research dollars awarded to Centers and the fraction going to the external science community will be maintained at average historical levels. *Increases due to DRIVE will be added to both proportionately.*

Heliophysics ISFM Implementation

The goal of the Internal Scientist Funding Model (ISFM) is for civil servant scientists to perform long-term, strategic directed research that is necessary for NASA to achieve its major Heliophysics science goals.

Two current ISFM Awards at GSFC
(using existing SR/GI funding):

**Solar
Atmosphere**

Yearly Total	FTEs	WYEs
\$1.2M	2.6	1.7

**Particle
Energization**

Yearly Total	FTEs	WYEs
\$0.7M	2.0	2.0

No current ISFM Awards at
MSFC, LaRC, or ARC

Conducting 2017 ISFM competition
(GSFC only, others propose to ROSES)

Civil servant scientist funding previously competed through the ROSES *Guest Investigator (GI)* and *Supporting Research (SR)* programs and the upcoming *Grand Challenge Research (GCR)* program will now primarily be competed through the ISFM program.

- Civil servant co-Is will continue to be allowed on External (community) proposals.
- For 2018 onward, civil servant PI proposals in SR, GI and GCR are not allowed.

Heliophysics ISFM Competition

FY 2017 ISFM Competition (GSFC only)

Historical Level GSFC Funding from:

- SR - Supporting Research
- GCR Grand Challenge Research / SC – Science Centers
- GI - Guest Investigator

Action	Date
Implementation Plan released	June 30, 2017
ISFM Proposal Guidance released	August 31, 2017
Proposals due in NSPIRES	October 11, 2017
Review	November 28-29, 2017
Leadership tag up: Center Division and SMD/HPD	December 2017
Memo Signed, Funding begins	January 2018

Next ISFM competition: FY 2020

Other ROSES programs are competed as usual. Other, non-hardware ROSES programs may come into the ISFM model in the future (GCR/TMS, LWS, HDEE).