

Applied Research Center for Data Set Development (ARC)

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C2D2 ARC

- **Budgeting**

- **Funding is for routine data set updating and provision.**
- **Research work must be proposed through proposal side of C2D2.**
- **Research to Operations is key**
 - **Four Tiers of projects**

Moving Projects into the ARC

- **Need a more formal process.**
 - **Currently ad hoc decision by ARC management.**
 - **Ad Hoc steering group is a possibility.**

C2D2 ARC

- **How do ARC data sets get transitioned out of the ARC?**
 - **Lifespan of support?**
 - **Initially 5 years for transition.**
 - **Transition of processing to an operational Center.**
 - **Two success stories later (ISCCP and GPCP).**

C2D2 ARC

- **Research to Operations is key: Four Development Resiliency Levels of projects**
 - **Level 1- data set processing is running at PI's center and data are not archived at a NOAA Operational Center.**
 - **Level 2- data set processing is running at PI's center and data are being archived at a NOAA Operational Center.**
 - **Level 3 - data set processing is running in parallel at both PI's center and at a NOAA Operational Center; data archived at Operational Center.**
 - **Level 4 - data set processing is running at NOAA Operational Center and PI is performing scientific data stewardship activities only.**

Funding Mechanisms

- Contracts
- Internal NOAA transfer
- New possibility: Cooperative Institute for Climate and Satellites (CICS).

Questions for PIs

- Background: The purpose of the ARC is to facilitate the transition of mature climate data sets from a purely research mode to an operational setting. The responsible operational unit will have the interest and the resources to sustain the production and updating of the data set.

Questions for PIs

1. Characterize your recent customer base. Who uses the data and for what purpose?
2. How often is the data set updated or reprocessed?
3. Are quantitative estimates of uncertainty produced?
4. Have adequate metadata been prepared for the data set and are these regularly updated?
5. Where is the data set and metadata archived?

Questions for PIs

6. Have recent scientific advances been incorporated in the data set? Is the data set state-of-the-art?
7. Is the current version of the data set appropriate for operational production. If so, or if not, why?
8. Has an operational center been identified that will assume long-term responsibility for the data set? What steps have been taken to transition to an operational center?
9. Who is/will be the “scientific champion” for the data set during/after the transition?



Questions?

Example

- Shen et al. developed method to calculate uncertainty for areally averaged temperature
- Need to implement at NCDC
- Funding for 3 years to implement software and verify results.
- Low-level of funding afterward to Sam Shen to oversee product.