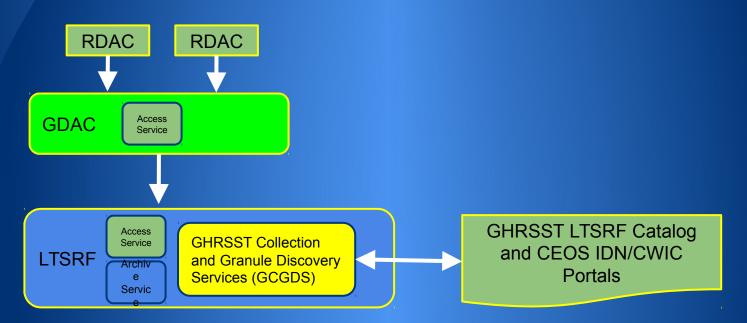
## Modernization of the GHRSST Regional-Global Task Sharing (R-GTS) Framework: A Proposal

Kenneth S. Casey, Ed Armstrong, Jean Francois Piolle, and Gary Corlett

#### Existing GHRSST R-GTS Framework



In the existing R/GTS framework, users can access GHRSST data from RDACs, GDAC, and LTSRF. GDAC has the most comprehensive metadata catalog. LTSRF's catalog is close, less the most recent 30 days for most products. LTSRF has the most comprehensive store of data files. Note GDAC at JPL also provides catalog to CEOS via the NASA CMR.

#### Proposed Future R-GTS Framework

GDP GDP "GHRSST Data Producer (GDP)"

Metrics Service Service Service GCGDS

Access Service GCGDS

... JPL ... NCEI ... CMEMS ... EURO ....Individual GDP

"GHRSST Data Assembly Center (GDAC)"

> GCGDS = GHRSST Collection and Granule Discovery Services

ISO 19115-2 collection level record OpenSearch for granules

Archiv e Servic e

Long term preservation at an established facility conforming to tenets of the OAIS Reference Model

GHRSST Project Office Search Client and CEOS IDN/CWIC Portals

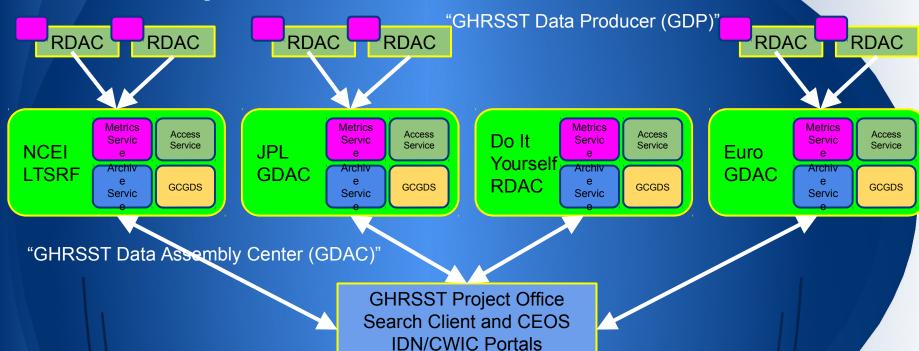
> Access Service

Minimum access would include ftp/http, plus TDS. TDS possibly optional.

Metrics Servic e

User access metrics. Conside DataONE API as candidate.

#### Proposed Future R-GTS Framework



GCGDS = GHRSST Collection and Granule Discovery Services

ISO 19115-2 collection level record OpenSearch for granules Archiv e Servic

Long term preservation at an established facility conforming to tenets of the OAIS Reference Model

Access Service

Minimum access would include ftp/http, plus TDS. TDS possibly optional.

Metrics Servic e

User access metrics. Consider DataONE API as candidate.

Metrics Service

- For System: GPO uses <u>https://statuschecker.fgdc.gov</u> to monitor set of agreed-upon endpoints at GDACs
- Each RDAC/GDAC provides monthly aggregated number of files, unique IP addresses, and volumes served per access method

Archive Service Each GDAC (Archive Services) provides a written response to a short document template about how they meet OAIS Reference Model responsibilities functional entity areas (Ingest, Archival Storage, Access, etc.) Access Service

- http/https
- Data Access Protocol (DAP)
- ftp/sftp/ftps investigate
- Thredds, WMS and WCS for L3 and L4 data

GCGDS

- ISO 19115-2 collection level record for each GHRSST product, submitted to CEOS IDN
- Granule search endpoint meeting OpenSearch CWIC specifications

New GHRSST system document to be finalized by next GHRSST meeting

# Proposed RDAC interface changes

- To do (list all RDACs including futures)
- S-3 RDAC (EUMETSAT)
- CMEMS (CNR)
  - O UKMO
  - O GOS
  - O DMI
  - O METNO
- GHRSST GDAC (JPL PO.DAAC)
  - REMSS
  - O JPL
  - O JPL OUROCEAN
  - O NAVO
  - O JAXA
  - O CMC
- GHRSST LTSRF (NOAA NCEI)
  - O OSPO
  - STAR (future RDAC)
  - O NCEI
  - ABOM
  - O UFRJ
- GHRSST GDAC2 (IFREMER)
  - OSISAF
  - Medspiration
  - NEODAAS

Note: each GDAC could also acquire whatever other data they need.

### Digital Object Identifiers (DOIs)

- Recommended for traceability and citation
- Wrap up of GHRSST 16 recommendations into a guideline document
  - Introduction to DOIs
  - Best practices: multiple copies of datasets, authorship, retirement of a dataset, dynamic datasets
  - Recommended content for landing pages and metadata
- Minor rephrasing to be done before circulation to DAS TAG members and science team