Data Intake Processing and Verification Report

[Draft - In Progress]

Background Information

- **Original Dataset Name:** The ECCO-Darwin Data-Assimilative Global Ocean Biogeochemistry Model: Estimates of Seasonal to Multidecadal Surface Ocean *p*CO2 and Air-Sea CO_2 Flux
- **GHG Center Dataset Title:** Air-Sea CO_2 Flux, ECCO-Darwin Model v5
- **Dataset Provider:** NASA
- **Date Obtained:** August 2023
- **Location Obtained From:** Direct data delivery via private google drive
- **Data Location in GHG Center:** eccodarwin-co2flux-monthgrid-v5
- **Data POC(s):** Dr. Kevin Bowman
- **Dataset File Type(s):** NetCDF
- **Projection (if different from WGS84):** NA

Data Transfer Confirmation

An SHA-256 checksum is used to detect high-level errors within data transmissions.

- Results from individual checksum file comparisons of pre-transfer and post-transfer
    - All files were transferred successfully

Filename	SHA 256 Original file	

- Report any individual file issues: NA

Data Intake Process

- https://us-ghg-center.github.io/ghgc-docs/data_workflow/eccodarwin-co2flux-monthgrid-v5_Data_Flow.html

Overall Dataset Statistics

- Data file reads confirmed:
- Mean, min, max across all files:
    - Original dataset:
    - COG transformed dataset:
- Distribution of values across all data (by variable)
    - Original dataset:

    - COG transformed dataset:

- File range (most cases will be all files)
- Bounding Box of all data
- Link to transformation record in Jupyter Notebook <>
- All values are in expected range (catches out of range values)

Specific, Random Checks/Visual Confirmation

- Visual example and side by side comparison

- More detailed statistics for specific files (randomly chosen)
    - Statistics was performed for the following files:
        - TBD

- Data comparison at a few specific locations

Summary

- We are confident that the transformation and display of data in the GHG Center is correct
- There were no problems identified in the data
- Link to user notebook <>
- Link to GHG Center data catalog overview page <>

Report Completed on:
MSFC POC for questions: <>