Processing and Confirmation Report [Draft - In Progress]

Background Information

- **Original Dataset Name:** ODIAC Fossil Fuel Emission Dataset
- **GHG Center Dataset Title:** ODIAC Fossil Fuel CO_2 Emissions
- **Dataset Provider:** NASA/NIES
- **Date Obtained:** June 1, 2023
- **Location Obtained from:** http://doi.org/10.17595/20170411.001
- **Data Location in GHG Center:** odiac-ffco2-monthgrid-v2022
- **Data POC(s):** Dr. Tomohiro Oda, Dr. Lesley Ott
- **Dataset File Type(s):** GeoTIFF
- **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/odiac-ffco2-monthgrid-v2022_Data_Flow.html

Overall Dataset Statistics:

- Data file reads confirmed: 22 years * 12 months, total of 264 files
- 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: https://github.com/US-GHG-Center/ghgc-docs/blob/main/cog_transformation_scripts/odiac-ffco2-monthgrid-v2022_Transformation_Code.py
- 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 chose)
    - Statistics were performed for the following files:
        - 2010-03
        - 2018-08
        - 2006-12
        - 2003-01

- Data comparison at a few specific locations

Summary

- We are confident that the transformation and display of data in GHGC is correct
- These are no problems we have identified in the data.
- Provide additional information or feedback
- Link to user notebook: https://github.com/US-GHG-Center/ghgc-docs/blob/main/user_data_notebooks/odiac-ffco2-monthgrid-v2022_User_Notebook.ipynb
- Link to GHG Center data catalog overview page <>

Report Completed on: June 27, 2023
MSFC POC for questions: <>