## Jeffrey Painter Supported Projects: ESGF, CF Conventions

## Quarterly Report for January 2017 - March 2017 (Q2, FY17)

Note that I am working part-time this year, and in the future.

## This quarter's accomplishments:

- Set myself up on our ESGF data transfer node
- Tested data replication from the major ESGF nodes, and worked on diagnosing problems. The most difficult problem, which nobody at LLNL can make progress on, involves ESGF transfers from LLNL to LLNL!
- Reviewed the changes needed for the CF Conventions document and firmed up the details.
- Helped Tanya get started with work on the CF Conventions document.
- Reviewed Tanya's work, making corrections when needed, and doing the revision tasks which required familiarity with command-line use of git.
- Did those revisions of the CF Conventions which required the most understanding of the conventions, or were especially complicated.
- Diagnosed a couple of bugs in cdscan which had affected several people in AIMS and PCMDI.
- Further work on multidiags, a script for running uvcmetrics diagnostics. I
  added features to make it more suitable for automated tests. I added the
  same features to metadiags, another script for running diagnostics. Then
  I added a test to our ctest-based testing system.
- Found and fixed a bug in mass weighting in uvcmetrics diagnostics.
- Answered questions from CDP developers, early in the quarter.
- Cleaned up and transformed climate data for Ben Santer's research.
- Helped Ben Santer with a Fortan build problem, involving software which I maintain.

## Plans for next quarter:

- Once ESGF replication works reliably, I expect to start testing the full end-toend replication process, which includes automated publishing.
- I also expect to be involved in moving data from CSS-01 and CSS-02 to CSS-03, and probably re-organizing it, deleting old versions, etc.
- Tanya and I should finish up with the CF Conventions document soon, and begin on the CF conformance document. I do not believe that this document has been set up on github as well as the main document.