

How to Use the McIntosh Synoptic Map Data Set

The complete digitized McIntosh Archive of solar synoptic maps is now publicly available through the National Centers for Environmental Information (NCEI), NESDIS, NOAA, U.S. Department of Commerce. If you use this data in published work, please use the following **citation text**: *Patrick S. McIntosh, NOAA Space Environment Laboratory (1964). Synoptic Maps Composites Observed from McIntosh. NOAA National Centers for Environmental Information. doi:10.7289/V5765CCQ [access date]*

The parent directory is “mc-intosh” at: <http://www.ngdc.noaa.gov/stp/space-weather/solar-data/solar-imagery/composites/synoptic-maps/mc-intosh/> This directory links to 5 subdirectories; documentation/, ptmc_level0/, ptmc_level1/, ptmc_level3/, and data_tars/.

The “documentation” directory has a file called mca_background_2020.pdf that describes the history of the maps and our implementation of the digital processing and archiving. The “plotfinal.pro” program and the color table program that it calls, “patmapcolortable.pro”, are in the subdirectory documentation/software/. Further information about using these programs can be found in mca_background_2020.pdf.

The data directories contain the following:

- ptmc_level0/ contains level0 files that are Photoshop-processed gif images made from the .pdf scans of each original hand-drawn CR map.
- ptmc_level1/ contains level1 files that have been cropped, oriented and scaled for consistency.
- ptmc_level3/ contains two subdirectories.
 - ptmc_level3_gifs/ contains a representative gif image of the final archive data for each Carrington Rotation (CR).
 - ptmc_level3_fits/ consists of a FITS file for each CR from which a set of color gif images can be produced through an IDL program called “plotfinal.pro”.
- data_tars/ contains tarred files with the entire data tree and the upload date of the data. These can be used to retrieve old data versions or to download all of the current data in one file.