DRAP archived files - NCEI readme

Last updated: 2026-04-21
Questions/comments about the archived files: ncei.info@noaa.gov
Questions/comments about the D-RAP product content: SWPC.Webmaster@noaa.gov

The D-Region Absorption Prediction (D-RAP) Model, produced by the Space Weather Prediction Center (SWPC), provides real-time graphic and text information about global High Frequency (HF) radio propagation conditions related to the ionosphere's D-region. Click here to learn more about the model itself.

The D-RAP version 2.0 model became an operational NWS/SWPC product on November 18, 2009. NCEI archives and provides access to a subset of the D-RAP model outputs from Sep 2009 until the present. We describe here the subset of data that is archived at NCEI.

Considering: **YYYY**: year; **MM**: month; **DD**: day; **hh**: hour [UTC]; **mm**: minute; **ss**: second; our DRAP archive directories and files follow the structure:

DAILY compressed files, with filenames: **SWX_DRAP20_C_SWPC_YYYMMDD.tar.gz**

Each compressed file contains (sometimes with few gaps):

- Maximum of 1,440 **.txt** files (1 file per minute)

SWX_DRAP20_C_SWPC_YYYYMMDDhhmmss_GLOBAL.txt
Includes the DRAP tabular values of the Highest Frequency [in MHz] affected by 1dB Absorption as a function of latitude and longitude (2x2deg resolution) valid at the YYY-MM-DD hh:mm:ss [UTC] informed by the filename and file header.

- Maximum of 4,320 **.png** images (3 images per minute)

SWX_DRAP20_C_SWPC_YYYYMMDDhhmmss_GLOBAL.png
a global map of the Highest Frequency affected by absorption of 1 dB due to either solar X-ray flux or SEP events or a combination of both, an attenuation bar graph, status messages, and an estimated recovery clock.

SWX_DRAP20_C_SWPC_YYYYMMDDhhmmss_N-POLE.png
North pole projection map of the Highest Frequency affected by absorption of 10 dB due primarily to SEP events.

SWX_DRAP20_C_SWPC_YYYYMMDDhhmmss_S-POLE.png
South pole projection map of the Highest Frequency affected by absorption of 10 dB due primarily to SEP events.