

RHESSI Level-0 and Quicklook Archive

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The Reuven Ramaty High Energy Solar Spectroscopic Imager (RHESSI) recorded X-ray data between 3 keV and 17 MeV from the Sun between February 2012 and April 2018. Please see the [RHESSI web site](https://hesperia.gsfc.nasa.gov/rhessi) at <https://hesperia.gsfc.nasa.gov/rhessi> for a complete description of the mission, the instrument, and the software needed to analyze the data.

These directories contain the primary RHESSI data archive of raw data and various quicklook products. There are additional archived RHESSI data products [here](#) (please read the aa_readme_rhessi_extras file there for descriptions of those files).

These directories are organized as follows:

Year directories	Raw Level-0 packed telemetry data for the full mission in FITS files, usually each covering one 90-minute orbit. These files contain the energy and time of arrival for every HXR photon detected. The RHESSI software in SSW is required to unpack the telemetry stream and construct spectra, time profiles, and images from these data. Files are named hsi_yyyymmdd_hhmmss_ver.fits, where the date and time are the start time of the file, and ver is a version number.	
DBASE directory	<ul style="list-style-type: none"> • Flare list information in one text file for the full mission, as well as monthly FITS and text files. • Filedb files containing record of file names for each type of quicklook file (obssumm, fullrate, and inslog) for each orbit time interval. These files are read internally in the RHESSI software to find the correct file to read. <p>Note: the flare list and filedb files are also distributed in the SSW hessi/dbase directory.</p>	
METADATA directory	Year directories	Count rate time profile plots for each orbit in 4-second time bins and 9 energy bands (made from the fullrate quicklook files). These are the plots shown in the RHESSI Browser when 'RHESSI by Time' is enabled.
	battery_latest	Text and CSV files showing the status of the battery from May 2017 to the end of the mission.
	catalog	Daily quicklook FITS files including <ul style="list-style-type: none"> • obssumm files - combined detector count rates in 4-second time bins, 9 energy bins • fullrate files - separate detector count rates in 4-second time bins, 9 energy bins • inslog files - instrument log files

	Files are named hsi_type_yyyymmdd_ver.fits, where type is obssumm, fullrate, or inslog, and ver is the version number.
data_gap_files	Daily and monthly text files of data gaps
hsi_1day_sohdata	One-day averages of various state of health parameters in text and plot files
qlook_image	<p>FITS files of quicklook images for each flare, both full sun and flare location</p> <p>Files are named hsi_type_flareid_ver.fits where type is fsimg for full sun, or qlimg for flare location, flareid is the RHESSI flare number, and ver is the version number.</p> <p>Note: these are quicklook images, not the science-ready images in the RHESSI Image Archive in the ./rhesi_extras/imagecube_fits_v2 directory.</p>
qlook_image_plots	<p>Plot files of quicklook images for each flare, both full sun and flare location. These are the plots shown in the RHESSI Browser when 'RHESSI by Flare'/Quicklook images' is enabled.</p> <p>Files are named hsi_fsimg_flareid.png for full sun images, and hsi_qlimg_flareid_e1e2.png for flare location images, where flareid is the RHESSI flare number, and e1e2 is the energy range in keV.</p> <p>Note: these are quicklook images, not the science-ready images in the RHESSI Image Archive in the ./rhesi_extras/flare_images_v2 directory.</p>
sas	<p>Solar Aspect System Data</p> <ul style="list-style-type: none"> • Daily FITS files of SAS image data • Orbital FITS files of SAS limb data