

CFHT Web Target Observability Tool

The CFHT Web Target Observability Tool shows Bright, Dark and Total number of hours with airmass below a certain threshold for a given target and a given date or range of dates up to 21 days.

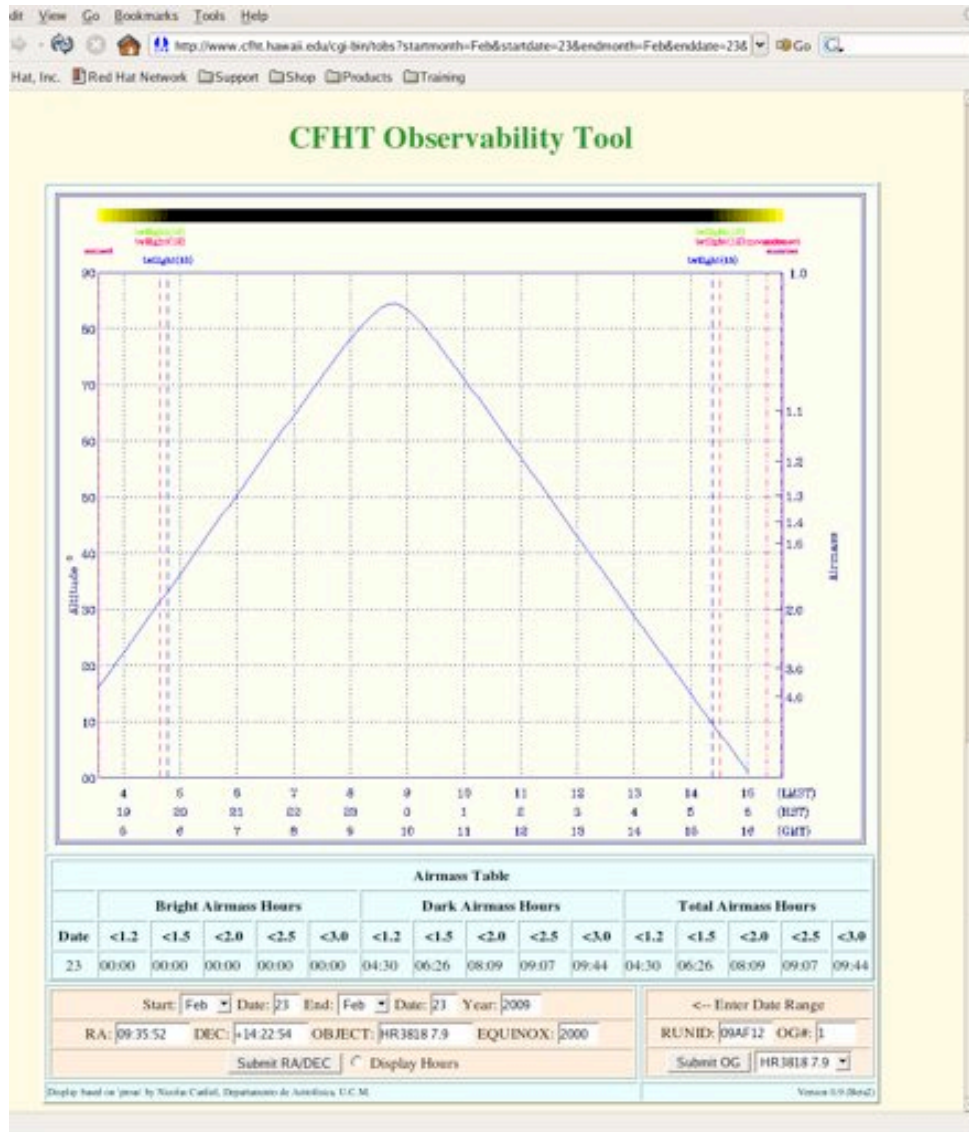


Figure 1 Image of Web Target Observability Tool Screen

Figure 1 shows a web screenshot of the default target Virgo, for the date Feb 15. Date ranges of up to 21 days may be selected. The graph image is created by an enhanced version of proas originally created by Nicolas Cardiel, Departamento de Astrofisica, U.C.M.

Bars showing sunset and sunrise, moonset and moonrise for each day are shown above the graph. The date and % illumination are shown in each bar.

Next is the graph of airmass and elevation as a function of time. The vertical lines show sunrise, sunrise 12 degrees, sunrise 18 degrees, moonrise, moonset, sunset, sunset 12 degrees and sunset 18 degrees for the first date in blue, the mid date in green and the last date in red.

The curves show airmass vs. time for the first date in blue, the mid date in green and the last date in red. Airmass is calculated as $SEC(z)$ or equivalently $1.0/\cos((90.0 - ELEVATION(t)) * \pi)$.

The number of hours with airmass below a certain threshold for Bright, Dark and Total for airmass values better than 1.2, 1.5, 2.0, 2.5 and 3.0 for each date are shown in a table below the graph.

Below the airmass table is a form allowing you to specify a date range, target RA and DEC as sexagesimal values, Object Name and equinox. Enter these values for the object of interest to you and press the **Submit RA/DEC** button. You may also select "Display Hours" to also see the exact hour (HST) ranges at each airmass.

To the right of the RA/DEC form is a RUNID/OG form. Pressing **Submit OG** with a RUNID and OG# queries the database to find the RA/DEC and create a graph for the given dates. You may then change the dates and retain that object. It is possible that one OG contains more than one object. In this case a popup menu appears to allow you to select the particular object of interest.

The URL is: <http://www.cfht.hawaii.edu/cgi-bin/tobs/>

The tool uses the Almanac maintained at:

www.cfht.hawaii.edu/Temporal/SkyCalendars/<year>/index.html

This almanac needs to be updated, perhaps for several years in advance.