

CURRENT OPERATION DATA

The button “Guest Logon” at the home page of the HEPOS website (www.hepos.gr) leads to a menu with information about the current operation of HEPOS. Access to this information is not restricted to registered users; any visitor of the website can see this information. However, for the registered users of post-processing applications, the “Satellite Tracking” is particularly useful. This option enables the users to check the satellite tracking status of the stations in the area of their interest. In the following, the options of the “Guest Logon” menu are described.

Map

This choice displays the map of Greece. The Counties are displayed with different colors. The locations of the reference stations (RS) of HEPOS are denoted using a triangle (▲). There are two categories of Reference stations.

- RSs belonging to a network that supports Network-GPS techniques, i.e. VRS, FKP and MAC
- Single RSs (for classical GPS-surveying using the data from one RS).

The area of RTK-coverage of each single-RS is denoted by a circle around the RS. There are two networks for network-solutions: one network for the main-land, Cyclades and Ionian Islands and another network covering Crete.

Moving the mouse on a RS, the code and name of this RS are displayed. Selecting a reference station on the map, the user can see the “Satellite tracking” information for this station, as it is described in detail in the following.

Almanac

This choice displays information about the health status of the GPS satellites. This information is included in the so-called almanac that is transmitted from every GPS satellite.

- The column “PRN” gives the PRN-number of the GPS satellite.
- The column “System” gives the GNSS system, to which the satellite belongs.
- The column “Health” gives a number describing the current health status of the satellite. The number 0 denotes that all transmitted navigation data are valid and that all components of the transmitted satellite signal are according to the specifications. Any other number (e.g. 255) denotes that something is not correct regarding the transmitted data or signals.
- The next two columns give the GPS-time of the almanac, i.e. the GPS-week and the GPS-seconds.

Using the choice “Download the latest almanac here”, the visitor of the page can download a file with the most recent almanacs of the GPS satellites.

I95 Index

This choice displays the graph of the ionospheric index I95 for the current day (default) or for previous days.

The index I95, describes the ionospheric activity. As known, the ionosphere has a serious impact on precise GPS-positioning. The values of I95 have the following meaning:

0 - 2	negligible ionospheric disturbances
2 - 4	weak ionospheric disturbances
4 - 8	strong ionospheric disturbances
> 8	very strong ionospheric disturbances

Satellite Tracking

This choice displays satellite-tracking data from the reference stations. The first page displays a list with all reference stations and the number of the satellites that are currently tracked at each station. By selecting a reference station, the user can see detailed tracking data of this station. Since the reference stations appear in a system's internal order, it may be easier for the user to find a station using the option "map", as described above.

After a station is selected, a new screen appears. In the upper right corner of this screen the coordinates of the station are displayed. It is likely that these coordinates differ from the official precise coordinates of the station that should be used for the station. These precise coordinates are available through the option "Downloads/Reference Stations details" at the homepage of HEPOS website.

- The columns "System", "PRN" and "Health" give the information that has been described previously in the "Almanac" option.
- The columns "Elev" and "Az" give the elevation and the azimuth of the tracked satellite.
- The columns «SnrCA», «SnrP2» give values that describe the strength of the tracked signal for L1 and L2, respectively.
- The columns «CA» and «P2» give the tracking counters for C/A και L2C. These counters increase by 1 every second.
- The column «URA» gives an estimation of the ranging accuracy, as being provided by the navigation message broadcasted by the satellites. Small values denote to good ranging accuracy, e.g. the value 0 corresponds to a ranging accuracy of 2m, the value 1 to 2.8m, the value 2 to 4m and the value 3 to 5.7m.

The "Satellite Tracking" data are changing with time. The time (Greenwich Mean Time), at which the values refer, is being displayed below the columns. It is pointed out, that the data are not automatically refreshed. For refreshing the display please use the "Reload" button.