Select start of calculation:
Date: 22 June 2013
Time: 22 : 45 : 10 Now
Select duration: 10 Minutes
Select interval: 2 Seconds go!


```
Name:           ISS
Launched:       20 Nov 1998
Dimensions:     109 m x 73 m x 27.5 m
Brightness:     -2.0 mag (at 1000 km, 50% illuminated)
                -4.7 mag (at perigee, full illumination)
                Mean magnitude from visual observations
RCS:            402m² (Radar cross section)
USSPACECOM Nr: 25544    Internat. Designator: 1998-067A
Orbit:          410.1 x 422.4 km, 92.9min  Inclination: 51.7°
Age Elements:   0.1 days
```

Satellite Menu
· Info · Orbit History/Zoom
· Sighting Opportunities
· Data & view of the Earth
· Finder Chart
· Ground Track Map
· Transit Centerline
· Orbit Elements (TLE)

Orbit calculations are based on the valid segment of 3 different orbital segments (orbital data above shown for the beginning of the segment containing the selected start time).

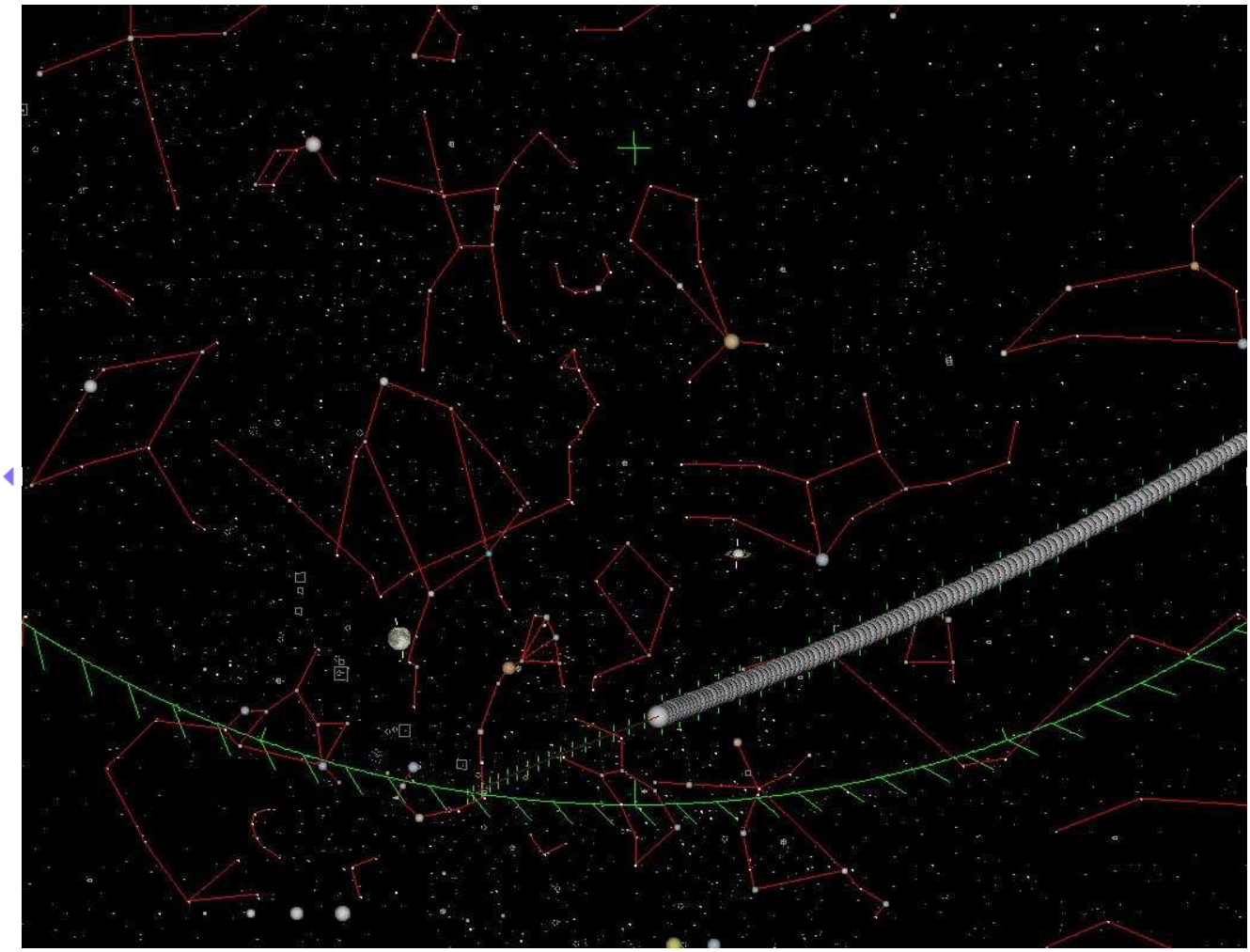
See more/less data and options by changing the user level!

Simulation
- 800 Output size
- ☐ Grid
- ☐ Main lines
- ☑ Constellations
- ☐ Boundaries
- ☐ no line of Horizon
- ☐ Negate colors
- ☐ draw no symbols
- ☑ Realism (e.g., show Planets/Moons)

Telescope
- ☑ Vertex is up
- ☐ Telrad
- ☐ Left-right mirrored image
- ☐ Inverted image
- ☑ Digitized Sky Survey photographic plates (supports only equatorial view)
- Auto Limiting Magnitude

Pointing
Whole Sky
Center Satellite
- 120 deg Field of View
- South Direction
- Object Name, NGC M PGC Cr Tr B Sh2 PK Abell Mrk ACO SDSS 2QZ / SAO HIP TYC HD FK5 XZ Gl Struve
- 15:12:56.571 Right Ascension
- 0:08:51.767 Declination

go!



Stars as seen from the observer.
Visual limiting magnitude: 6.5 mag

Time:

Saturday, 22 June 2013, 22h 45m 10s
JD: **2456466.3646991** TDT: 2456466.3654759 deltaT: 67.12 sec
Apparent sidereal time: Local: 15h 12m 56.572s Greenwich: 14h 49m 56.538s
(Times in **CEST, UTC+02:00**, topocentric data for **Eybens, France**)

Map Center:

Azimuth direction: 179.75° S (South)
Altitude: 44.96°
Right Ascension: 15h 13m 39.710s Apparent coordinates
Declination: + 0° 05' 54.63" Apparent coordinates

Right Ascension: 15h 12m 56.572s J2000
Declination: + 0° 08' 51.77" J2000

Elongation from Sun center: 131.83°
Elongation from Moon center: 39.59°

Rises: 16h 43m (Azimuth: 89.3° E)
Transit: 22h 45m 53s (Altitude: +44.97°)
Sets: 4h 49m on following day (Azimuth: 270.7° W)
Time above horizon: 12h 05m

Opposition in R.A.: 11. May 2013 11h 22m CEST Elongation: 161.9°
Conjunction in R.A.: 13. November 2013 2h 47m CET Elongation: 18.1°

Sun:

Altitude: -10.8°
Azimuth: 320.0°

Moon:

Altitude: 16.8°
Azimuth: 146.5°
Phase, illum. fraction: 99.3% (geocentric)

Print E-mail

Positions are shown in **topocentric (for objects within the solar system, geocentric otherwise) astrometric (airfree) equatorial coordinates at equinox J2000.0 (Right Ascension/Declination) and epoch of date given**. Stereoscopic projection is used for the star chart. If you zoom into a field of view in order of minutes of arc, you will get a fantastic photographic background image from the Digitized Sky Survey (DSS) from the Mount Palomar observatory.

Pointing the mouse to targets reveals their names - the higher the selected user level, the more features are labeled. The highest level "Astronomer" displays all object names. You can switch the user level just next to the small Earth icon on top of each page.

Top

Create new default account/Logout

Software Version: 01 July 2013
Database updated 25 min ago
Current Users: 119, Runtime: 2.6s

16 Jul 2013, 16:27 UTC
591 minutes left for this session / Mode for our sponsors