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Introduction · Sat-Library · Selected Satellite · Internat. Space Station ISS · Satellites within interval · Tracking/Identification · (Iridium) Flares · Tumbling Iridium · [Geostationary](#) · Radio Amateurs · GPS/GLONASS · Remote Sensing (radar/optical) | [Star Chart](#) | Decaying Satellites · Sun/Moon Crossers, Occultations
 → CalSky-Shop → Nightvision-Mode → E-mail & Alert Manager

Remark: The start time for calculation has been put back in order to show the satellite prior to the event.

Select start of calculation:

Date:

Time: : : . in TDT

Select duration:

Select interval:

Satellites

Name: **IRIDIUM 33 Debris**
 Brightness: 7.6 mag (at 1000 km, 50% illuminated)
 6.3 mag (at perigee, full illumination)
 Mean magnitude from radar observations
 RCS: 1.4m² (Radar cross section)
 USSPACECOM Nr: **33886** Internat. Designator: **1997-051BF**
 Orbit: 771.5 x 796 km, 100.5min Inclination: 86.4°
 Age Elements: 0.4 days

Satellite Menu

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- [Finder Chart](#)
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- [Orbit Elements \(TLE\)](#)

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

<p>Simulation</p> <p><input type="text" value="800"/> Output size</p> <p><input type="checkbox"/> Grid</p> <p><input type="checkbox"/> Main lines</p> <p><input checked="" type="checkbox"/> Constellations</p> <p><input checked="" type="checkbox"/> Boundaries</p>	<p>Telescope</p> <p><input checked="" type="checkbox"/> Vertex is up</p> <p><input type="checkbox"/> Telrad</p> <p><input type="checkbox"/> Left-right mirrored image</p> <p><input type="checkbox"/> Inverted image</p>	<p>Pointing</p> <p><input type="button" value="Whole Sky"/></p> <p><input type="button" value="Center Satellite"/></p> <p><input type="text" value="20 deg"/> Field of View</p> <p><input type="text"/> Direction</p> <p></p>
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<input type="checkbox"/> no line of Horizon	<input type="checkbox"/> Digitized Sky Survey	Object Name, NGC MPGC Cr
<input type="checkbox"/> Negate colors	<input checked="" type="checkbox"/> photographic plates (supports only equatorial view)	Tr B Sh2 PK
<input checked="" type="checkbox"/> draw no symbols	<input type="text" value="Auto"/> Limiting Magnitude	<input type="text" value=""/> Abell Mrk ACO
<input type="checkbox"/> Realism (e.g., show sun, planets, moons)		SDSS 2QZ /
		SAO HIP TYC
		HD FK5 XZ Gl
		Struve
		<input type="text" value="16:42:00"/> Right Ascension
		<input type="text" value="38:55:00"/> Declination

Move the mouse pointer to reveal object names. Click a bright star to see its heliacal rising and setting date below



Stars as seen from the observer.
Visual limiting magnitude: 10 mag

Time:

Friday, 19 June 2009, 00h 01m 30.39s
 JD: **2455001.4177128** TDT: 2455001.4184761 deltaT: 65.95 sec leap seconds: 34 sec
 Apparent sidereal time: Local: 16h 10m 45.236s Greenwich: 15h 50m 35.954s
 Mean sidereal time: Local: 16h 10m 44.381s Greenwich: 15h 50m 35.099s
 Local solar time: Mean: 22h 21m 39.670s True: 22h 20m 25.338s
 Equation of Time: - 1m 14.33s
 (Times in **CEST, UTC+02:00**, topocentric data for **On center line, France**)

Map Center:

Azimuth direction: 126.85° SE (Southeast)
 Altitude: 82.32°
 Right Ascension: 16h 42m 21.777s Apparent coordinates
 Declination: + 38° 53' 54.34" Apparent coordinates

Right Ascension: 16h 42m 00.000s J2000
 Declination: + 38° 55' 00.00" J2000

Elongation from Sun center: 115.68°
 Elongation from Moon center: 112.75°
 In constellation: Hercules

Rises: 15h 01m (Azimuth: 28.4° NNE)
Transit: 0h 33m 02s (Altitude: +85.11°)
Sets: 10h 01m (Azimuth: 331.6° NNW)

Relative to **Sun**: (Sun 19.0° below horizon, azimuth: 335.9° NNW)
 Separation: 115.68° (disk centers) Position Angle: 14.6° NNE
 ΔAzimuth: +150.96° ΔAltitude: +101.3° vertical Position Angle: 355.9° (to East)
 Relative to **Moon**: (Moon 22.5° below horizon, azimuth: 33.2° NNE, -8.6 mag, phase 20.3%)
 Separation: 112.75° (disk centers) Position Angle: 327.2° NNW
 ΔAzimuth: +93.63° ΔAltitude: +104.8° vertical Position Angle: 351.7° (to East)

Opposition in R.A.: 2. June 2009 13h 56m CEST Elongation: 118.9°
Conjunction in R.A.: 4. December 2009 3h 43m CET Elongation: 61.1°

 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.

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Software Version: 11 January 2016
Database updated 10 min ago
Current Users: 159

5 Feb 2016, 14:12 UTC
569 minutes left for this session  / Mode
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