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### Select start of calculation:

Date: 17 February 2013

Time: 19:00:00 Now

Select duration: 2 Hours

**geipan**  
**Brest**

Easting: -4.486  
 Northing: 48.3903  
 Time zone: UT

Hobby

[Weather](#)

Local Sponsors: Your name?

## The Calendar-Sky

The astronomical calendar contains **thousands of events per day** for every point on Earth. We know that you only care for a very few of these events and hence we let you personalize your own Astro-Calendar. You may primarily do so by switching to your appropriate user level, and by selecting some of the three dozens categories.

In parentheses are forced limits for the maximum calculation interval. The celestial calendar is to be found further below on this page and will appear within some seconds after pressing the *Go!*-Button (depending on the complexity of your selections). The calendar is created especially for you. The higher your user level, the more complex objects you selected, the longer it does take to calculate. *Please do not press the reload-button*; the calculations will take significantly longer.

### Calendar and Timekeeping

- Space Calendar:
- Birthdays, Rocket Launches
- Local Events (Talks, Exhibitions)
- NASA TV Guide
- Local Telescope Dealers
- Public Holidays
- Saint's Day
- Zodiac of today.
- Change of Zodiac Islamic, Indian,
- Persian and Hebrew Calendar
- Week Number
- Sundials / GPS
- Time / Current Time Definitions
- Julian Day Number
- Sidereal Time
- Local Magnetic Field

### General events

- Lunar Occultations (2 months)
- Planetary Conjunctions
- Lunar Eclipses
- Solar Eclipses and Transits
- Meteor Streams
- Planetary Phenomena
- Lunar Phenomena
- The Sun
- Asteroids (6 months)
- Comets

### Earth orbiting satellites

- Space Station ISS (1 month) short duration
- Flares of Iridium satellites (14 days)
- Passes of other bright satellites (7 days, slow!)

### Daily reoccurring events










- Sun and Moon
- Planets
- Asteroids
- Comets
- Meteor Streams
- Polar Star Transits
- Weather Balloons


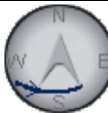










### Dimmer and more difficult objects




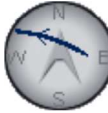





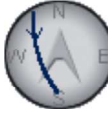

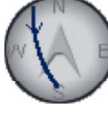

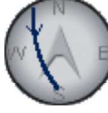
- Jupiter: Great Red Spot and satellite events
  - Jupiter's Satellites: position
  - Saturn: Satellite events and storms
  - Saturn's Satellites: position
  - Zodiacal light/Gegenschein
  - Variable Stars (3 months)
  - Supernovae
  - Binary Stars
- ### Deep sky objects
- Milky Way
  - Galaxies
  - Open Star Clusters
  - Globular Star Clusters
  - Nebula










## Sunday 17 February 2013

Time (24-hour clock)	Object (Link)	Event
	<b>Observer Site</b>	<b>Brest</b> WGS84: Lon: -4d29m09.87s Lat: +48d23m25.42s Alt: 103m All times in UT
19h00m00s	 <a href="#">Shijian 7 LM Rocket</a> (28738) <a href="#">2005-024-B</a> <a href="#">→Ground track</a> <a href="#">→Star chart</a>	Appears 18h50m21s 5.8mag az:149.8° SSE horizon Culmination 18h56m16s 2.7mag az: 70.9° ENE h:46.0° distance: 744.6km height above Earth: 555.2km elevation of Sun: -12° angular velocity: 0.60°/s at Meridian 18h59m35s 5.0mag az: 0.0° N h:13.1° Disappears 19h02m15s 6.3mag az:352.3° N horizon
19.0h	 <a href="#">Mercury</a>	Magnitude=-0.3mag Best seen from 18.0h -19.3h (h <sub>top</sub> =13° at WSW at 18.0h) (in constellation Aquarius) RA=23h10m39s Dec= -3°53.2' (J2000) Distance=0.916AU Elongation= 18° Phase k=46% Diameter=7.3"
19.0h	 <a href="#">Jupiter</a>	Magnitude=-2.4mag Best seen from 18.0h - 2.5h (h <sub>top</sub> =63° at S at 18.8h) (in constellation Taurus) RA= 4h19m48s Dec=+20°54.6' (J2000) Distance=4.853AU Elongation= 98° Diameter=40.6"
19h02m58s	 <a href="#">ISS</a> <a href="#">→Ground track</a> <a href="#">→Star chart</a>	Appears 18h57m34s 3.3mag az:276.4° W horizon Culmination 19h02m58s -3.4mag az:358.2° N h:45.6° distance: 575.1km height above Earth: 423.1km elevation of Sun: -13° angular velocity: 0.74°/s at Meridian 19h03m00s -3.4mag az: 0.0° N h:45.6° Disappears 19h04m37s -2.9mag az: 59.6° ENE h:24.3°
19h04m47s	 <a href="#">Cosmos 2227 Rocket</a> (22285) <a href="#">1992-093-B</a> <a href="#">→Ground track</a> <a href="#">→Star chart</a>	Appears 18h56m52s 6.7mag az:335.0° NNW horizon at Meridian 19h01m55s 4.6mag az: 0.0° N h:23.1° Culmination 19h04m47s 3.4mag az: 51.2° NE h:37.3° distance: 1287.3km height above Earth: 853.3km elevation of Sun: -13° angular velocity: 0.32°/s Disappears 19h08m12s 4.2mag az:107.6° ESE h:19.6°
19.1h	 <a href="#">Uranus</a>	Magnitude= 5.9mag Best seen from 19.1h -19.5h (h <sub>top</sub> =18° at WSW at 19.1h) (in constellation Pisces) RA= 0h23m46s Dec= +1°49.8' (J2000) Distance=20.834AU Elongation= 37° Diameter=3.4"
19h08m21s	 <a href="#">ADEOS 2</a> (27597) <a href="#">2002-056-A</a> <a href="#">→Ground track</a> <a href="#">→Star chart</a>	Appears 19h00m46s 5.9mag az:168.6° SSE horizon at Meridian 19h06m32s 3.6mag az:180.0° S h:42.1° Culmination 19h08m21s 3.1mag az:256.7° WSW h:76.1° distance: 832.1km height above Earth: 810.7km elevation of Sun: -14° angular velocity: 0.53°/s Disappears 19h16m00s 6.4mag az:345.3° NNW horizon
19h10m	 <a href="#">Sun</a>	Sun 15° below horizon
19h12m45s	 <a href="#">Cosmos 1943 Rocket</a> (19120) <a href="#">1988-039-B</a> <a href="#">→Ground track</a>	Appears 19h05m14s 6.1mag az:177.3° S horizon Culmination 19h12m45s 3.4mag az:105.9° ESE h:33.5° distance: 1338.8km height above Earth: 824.7km

	<a href="#">→Star chart</a>	elevation of Sun: -15° angular velocity: 0.32°/s <b>Disappears</b> 19h16m15s 4.3mag az: 52.0° NE h:17.0°	
☿ 19h14m14s	 <a href="#">Tiangong-1</a> (37820) <a href="#">2011-053-A</a> <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears</b> 19h09m34s 5.8mag az:231.2° SW horizon <b>at Meridian</b> 19h13m40s 2.3mag az:180.0° S h:18.9° <b>Culmination</b> 19h14m14s 2.0mag az:164.1° SSE h:19.8° distance: 924.4km height above Earth: 369.3km elevation of Sun: -15° angular velocity: 0.47°/s <b>Disappears</b> 19h14m36s 1.9mag az:153.6° SSE h:19.4° Time uncertainty of about 2 seconds	
☿ 19h16m41s	 <a href="#">COSMO-SkyMed 3</a>	<b>Flare from unknown Mirror</b> Magnitude= 0.5mag Azimuth=230.9° SW altitude= 26.1° in constellation Cetus Flare angle=1.84° <a href="#">Flare center line</a> , <a href="#">closest point</a> <a href="#">→MapIt</a> : Longitude=3.614°W Latitude=+48.239° (WGS84) Distance=66.6 km Azimuth=104.3° ESE Satellite above: longitude=14.2°W latitude=+41.7° height above Earth=628.0 km distance to satellite=1274.7 km Altitude of Sun=-15.3° This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).	
☿ 19h18m11s	 <a href="#">USA 210/DMSP</a> 5D-3/F18 (35951) <a href="#">2009-057-A</a> <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears</b> 19h10m29s 8.2mag az:149.4° SSE horizon <b>Culmination</b> 19h18m11s 5.4mag az: 69.0° ENE h:56.1° distance: 996.9km height above Earth: 848.9km elevation of Sun: -16° angular velocity: 0.44°/s <b>at Meridian</b> 19h21m27s 7.1mag az: 0.0° N h:23.4° <b>Disappears</b> 19h25m55s 8.9mag az:349.0° N horizon	
☿ 19h23.8m	♿ <a href="#">Mercury</a>	<b>Set</b> Azimuth=264.9°, W (in constellation Aquarius)	
☿ 19h24m26s	 <a href="#">Cosmos 1975</a> (19573) <a href="#">1988-093-A</a> <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears</b> 19h18m06s 7.3mag az:182.7° S horizon <b>at Meridian</b> 19h21m01s 5.9mag az:180.0° S h:15.0° <b>Culmination</b> 19h24m26s 3.5mag az: 97.0° E h:73.2° distance: 614.3km height above Earth: 590.3km elevation of Sun: -17° angular velocity: 0.72°/s <b>Disappears</b> 19h30m52s 7.1mag az: 11.7° NNE horizon	
☿ 19h28m	☀ <a href="#">Sun</a>	End astronomical twilight	
☿ 19h33m06s	 <a href="#">SJ 11-01 LM Rocket</a> (36089) <a href="#">2009-061-B</a> <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears</b> 19h30m04s 3.9mag az:134.1° SE h:22.9° <b>Culmination</b> 19h33m06s 2.9mag az: 69.1° ENE h:50.3° distance: 997.4km height above Earth: 795.8km elevation of Sun: -18° angular velocity: 0.44°/s <b>at Meridian</b> 19h36m53s 4.9mag az: 0.0° N h:17.4° <b>Disappears</b> 19h40m30s 6.4mag az:350.8° N horizon	
☿ 19h35m10s	 <a href="#">Helios 2A Rocket</a> (28499) <a href="#">2004-049-H</a> <a href="#">→Ground track</a>	<b>Appears</b> 19h28m19s 6.6mag az:164.5° SSE horizon <b>at Meridian</b> 19h34m59s 3.4mag az:180.0° S h:83.1° <b>Culmination</b> 19h35m10s 3.4mag az:255.2° WSW h:88.2°	

	<a href="#">→Star chart</a>	distance: 699.0km height above Earth: 698.8km elevation of Sun: -18° angular velocity: 0.63°/s <b>Disappears 19h42m14s</b> 7.4mag az:346.3° NNW horizon	
☉ 19h50m06s	 <a href="#">Cosmos 1154 Rocket</a> (11683 1980-008-B) <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears 19h44m53s</b> 7.3mag az:346.9° NNW horizon <b>Disappears 19h50m06s</b> 3.2mag az:308.5° NW h:72.5°	
☉ 19h57m05s	 <a href="#">USA 234/FIA Radar 2</a> (38109 2012-014-A) <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears 19h54m50s</b> 4.2mag az: 81.5° E h:39.5° <b>Culmination 19h57m05s</b> <b>4.0mag</b> az: 22.7° NNE h:59.7° distance: 1227.8km height above Earth: 1086.2km elevation of Sun: -22° angular velocity: 0.35°/s <b>at Meridian 19h57m39s</b> 4.2mag az: 0.0° N h:57.6° <b>Disappears 20h05m53s</b> 8.9mag az:302.5° WNW horizon	
☉ 19h57m58s	 <a href="#">Seasat (10967 1978-064-A)</a> <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears 19h54m13s</b> 4.9mag az: 28.5° NNE h:18.0° <b>at Meridian 19h57m52s</b> 3.1mag az: 0.0° N h:85.4° <b>Culmination 19h57m58s</b> <b>3.1mag</b> az:300.3° WNW <b>h:87.7°</b> distance: 758.0km height above Earth: 757.5km elevation of Sun: -22° angular velocity: 0.55°/s <b>Disappears 20h05m10s</b> 7.0mag az:211.9° SSW horizon	
☉ <a href="#">20h04m23s</a>	 <a href="#">Cosmos 2297 Rocket</a> (23405 1994-077-B) <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears 19h56m21s</b> <u>6.9mag</u> <u>az:334.1° NNW</u> horizon <b>Disappears 20h04m23s</b> <u>3.1mag</u> <u>az: 54.5° NE</u> h:47.9°	
☉ 20h22m43s	 <a href="#">Yaogan 9A</a> (36413 2010-009-A) <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears 20h13m10s</b> 8.9mag az:316.6° NW horizon <b>Culmination 20h22m43s</b> <b>5.3mag</b> az:239.0° WSW h:52.0° distance: 1392.8km height above Earth: 1146.1km elevation of Sun: -26° angular velocity: 0.29°/s <b>at Meridian 20h26m10s</b> 5.6mag az:180.0° S h:29.9° <b>Disappears 20h27m17s</b> 5.9mag az:173.5° S h:22.5°	
☉ 20h22m52s	 <a href="#">Yaogan 9B</a> (36414 2010-009-B) <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears 20h13m20s</b> 8.9mag az:316.4° NW horizon <b>Culmination 20h22m52s</b> <b>5.3mag</b> az:239.6° WSW h:49.9° distance: 1425.1km height above Earth: 1146.6km elevation of Sun: -26° angular velocity: 0.28°/s <b>at Meridian 20h26m38s</b> 5.7mag az:180.0° S h:27.1° <b>Disappears 20h27m40s</b> 6.0mag az:174.4° S h:20.7°	
☉ 20h23m04s	 <a href="#">Yaogan 9C</a> (36415 2010-009-C) <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<b>Appears 20h13m30s</b> 8.9mag az:316.6° NW horizon <b>Culmination 20h23m04s</b> <b>5.3mag</b> az:239.1° WSW h:51.9° distance: 1393.9km height above Earth: 1146.3km elevation of Sun: -26° angular velocity: 0.29°/s <b>at Meridian 20h26m31s</b> 5.6mag az:180.0° S h:29.8° <b>Disappears 20h27m35s</b> 5.8mag az:173.7° S h:22.7°	
☉ 20h29.6m	<a href="#">21Jupiter-Moon Io</a>	Occultation Disappearance (I.Oc.D.; 5.5 mag)	



 20h30.6m	 <a href="#">Moon</a>	<p>First Quarter (diameter: 29.629', declination: 19.26°)          This is the 2nd smallest first quarter moon of the year.          Next smaller first quarter moon is at <a href="#">19.3.2013</a>          (calculated for the geocenter)          This is the 2nd northernmost first quarter moon of the year.          Next more northern first quarter moon is at <a href="#">19.3.2013</a> (calculated for the geocenter)</p>																			
 20h37m22s	 <a href="#">ISS</a> <a href="#">→Ground track</a> <a href="#">→Star chart</a>	<table border="0"> <tr> <td>Appears</td> <td>20h34m22s</td> <td>2.1mag</td> <td>az:290.2° WNW</td> <td rowspan="2"></td> </tr> <tr> <td>horizon</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Disappears</td> <td>20h37m22s</td> <td>-0.5mag</td> <td>az:294.8° WNW</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>h:17.1°</td> <td></td> </tr> </table>	Appears	20h34m22s	2.1mag	az:290.2° WNW		horizon				Disappears	20h37m22s	-0.5mag	az:294.8° WNW					h:17.1°	
Appears	20h34m22s	2.1mag	az:290.2° WNW																		
horizon																					
Disappears	20h37m22s	-0.5mag	az:294.8° WNW																		
			h:17.1°																		

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 Current Users: 116      [/](#) Mode for our sponsors



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