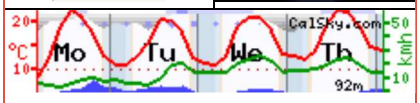
Select start of calculation:
Date: 1 June 2014
Time: 22 : 50 : 18 . 00 in TDT Now
Select duration: 1 Hour go!

geipan
etrelles, France
Easting: -1.1941
Northing: 48.0601
Time zone: CET/ CEST
Astronomer



Weather · Sat-Image
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 (*1 day*, 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

go!

Sunday 1 June 2014

Time (24-hour clock)	Object (Link)	Event

	Observer Site	etrelles, France WGS84: Lon: -1d11m38.85s Lat: +48d03m36.44s Alt: 140m All times in CET or CEST (during summer)
22h50m18s	Cosmos 2221 (22236 1992-080-A) →Ground track →Star chart	**Appears** **22h41m46s** 8.6mag az:348.7° NNW horizon **Culmination** **22h48m18s** **3.5mag** az:262.7° **W** **h:76.6°** distance: 624.9km height above Earth: 609.5km elevation of Sun: -7° angular velocity: 0.71°/s **at Meridian** **22h50m57s** 4.5mag az:180.0° S h:22.8° **Disappears** **22h54m05s** 5.9mag az:176.7° S h:3.0°
22h50m18s	Terra (25994 1999-068-A) →Ground track →Star chart	**Appears** **22h45m02s** 4.7mag az:118.6° ESE h:7.2° **Culmination** **22h49m27s** **4.0mag** az: 62.0° **ENE** **h:23.6°** distance: 1459.5km height above Earth: 710.2km elevation of Sun: -8° angular velocity: 0.29°/s **at Meridian** **22h54m59s** 7.1mag az: 0.0° N h:3.1° **Disappears** **22h55m49s** 7.5mag az:356.8° N horizon
22h50m18s	USA 245/KH (39232 2013-043-A) →Ground track →Star chart	**Appears** **22h47m41s** 5.2mag az:135.4° SE h:10.2° **Culmination** **22h50m00s** **4.1mag** az: 68.4° **ENE** **h:32.8°** distance: 608.4km height above Earth: 348.7km elevation of Sun: -8° angular velocity: 0.73°/s **at Meridian** **22h53m07s** 7.8mag az: 0.0° N h:7.8° **Disappears** **22h54m59s** 9.1mag az:353.6° N horizon Time uncertainty of about 15 seconds
22h50m18s	Cosmos 1939 Rocket (19046 1988-032-B) →Ground track →Star chart	**Appears** **22h42m02s** 6.4mag az:169.6° S h:2.9° **at Meridian** **22h46m14s** 4.1mag az:180.0° S h:40.0° **Culmination** **22h47m38s** **3.9mag** az:257.4° **WSW** **h:75.8°** distance: 596.4km height above Earth: 579.8km elevation of Sun: -7° angular velocity: 0.72°/s **Disappears** **22h53m50s** 9.4mag az:345.9° NNW horizon
22h50m18s	Yaogan 9 Db E (36417 2010-009-E) →Ground track →Star chart	**Appears** **22h36m07s** 9.2mag az:215.1° SW horizon **at Meridian** **22h44m46s** 6.4mag az:180.0° S h:78.8° **Culmination** **22h45m08s** **6.4mag** az:128.2° **SE** **h:83.0°** distance: 1040.7km height above Earth: 1034.3km elevation of Sun: -7° angular velocity: 0.39°/s **Disappears** **22h54m42s** 9.6mag az: 41.9° NE horizon
22h51m01s	USA 217/STPSat-2 (37222 2010-062-A) →Ground track →Star chart	**Appears** **22h44m16s** 8.1mag az:212.4° SSW horizon **Culmination** **22h51m01s** **5.6mag** az:298.3° **WNW** **h:65.2°** distance: 694.6km height above Earth: 636.5km elevation of Sun: -8° angular velocity: 0.60°/s **at Meridian** **22h52m14s** 6.3mag az: 0.0° N h:45.0° **Disappears** **22h57m49s** 8.9mag az: 24.5° NNE horizon Time uncertainty of about 1 minutes
22h51m36s	Resurs DK-1 (29228 2006-021-A)	**Appears** **22h45m12s** 10.3mag az:328.6° NNW horizon **Culmination** **22h51m36s** **3.4mag** az:243.6° **WSW**

		→Ground track →Star chart	**h:71.1°** distance: 604.0km height above Earth: 574.3km elevation of Sun: -8° angular velocity: 0.72°/s **at Meridian 22h52m30s** 3.3mag az:180.0° S h:51.7° **Disappears 22h56m03s** 5.3mag az:159.8° SSE h:8.4°
	22h54m15s	Cosmos 1437 Rocket (13771 1983-003-B) →Ground track →Star chart	**Appears 22h49m59s** 5.9mag az:163.2° SSE h:6.6° **Culmination 22h54m15s 4.2mag** az: 93.9° **E h:34.4°** distance: 881.1km height above Earth: 536.5km elevation of Sun: -8° angular velocity: 0.48°/s **Disappears 23h00m05s** 7.8mag az: 19.8° NNE horizon
	22h54m48s	SJ 11-03 Rocket (37731 2011-030-B) →Ground track →Star chart	**Appears 22h50m30s** 4.5mag az:125.1° SE h:8.8° **Culmination 22h54m48s 3.7mag** az: 64.9° **ENE h:28.6°** distance: 1275.7km height above Earth: 699.2km elevation of Sun: -8° angular velocity: 0.33°/s **at Meridian 23h00m05s** 7.0mag az: 0.0° N h:4.6° **Disappears 23h01m17s** 7.6mag az:355.8° N horizon
	22h55m11s	Rubin 2 Dnpr Rocket (27610 2002-058-F) →Ground track →Star chart	**Appears 22h48m23s** 12.6mag az:320.4° NW horizon **Culmination 22h55m11s 4.3mag** az:233.0° **SW h:83.9°** distance: 612.6km height above Earth: 609.6km elevation of Sun: -8° angular velocity: 0.72°/s **at Meridian 22h55m22s** 4.2mag az:180.0° S h:79.9° **Disappears 22h59m23s** 6.1mag az:145.6° SE h:10.8°
	22h58m31s	Cosmos 2322 Rocket (23705 1995-058-B) →Ground track →Star chart	**Appears 22h53m01s** 5.0mag az:161.0° SSE h:6.5° **Culmination 22h58m31s 3.9mag** az:102.4° **ESE h:25.3°** distance: 1645.3km height above Earth: 856.9km elevation of Sun: -9° angular velocity: 0.25°/s **Disappears 23h05m54s** 6.4mag az: 37.1° NE horizon
	22h59m40s	Abrixas (25721 1999-022-A) →Ground track →Star chart	**Appears 22h53m57s** 9.4mag az:283.4° WNW horizon **Culmination 22h59m40s 4.0mag** az:202.7° **SSW h:50.2°** distance: 591.5km height above Earth: 464.8km elevation of Sun: -9° angular velocity: 0.72°/s **at Meridian 23h00m02s** 3.9mag az:180.0° S h:47.8° **Disappears 23h02m53s** 5.6mag az:128.0° SE h:12.0°
	23h00m28s	USA 29/DMSP 5D-2/F9 (18822 1988-006-A) →Ground track →Star chart	**Appears 22h52m54s** 9.8mag az: 18.2° NNE horizon **Culmination 23h00m28s 6.0mag** az:100.2° **E h:51.7°** distance: 998.7km height above Earth: 810.9km elevation of Sun: -9° angular velocity: 0.44°/s **at Meridian 23h06m56s** 8.2mag az:180.0° S h:4.1° **Disappears 23h07m12s** 8.3mag az:180.5° S h:3.1°
	23h02m36s	Cosmos 1980 Rocket (19650 1988-102-B) →Ground track	**Appears 22h54m46s** 5.6mag az:187.5° S horizon **at Meridian 22h57m57s** 4.6mag az:180.0° S h:13.7° **Culmination 23h02m36s 3.1mag** az:109.6° **ESE h:48.4°**

		→Star chart	distance: 1074.5km height above Earth: 838.3km elevation of Sun: -9° angular velocity: 0.38°/s **Disappears 23h10m28s** 6.5mag az: 32.0° NNE horizon
	23h02m57s	Yaogan 9A (36413 2010-009-A) →Ground track →Star chart	**Appears 22h53m55s** 8.3mag az:225.5° SW horizon **Culmination 23h02m57s 5.8mag** az:313.4° **NW h:74.7°** distance: 1070.2km height above Earth: 1037.8km elevation of Sun: -9° angular velocity: 0.38°/s **at Meridian 23h03m39s** 5.9mag az: 0.0° N h:68.3° **Disappears 23h12m34s** 8.6mag az: 41.7° NE horizon
	23h03m07s	Yaogan 9B (36414 2010-009-B) →Ground track →Star chart	**Appears 22h54m04s** 8.3mag az:226.7° SW horizon **Culmination 23h03m07s 5.8mag** az:314.1° **NW h:72.3°** distance: 1082.6km height above Earth: 1038.8km elevation of Sun: -9° angular velocity: 0.38°/s **at Meridian 23h03m54s** 6.0mag az: 0.0° N h:65.3° **Disappears 23h12m44s** 8.6mag az: 41.7° NE horizon
	23h03m17s	Yaogan 9C (36415 2010-009-C) →Ground track →Star chart	**Appears 22h54m15s** 8.3mag az:225.5° SW horizon **Culmination 23h03m17s 5.8mag** az:313.4° **NW h:74.7°** distance: 1069.6km height above Earth: 1037.2km elevation of Sun: -9° angular velocity: 0.38°/s **at Meridian 23h03m59s** 5.9mag az: 0.0° N h:68.3° **Disappears 23h12m53s** 8.6mag az: 41.7° NE horizon
	23h08m10s	USA 216/SBSS 1 (37168 2010-048-A) →Ground track →Star chart	**Appears 23h01m35s** 9.1mag az: 17.0° NNE horizon **Culmination 23h08m10s 4.9mag** az:100.2° **E h:54.2°** distance: 768.6km height above Earth: 637.5km elevation of Sun: -10° angular velocity: 0.58°/s **at Meridian 23h13m02s** 7.1mag az:180.0° S h:7.1° **Disappears 23h13m13s** 7.2mag az:180.5° S h:6.2° Time uncertainty of about 3 seconds
	23h14m43s	GEOS 3 Rocket (07735 1975-027-B) →Ground track →Star chart	**Appears 23h07m10s** 7.8mag az: 39.7° NE horizon **Culmination 23h14m43s 4.4mag** az:130.7° **SE h:87.5°** distance: 827.1km height above Earth: 826.6km elevation of Sun: -10° angular velocity: 0.53°/s **at Meridian 23h14m48s** 4.4mag az:180.0° S h:86.2° **Disappears 23h22m18s** 7.4mag az:221.4° SW horizon
	23h17m34s	Dragon 22B (39681 2014-022-B) →Ground track →Star chart	**Appears 23h14m30s** 7.4mag az:222.9° SW horizon **Disappears 23h17m34s** 4.3mag az:173.3° S h:22.3° Time uncertainty of about 2 minutes
	23h22m30s	ISS →Ground track →Star chart	**Appears 23h22m30s -2.0mag az:105.7° ESE h:12.3°** **Disappears 23h25m42s -0.5mag az: 75.2° ENE horizon**
	23h25m52s	Cosmos 1151 Rocket	**Appears 23h19m28s** 9.1mag az:356.3° N horizon

		(11672 1980-005-B) →Ground track →Star chart	**at Meridian 23h20m44s** 8.4mag az: 0.0° N h:5.1° **Culmination 23h25m52s 4.4mag** az: 74.6° **ENE h:39.3°** distance: 911.8km height above Earth: 612.7km elevation of Sun: -12° angular velocity: 0.48°/s **Disappears 23h28m52s** 5.2mag az:137.6° SE h:16.7°
	23h38m43s	USA 62/NOSS 2-1C (20692 1990-050-D) →Ground track →Star chart	**Appears 23h32m20s** 7.4mag az:210.6° SSW horizon **at Meridian 23h37m54s** 4.4mag az:180.0° S h:54.5° **Culmination 23h38m43s 4.3mag** az:125.9° **SE h:67.7°** distance: 721.4km height above Earth: 672.8km elevation of Sun: -13° angular velocity: 0.59°/s **Disappears 23h46m34s** 8.5mag az: 42.4° NE horizon Time uncertainty of about 12 seconds
	23h39m16s	Yaogan 1 LM Rocket (29093 2006-015-B) →Ground track →Star chart	**Appears 23h37m10s** 3.9mag az:119.8° ESE h:17.4° **Culmination 23h39m16s 3.5mag** az: 68.0° **ENE h:30.8°** distance: 904.5km height above Earth: 507.1km elevation of Sun: -13° angular velocity: 0.48°/s **at Meridian 23h43m40s** 7.4mag az: 0.0° N h:5.1° **Disappears 23h44m55s** 8.2mag az:355.8° N horizon
	23h39m47s	USA 61/NOSS 2-1B (20691 1990-050-C) →Ground track →Star chart	**Appears 23h33m25s** 7.4mag az:210.4° SSW horizon **at Meridian 23h38m56s** 4.5mag az:180.0° S h:53.5° **Culmination 23h39m47s 4.3mag** az:125.7° **SE h:67.0°** distance: 725.0km height above Earth: 673.3km elevation of Sun: -13° angular velocity: 0.59°/s **Disappears 23h47m38s** 8.5mag az: 42.5° NE horizon Time uncertainty of about 12 seconds
	23h42m11s	Pleiades 1B (39019 2012-068-A) →Ground track →Star chart	**Appears 23h38m45s** 4.9mag az:149.6° SSE h:18.2° **Culmination 23h42m11s 3.6mag** az: 72.0° **ENE h:64.2°** distance: 773.3km height above Earth: 704.6km elevation of Sun: -13° angular velocity: 0.56°/s **at Meridian 23h44m31s** 6.0mag az: 0.0° N h:29.2° **Disappears 23h49m10s** 9.5mag az:349.2° N horizon
	23h43m15s	SkyTerra 1 Tnk (37220 2010-061-C) →Ground track →Star chart	**Appears 23h38m13s** 6.1mag az:214.2° SW horizon **at Meridian 23h41m31s** 4.5mag az:180.0° S h:29.8° **Culmination 23h43m15s 4.5mag** az:132.2° **SE h:42.0°** distance: 1344.3km height above Earth: 966.9km elevation of Sun: -13° angular velocity: 0.36°/s **Disappears 0h02m55s** 9.2mag az: 63.8° ENE horizon
	23h43m39s	Cosmos 2263 Rocket (22803 1993-059-B) →Ground track →Star chart	**Appears 23h35m39s** 9.7mag az:335.1° NNW horizon **at Meridian 23h40m52s** 5.7mag az: 0.0° N h:24.8° **Culmination 23h43m39s 3.9mag** az: 52.6° **NE h:40.1°** distance: 1234.9km height above Earth: 857.2km elevation of Sun: -13° angular velocity: 0.34°/s **Disappears 23h48m07s** 4.5mag az:118.0° ESE h:14.3°

	23h44m50s	NOSS 2-1 (E) (20642 1990-050-E) →Ground track →Star chart	**Appears** **23h38m23s** 7.4mag az:211.9° SSW horizon **at Meridian** **23h44m09s** 4.4mag az:180.0° S h:60.1° **Culmination** **23h44m50s** **4.4mag** az:126.5° **SE** **h:71.3°** distance: 723.6km height above Earth: 689.5km elevation of Sun: -13° angular velocity: 0.59°/s **Disappears** **23h52m51s** 8.6mag az: 42.2° NE horizon
	23h45m24s	SL-24 DEB (39449 2013-066-AK) →Ground track →Star chart	**Appears** **23h43m12s** 4.8mag az:129.5° SE h:20.0° **Culmination** **23h45m24s** **4.2mag** az: 70.1° **ENE** **h:40.1°** distance: 780.3km height above Earth: 528.1km elevation of Sun: -13° angular velocity: 0.56°/s **at Meridian** **23h49m03s** 7.9mag az: 0.0° N h:9.7° **Disappears** **23h51m09s** 9.4mag az:353.4° N horizon Time uncertainty of about 1 seconds

31 Items/Events: Export to Outlook/iCal Print E-mail
Used satellite data set is from 31 May 2014

Hide glossary

Glossary:

Appears
Local time at which the satellite appears visually. The first figure indicates the **visual brightness** of the object. The smaller the number, the brighter and more eye-catching it appears to an observer. The units are astronomical magnitudes [m]. **Azimuth** is given in degrees counting from geographic north clockwise to the east direction. The three-character direction code is given as well. In case the satellite exits from the Earth shadow and comes into the glare of the Sun, the elevation above horizon is given in degrees for this event. If this figure is omitted, the satellite is visible straight from the horizon.

at Meridian
Time of the transit of the meridian, i.e. the satellite is due South or due North. At this time, the satellite will not reach its highest point of the pass. Look for culmination.

Azimuth/az
Azimuth direction of the object is given in degrees counting from geographic north (0°) clockwise to the east direction. East is 90°, south 180°, and west 270°. The three-character direction code is given as well. For example, NNW stands for north-north-west.

Culmination
Time at which the satellite reaches his highest point in the sky as seen from the observer. For description of the figures see **Appears**.
Visually "better" passes of satellites are indicated by highlighting the information. The selection within the list of all possible transits is coupled with the observer level, the daylight, and several other conditions.

Disappears
Local time of visual disappearance of the satellite. This may either be the time at which the satellite moves below the observer's horizon or the entry of the object in the shadow of Earth (the elevation is given for this event). The low Earth orbiting (LEO) satellites are usually visible for about 10 seconds more than the listed time, when they start fading rapidly.

International Space Station ISS
The manned ISS is according to NASA the biggest and most complex scientific project in history. During twilight passed, the space station is easily seen by everyone as a strikingly bright and silently running star. It crosses the sky in a few minutes basically from west to east.

Time and Date
Date of validity of calculated output in local time and date, taking into account daylight saving time as well (see the current time zone on the left of the Earth icon on top right of almost all pages). The time is given as hours:minutes:seconds, or 00h00m00s. The time may also be rounded and given in decimal form, in order to correspond to the accuracy of the calculation: e.g., 10.1h means that the event will take place at about 5 minutes past 10 o'clock. This may also happen for days: 4.3d corresponds to the fourth day at around 7 o'clock. The start time is taken as selected by you, i.e., this is *not* necessarily at midnight. For intervals shorter than one day, decimal days are given. Times are given in 24 hour format (0h00m is midnight, 12h:

noon, 18h: 6 pm.)

WGS84 / Geographical Coordinates

Geographical coordinates are given by the angles longitude (Lon), latitude (Lat), and altitude in meters (Alt). A place north of the equator at marked by N or +, places south of the equator by S or -. The longitude from the meridian of Greenwich is counted positive towards east (E). Places west from Greenwich are marked W or by -. The geographical coordinates refer to an ellipsoid, which fits the true shape of the Earth (geoid). The geoid corresponds to calm sea surface. The keyword "Geographic:" uses the local ellipsoid as reference system. WGS84 mark coordinates referring to the WGS84 ellipsoid. The difference in altitude to the geoid sums up to 100 meters and is called geoid undulation. This is corrected for when tagged "MSL" (mean sea level), such that the origin of the height system is at sea level.

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