The *Cal*culated *Sky*

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Time:

Saturday, 5 October 2019, 20h 37m 00s

Satellite Visibility Status:

Satellite is in sunlight
and **above your horizon**, and **visible**

This object is very easy to be seen in your sky.
- Just look up, it's the bright moving spot!
You will find the satellite by looking high to direction NNE.

Interfering factors:
Elevation of Sun: -13.2° (astronomical twilight)
Elevation of Moon: 22.3° (0.1 days past First Quarter)

Geocentric Satellite Tracking:

Orbit: Shape = 422.4 km x 424.3 km, Period = 92.9 min, Inclination = 51.6°
Revolutions since launch: 0.0, satellite currently **descending**
Ground track:
Sub-Satel:Lon = 3°56'21" Lat = +46°19'58" Height= 416.12 km

Topocentric:

Magnitude: -3.6 mag
Constellation: Cassiopeia (Cas)
Altazimuth: Az = 26.00° NNE Alt = +45.45° r = 567.32 km
Apparent: R.A. = 0h38m32s Dec = +71°23'05" r = 567.32 km
Elongation from Sun center: 113.44° (Sun below horizon)
Elongation from Moon center: 110.88°

Next local pass:
Rise: 20h31m38s
Magnitude: 1.9mag
Altazimuth: Az = 304.19° NW Alt = +0.46° r = 2347.23 km
Meridian: 20h36m33s
Magnitude: -3.2mag
Altazimuth: Az = 0.00° N Alt = +42.23° r = 597.65 km
Culmination: 20h37m00s
Magnitude: -3.6mag
Altazimuth: Az = 25.99° NNE Alt = +45.45° r = 567.32 km
Set: 20h42m20s
Magnitude: (invisible)
Altazimuth: Az = 107.74° ESE Alt = +0.46° r = 2335.57 km
Visibility of this pass:
Appears: 20h31m38s (rises on the horizon)
Magnitude: 1.9mag
Altazimuth: Az = 304.19° NW Alt = +0.46° r = 2347.23 km
Meridian: 20h36m33s
Magnitude: -3.2mag
Altazimuth: Az = 0.00° N Alt = +42.23° r = 597.65 km
Culmination: 20h37m00s
Magnitude: **-3.6mag**
Altazimuth: Az = 25.99° NNE Alt = +45.45° r = 567.32 km
Disappears: 20h38m31s (satellite enters Earth's shadow and gets eclipsed)
Magnitude: -3.1mag
Altazimuth: Az = 85.57° E Alt = +25.61° r = 859.24 km

Visibility of International Space Station ISS

Saturday, 5 October 2019

Time (24-hour clock)	Object (Link)	Event
	Observer Site	User Site, France WGS84: Lon: +1d48m39.86s Lat: +43d19m39.39s Alt: 266m Geoid Alt: 217m All times in CET or CEST (during summer)
20h37m00s	ISS →Ground track →Star chart	Appears 20h31m38s 1.9mag az:304.2° NW horizon at Meridian 20h36m33s -3.2mag az: 0.0° N h:42.2° Culmination 20h37m00s -3.6mag az: 26.0° NNE h:45.4° distance: 567.3km height above Earth: 416.1km elevation of Sun: -13° angular velocity: 0.79°/s Disappears 20h38m31s -3.1mag az: 85.6° E h:25.6°
22h11m25s	ISS →Ground track →Star chart	Appears 22h08m29s 2.0mag az:294.5° WNW horizon Disappears 22h11m25s -0.3mag az:275.0° W h:14.0°

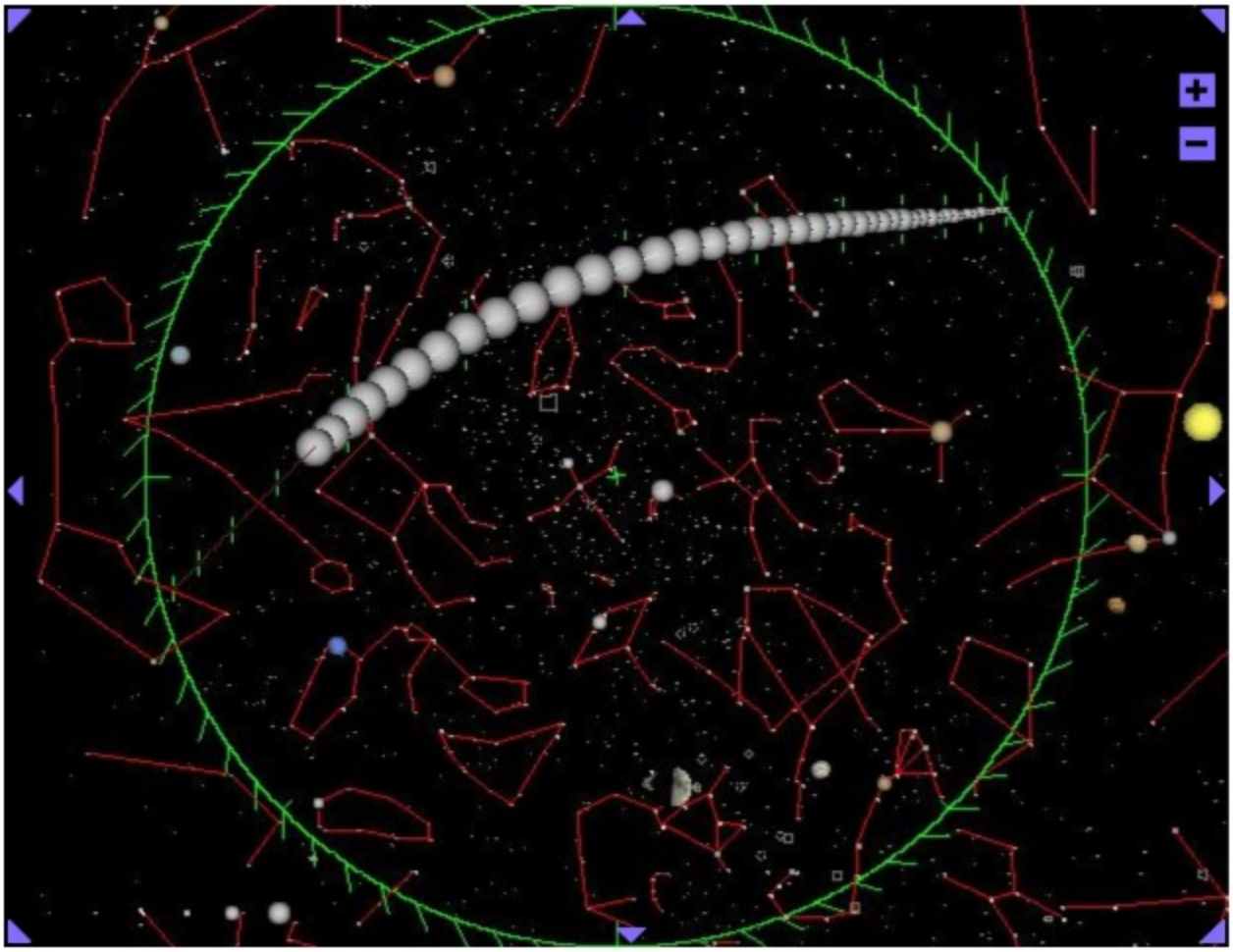
Sunday, 6 October 2019

Time (24-hour clock)	Object (Link)	Event
19h48m21s	ISS →Ground track →Star chart	Appears 19h43m05s 1.5mag az:304.2° NW horizon at Meridian 19h47m50s -2.7mag az: 0.0° N h:30.6° Culmination 19h48m21s -3.1mag az: 21.0° NNE h:32.5° distance: 723.1km height above Earth: 416.4km elevation of Sun: -5° angular velocity: 0.61°/s Disappears 19h52m03s -1.6mag az: 91.5° E h:6.6°
21h24m57s	ISS →Ground track →Star chart	Appears 21h19m51s 2.3mag az:298.6° WNW horizon Disappears 21h24m57s -3.0mag az:232.3° SW h:43.4°

Monday, 7 October 2019

Time (24-hour clock)	Object (Link)	Event
20h36m41s	ISS →Ground track →Star chart	Appears 20h31m17s 2.0mag az:301.5° WNW horizon Culmination 20h36m41s -4.0mag az:214.7° SW h:77.0°

Satellites



Stars as seen from the observer.
Visual limiting magnitude: 5.5 mag

☐ show all values

Time:

Saturday, 5 October 2019, 20h 31m 38s

Map Center:

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Azimuth direction: 66.53°  ENE  (East-Northeast)
Altitude:          89.88°
Right Ascension:   19h 36m 03.812s   Apparent coordinates
Declination:       +  43° 22' 37.25" Apparent coordinates

Right Ascension:   19h 35m 26.166s   J2000
Declination:       +  43° 19' 39.39" J2000

Elongation from Sun center:  102.59°
Elongation from Moon center: 67.59°
In constellation:  Cygnus (Cyg)

Rises:   10h 08m  on following day (Azimuth:  17.5° NNE)
Transit: 20h 32m 15s  (Altitude: +89.95°)
Sets:     6h 53m  on following day (Azimuth: 342.5° NNW)
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