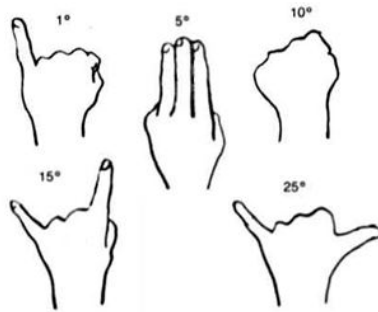


Engaging Viewers with Astronomy

Supplemental information

Measuring the sky



Courtesy: One Minute Astronomer

Sun and Moon

- Sun rise/set, moon rise/set, eclipse calculator
<http://www.timeanddate.com/astronomy>
- Eclipses, lunar and solar: paths overlaid on Google maps, orthographic maps
<http://eclipse.gsfc.nasa.gov/>
- “Supermoon” when is the next
<http://earthsky.org/space/what-is-a-supermoon>

Eclipse:

- General NASA site on all lunar and solar eclipses:
- Google Earth tool for 2017 eclipse:
<http://eclipse.gsfc.nasa.gov/SEgoogle/SEgoogle2001/SE2017Aug21Tgoogle.html>

Meteors, bolides, and fireballs

- Earth Sky – upcoming meteor showers
<http://earthsky.org/astronomy-essentials/earthskys-meteor-shower-guide>
- American Meteor Society – triangulated fireball reports
<http://www.amsmeteors.org/>

What’s Up Tonight?

- Earth Sky visible planets
<http://earthsky.org/astronomy-essentials/visible-planets-tonight-mars-jupiter-venus-saturn-mercury>

Satellite passes

- NASA’s Spot the Station
<http://spotthestation.nasa.gov/>
- Heavens Above: ISS, Hubble Space Telescope, X-37, Tangoing 1
<http://www.heavens-above.com>

Launch Calendars

Engaging Viewers with Astronomy

Supplemental information

- Worldwide launch schedule
<http://spaceflightnow.com/launch-schedule>
- NASA
<http://www.nasa.gov/launchschedule>
- Cape Canaveral



<https://www.kennedyspacecenter.com/events.aspx>

Dashboards

- Deep Space Network Now – live view of data flowing to and from all spacecraft beyond Earth orbit. Same interface as big boards at JPL's Space Flight Operations Facility
<https://eyes.nasa.gov/dsn/dsn.html>

Astronomy clubs

- Sky and Telescope Magazine directory of clubs. Self nominated list maintained by the magazine
<http://www.skyandtelescope.com/astronomy-clubs-organizations/>
- NASA Night Sky Network. Collection of active astronomy clubs around the country which are focused on outreach. Each is provided support from NASA in the form of access to teleconferences with experts and outreach toolkits
<http://nightsky.jpl.nasa.gov>
- Astronomical League
<https://www.astroleague.org/>

B-Roll and other video

- JPL Video – solar system exploration
<http://www.jpl.nasa.gov/video>
- Goddard Space Flight Center – Earth observing and heliophysics missions
<http://earthobservatory.nasa.gov/Images>
- GSFC Scientific Visualization Center
<http://svs.gsfc.nasa.gov/index.html>
- Real-time location, HD views from ISS interior and exterior
<http://eol.jsc.nasa.gov/HDEV/>

More reading

- Basics of Spaceflight - tutorial designed for JPL operations people identify the range of concepts associated with deep space missions
<http://www2.jpl.nasa.gov/basics/index.php>

Engaging Viewers with Astronomy

Supplemental information

Downloads

- Stellarium (PC, Mac, Linux) – planetarium software
<http://www.stellarium.org>

Twitter

- @rtphokie – that’s me
- @MarsWXReport – tweets most recent sol’s meteorological report
- Official NASA twitter accounts: <http://www.nasa.gov/socialmedia/>
- @fka_roscosmos Russian Space Agency (in Russian)
- @esa European Space Agency
- @JAXA_en Japanese Space Agency
- @isro Indian Space Agency
- @45thSpaceWing launch weather forecasting for Cape Canaveral
- @Philae2014, @ESA_Rosetta ESA’s mission to land on a comet
- @DrBrianMay Astrophysicist, lead guitarist Queen
- @CO_Space_News Colorado Space News, aerospace industry news
- @AstronomyLeague
- @Spaceflight101 spaceflight news
- @theAGU American Geophysical Union
- @airandspace Smithsonian Air and Space Museum
- @SwRI supplies instruments and primary investigators to many solar system exploration missions
- @springerastro Aerospace publisher
- @SpaceTrackOrg satellite orbital information, new and deorbiting objects
- @ScienceCenters support your local science museum
- @ProfAbelMendez Planetary scientist at the Arecibo Observatory
- @cirquelar JPL/USGS keeper of the Mars maps
- @spann because everybody should follow James Spann, shouldn’t they?