# Meteor Activity Outlook for May 29-June 4, 2021

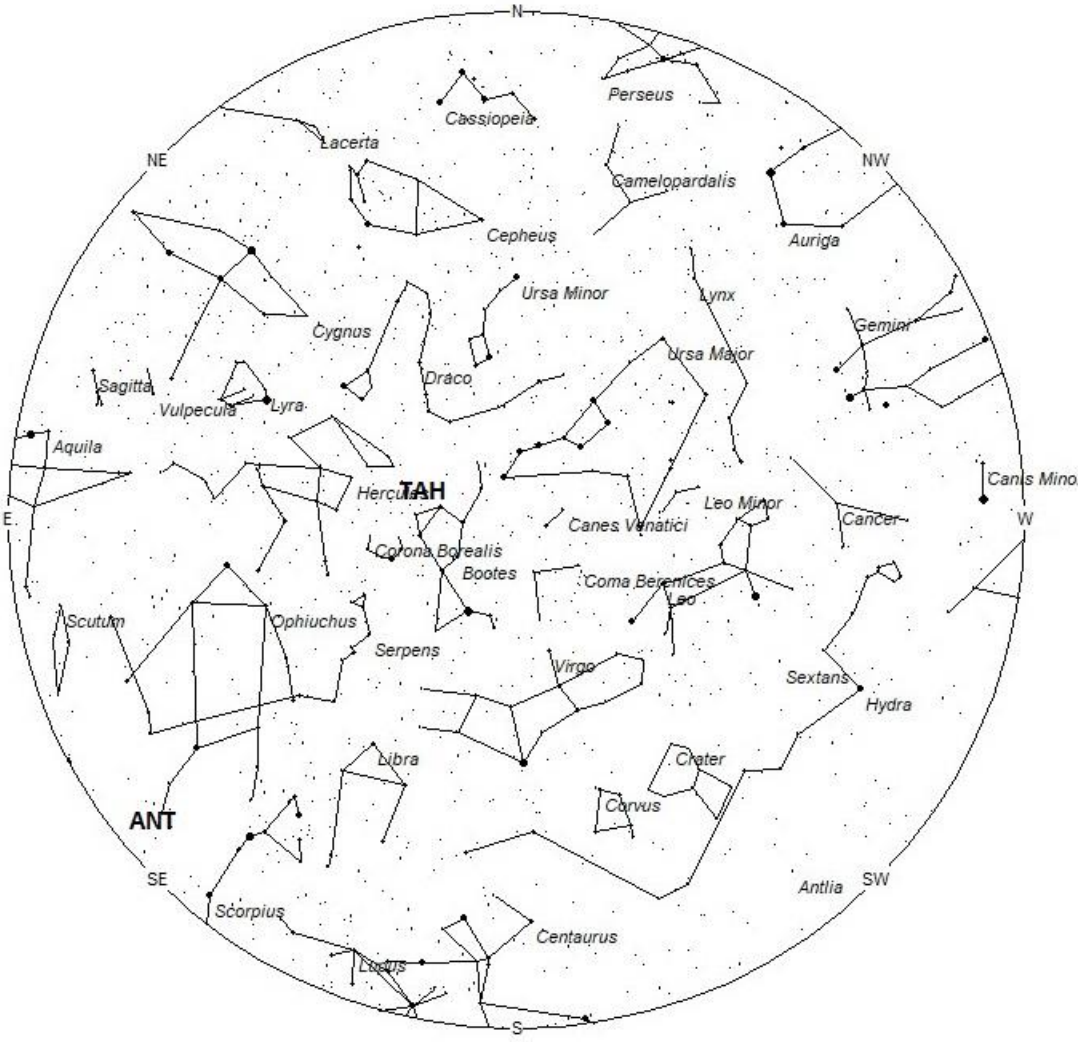

Aaron Morris captured this nice fireball at 08:39 UT on April 21, 2021, from Griffin, Georgia, USA. Despite the fact that this fireball occurred near the Lyrid peak, it is not a Lyrid meteor. ©Aaron Morris

As seen from the Northern Hemisphere, June is another slow month for meteor activity. There are no major showers active in June and only the Anthelion source can be counted on for continuous activity. Sporadic rates continue to remain low as seen from the mid-northern hemisphere (45 N) with only half the rates seen from the mid-Southern Hemisphere. For the upper half of the Northern Hemisphere the nights are short to non-existent this time of year. As seen from the southern tropics (25 S) sporadic rates continue to be strong this month with morning hourly rates exceeding 10.

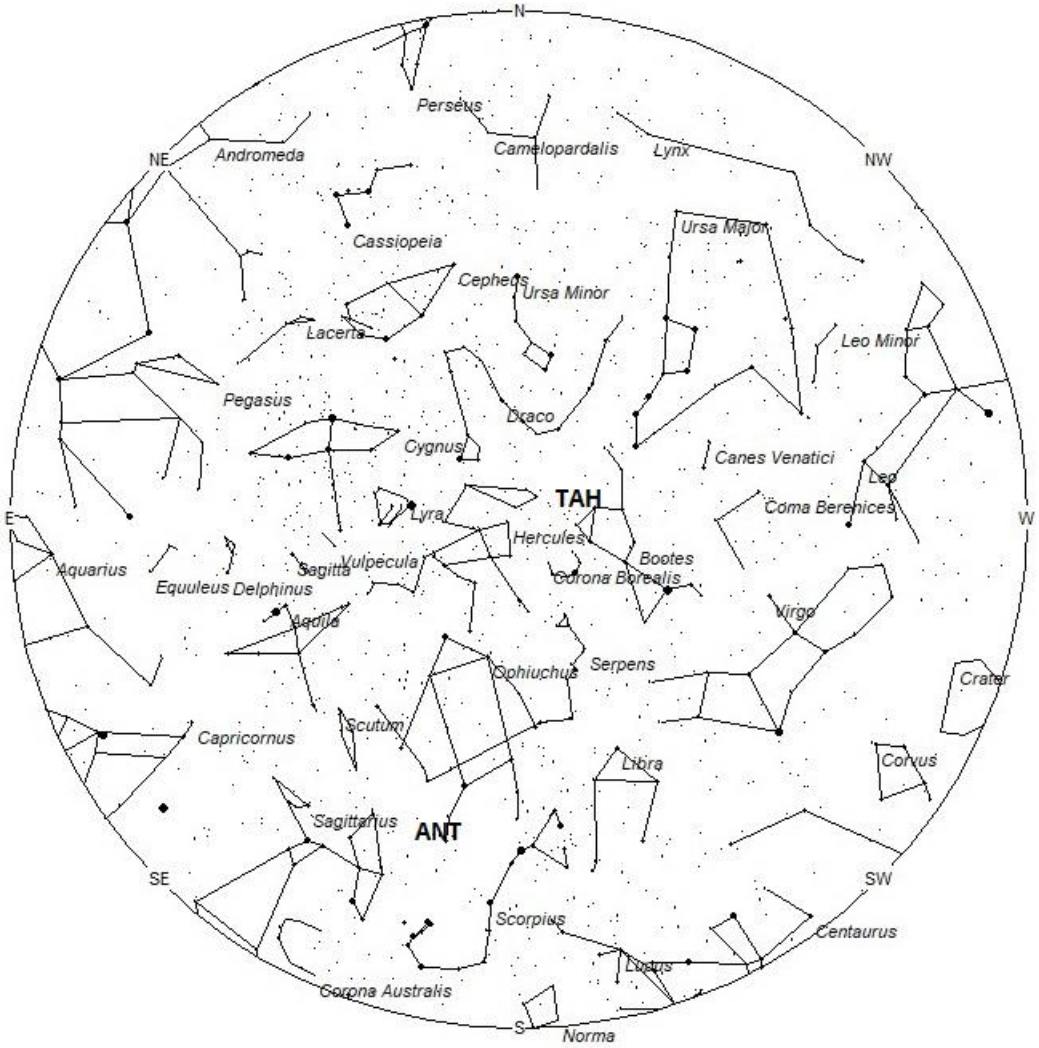
During this period, the moon reaches its last quarter phase on Wednesday June 2nd. On this date the moon is located 90 degrees west of the sun and rises near 02:00 local daylight saving time (LDST). This weekend the waning gibbous moon will rise during the early evening hours and will create difficult conditions for view meteor activity the remainder of the night. The estimated total hourly meteor rates for evening observers this week is near 2 as seen from mid-northern latitudes (45N) and 3 as seen from tropical southern locations (25S). For morning observers, the estimated total hourly rates should be near 5 as seen from mid-northern latitudes (45N) and 9 as seen from tropical southern locations (25S). The actual rates will also depend on factors such as personal light and motion perception, local weather conditions, alertness, and experience in watching meteor activity. Rates are reduced during this period due to moonlight. Note that the hourly rates listed below are estimates as viewed from dark sky sites away from urban light sources. Observers viewing from urban areas will see less activity as only the brighter meteors will be visible from such locations.

The radiant (the area of the sky where meteors appear to shoot from) positions and rates listed below are exact for Saturday night/Sunday morning May 29/30. These positions do not change greatly day to day so the listed coordinates may be used during this entire period. Most star atlases (available at science stores

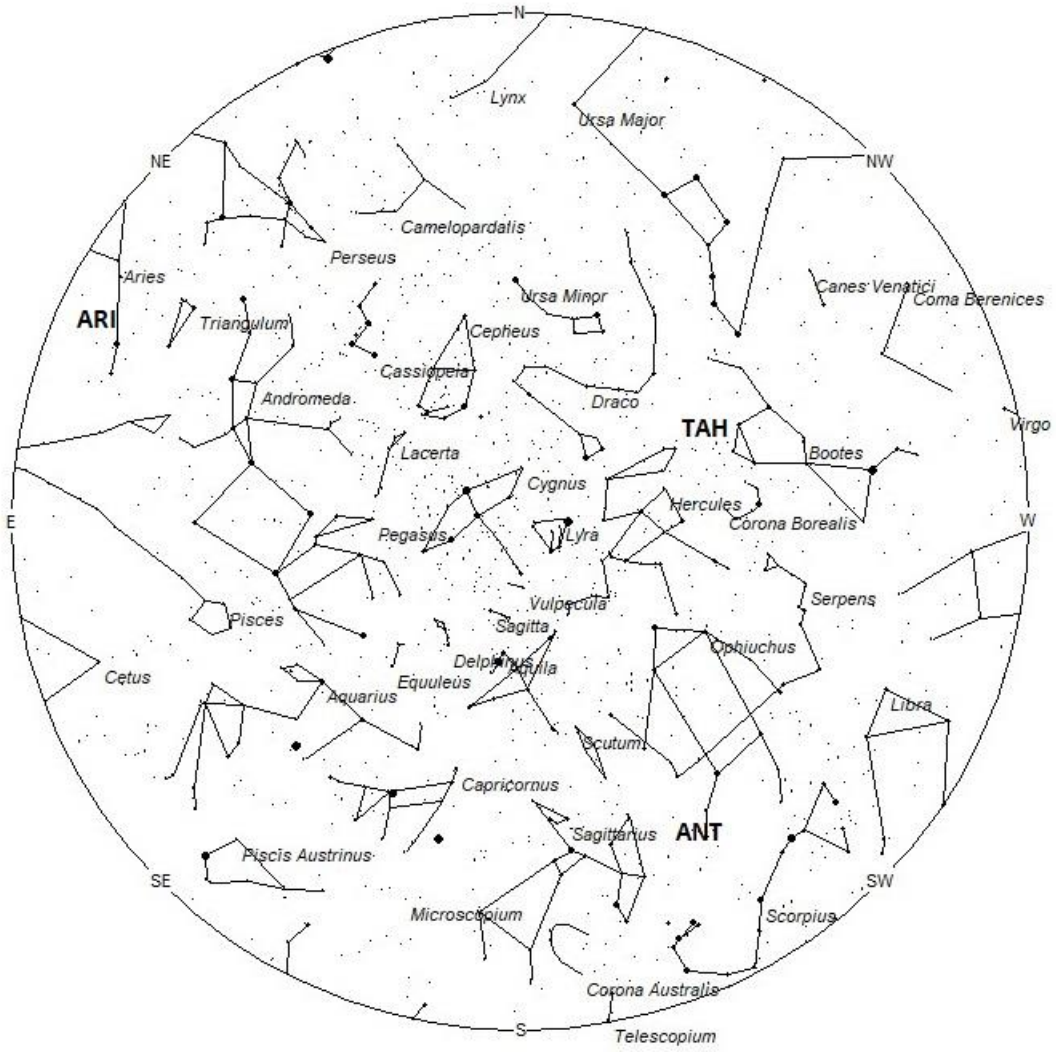
and planetariums) will provide maps with grid lines of the celestial coordinates so that you may find out exactly where these positions are located in the sky. A planisphere or computer planetarium program is also useful in showing the sky at any time of night on any date of the year. Activity from each radiant is best seen when it is positioned highest in the sky, either due north or south along the meridian, depending on your latitude. It must be remembered that meteor activity is rarely seen at the radiant position. Rather they shoot outwards from the radiant, so it is best to center your field of view so that the radiant lies at the edge and not the center. Viewing there will allow you to easily trace the path of each meteor back to the radiant (if it is a shower member) or in another direction if it is sporadic. Meteor activity is not seen from radiants that are located far below the horizon. The positions below are listed in a west to east manner in order of right ascension (celestial longitude). The positions listed first are located further west therefore are accessible earlier in the night while those listed further down the list rise later in the night.




# Radiant Positions at 10pm Local Daylight Saving Time




# Radiant Positions at 1am Local Daylight Saving Time




# Radiant Positions at 4am Local Daylight Saving Time

## These sources of meteoric activity are expected to be active this week.

Details of each source will continue next week when viewing conditions will be much improved.

| SHOWER | DATE OF MAXIMUM ACTIVITY | CELESTIAL POSITION | ENTRY VELOCITY | CULMINATION | HOURLY RATE | CLASS |
|---|---|---|---|---|---|---|
| | | RA (RA in Deg.) DEC | Km/Sec | Local Daylight Saving Time | North-South | |
| tau Herculids (TAH) | Jun 02 | 15:06 (227) +41 | 15 | 00:00 | <1 - <1 | III |
| Anthelion (ANT) | - | 17:28 (262) -23 | 30 | 02:00 | 1 - 2 | II |
| Daytime Arietids (ARI) | Jun 04 | 02:31 (038) +23 | 40 | 11:00 | <1 - <1 | IV |