

## Meteor Activity Outlook for October 31-November 6, 2020



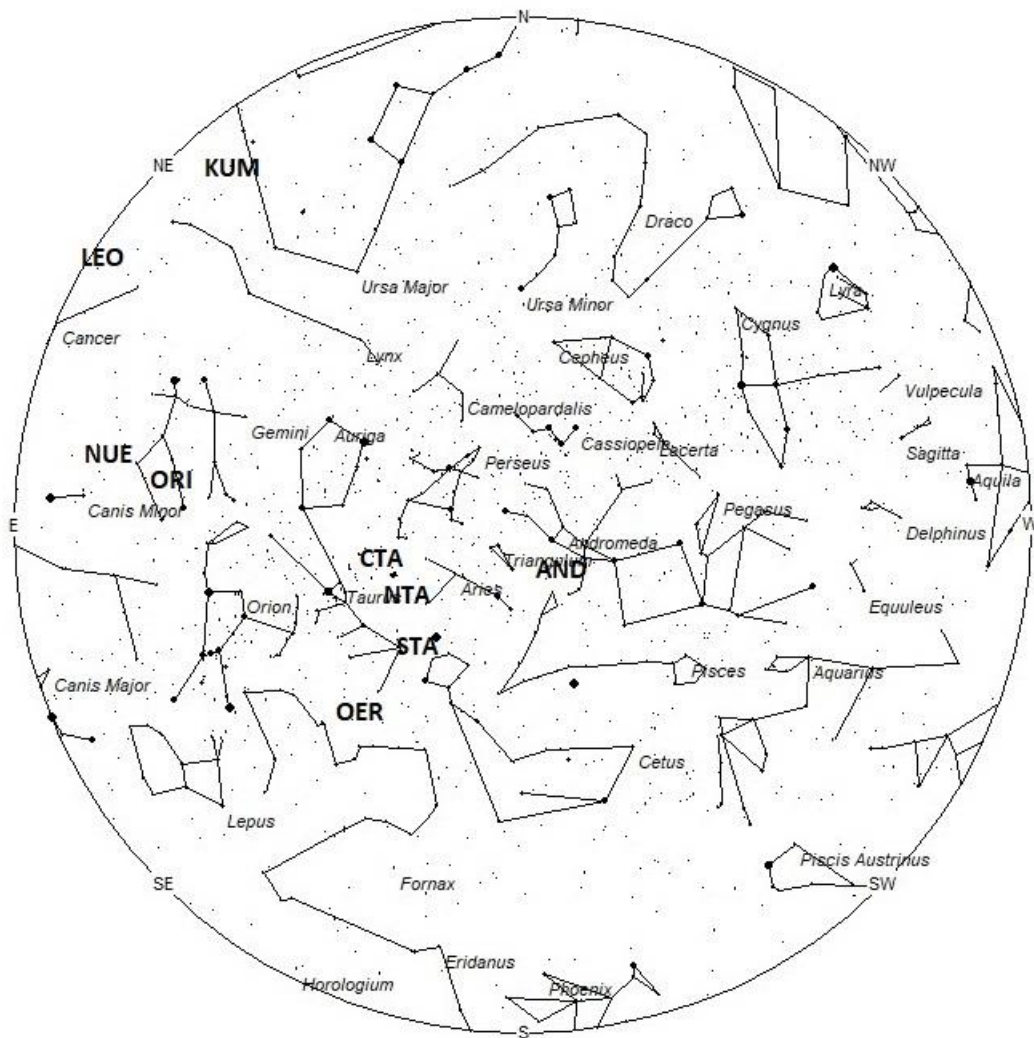
Vaibhav Ravichandran was photographing a nighttime river scene from Rattlesnake Ridge Trail, near North Bend, Washington, USA, when this brilliant fireball happened to shoot through the frame. This fireball occurred on August 16, 2020, at 00:16 PDT (07:49 UT). Credit Vaibhav Ravichandran. More information on this event can be obtained from: [https://fireball.amsmeteors.org/members/imo\\_view/event/2020/4493](https://fireball.amsmeteors.org/members/imo_view/event/2020/4493) Note that this image is not intended to be used for accurate photometric assessment of meteor brightness.

During this period, the moon reaches its full phase on Saturday October 31st. At this time, the moon is located opposite the sun and lies above the horizon all night long. As this period progresses, the waning gibbous moon will rise later with each passing night, allowing a short period of dark sky between dusk and moon rise. The estimated total hourly meteor rates for evening observers this week is near 4 as seen from mid-northern latitudes and 3 as seen from tropical southern locations (25S). For morning observers, the estimated total hourly rates should be near 11 as seen from mid-northern latitudes (45N) and 7 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. 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. Meteor rates are reduced during this period due to moonlight.

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 October 31/November 1. 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.

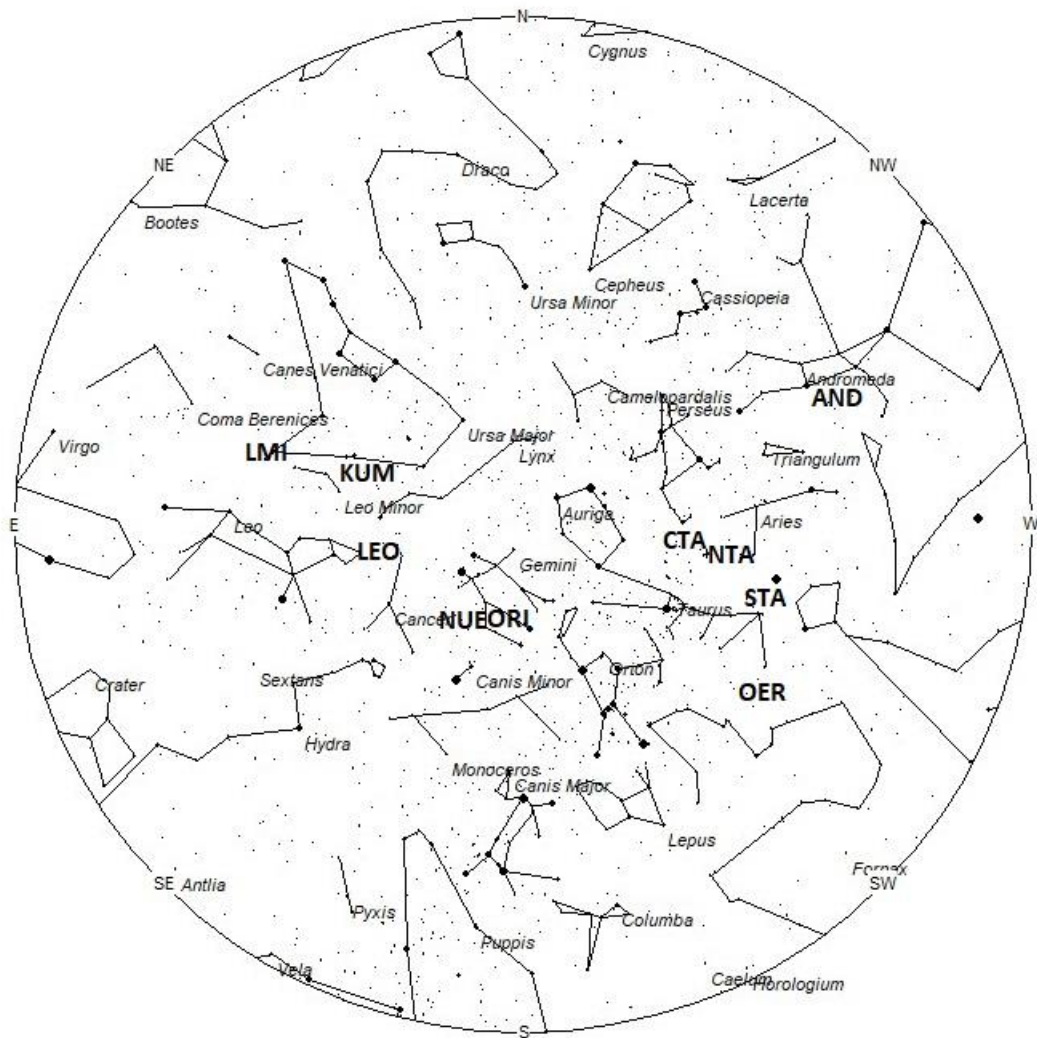


**Radiant Positions at 18:00 Local Standard Time**



**Radiant Positions at 23:00 Local Standard Time**





**Radiant Positions at 04:00 Local Standard Time**

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

Details on each source will continue next week when lunar conditions are more favorable.

SHOWER	DATE OF MAXIMUM ACTIVITY	CELESTIAL POSITION	ENTRY VELOCITY	CULMINATION	HOURLY RATE	CLASS
		RA (RA in Deg.) DEC	Km/Sec	Local StandardTime	North- South	
Andromedids (AND)	Nov 06	01:06 (017) +27	19	22:00	<1 – <1	IV
Southern Taurids (STA)	Nov 03	03:14 (049) +13	27	00:00	2 – 2	II
Northern Taurids (NTA)	Nov 12	03:26 (052) +22	27	00:00	1- <1	II
omicron Eridanids (OER)	Nov 05	03:35 (051) -02	29	00:00	<1 – <1	IV
chi Taurids (CTA)	Nov 04	04:03 (061) +26	27	01:00	<1 – <1	IV
Orionids (ORI)	Oct 21	06:49 (102) +16	66	04:00	2 – 1	I
nu Eridanids (NUE)	Sep 24	07:33 (113) +14	67	05:00	<1 – <1	IV
Leonids (LEO)	Nov 18	09:12 (138) +28	70	06:00	<1 – <1	I
kappa Ursae Majorids (KUM)	Nov 08	09:17 (139) +43	66	06:00	<1 – <1	IV
Leonis Minorids (LMI)	Oct 23	11:21 (170) +33	62	08:00	<1 – <1	II