

MOONBOW PREDICTIONS FOR 2017

UPPER YOSEMITE FALL

TIMES CALCULATED FOR COOK'S MEADOW
 OBSERVING LOCATION: PARKING LOT JUST NORTH OF SENTINEL BRIDGE



Photo by Brent Gilstrap



Google Earth

DATE IN 2017	TIMES (PACIFIC DAYLIGHT TIME)	LUNAR PHASE	REMARKS
May 11 (Thurs)	9:40pm (Thurs) to 11:00pm (Thurs)	98% waning	
night of May 12-13 (Fri-Sat)	10:35pm (Fri) to 12:35am (Sat)	95% waning	

June 8 (Thurs)	9:15pm (Thurs) to 10:30pm (Thurs)	100%	moonbow in progress when sky becomes dark enough at 9:15 p.m.
June 9 (Fri)	10:40pm (Fri) to 11:25pm (Fri)	99% waning	if the snowmelt runoff is still very strong in June, this moonbow may begin before the tabulated time
night of June 10-11 (Sat-Sun)	11:30pm (Sat) to 12:20am (Sun)	97% waning	if the snowmelt runoff is still very strong in June, this moonbow may begin before the tabulated time
July 7 (Fri)	9:25pm (Fri) to 10:20pm (Fri)	99% waxing	(brightness and duration depend on snow season and snowmelt runoff)
July 8 (Sat)	10:15pm (Sat) to 11:05pm (Sat)	100%	(brightness and duration depend on snow season and snowmelt runoff)
July 9 (Sun)	10:10pm (Sun) to 11:40pm (Sun)	99% waning	(brightness and duration depend on snow season and snowmelt runoff)
July 10 (Mon)	10:20pm (Mon) to 11:20pm (Mon)	96% waning	(brightness and duration depend on snow season and snowmelt runoff)

CONDITIONS REQUIRED TO OBSERVE A MOONBOW IN UPPER YOSEMITE FALL

1. bright moonlight (nearly-full Moon)
2. Moon risen above the south rim of the valley (so moonlight can strike Upper Yosemite Fall)
3. sufficient mist and spray (during snowmelt runoff season: April, May, June, sometimes July)
4. clear skies
5. dark skies (Sun more than 9 degrees below the horizon)
6. geometry (the angle between the “anti-lunar direction” [observer’s shadow cast by the

moonlight] and the direction toward the base of Upper Yosemite Fall must be near the “rainbow angle” of 42 degrees)

NOTE

If the snowmelt runoff is unusually strong, then moonbows could appear earlier and last longer than the predicted times.

If the snowmelt runoff is unusually weak, then moonbows would be visible for shorter intervals than the predicted times.