MOONBOW PREDICTIONS FOR 2018
LOWER YOSEMITE FALL

OBSERVING LOCATION:
VIEWING AREA, TERRACE AT THE WEST END OF THE BRIDGE NEAR THE BASE OF LOWER YOSEMITE FALL

DATE IN 2018	TIMES (PACIFIC DAYLIGHT TIME)	LUNAR PHASE	REMARKS
April 28 (Sat)	8:30pm (Sat) to 10:10pm (Sat)	99% waxing	moonbow is already in progress when sky gets dark enough at about 8:30pm
April 29 (Sun)	8:40pm (Sun) to 11:30pm (Sun)	100%	**BRIGHT MOONBOW**
night of April 30-May 1 (Mon-Tues)	9:35pm (Mon) to 12:45am (Tues)	98% waning	
May 26 (Sat)	9:00pm (Sat) to 9:20pm (Sat)	94% waxing	moonbow is already in progress when sky gets dark enough at about 9:00pm
May 27 (Sun)	9:00pm (Sun) to 10:35pm (Sun)	98% waxing	moonbow is already in progress when sky gets dark enough at about 9:00pm
May 28 (Mon)	9:35pm (Mon) to 11:40pm (Mon)	100%	**BRIGHT MOONBOW**

night of May 29-30 (Tues-Wed)	10:55pm (Tues) to 12:40am (Wed)	99% waning	
night of May 30-31 (Wed-Thurs)	11:55pm (Wed) to 1:40am (Thurs)	97% waning	
June 25 (Mon)	9:20pm (Mon) to 10:35pm (Mon)	96% waxing	moonbow is already in progress when sky gets dark enough at about 9:20pm (brightness and duration depend on snow season and snowmelt runoff)
June 26 (Tues)	9:50pm (Tues) to 11:30pm (Tues)	99% waxing	(brightness and duration depend on snow season and snowmelt runoff)
night of June 27-28 (Wed-Thurs)	10:45pm (Wed) to 12:25am (Thurs)	100%	(brightness and duration depend on snow season and snowmelt runoff)
night of June 28-29 (Thurs-Fri)	11:30pm (Thurs) to 1:05am (Fri)	99% waning	(brightness and duration depend on snow season and snowmelt runoff)
Night of June 29-30 (Fri-Sat)	12:10am (Sat) to 1:50am (Sat)	96% waning	(brightness and duration depend on snow season and snowmelt runoff)

CONDITIONS REQUIRED TO OBSERVE A MOONBOW IN LOWER YOSEMITE FALL
for observers at the viewing area, the terrace just west of the bridge near the base of Lower Yosemite Fall

1. bright moonlight (nearly-full Moon)
2. Moon risen above the south rim of the valley (so moonlight can strike Lower 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 Lower 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.