Super supermoon and meteor shower will give Sunday night 'a special beauty'

By Bo Petersen
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The super supermoon rises just before the sun sets Sunday, the biggest of three perigee moons this summer.

Here's what you need to know to wow the people you watch it with:

Supermoons occur when the moon is at perigee, the point in its orbit closest to Earth, as it becomes full. Those moons appear larger and brighter.

On Aug. 10, the moon will become full within an hour of its perigee. It's expected to be as much as 14 percent closer and 30 percent brighter than other full moons this year, according to NASA Science.

The moonrise will be chased by an evening high tide almost certain to push a wide swash of flood across the marshes, into the dunes and possibly into the streets. It's called a king tide.

State coastal managers have asked the public's help photographing and documenting what happens in specific locations, in an effort to better predict, handle and protect against the tides.

It's also a great opportunity for photographers: The looming moon and sweeping tide make "a great opportunity for having the moon in twilight landscape photography," said College of Charleston astronomer Terry Richardson.

But the big moon will hamper viewing the Perseid meteor shower, which is expected to peak Aug 10.

The Perseids are an annual blaze of "fireballs" and "earthgrazers" brighter than any other shower. The glowing moon will dim the shower. Fireballs are powerful, often colorful streaks that tend to end with an explosion that occasionally shoots off sparks like a sparkler.

They are caused by bigger meteors that drop closer to Earth before they extinguish. Earthgrazers are long trailing shooting stars with colorful halos, caused by meteors that hit the atmosphere parallel to the Earth and skip like stones.

Despite the super moon, though, at least a few of the brightest streaks of the Perseid shower ought to be brilliant.

"A warm summer night, a moonlit landscape, and an occasional fireball cutting past a supermoon: that's an ensemble with a special beauty all its own," said Tony Phillips, of NASA. "Enjoy the show."

For information on documenting king tides, go to mycoast.org/sc.