

COMETWATCH

Year of the Comet 2013

ARTICLE 2

Coming To Skies Near You... COMET ISON

BY TAMMY PLOTNER

Tammy is a professional astronomy author, President Emeritus of Warren Rupp Observatory and retired Astronomical League Executive Secretary. She was the first woman astronomer to achieve Comet Hunter's Gold Status.

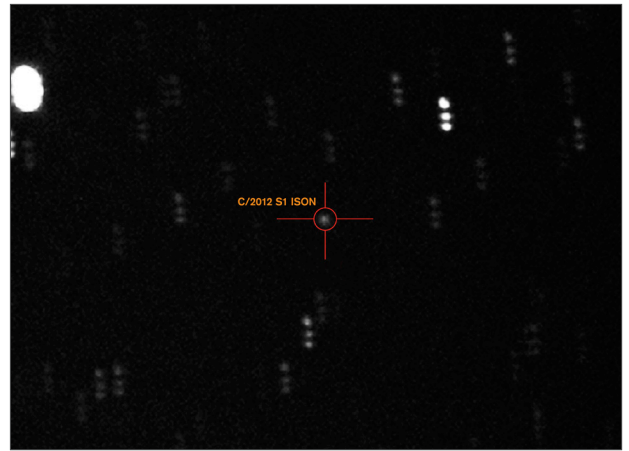
What could be more fun for sky watchers everywhere than an amazing comet? For seasoned amateur astronomers and new stargazers alike, the thought of a naked eye comet sends the imagination soaring.

Right now is a great time to observe these solar system visitors, with three large comets heading our way this year. Undoubtedly, the most exciting is C/2012 S1 ISON, which is already being granted potential "Comet of the Century" status.

At the beginning of 2013, Comet ISON isn't an easy target. Visible to both hemispheres and located in the constellation Gemini, this tiny ball of frozen gas and rock is extremely dim, only visible with a very large telescope. In the months ahead, ISON will brighten slowly within the boundaries of Gemini as the constellation moves from east to west across the night sky.

Although it is traveling fast, ISON doesn't appear to change position. Why? Picture yourself driving on a long, flat road with the Sun behind you. Imagine ISON is another car, driving toward you. You can see the sunlight glint weakly on its windshield. While it is distant, it doesn't seem to move. If it weren't for that glint, you wouldn't even know it was there. ISON is approaching from a distance as far away as Jupiter, so it appears to stay still.

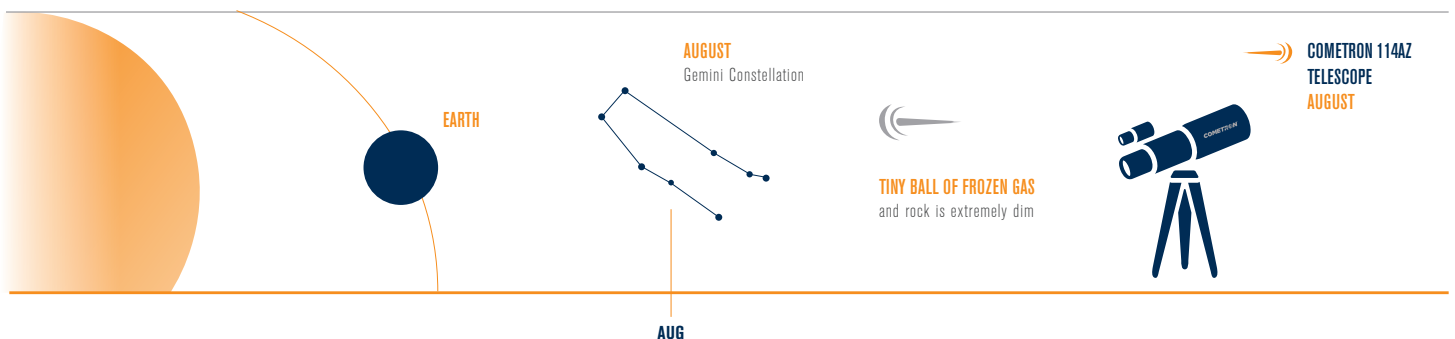
As summer begins in the Northern Hemisphere, the constellation Gemini is hidden in the daylight, as is ISON—but don't give up hope yet. Just like the car ahead in the distance, ISON is getting closer. By August, the skies will have changed again and the "Twins" will have returned to the ecliptic plane just before sunrise. By this time, Comet ISON will have brightened enough to be seen with the Cometron 114AZ telescope.



Lorem Ipsum is simply dummy text of the printing and typesetting industry. (ISON).

“ Comet of the Century ”

COMETWATCH SUMMER BEGINS IN THE NORTHERN HEMISPHERE:



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In September, ISON will finally move into the constellation of Cancer and become visible with an average backyard telescope, like the Cometron FirstScope. It may even have a slight tail or a bright nucleus! This is a critical period for astronomers; they'll be watching ISON closely to better predict its future behavior.

Comet ISON will be pairing up visually with the planet Venus and begin moving toward the constellation Leo in October. It will appear to move greater distances with each observation, and brighten each day. The race is on. Like the approaching car, ISON will appear to move faster even though its speed remains constant. Things will really heat up for our icy friend as it approaches the Sun: ISON will begin to sublimate, shedding layers of gas and dust—the perfect ingredients for a brilliant tail! As this material begins to flow, you'll see the tail pointed away from the rising Sun.

By November, Comet C/2012 S1 ISON will have flown into the morning constellation Leo. While it's not quite bright enough to be seen with the unaided eye, it should be readily visible with the Cometron 7x50 binoculars. You'll find ISON accompanied by the nearby planets Jupiter, Mars and Venus.

Like the distant car, ISON will appear to speed up by mid-November. By this time, it isn't just a wink on the horizon—it's clearly a car, the sunlight is shining brightly on its windshield. Our solar system visitor will hover in the constellation Virgo. If predictions hold true, Comet ISON should be easy to spot with the naked eye from a dark sky location, just before dawn. However, the best is still yet to come because this "sungrazer" is about to blaze!

By November 25, C/2012 S1 Comet ISON could reach magnitude -0.2, a breathtaking spectacle in the morning skies. The closer it gets, the more the tail will grow and the faster it will gain magnitude. While astronomers can only predict what may happen, it is possible that Comet ISON will jump as much as nine magnitudes in a period of three days. On November 28, it might even reach an historic magnitude -0.9, making it as luminous as the Moon!

As our little "cosmic car" grazes past the Sun, it will become dimmer as it disappears in the virtual rearview mirror. Comet ISON will begin to drop rapidly in brightness as its fuel becomes exhausted. However, we'll still be able to watch as it recedes. By Christmas, it should still be well within reach of the Cometron 10x70 binoculars and remain very visible through the end of the year.

Will Comet C/2012 S1 ISON become the "Comet of the Century"? No one knows for sure. Every comet has its own special properties and unpredictable behavior. When it comes to comets, the best man to ask is Sungrazer Project Coordinator, Karl Battams:

"While there are still unknowns regarding this comet, there's plenty of evidence making us cautiously excited about it, and there's no reason for amateur astronomers to not share that sense of excitement! It's a little like buying a lottery ticket: you realize there's a chance you won't win, but it doesn't prevent the excitement right before the draw is made. The difference here, though, is that we genuinely have a great chance of not only winning the Comet Lottery, but winning big!"
Anyone want in on the lottery pool?

COMETWATCH RIGHT NOW IS A GREAT TIME TO OBSERVE THESE SOLAR SYSTEM VISITORS:

