# MONTHLY OBSERVER'S CHALLENGE

## *Las Vegas Astronomical Society*

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***&***

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## AUGUST 2018

## IC-1295 Planetary Nebula in Scutum

### *"Sharing Observations and Bringing Amateur Astronomers Together"*

**Introduction**

The purpose of the Observer's Challenge is to encourage the pursuit of visual observing. It's open to everyone that's interested, and if you're able to contribute notes, and/or drawings, we'll be happy to include them in our monthly summary. We also accept digital imaging. Visual astronomy depends on what's seen through the eyepiece. Not only does it satisfy an innate curiosity, but it allows the visual observer to discover the beauty and the wonderment of the night sky. Before photography, all observations depended on what the astronomer saw in the eyepiece, and how they recorded their observations. This was done through notes and drawings, and that's the tradition we're stressing in the Observers Challenge. We're not excluding those with an interest in astrophotography, either. Your images and notes are just as welcome. The hope is that you'll read through these reports and become inspired to take more time at the eyepiece, study each object, and look for those subtle details that you might never have noticed before.

## IC-1295 Planetary Nebula in Scutum

IC-1295 is a planetary nebula located in Scutum. It lies 3,300 light-years away and shines at an apparent mag. of either 12.7 or 15.0 (photographic), depending on the source. It's approximately 90 arc-seconds in size or 1.7 X 1.4 arcminutes.

Though there are several stars visible within it, the actual central star is a tiny bluish one that shines at a very dim mag. 15.5. It's overshadowed by two brighter (but not by much) reddish ones.

**Observations/Drawings/Photos**

**Doug Paul:** Observer from Massachusetts

**NOTE:** We'd like to introduce new participant Doug Paul from the Boston area. Welcome Paul!

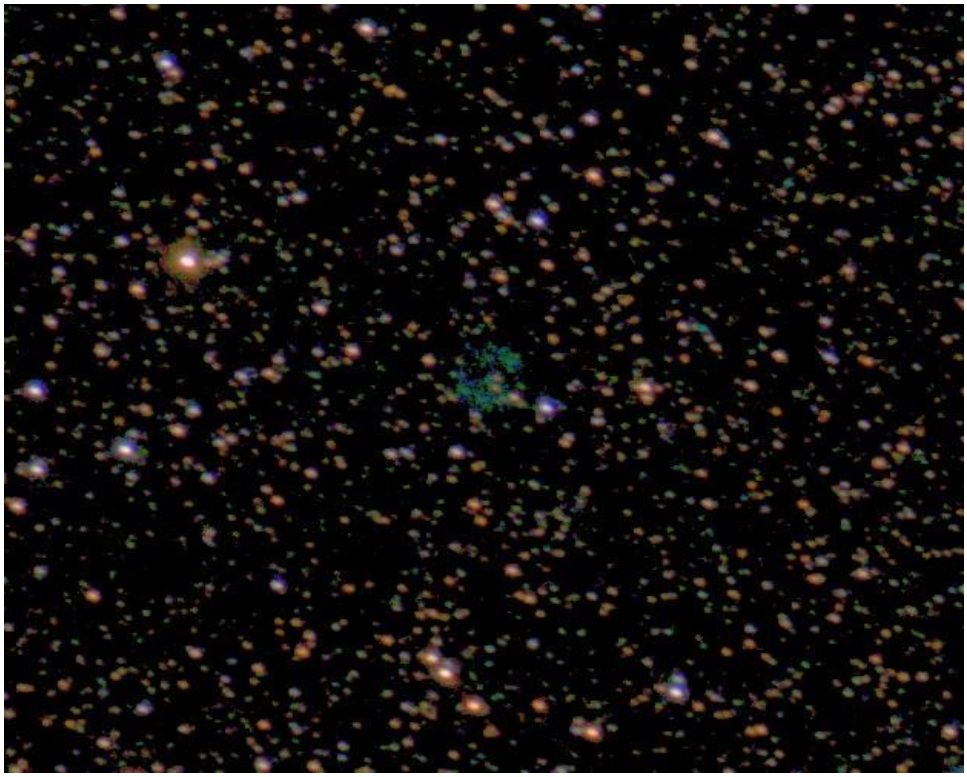
I imaged IC-1295 on July 12, 2018, from ~0600 to ~0700 UTC (new moon), under the light-polluted skies of the NE suburbs of Boston. I can usually see a mag. 3 star, and occasionally a mag. 3.8 star with my naked eye. I don't recall the specifics for that night. The object was at an elevation of ~30°.

The gear was just a DSLR, a 400mm f/5.6 lens (71mm aperture), and an unguided (i.e. completely manual) motor drive, which I've augmented with setting circles. No filters. The setting circles are a huge help in finding objects in visually blank areas. I can usually get the target in the field of view of this lens (2°X3°) on the first try.

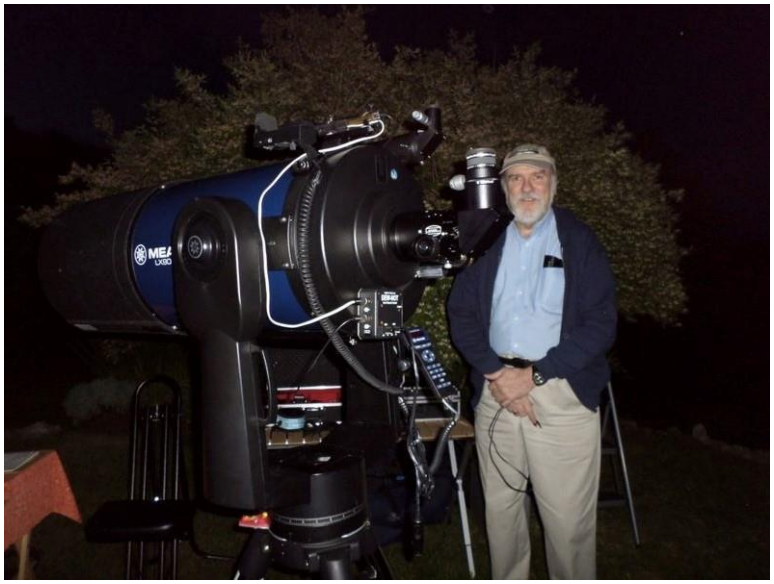
The exposures were 63 subs X 30 seconds each = 31.5 minutes of total exposure time, with daylight color balance.

I hadn't researched IC-1295 ahead of time, and the digital planetarium that I had with me didn't show an image, so I didn't know what to look for, and mistakenly imaged NGC-6712. However, IC-1295 was in the field of view.

Certainly not a great image, but one can do quite a bit with simple gear, even from a poor location.



**Dwight Lanpher:** Observer from Maine



My first IC-1295 observation was on August 31, 2018, at an informal star party hosted by Acadia National Park at their Seawall picnic area. The site is located at the southern end of Mt. Desert Island, and while it has some of the darkest skies on the island, it's often plagued by fog and haze from the adjacent ocean. Three other telescopes and myself were busy with about fifty visitors from the adjacent ANP Seawall Campground. At the end of the gathering, there were a half dozen park visitors observing with me. After an evening of pedestrian viewing of typical Messier objects, the moon had just started to break above the horizon. I decided I'd better get to it. I told the group that now we were going to do something different...that we had a homework assignment from the LVAS Observer's Challenge, to look for a dark, dim, fuzzy, ghostly object (one of the visitor's description after he had seen it).

I still had a 21mm eyepiece installed, yielding 145X in my 12-inch SCT scope. In setting up the first view, I'm convinced that I did at first see IC-1295 tentatively without any filters. When I added the O-III filter, just as Sue French had said, it popped into view right where I thought I saw it before. Unfiltered, it seemed to have an ephemeral presence in a rich star field. I offered the O-III view to the group to observe. From their descriptions, I believe that all but one was able to discern a dark, diffuse object. The next night was a bust, as I wasn't able to break away from a continuous line of people interested in seeing whatever I was offering at the moment.

The following weekend, I was back at the Seawall picnic area for the first night of the Acadia Night Sky Festival. Seawall has Bortle class 2+ dark skies, and the seeing was the best that I have seen there in several years. Seven hundred and fifty park visitors viewed through twenty-seven telescopes until the official star party closed at 10:00 pm. This time, I was ready, with the moon fully out of view. Again, I still had six lingerers with me, and this time I put in a 41mm eyepiece to reduce the magnification to 74X. With the reduced size and increase in brightness, the nebula appeared as a small, soft round blur, a little reminiscent of M57. It was obvious without the O-III filter, but appeared almost bright with the filter. (I'm using the term "almost bright" very loosely, here. To me it was still a faint, fuzzy nothing). I could tell from

the comments by the visitors that it was clear and apparent to all. Normally, I don't show such a faint object to groups of non-amateur observers, but with the warning not to expect too much, they were all excited to attempt the challenge. A couple were actually excited that they were able to see this object.

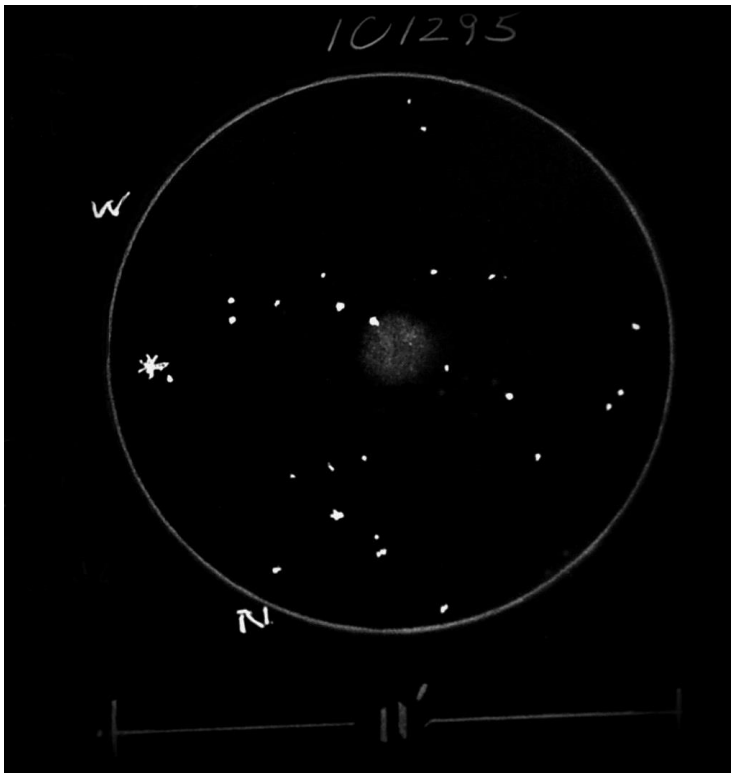
The following night, I tried again at the ANSF Cadillac Mountain Star Party. The early evening was dedicated to planet viewing and other popular objects. There were one thousand visitors that night that shared with fifty-two other telescopes. At the beginning of the evening, it was 60°F with 5MPH winds, but I didn't get a chance to try the Challenge nebula until 11:00 PM, when the wind had increased and the temperature had dropped to 48°F. By that time, the transparency and seeing had deteriorated. While the nearby globular cluster, NGC-6712 was clearly visible, there was no sign of IC-1295. It was obvious to me how critical clear skies are to view this object.

**Kenneth Drake:** Observer from Texas

This planetary nebula was discovered visually in an 18.5-inch refractor in the 1860's, but was not identified as a planetary nebula until 1919 by Heber Curtis. I first observed it on Oct. 15, 2004, from Ft. Griffin, Texas, under pristine skies using my 10-inch F/5.6 Dobsonian. It was a difficult, averted vision, round ghostly object about 2' in size. An O-III filter did its job exceedingly well, and made the planetary obvious with direct vision. I was unable to see the central star (mag. 15.5). IC-1295 lies in a rich star field with a mag. 10 star just 30" west of the edge and a mag. 12 star touching the WSW border.

Of special note is the stellar planetary nebula Kohoutek 4-8 (AKA Sanduleak 2-374), just 5' to the WNW. I was able to confirm the existence of this mag. 14 stellar-sized planetary by blinking the field with the OIII filter. It is the central of an arc of 5 stars (12-14 mag.) spanning just one minute of the field.

Also just ~1/2° in the same direction is the nice concentrated mag. 8 globular cluster NGC-6712. Using a 5mm EP with 288X and 11' FOV, I almost resolved this globular, but it still teased for bigger aperture. The fuzz appeared ~3' in size, where I counted 20 stars down to near mag. 14. I suspect 1,000s lie out of reach.



**Sue French:** Observer from New York

I used various scopes and magnifications to observe IC-1295.

130mm (5-inch) refractor and O-III filter @ 48X: Pops right out in the field of view with the globular cluster NGC-6712, although I couldn't see the nebula without the filter. There's a star near the edge, west by south of the nebula's center. About 1½ arc-minutes across.

O-III filter @102X: Slightly oval, such that it points toward the star. It holds a somewhat dimmer center. Removing the filter, the nebula is still visible.

10-inch f/5.9 reflector and an O-III filter @ 43X: The nebula is rather bright and NGC-6712 can be seen in the same field. A star guards the west by south edge of the nebula.

115X: The planetary shows without the filter, but is much more obvious with an O-III. It displays some brighter patches around the edges.

166X: There's a dimmer star superimposed on the nebula, west-southwest of center. Adding an O-III filter, the planetary is slightly oval and dimmer at the end near the brighter star.

**Keith Caceres:** Observer from Nevada

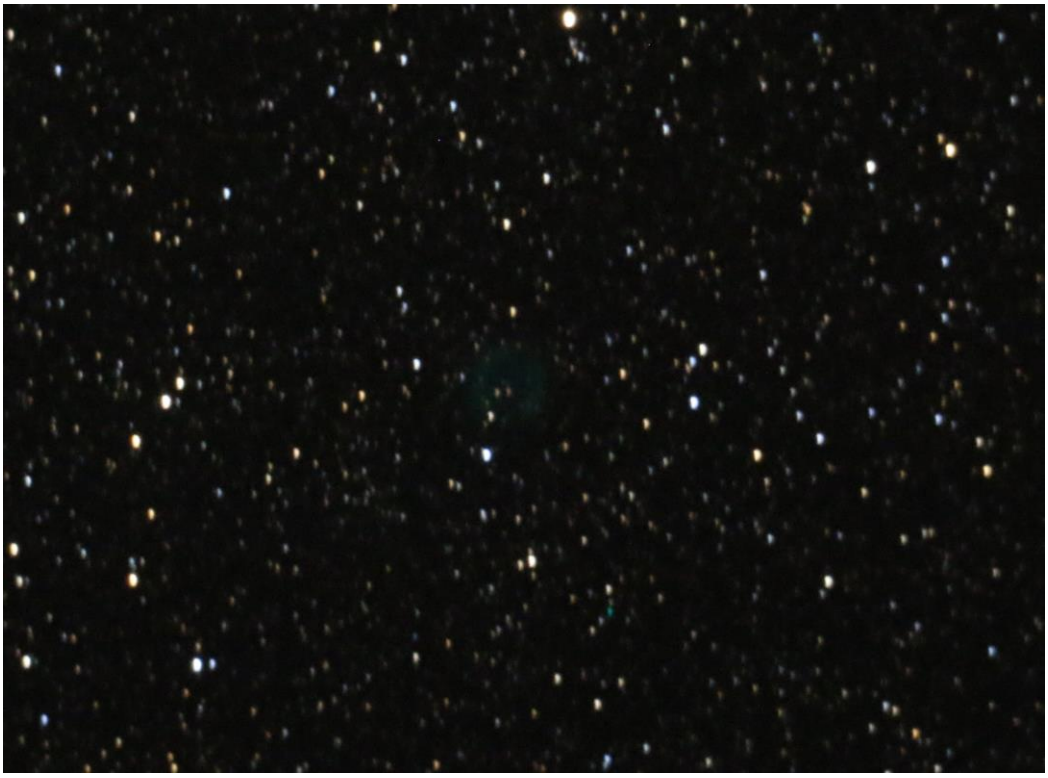
I photographed IC-1295 on the evening of September 8, 2018, with a Canon 70D, 8-inch SCT, 0.8X focal reducer (f/8), with exposure settings of 60 seconds at ISO 4,000. It was so faint that at first I didn't realize I had captured it when I examined my photo of the field of view — then I noticed I had captured the ghostly ring of a planetary nebula. Two sources indicate that its visual mag. is greater than 12.5.

The ring was a very faint shade of green that's common to planetary nebula (oxygen III emission). The ring contained two very noticeable stars that matched photos from other sources — a red star near the ring's center, and a yellow star between the red star and the green ring. Both are roughly the same brightness. There was also a brighter yellow star close to the red/yellow pair, but on the ring itself. If you draw a line from the yellow star in the ring through the brighter yellow star on the ring, you'll come very close to an even brighter blue star at about two ring radii. *Sky Safari* seems to indicate this brightest blue star is mag. 11.05 star TYC 5706-10174-1.

Upon zooming into the planetary nebula's ring, I could see a smear of faintly green pixels right at the center of the ring. I presume this must be from ionized oxygen gas right around the nebula's central white dwarf star — the gas ionized from the white dwarf's radiation emissions.

In order to get a sense of the scale and my true field of view, I attempted to plate solve the image, but this failed on both *astrometry.net* and using locally installed software (based upon *astrometry.net*). I seem to be getting a lot of plate solving failures lately. I need to investigate the cause. I suspect it may have to do with the new 0.8X focal reducer lens I'm using. Perhaps it has introduced some distortion that I can't visually see, but the software can't deal with? However, both my sources agree that the angular dimensions of the nebula are 1.7 X 1.4 arc-minutes.

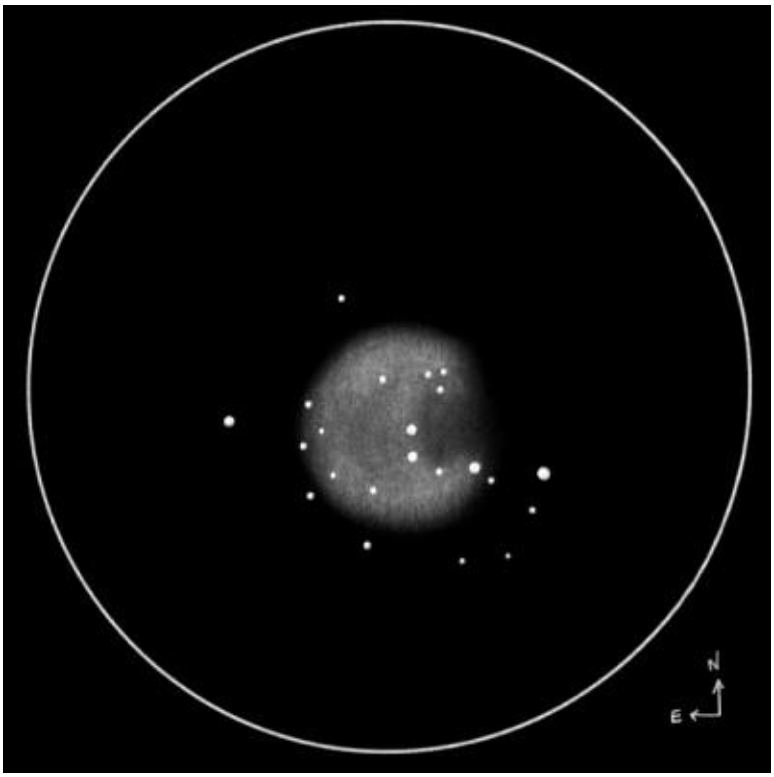
Sources: *Sky Safari Pro* v5, and *Wikipedia*.



**Jaakko Saloranta:** Observer from Finland

My sketch of IC-1295 was made with Riverside Astronomical Society's 22-inch Capella telescope. I had the privilege to use the telescope on my trip to the US back in 2011. The sky conditions at GMARS (Goat Mountain Astronomical Research Station) in Landers, CA were pretty good, with naked eye limiting magnitude (NELM) near zenith @ 7.5, and SQM-L readings in the 21.50's.

I described the object with high magnification as follows: "Curious shape. The brightest part was horseshoe-shaped, connected by a bridge in the middle. Several stars were visible within the halo. Mag. 10 star just W."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**Chris Elledge:** Observer from Massachusetts

On July 4th, 2018, @11:52pm EDT, I used a 10-inch f/5 reflector to observe IC-1295 from Brewster, MA. Sky conditions were: Bortle Scale 5: NELM 5.5: Transparency fair: Seeing good.

I originally attempted to view IC-1295 from the ATMoB Clubhouse a month prior to this observation, but the Bortle 6 skies caused me to be unable to see it. I found it by pointing the scope along the Milky Way between Altair and Saturn. M11 was easy to spot, and from there to NGC-6712 was a 2.5° hop SSW. Placing NGC-6712 in the W part of a low power view placed IC-1295 near the center of the view.

At 51X (25mm, 1.4°FOV), NGC-6712 still fit in the view to the West of IC-1295. There was a line of mag. 9 & 10 stars stretching ESE to WNW, with a small hook on the end from another mag. 10 star. That line was on the south side of the planetary. There was a kite shape to its east, made from 3 mag. 10 stars and a mag. 8 star (HD 175314). The mag. 8 star made up the tail end of the kite on its NNW end. There was also a very short line of 3 mag. 10 & 11 stars just to the south of the planetary near the longer line with a hook. I was unable to see any hint of the nebulosity of IC-1295 at this magnification.

At 127X (10mm, 0.6°FOV), the asterisms I'd seen at 51X were still visible, but NGC-6712 was no longer in the view. North of the 3 stars in a short line, and west of the mag. 8 star in the kite were 3 dim stars in a line, two of which are mag. 11 and the 3rd on the SE is mag. 12. It's only visible with averted vision. IC-1295 was just to the east of the middle of these 3 stars. It was just barely visible as some faint nebulosity with averted vision. Adding an O-III filter revealed a glowing spot just to the NE of the middle star. The glowing area was bounded on the left by the middle star of the 3 on the SW side, and by the easternmost star of the 3 on the SE side. The north side of the nebula appeared to have a more defined edge than the rest.

**Richard Nugent:** Observer from Massachusetts

Sometimes, the journey is as much fun as the destination. I have observed IC-1295 many times over the past five 5 years, and once you know the way, it's relatively easy to locate this elusive planetary nebula.

I always begin at M11. The Wild Duck Cluster, as it is called, is one of my all-time favorite objects. Experiment with different magnifications until you find an eyepiece that frames the object nicely, and brings out the sea of faint stars that make up the cluster. While you're there, pause for a while and try to pick up some geostationary satellites.

These satellites ring the Earth's equator providing TV and communication coverage over vast areas. I suspect some are used for reconnaissance, as well. They're faint, usually mag. 11 to 13, but they're interesting to follow. Here, in central New England, parallax pushes the arc of these satellites to about -6° 20' declination. If your latitude is different, so will be the declination of their arc. *CalSky.com* will give you that info. Just south of M11 is a small, faint triangle of stars I call the "Christmas Tree" because every few minutes presents (geostationary satellites) that can be found under it. I look at the sky between M11 and this little asterism because, from my location, geostationary satellites appear to be drifting slowly across this field. Using an un-driven scope, just park on the satellite. If your scope has a clock drive, just turn it off. In either scenario, the satellite, or satellites (their owners like to cluster them) will remain motionless as you watch the stars drift by. Even veteran observers are delighted by the view!

Next stop: S Scuti. This beautiful red star (Color Index +3.24), is about mag. 10, but varies by ± mag. 0.5 over a period of about 145 days. It can be found about 2.5° nearly due south of M11. In a low power view, the star is a part of a (sort of) heart-shaped asterism.

Now, about another degree south brings you to the globular cluster NGC-6712. In my 10-inch scope, it appears as a misty haze in a very nice field. My 20-inch scope at medium magnifications begins to resolve the cluster's stars. Now, we are almost at IC-1295. Just move the scope east about 24 arc-minutes and find a skewed triangle of mag. 11 stars. The Challenge object lies just inside this triangle, next to its southern-most star. Be sure to bring a bit of aperture and your light-pollution filters!

I routinely use the UHC filter for emission nebula (think red on images) and the O-III filter on planetary nebulae. They're a must in light-polluted areas, and work even under dark skies, as they effectively remove the green, airglow light at 558 nanometers.

I observed IC-1295 using 10-, 18-, and 20-inch scopes. Typically, my skies run at about mag. 4.8, at best. The observing site of the Amateur Telescope Makers of Boston is about a half magnitude darker. I couldn't see any hint of this object in any of the scopes unless I used LPF's.

With my 10-inch scope at 170X, under very poor skies, the nebula was barely visible with an UHC filter. The O-III filter improved the view somewhat, but I needed and eye-patch and shroud to fend off the local lighting. The view was obvious through the filtered 18- and 20-inch scopes. The nebula appeared to be a featureless glow. I could detect no color and neither could I see the faint stars that are seen in photographs superimposed (?) on the object.

The bottom line is…dark skies, medium to large aperture, and light-pollution filters are needed for this one! Whether you see this object or not, you can always re-trace your steps back to M11 and enjoy the beauty along the way!

**Gus Johnson:** Observer from Maryland

On July 30, 1997, I attempted to observe IC-1295 with my 6-inch reflector at 59X and higher magnifications without a filter, but without success.

On September 3, 2007, the planetary was easy with an 8-inch reflector at 48X and an UHC (ultra-high contrast filter).

On September 5, 2010, the planetary was easy with an 8-inch reflector at 48X and an UHC filter, then without the filter at 60X. If I had not noted, or observed IC-1295 with the filter, I likely would not have noticed the very dim glow without it.

**Ed Fraini:** Observer from Texas

The observation of IC-1295 was made Friday night, July 13, 2018. We had an exceptionally steady night at the Houston Astronomical Society Dark Site, with seeing and transparency at 7/5. The seeing was one of the best I have ever experienced here on the gulf coast. The Milky Way stretched from horizon to horizon with dark lanes visible. Planets were fantastic in detail. We took this opportunity to observe five planets in one night: Venus at less than 1/2 full, Jupiter with terrific patterns, Saturn and then Mars, which was featureless and finally Pluto. Okay, four planets and a minor one, which was stellar. Under these observing conditions, over the course of 30 minutes, a group of five observers with Dobs ranging from 12 inches up to 20-inches observed IC-1295 successfully. The nebula presented in all five scopes and it responded very well to an O-III filter. Without the filter in place, it was easier to locate, then apply the filter. The object responded best to about 150X magnification. With the larger aperture of 20 inches, we could see a hint of structure as the interior was somewhat dimmer, and it had some character of a ring. With the smaller apertures, it appeared as a flat, translucent patch of light. We saw no central star.

As a group, we spent about 30 minutes observing IC-1295, and it proved to be the most interesting object of the night for us. Our intention was to bounce back and forth from scope to scope, making comparisons of the view with powers from 73X to 174X. Revisiting this target will be fun.

**Craig Sandler:** Observer from Massachusetts


I observed IC-1295 from a dark site on consecutive clear, reasonably low-humidity nights in Petersham, MA. With an O-III filter, I was able to espy this cloud of grey fuzz fairly easily, and the prevalence of bright stars nearby made for an enjoyable, and I think, attractive sketch. This sketch is probably the most careful I've done, practicing new developing skills with charcoal and sketching stumps, guided by *Astronomical Sketching: A Step-by-Step Introduction* (Handy, Moody et. al.). I was surprised to be able to locate and re-locate the object as easily as I did, when others of its ilk have proven so elusive. I observed a suggestion of detail at the center of the nebula, but not very much.


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**Joseph Rothchild:** Observer from Massachusetts

I observed IC-1295 under dark skies on Cape Cod. Transparency was fair. I star hopped from globular cluster NGC-6712 (mag. 8.1), which is easily found near the Wild Duck Cluster (M11). I observed the nebula with and without an NBP filter, using a 10-inch reflector.

Without the filter, I could not see the nebula at 46X, 89X, and 178X. With the filter, I could easily see it and it appeared as a large uniform round haze. At 89X, using a 72º apparent field eyepiece, the nebula was in the same field as the globular cluster. The globular was dimmed by the filter, and the nebula appeared approximately 1/2 the brightness and 2/3 the diameter of the globular.

**Mike McCabe:** Observer from Massachusetts

The LVAS Observer's Challenge object for the month of August, 2018 was planetary nebula IC-1295, located in the constellation Scutum. Sitting about 3,300 light years distant from us, it sports a meager mag. 12.7, and is sized very similarly to the ever-popular Ring Nebula in Lyra. This small dimension, coupled with its inherent dimness made it quite a challenge to discern in the eyepiece.

Seeing the nebula requires good sky conditions, especially if you're using a smaller telescope (which I was), and I got a lucky break with the sky during my attempt to observe this unfamiliar-to-me object. I was attending the Rockland Astronomy Club's Summer Star Party, held in the dark locale of Plainfield, MA, where for approximately ninety minutes on the night of August 15, 2018, the sky actually reached its full potential for the area and I happened to be at the eyepiece. The rest of the week, not so much, but for those ninety minutes, it was very good.

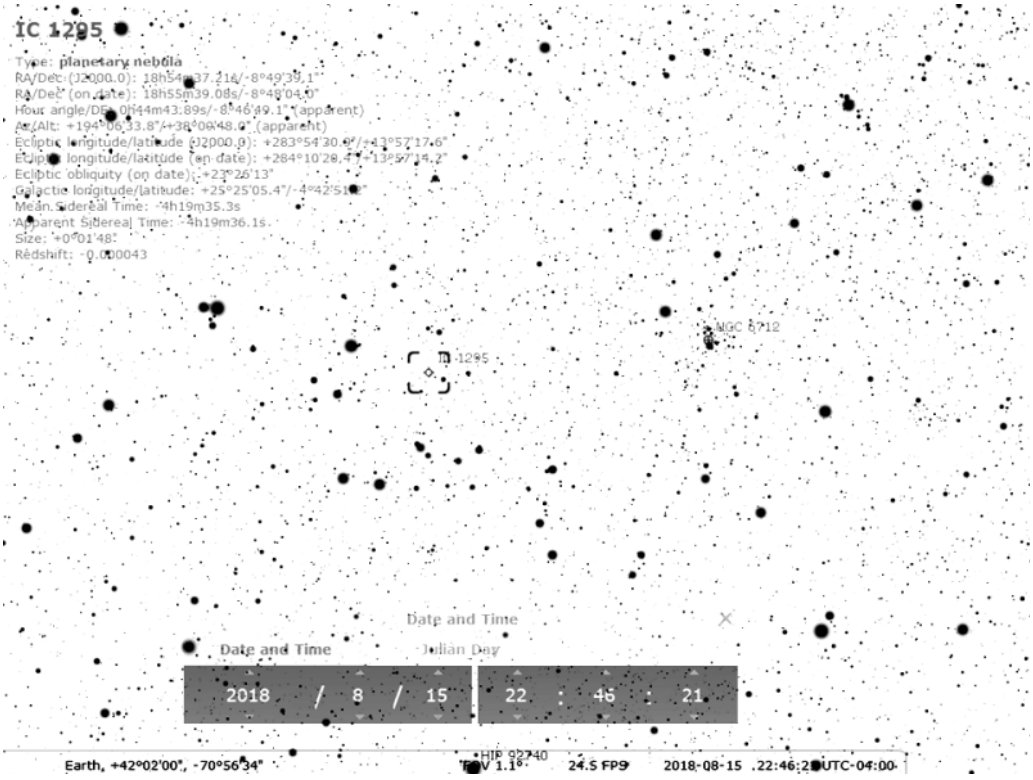
My observing instrument was what I like to refer to as my 'camper scope'. It's a 6-inch F/8 achromatic refractor on a German equatorial mount, plus all the necessary fixings that reside full-time in my RV. I keep it in there so that whenever I use the RV for a trip, whether it be astronomy-related or not, I always have a scope at hand without having to think about packing it. It's a heavy son of a gun, and a bit of a challenge to set up at the end of a long day, but it's seen a lot of campground use, and brought joy to an awful lot of people who've been fortunate enough to put their eye to the eyepiece. In fact, just this past Sunday, we were camping at Salisbury Beach State Reservation, and we broke it out for a four planet plus full-Luna tour that lasted about three hours (well, Venus didn't last three hours, but everything else did).

One of the challenges that I've faced over time in finding very dim objects in the sky has been that when working with a refractor on a GEM, the star field in the eyepiece gets jumbled in ways that can be very confusing. With a GEM, the OTA is usually laid over on its side, and the diagonal then gets rotated to a comfortable viewing position, so you now not only have a left-right reversed view through the diagonal, but a left-right-reversed-and-partially-rotated-in-some-unknown-direction view in the eyepiece. Now, introduce a tight-field chart (like about 1°) into the mix, and I usually have a fair amount of head scratching going on.

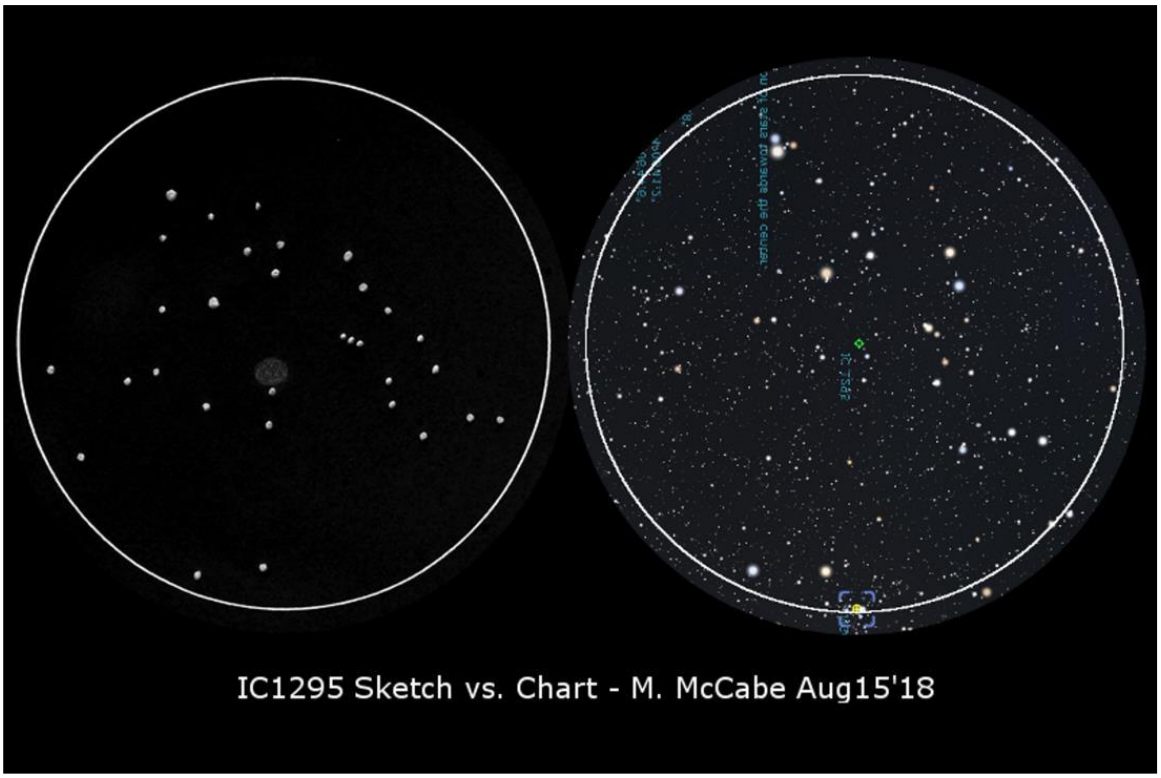
I began my search with the OTA laid over on the west side of the polar axis. For quite some time, I studied the stars in the field of view to no avail. NGC-6712 was as plain as day, and quite beautiful I might add, but I still could not get a firm grip on the star field. A firm grip was necessary, because to view IC-1295, I needed to know exactly where it lay. You're not sweeping this thing up with a 6-inch scope. Eventually, in the silence of the night, I thought I heard something. It was a noise I knew I'd heard before, but at first it wasn't entirely clear what it was. Then it hit me – it was that little plastic-creaky noise that you get when the DEC motor housing has come up against the mount, and you're ever so slowly starting to tear it off. It was time for a meridian flip!

Right then and there, that did it! I flipped the scope and homed back in on the area, and voila, I immediately latched onto the orientation of the star field and knew exactly where I was. Within minutes, I was pulling IC-1295 out of the background, and it lay, seemingly, right on top of a star at the base of a triangle that was laying on its side (of course there are endless triangles of stars in the sky, but somehow they always seem to get differentiated in the view). It was just barely there with averted vision in my low power (33X) view, but bringing the power up to 60X allowed some direct-vision observation of it. Adding an O-III filter did enhance the view of the nebula itself, but at the cost of eliminating nearly every star in the field of view. I went back to no filter, a view which I liked more, and made my sketch.

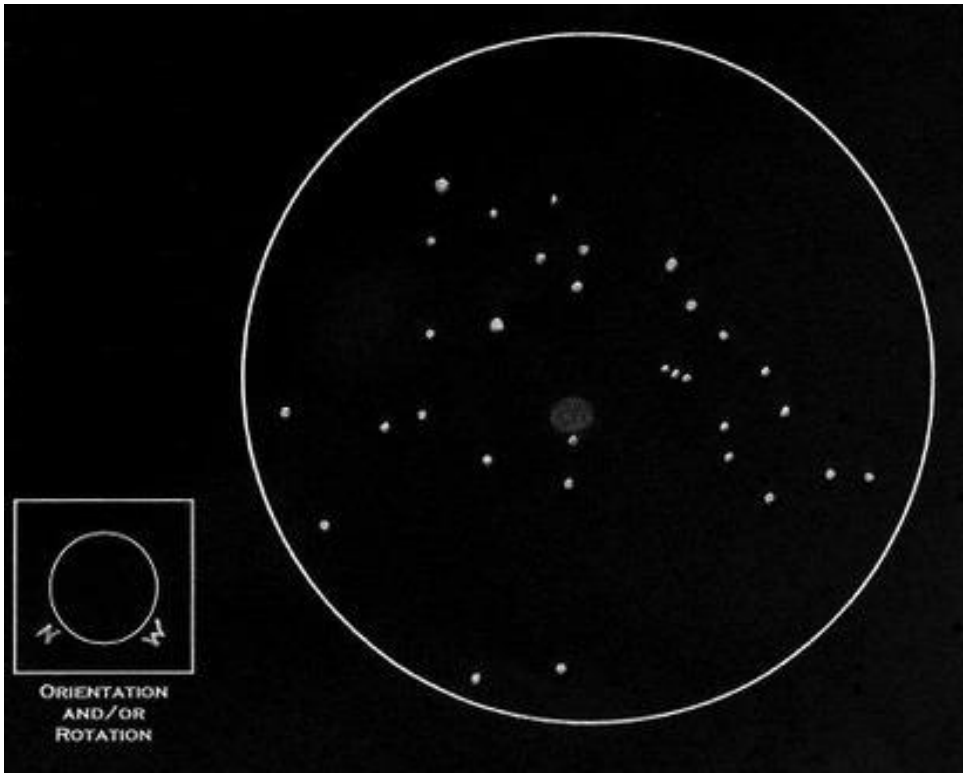
Shortly after finishing my sketch, the sky closed down like someone had spray painted my objective while I was looking through it. I was just enjoying the view and looking for possible features to add to my drawing when the stars started disappearing from view. Even though on the next evening we enjoyed and all-nighter as far as the sky being clear, the transparency just wasn't there to do any more with this object and that scope. I look forward to wielding more aperture on this little treasure somewhere down the road.



Here's an example of a typical chart that I'll produce for use at the eyepiece. Newtonians make it easy by just flipping the view upside down or some variant of it – you can just rotate the chart to match the view in the eyepiece. LR-reversed with some rotation thrown in ramps up the confusion considerably.




Often I like to compare what I sketched at the eyepiece with what's shown on a chart. Here we can clearly see the LR-reversed-and-rotated-about-90* view that I was looking at in the eyepiece.


ORIENTATION
AND/OR
ROTATION

**Jay and Liz Thompson:** LVAS members and observers from Nevada

The IC-1295 area has been a favorite of ours since Sue French highlighted it in the August 2015 issue of *Sky and Telescope*. She included an excellent image showing IC-1295, globular cluster NGC-6712, and another planetary nebula, K 4-8 (Sanduleak 2-374).

Through 14-inch and 16-inch SCTs, IC-1295 was visible (but faint) under the suburban skies of Henderson, NV, and responded to a UHC-type nebula filter. K 4-8 was more difficult, but we could pick it out at 200X to 400X.

Under the dark skies of Cathedral Gorge State Park in Nevada and Meadview, AZ, IC-1295 was easy to pick out using the LVAS 24-inch" f/4 at 116X, even without a nebula filter. At 277X, IC-1295 presented an evident large, slightly oval disk.

**Mario Motta:** Observer from Massachusetts

This one (IC-1295) took 2 nights, but I got it with narrow band filters, despite the full moon. It was mostly the Oxygen filter, which explains why it's so green. I also used an Ha and Sulfur filters, which makes it look like 2 phases of eruptions, an outer thin outburst, and later a larger outburst.

**Fred Rayworth:** LVAS AL Coordinator and Observer from Nevada

I've observed IC-1295 twice before, a decade ago, using my home-built 16-inch f/6.4. However, for the Challenge, I did a fresh observation on Thursday, September 6, 2018 from Cathedral Gorge State Park in east-central Nevada. At an altitude of 4,800 feet, it was mild, calm and cooling but still warm. The sky was mushy but clearing. There were a few thick clouds here and there, but they pretty much dissipated when it got dark. A few thick areas picked up during the evening, but they never really got in the way until later. It finally thickened a bit and I quit at 01:00 Friday morning. I was also in a short-sleeved shirt until well after 21:00 (9:30 PM). I never did have to put on a coat.

IC-1295 was easy to find with my Sky Commander digital setting circles. No more hunting and pecking with my 50mm finder and green laser pointer. After 40+ years of manually finding things, I earned a little better productivity with this handy tool! Anyway…I went right to the object, and with an 82° FOV EP at 102X, I was able to squeeze both the nebula and NGC-6712 into the field.

NGC-6712 was a small dense fog at one edge, while IC-1295 was at first invisible without a filter. Once I put in the O-III, it popped right out. Later on, I tried again and this time, since I knew right where to look, it showed as a very dim glow without a filter. However, that's no way to really observe it, barely seeing it, so I put the filter back in and observed it at the relatively low power. It was round and had a slightly mottled appearance. It twinkled in the middle a bit, like something was there. So, I upped the magnification to 209X, without the filter, and it just barely showed, but the stars in the middle were more prominent. There were two brighter ones, slightly reddish. I saw what might've been the central star, but can't confirm that for sure. After looking at images, I think it was in the right place. Later, I saw it again in the club's 24-inch, and noted the same three stars and am pretty sure that one was the central star, so I think I DID see it in my 16-inch.

At 209X, I put in the O-III filter and the detail of the nebula really popped out. It was basically a round ovoid. It was mostly round, but off a bit. It seemed to have a slightly broken

shell, with rough edges and a mottled, but much lighter interior. Even with the O-III, I could still see those two brighter stars, though I could not see the much dimmer central one.

The other nebula, Sanduleak 2-374 was a real challenge. I knew exactly where to look because of the proximity to IC-1295, otherwise I never would've found it. I followed the line of three stars, two bright, then one dim from 1295. Then between the second bright one and the third dim one, to the north(?) was another dim star. To my lower right (in the eyepiece) was a small arc of stars. One of them is the nebula. I memorized the pattern, took out the filter, then put it in again and looked for a change. Then I tried flashing the filter in front of the eyepiece, but that usually doesn't work for me and in this case, it barely did, and didn't really help much. However, since I memorized the arc, I knew which ones to look for, and sure enough, the delicate pattern changed and I found the "speck" that stayed bright. Folks, this nebula is stellar to the minimum! It's truly a speck, and it's not something I'd go for in any other circumstance! The funny thing is, I saw it right away in the club 24-inch. Since I knew the pattern, and Jay Thompson already had an O-III plugged into the eyepiece, I looked for the pattern and ID'd the planetary right away.

The drawing shows all three objects at 102X. Sanduleak is not to scale!