

## The Observer's Challenge Objects

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March: Medusa Nebula (Abell 21) – Planetary Nebula – Gemini; mag<sub>v</sub> = 10.3; Size = 11.3'  
RA: 07h 29m; Dec: +13° 15'

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**Abell 21 (SH2-274)** is a planetary nebula located in the winter constellation of Gemini - 'The Twins', and is also known as the 'Medusa Nebula'. It is about 1500 light years distant, and about 8,800 years old, and about 4 light-years in size.

Abell Planetary Nebula are named after American astrophysicist George Abell, (1927 – 1983). Using the Palomar 48-inch Schmidt telescope, Abell compiled a catalog of very old, faint planetary nebula, which was first published in 1955 titled "*Properties of Some Old Planetary Nebula*", and expanded several times with the final version in 1966. Abell's catalog is recognized as an excellent compilation of faint, challenging planetaries for both the visual observer with access to large telescopes and dark skies, and EAA/imagers. For the most part, due to being very old, large, and having a very low surface brightness, they can be difficult to observe. O-III filters can be a big help visually, allowing the nebula to 'pop' from the dimmed field. For the EAA/imager, narrowband filters will help bring out detailed subtle features in these nebulas. If you would like to read more about planetary nebula, please visit: <http://stellar-journeys.org/Planetary%20Nebula%20from%20Messier%20to%20Abell.pdf>

### Video-Capture/EAA:

- (A) **10/05/2018:** from dark-sky location at Calhoun County Park, WV. Using an 8" SCT optical tube @ f6.3 on a GEM mount, using an analog B/W video-camera & IR filter @ 180 seconds, guided single exposure.
- (B) **01/21/2021:** from Big Woodchuck Observatory backyard in Pittsburgh, PA. Using an 8" SCT optical tube @ f6.3 on a GEM mount, with a CMOS color camera and narrowband filter @ 60-second guided exposure, live stacked for 30 minutes.

(A)



(B)

