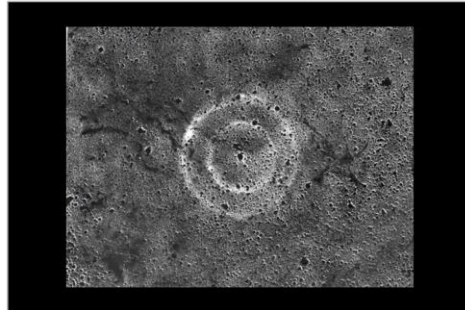


# NASA Astronomy Picture of the Day!

## The Expanding Echoes of Supernova 1987A



### Details

**Picture date:** 2019-02-24

**Copyright:** David Malin/AAT

**Url:**  
[https://www.youtube.com/embed/Pb\\_BN0f8FFM?rel=0](https://www.youtube.com/embed/Pb_BN0f8FFM?rel=0)

**Hdurl:**

### Description

Can you find supernova 1987A? It isn't hard --- it occurred at the center of the expanding bullseye pattern. Although this stellar detonation was first seen in 1987, light from SN 1987A continued to bounce off clumps of interstellar dust and be reflected to us even many years later. Light echoes recorded between 1988 and 1992 by the Anglo Australian Telescope (AAT) in Australia are shown moving out from the position of the supernova in the featured time-lapse sequence. These images were composed by subtracting an LMC image taken before the supernova light arrived from later LMC images that included the supernova echo. Other prominent light echo sequences include those taken by the EROS2 and SuperMACHO sky monitoring projects. Studies of expanding light echo rings around other supernovas have enabled more accurate determinations of the location, date, and symmetry of these tremendous stellar explosions. Yesterday marked the 32nd anniversary of SN 1987A: the last recoded supernova in or around our

# NASA picture of the selected date

## The Helix Nebula in Hydrogen and Oxygen



### Details

**Picture date:** 2019-02-13

**Copyright:** Andrew Campbell

**Url:**  
[https://apod.nasa.gov/apod/image/1902/Helix\\_Campbell\\_960.jpg](https://apod.nasa.gov/apod/image/1902/Helix_Campbell_960.jpg)

**Hdurl:**  
[https://apod.nasa.gov/apod/image/1902/Helix\\_Campbell\\_1585.jpg](https://apod.nasa.gov/apod/image/1902/Helix_Campbell_1585.jpg)


### Description

Is the Helix Nebula looking at you? No, not in any biological sense, but it does look quite like an eye. The Helix Nebula is so named because it also appears that you are looking down the axis of a helix. In actuality, it is now understood to have a surprisingly complex geometry, including radial filaments and extended outer loops. The Helix Nebula (aka NGC 7293) is one of brightest and closest examples of a planetary nebula, a gas cloud created at the end of the life of a Sun-like star. The remnant central stellar core, destined to become a white dwarf star, glows in light so energetic it causes the previously expelled gas to fluoresce. The featured picture, taken in the light emitted



NASA picture of the selected date

Atlas V Launches TDRS-K



Description

Beyond a fertile field of satellite communication antennas at Kennedy Space Center, an Atlas V rocket streaks into orbit in this long exposure photograph. In the thoughtfully composed image recorded on the evening of January 30, the antennas in the foreground bring to mind the rocket's payload, a Tracking and Data Relay Satellite (TDRS: sounds like TEE-dress). This TDRS-K is the first in a next-generation series adding to the constellation of NASA's communication satellites. Operating from geosynchronous orbit 22,300 miles (36,000 kilometers) above planet Earth, the network of TDRS satellites relays communications, data, and commands between spacecraft and ground stations. Formerly the TDRS network provided communications for space shuttle missions. In fact, many TDRS satellites were ferried as far as low Earth orbit on space shuttles. The TDRS network continues to support major spacecraft like the International Space Station, the Hubble Space Telescope, and the Fermi Gamma-ray Space Telescope.

Details

Picture date:

2013-02-01

Copyright:

Ben Cooper

Url:

<https://apod.nasa.gov/apod/image/1302/TDRS-Kcooper.jpg>

Hdurl:

<https://apod.nasa.gov/apod/image/1302/TDRS-Kcooper.jpg>

NASA picture of the selected date

There are no future pictures yet!

Description

Choose today's or past date!

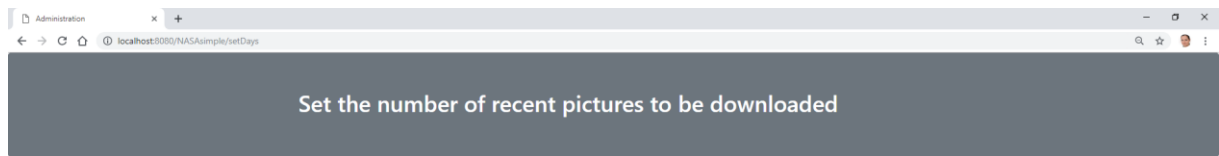
Details

Picture date:

Copyright:

Url:

Hdurl:

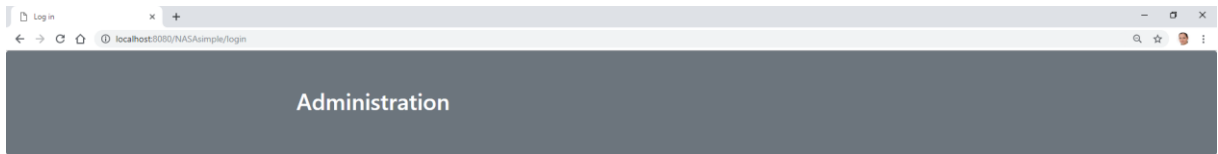


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