

Hubble and James Webb Space Telescopes

The Latest Spectacular Images from the Cosmos

2025

Cover

Star Formation in NGC 602

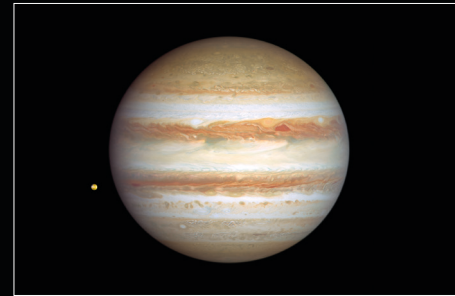


Near the outskirts of the Small Magellanic Cloud lies the young star cluster NGC 602 where star formation is ongoing. This image highlights the cluster stars, the young stellar objects, and the surrounding gas and dust ridges, while also showing background galaxies and other stars in the Small Magellanic Cloud.

Credit: NASA, ESA, CSA, P. Zeidler, E. Sabbi, A. Nota, M. Zamani (ESA/Webb)

January

Jupiter in January



The giant planet Jupiter, in all its banded glory, is revisited by Hubble in this image taken on 6 January 2024. A pair of battling storms are visible right of centre, a deep red cyclone and a reddish anticyclone. To the left of the planet its volcanic moon Io appears.

Credit: NASA, ESA, J. DePasquale (STScI), A. Simon (NASA-GSFC)

February

Close-up on the Horsehead Nebula



This sharpest-ever infrared view of the famous Horsehead Nebula from Webb shows the depth and complexity of the thick clumps of material like never before. Also featured are Hubble's 23rd anniversary image, and one of the first images from ESA's Euclid telescope.

Credit: ESA/Euclid/Euclid Consortium/NASA, image processing by J.-C. Cuillandre (CEA Paris-Saclay), G. Anselmi, NASA, ESA, and the Hubble Heritage Team (AURA/STScI), ESA/Webb, CSA, K. Misselt (University of Arizona) and A. Abergel (IAS/University Paris-Saclay, CNRS), M. Zamani (ESA/Webb)

March

Spiral Smiling Face



The two bright 'eyes' and semi-circular 'smile' in the Webb image of this spiral galaxy are the result of an off-centre collision by the elliptical galaxy now seen here to its left. A tenuous gas bridge runs between the galaxies, together known as Arp 107.

Credit: NASA, ESA, CSA, STScI

April

Little Dumbbell Nebula



M76, the colourful Little Dumbbell Nebula, is a planetary nebula created by a collapsing red giant star. Hot, vibrant gases are propelled outwards by the now white-dwarf's stellar winds; the red colour is from nitrogen, and blue is from oxygen. Hubble turned to this favourite target of amateur astronomers for its 34th anniversary in April 2024.

Credit: NASA, ESA, STScI, A. Pagan (STScI)

May

Light From a Starburst Galaxy



This is NGC 5253, a starburst galaxy filled with extraordinary star clusters and continually forming stars. Hubble's image reveals super star clusters lurking in its core amongst dark dust clouds. As a dwarf galaxy, it resembles ancient galaxies and is a laboratory to study star and galaxy evolution.

Credit: NASA, ESA, A. Zezas, D. Calzetti

June

Gravitational Lens on Cosmic Gems

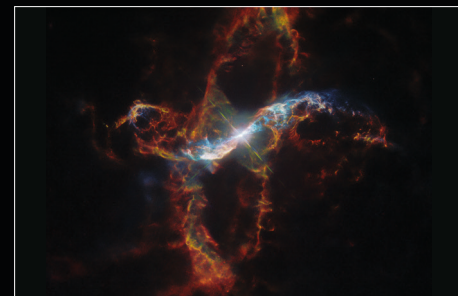


Among the many massive galaxies of the lensing galaxy cluster shown here, SPT-CL J0615-5746, lies the Cosmic Gems arc. An infant galaxy from just 460 million years after the Big Bang, it is visible thanks to strong gravitational lensing by the cluster. Astronomers are using Webb to map its inner workings.

Credit: NASA, ESA, CSA, L. Bradley (STScI), A. Adamo (Stockholm University) and the Cosmic Spring collaboration

July

The Intricacies of R Aquarii



R Aquarii is a binary star system surrounded by a large, dynamic nebula. Outbursts eject powerful jets, forming loops and trails as plasma emerges in streamers. They are energised by blistering radiation from the stellar duo to glow in visible light.

Credit: NASA, ESA, M. Stute, M. Karovska, D. de Martin (ESA/Hubble), M. Zamani (ESA/Hubble)

August

Peeking into Perseus



A stunning mosaic of images from Webb showcases the nearby star-forming cluster, NGC 1333, in the Perseus molecular cloud. Large patches of orange represent gas glowing in the infrared as ionised material ejected from young stars collides with the surrounding cloud. They are hallmarks of a very active site of star formation.

Credit: NASA, ESA, CSA, A. Scholz, K. Muzic, A. Langeveld, R. Jayawardhana

September

Omega Centauri's Mysterious Core



Omega Centauri is the brightest, largest, and most massive Milky Way globular cluster known. This image shows the depth and extent of its population of stars. In 2024 astronomers found new evidence in Hubble data that it hides an intermediate-mass black hole at its centre.

Credit: NASA, ESA, M. Häberle (MPIA)

October

Protostars in Serpens



The Serpens Nebula is home to a particularly dense cluster of newly forming stars. This Webb image shows the nebula's centre. Filaments and wisps of different hues represent reflected starlight from still-forming protostars within the cloud; dust in front of that reflection appears in an orange, diffuse shade.

Credit: NASA, ESA, CSA, STScI, K. Pontoppidan (NASA/JPL), J. Green (STScI)

November

Hubble's Spiral Galaxy Treasures



Hubble continued its long run of capturing beautiful celestial objects in fine colour and detail in 2024, and this year as ever, many were spiral galaxies. Seen here are Messier 90, NGC 3810, NGC 3783 and NGC 4951, gems from a treasure trove of new Hubble observations.

Credit (top left): NASA, ESA, D. Thilker, J. Lee and the PHANGS-HST Team
Credit (top right): NASA, ESA, D. Sand, R. J. Foley
Credit (bottom left): NASA, ESA, M. C. Bentz, D. J. V. Rosario
Credit (bottom right): NASA, ESA, D. Thilker, M. Zamani (ESA/Hubble)

December

The Many-Coloured Lights of Westerlund 1



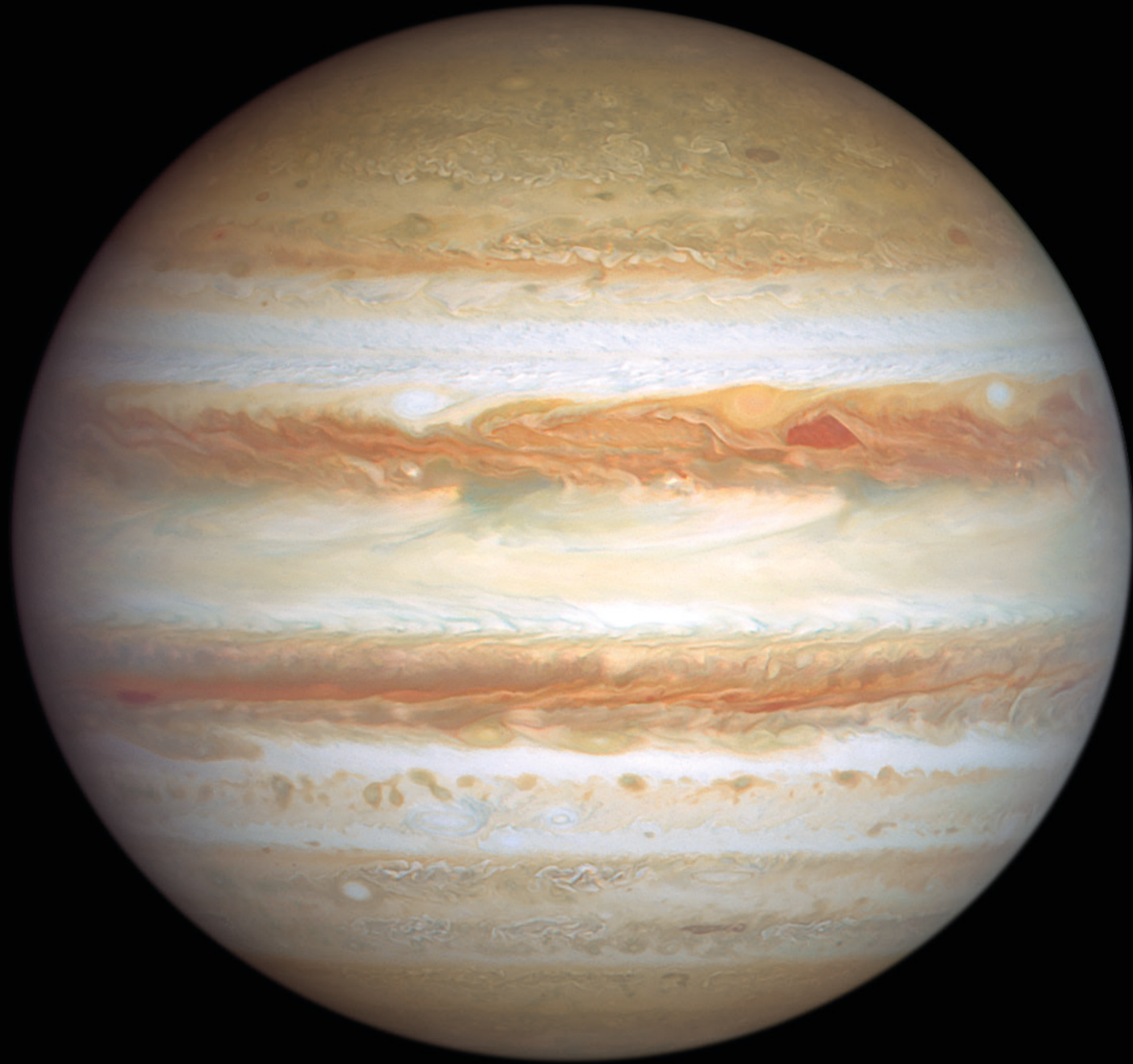
Westerlund 1 is one of our galaxy's few remaining super star clusters. Its large, dense, and diverse population of massive stars is unrivalled in the Milky Way galaxy. Webb can pierce the dense dust surrounding it and study its population of lower-mass stars.

Credit: NASA, ESA, CSA, M. Zamani (ESA/Webb), M. G. Guarcello (INAF-OAPA) and the EWOCS team

2025



Moon phases are indicated in Universal Time.

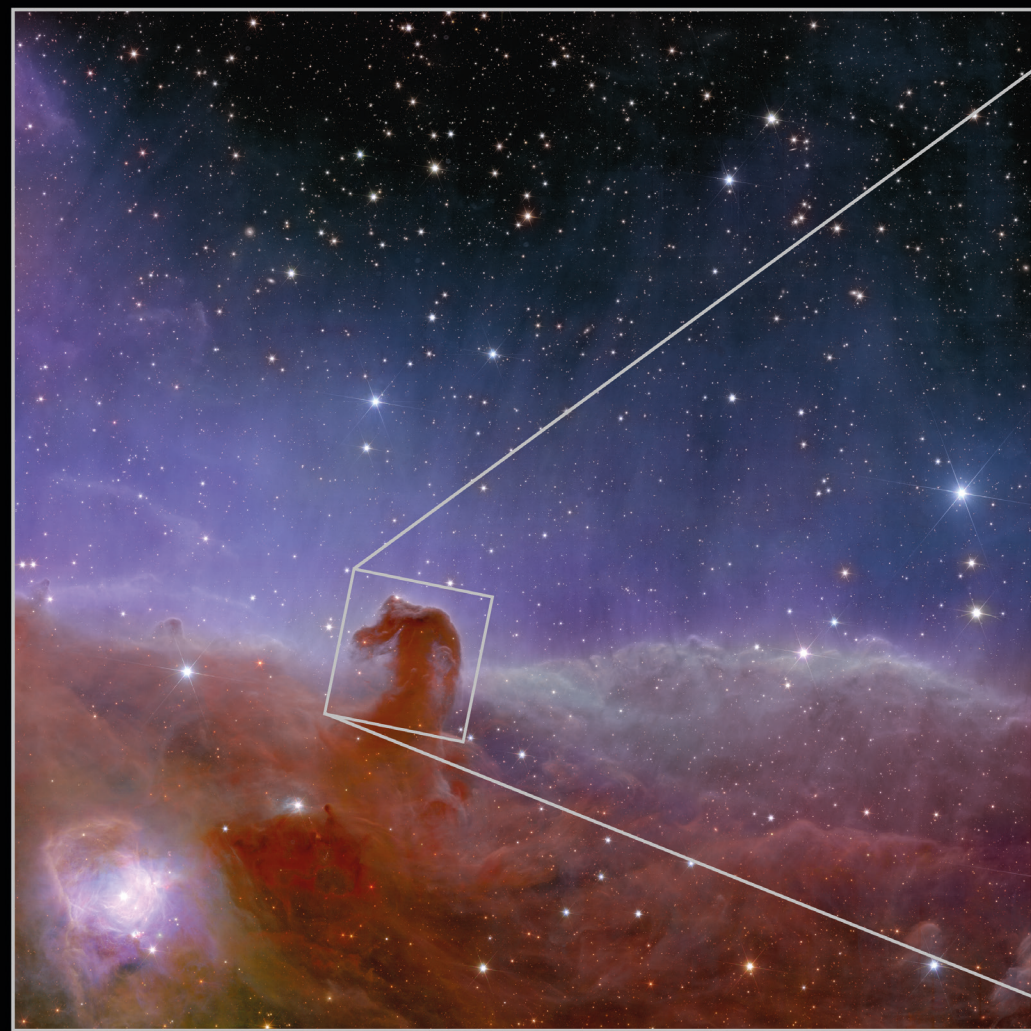


January 2025

Wednesday Thursday Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Jupiter in January
(Hubble)





Euclid (Visible-Infrared)



Hubble (Infrared)



Webb (Infrared)

February 2025



Close-up on the Horsehead Nebula (Webb)





March 2025

Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday							
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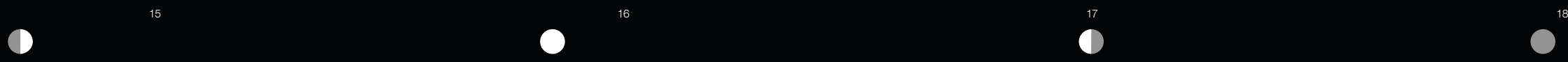
Spiral Smiling Face
(Webb)





April 2025

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Little Dumbbell Nebula
(Hubble)





May 2025

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

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Light From a Starburst Galaxy
(Hubble)





June 2025

Gravitational Lens on Cosmic Gems
(Webb)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday							
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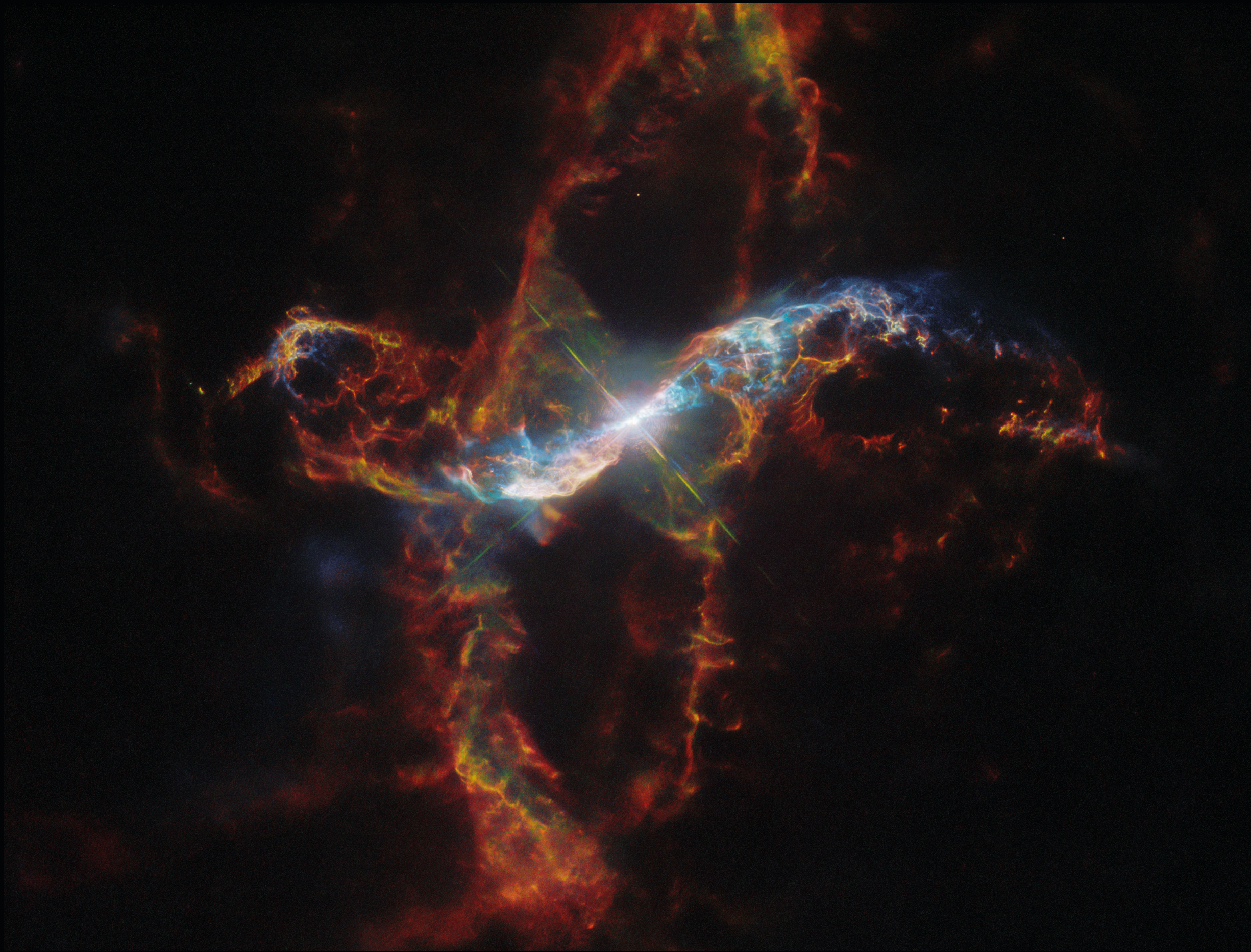
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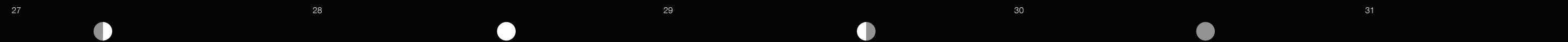




July 2025

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The Intricacies of R Aquarii
(Hubble)





August 2025

Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

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Peeking into Perseus
(Webb)





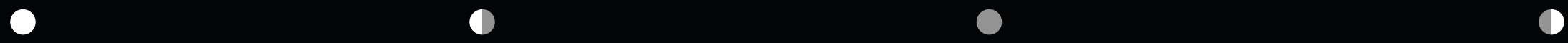
September 2025

Omega Centauri's Mysterious Core
(Hubble)

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday							
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October 2025

Wednesday Thursday Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

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Protostars in Serpens
(Webb)





November 2025

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday Tuesday Wednesday Thursday Friday Saturday Sunday Monday

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1

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Hubble's Spiral Galaxy Treasures
(Hubble)





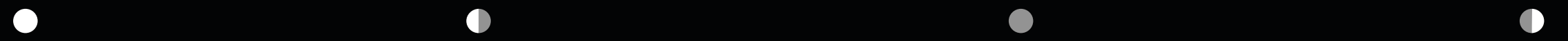
The Many-Coloured Lights of Westerlund 1
(Webb)

December 2025

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday							
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Distant Galaxy System ZS7 (Webb)
Credit: NASA, ESA, CSA, J. Dunlop, D. Magee, P. G. Pérez-González, H. Übler, R. Maiolino, et al.





The images featured in this calendar were taken by the NASA/ESA Hubble Space Telescope and the NASA/ESA/CSA James Webb Space Telescope and were publicly released throughout 2024.