

ESO Calendar 2027

European Southern Observatory





January 2027

The sunset shines on the ELT

Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	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





Largest ALMA image ever shows the molecular gas in the centre of the Milky Way

February 2027

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
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	1	2	3

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March 2027

ESO telescopes at the La Silla Observatory

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
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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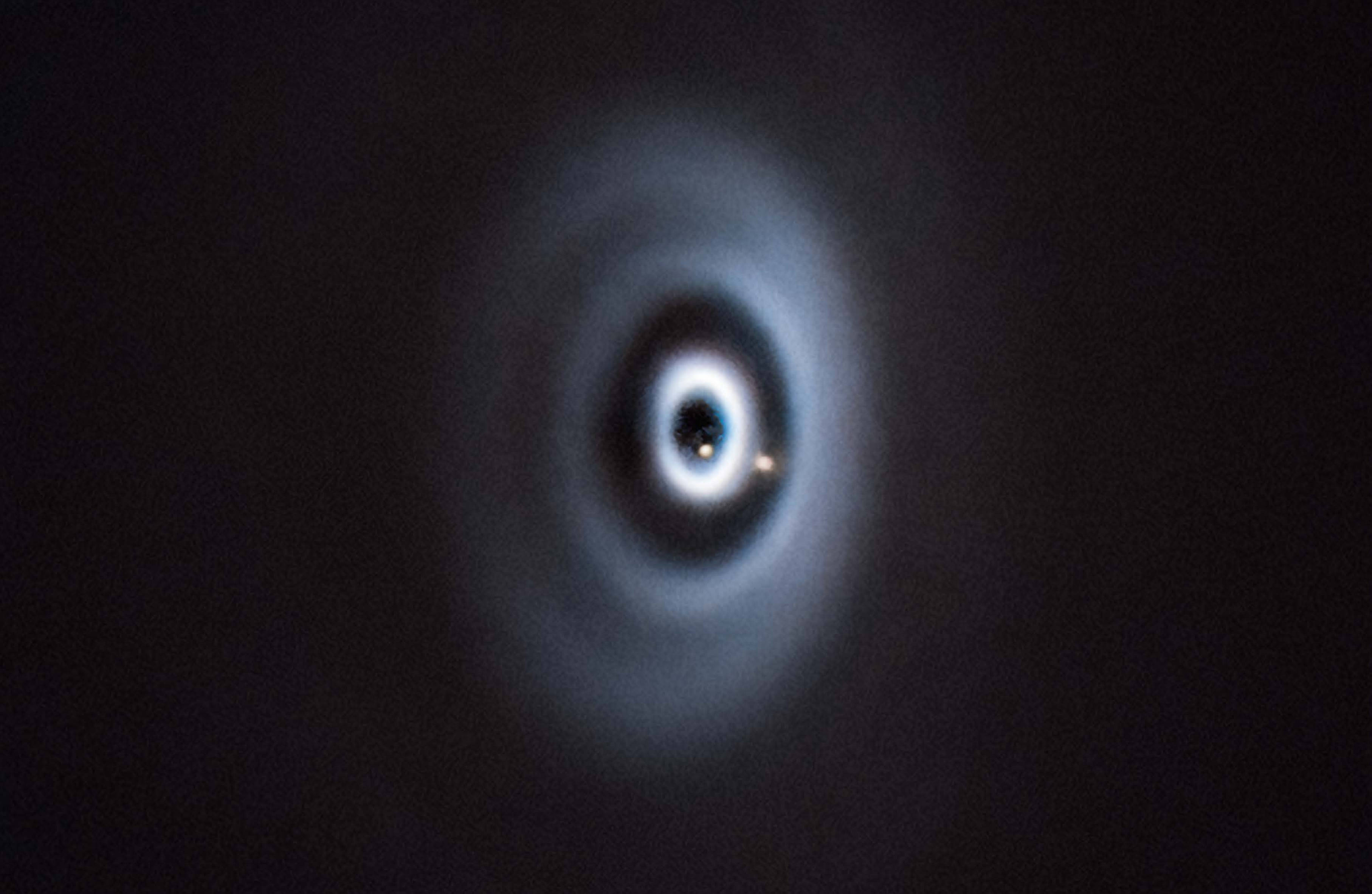
13











Composite VLT image of two planets around the star WISPI 2

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August 2027

ALMA antenna on the move



The RCW 94 and RCW 95 nebulae in visible and infrared light

September 2027

Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	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	1

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October 2027

The heart of the ELT



November 2027

AT and the Milky Way's glittering band

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
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
44							45							46							47								48	





December 2027

Lasers and zodiacal light



Cover

Paranal's pristine sky



Three of the four Unit Telescopes of ESO's Very Large Telescope (VLT) are centred under the Milky Way. The smaller telescope in the background, to the right, is the VLT Survey Telescope (VST).

The sky appears split in two: a greenish haze on the left side and a reddish one on the right. This so-called airglow is caused by chemical processes in the upper layers of Earth's atmosphere. Airglow is extremely faint and only noticeable in the darkest regions on Earth, such as the Chilean Atacama Desert, where the VLT is located.

Credit: J. Looten/ESO



January

The sunset shines on the ELT



ESO's Extremely Large Telescope (ELT) glows in the sunset light of Chile's Atacama Desert, surrounded by cranes as construction advances. Located atop Cerro Armazones, at 3046 metres above sea level, the ELT will benefit from exceptionally dry conditions and some of the clearest skies on Earth once it sees first light later this decade.

Inside its protective dome, construction of the world's largest optical and near-infrared telescope is well advanced. When this image was taken in April 2026, the telescope was more than 70% complete.

Credit: ESO/G. Vecchia



February

Largest ALMA image ever shows the molecular gas in the centre of the Milky Way



This image shows the complex distribution of molecular gas in the Milky Way's Central Molecular Zone (CMZ), captured by the Atacama Large Millimeter/submillimeter Array (ALMA). Taken as part of the ALMA CMZ Exploration Survey (ACES), these observations help astronomers understand how gas condenses to form new stars in the extreme and chaotic environment at the heart of our galaxy.

The survey has charted the distribution of dozens of different molecules, five of which are shown here in different colours. Foreground stars were observed separately in the infrared using ESO's VISTA telescope.

Credit: ALMA (ESO/NAOJ/NRAO)/S. Longmore et al. Background: ESO/D. Minniti et al.



March

ESO telescopes at the La Silla Observatory



The Atacama Desert is the ideal location for ESO telescopes, including those seen in this image at ESO's La Silla Observatory.

The skies here are free from the light pollution of towns and cities, and are usually stunningly clear. However, as this image shows, clouds do make an occasional appearance, providing some welcome shade for the desert's wildlife.

Credit: ESO/A. Ghizzi Panizza (www.albertoghizzipanizza.com)



April

RCW 36: The Cosmic Hawk



This image of the RCW 36 nebula, taken with ESO's Very Large Telescope (VLT), appears to show a cosmic hawk spreading its wings across space. Dark clouds form the bird's head and body, while glowing filaments extend outward like wings. Below, a blue nebula shines brightly under the intense radiation of massive young stars.

Located about 2300 light-years away in the constellation Vela, RCW 36 was observed with the HAWK-I instrument on the VLT — fittingly capturing a hawk-shaped nebula with an instrument named after one.

Credit: ESO/A. R. G. do Brito do Vale et al.



May

The ESO Supernova in the sun



A sunny outside view of the ESO Supernova Planetarium & Visitor Centre, a cutting-edge free astronomy centre for the public located at the site of ESO's Headquarters in Garching bei München. The centre features a planetarium, as well as a free-of-charge exhibition for visitors.

This image highlights the novel design of the building, which resembles a close double-star system with one star transferring mass to its companion.

Credit: ESO/M. Martins



June

Four lasers for the VLTI



This photograph shows four lasers at ESO's Paranal Observatory, each one launched from one of the four eight-metre telescopes on site. The launch of these lasers represents a significant milestone for ESO's Very Large Telescope Interferometer (VLTI), which combines the light from these telescopes, and the GRAVITY+ project — a large and complex upgrade to the VLTI. With the installation of a laser at each of the eight-metre telescopes, a bright 'fake' star is created 90 km above Earth's surface by each laser, enabling the correction of atmospheric blur anywhere on the sky. This unlocks the whole southern sky to the VLTI and enhances its observing power dramatically.

Credit: A. Berdeu/ESO



July

Composite VLT image of two planets around the star WISPIIT 2



The image shows the formation of two planets around the young star WISPIIT 2. These observations were made using the SPHERE instrument on ESO's Very Large Telescope (VLT). SPHERE can directly image exoplanets by compensating for atmospheric turbulence and blocking out the light from the central star.

This composite image combines SPHERE observations taken at different times. The outer planet, WISPIIT 2b, was discovered first, while WISPIIT 2c, which orbits much closer to the star, was confirmed only later.

Credit: ESO/C. Lawlor, R. F. van Capelleveen et al.



August

ALMA antenna on the move



A specialised transporter carries one of the Atacama Large Millimeter/submillimeter Array's (ALMA's) antennas across the Chajnantor Plateau, in the Chilean Andes.

ALMA's 66 antennas can be moved into different configurations, allowing astronomers to study the Universe at different levels of detail. The transporters, Otto (in this picture) and Lore, can precisely position antennas weighing more than 100 tonnes.

Credit: S. Otarola/ESO



September

The RCW 94 and RCW 95 nebulae in visible and infrared light



This image shows a cloud of gas and dust shaped like a cosmic bat. The image was captured primarily in visible light using the VLT Survey Telescope (VST) at ESO's Paranal Observatory in Chile. The intense red glow comes from hydrogen atoms ionised by the strong radiation from young stars within the cloud. In addition, this image incorporates infrared data obtained with ESO's Visible and Infrared Survey Telescope for Astronomy (VISTA), also located at Paranal.

The most prominent clouds in this region are RCW 94, which forms the bat's right wing, and RCW 95, which forms its body; the other parts of the bat do not have official designations.

Credit: ESO/VPHAS+ team/VVV team



October

The heart of the ELT



This view looks into the heart of ESO's Extremely Large Telescope (ELT), where construction of the telescope structure is well advanced. The structure, illuminated here by sunlight streaming through the slightly open dome doors, will support the ELT's giant mirrors and scientific instruments.

With a 39-metre main mirror, the ELT will be the largest optical and infrared telescope ever built. Once completed, it will allow astronomers to explore the Universe in unprecedented detail.

Credit: ESO/J. C. Muñoz-Mateos



November

AT and the Milky Way's glittering band



The Milky Way arches across the sky above ESO's Paranal Observatory in Chile's Atacama Desert, while an Auxiliary Telescope (AT) of ESO's Very Large Telescope rests beneath its closed dome.

This striking view looks towards the centre of our home galaxy, a region densely packed with stars. The dark lanes crossing the Milky Way are vast clouds of cosmic dust that block the light from stars behind them. Observations from sites like Paranal help astronomers explore these hidden regions and better understand the structure of our galaxy.

Credit: A. Trigo/ESO



December

Lasers and zodiacal light



This picture shows the four lasers of one of the Unit Telescopes of ESO's Very Large Telescope Unit projected onto the sky above the Chilean Atacama Desert. The lasers appear to point towards a diffuse bluish glow known as zodiacal light, created when sunlight scatters off dust left behind by asteroids and comets throughout the Solar System.

Visible before sunrise or after sunset under exceptionally dark skies, zodiacal light follows the plane of the Solar System. The pristine conditions at Paranal Observatory make it one of the best places on Earth to witness this subtle celestial glow.

Credit: G. Doyen/ESO



ESO

European Southern Observatory



The European Southern Observatory (ESO) enables scientists worldwide to discover the secrets of the Universe for the benefit of all. We design, build and operate world-class observatories on the ground — which astronomers use to tackle exciting questions and spread the fascination of astronomy — and promote international collaboration in astronomy. ESO is an intergovernmental organisation supported by 16 Member States, with our headquarters in Germany, along with Chile as the Host State of our observatories and Australia as a Strategic Partner.

Moon phases are indicated in Universal Time.

Produced by the ESO Department of Communication.

2027