

Sky News

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FIRST ANIMALS IN SPACE

Fruit flies were the first animals launched into outer space. On February 20, 1947, they were launched on a captured Nazi V-2 rocket to an altitude of 68 miles. They returned alive by parachute.

A total of 32 monkeys have flown in space, including rhesus macaques, cynomolgus monkeys, squirrel monkeys, and pig-tailed monkeys. Chimpanzees have also flown into space.

The first successful return to Earth was on May 28, 1959 when rhesus monkey Able and squirrel monkey Baker were weightless for 9 minutes. The Soviet Union launched 12 dogs on suborbital flights in the 1950s. Laika was the first living being to circle the Earth aboard *Sputnik 2* on November 3, 1957. She died during the flight.

The first animals to return alive from orbit were aboard the *Sputnik 5* on August 19, 1960. They were the dogs Belka and Strelka, a gray rabbit, 42 mice, 2 rats, and fruit flies. The first American launched animals to survive were sent aboard *Mercury* capsules and were chimpanzees: Ham on January 31, 1961 and Enos on November 29, 1961. France launched the first cat Felicette on October 18, 1963. China launched mice, rats, and dogs between 1964 and 1966. The longest flight was 22 days for Russian space dogs on March 16, 1966.

The first animals to circle the moon in 1968 were 2 Russian tortoises, wine flies, mealworms, and bacteria. Spacecraft have taken insects, spiders, fish, jellyfish, amoebae, algae, and rodents to study as biological payloads studied on the International Space Station (ISS).

This edition of the
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was written by
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SEND NAME TO MARS

NASA is taking names to Mars aboard the next rover being launched in July 2020. To send your name and get a souvenir boarding pass for Mars, go to <https://go.nasa.gov/Mars2020Pass>.

SUMMER PLANETS

Mercury appears very low in the western sky after sunset in June. Mercury will disappear in July as it passes between the Sun and Earth on July 21st. Mercury returns to the morning predawn sky in August. Mercury looks like a small white star.

Venus cannot be seen most of the summer as passes behind the Sun as seen from Earth, called superior conjunction. Venus will disappear in the Sun's glare by early June. Venus will return as the "evening star". Venus looks like a bright white star.

Mars can be seen in June low in the western sky for a short time after sunset. Mars passes behind the Sun as seen from Earth and will return to the morning sky in October. Mars looks like a bright, ruddy-colored star.

Jupiter can be seen rising opposite the Sun in the southeastern sky reaching opposition on June 7th. Jupiter rises earlier throughout the summer, and can be seen in the south after sunset in August. Jupiter sets in the west by dawn in June, and by midnight in August. Jupiter looks like a bright, yellow star.

Saturn can be seen rising in the southeast after sunset in the constellation Sagittarius (the Archer), just east of the Teapot. Saturn is opposite the Sun on July 16th and is great to view! Saturn is in the western sky by dawn. Saturn follows about 2 hours behind Jupiter all summer, and sets in the west in predawn August. Saturn looks like a bright, amber-colored star.

SKY DATES

- June**
- 1 - Moon passes 3.2° S of Venus
 - 3 - New moon at 5:02 a.m.
 - 4 - Moon passes 3.7° S of Mercury
 - 5 - Moon passes 3.7° S of Mars
 - 6 - Moon passes 6.2° S of Pollux
 - 7 - Moon passes 0.2° N of Beehive cluster
 - Moon at perigee (closest point to Earth)
 - 8 - **CAS Open House** at Conway
 - Moon passes 3.2° N of Regulus
 - Venus passes 5.0° S of Pleiades
 - 10 - First quarter moon at 12:59 a.m.
 - Jupiter at opposition at 10:00 a.m.
 - 15 - June Lyrid meteor shower
 - 16 - Moon passes 2.0° N of Jupiter
 - Venus passes 4.6° N of Aldebaran
 - 17 - **Full moon** called Rose, Green Corn, Hot, Planting, or Strawberry Moon at 3:31 a.m.
 - 18 - Mercury passes 0.2° of Mars
 - Moon occults Saturn
 - 19 - Mercury passes 5.2° S of Pollux
 - 21 - Mars passes 5.4° S of Pollux
 - **Summer Solstice** at 10:54 a.m.
 - 23 - Moon at apogee (farthest point from Earth)
 - Mercury at greatest eastern elongation
 - **Kemil Beach** viewing event
 - 25 - Last quarter moon at 12:32 p.m.
 - 29 - June Bootid meteor shower peaks
 - 30 - Asteroid Day
 - Moon passes 2.3° N of Aldebaran
- July**
- 2 - New moon at 2:16 p.m.
 - Total solar eclipse
 - 4 - Moon passes 3.3° N of Mercury
 - Mercury passes 2.5° S of Beehive cluster
 - Moon passes 0.2° N of Beehive cluster
 - Earth at aphelion (farthest from sun) at 1.01676 AU or 94,508,169 miles
 - Moon at perigee (closest point to Earth)
 - 5 - Mercury passes 3.8° of Mars
 - 6 - **CAS Open House** at Conway
 - Moon passes 3.2° N of Regulus
 - 7 - Mercury at aphelion
 - 9 - First quarter moon at 5:55 a.m.
 - Saturn at opposition
- 13 - Mars passes 0.4° S of Beehive cluster
- Moon passes 2.3° N of Jupiter
- 16 - Moon occults Saturn
- Partial lunar eclipse
- **Full moon** called Summer, Red Cherries, Hay, Buck, or Thunder Moon at 4:38 p.m.
- 20 - **50th anniversary of Apollo 11**
- Moon at apogee (farthest point from Earth)
- 21 - Mercury at inferior conjunction
- 24 - Last quarter moon at 8:18 p.m.
- 27 - Moon passes 2.3° N of Aldebaran
- 28 - **Kemil Beach** viewing event
- Delta Aquarid meteor shower peaks
- 29 - Alpha Capricornid meteor shower peaks
- 31 - New moon at 2:16 p.m.
- August**
- 1 - Cross-quarter day; half mark of summer
 - 2 - Moon at perigee (closest point to Earth)
 - 7 - First quarter moon at 12:31 p.m.
 - 8 - Venus at perihelion
 - 9 - Moon passes 2.5° N of Jupiter
 - Mercury at greatest western elongation
 - 12 - Moon occults Saturn
 - Jupiter passes 4.3° N of Antares
 - 13 - Perseid meteor shower peaks after sunset
 - 14 - Venus at superior conjunction
 - 15 - **Full moon** called Green Corn, Grain, Red, Cherries Turn Black, Lightning, or Dog Day's Moon at 7:29 p.m.
 - 17 - Moon at apogee (farthest point from Earth)
 - 23 - Last quarter moon at 9:56 a.m.
 - 24 - Moon passes 2.4° N of Aldebaran
 - 25 - **Kemil Beach** viewing event
 - Mars at aphelion
 - 27 - Moon passes 6.1° S of Pollux
 - 28 - Moon passes 0.2° N of Beehive cluster
 - 30 - New moon at 3:58 p.m.
 - Moon at perigee (closest point to Earth)
 - 31 - **CAS Open House** at Conway at 8:30
 - Aurigid meteor shower peaks

The following sources were used
for this issue of Sky News:

www.casonline.org, [jplnewsroom@jpl.nasa.gov.](mailto:jplnewsroom@jpl.nasa.gov),
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<http://www.astropixels.com>,
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