

Starmap2019

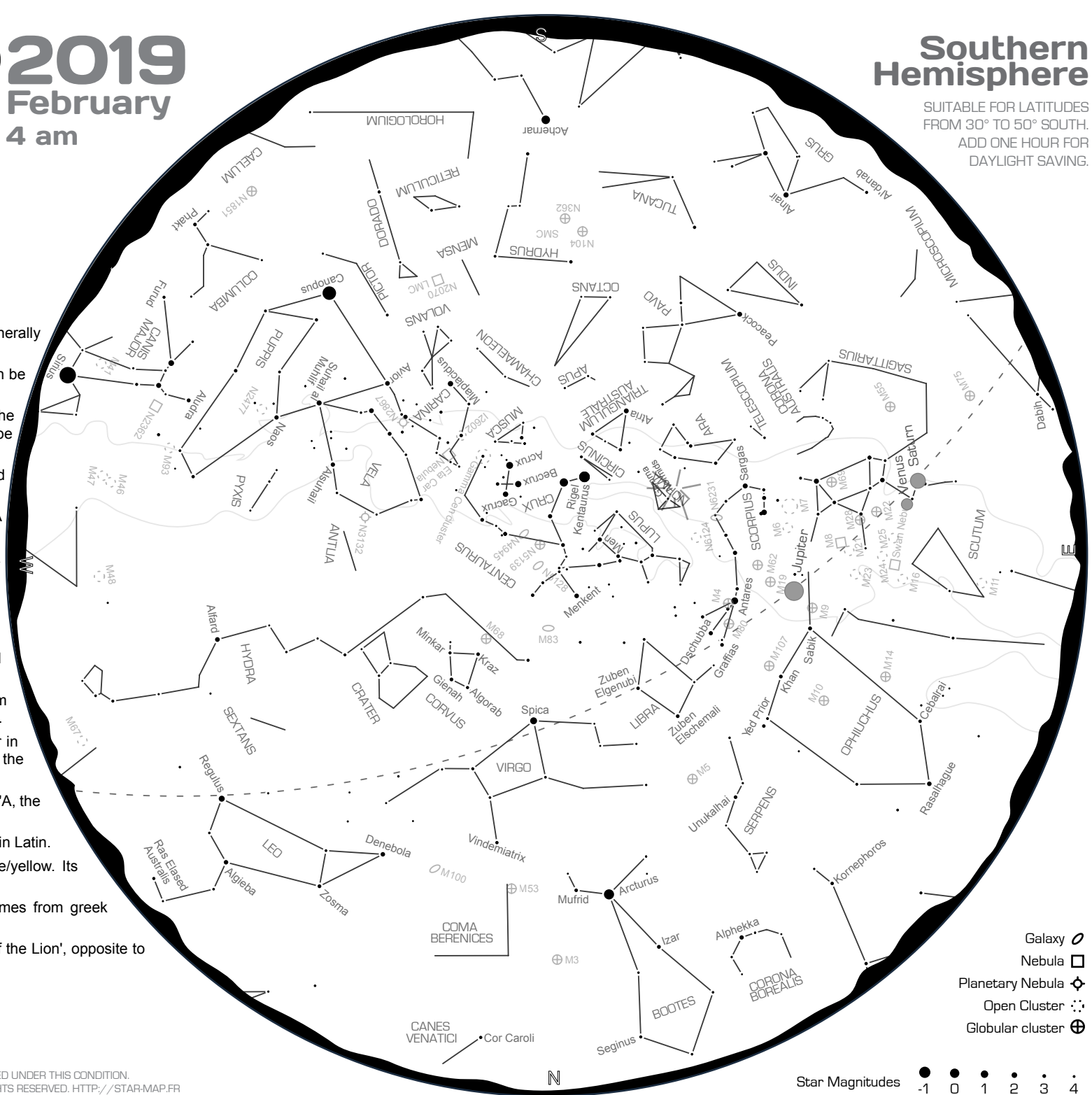
February
4 am

Southern Hemisphere

SUITABLE FOR LATITUDES
FROM 30° TO 50° SOUTH.
ADD ONE HOUR FOR
DAYLIGHT SAVING.

VISIBLE TONIGHT TO THE NAKED EYE

- Venus is visible. It is the second planet of the Solar System. Generally seen at dusk or dawn as a very bright spot in the sky.
- ♃ Jupiter is the largest planet in the Solar System. Its satellites can be observed with binoculars. Very bright and easy to find.
- ♄ Observe Saturn rings in small telescopes and binoculars. One of the marvels of our Solar System. The planet is quite bright and can be located very easily.
- ☐ Eta Carina Nebula should not be missed. A must for beginners and for astrophotographers. Near the Southern Cross.
- ⊕ Omega Centauri, the largest globular cluster visible from Earth. A beautiful object. A nice object for beginners. Easy to locate.
- ☐ The Omega Nebula, visible with the unaided eye in dark skies. A good candidate for long exposures.
- ☼ The Lambda Cen Nebula (or Running Chicken Nebula) is an open cluster with an emission nebula in Centaurus. Really worth a look.
- ☼ The Ptolemy cluster. Can be viewed with the naked eye, and identified as a brighter zone in the Milky Way.
- ★ Antares. A red super giant in the Milky Way. Its name comes from ancient greek 'Against Ares', being compared to the planet Mars.
- ★ Rigel Kentaurus. Also named Alpha Centauri. The brightest star in the southern hemisphere. Its companion Proxima Centauri is the closest star to the Sun.
- ★ Acrux. The brightest star in the Southern Cross. Its name means 'A, the first, in the cross'.
- ★ Spica. The brightest star of Virgo. Its name means 'Ear of Grain' in Latin.
- ★ Arcturus. The brightest star in the Herdsman. Appears Orange/yellow. Its name is greek and means 'Guardian of the Bear'.
- ★ Canopus. The second brightest star after Sirius. Its name comes from greek 'Kanōbos', pilot of Menelaus' ship (conjectural).
- ★ Denebola. The second brightest star of Leo, meaning the 'Tail of the Lion', opposite to Regulus.



- Galaxy ☉
- Nebula ☐
- Planetary Nebula ☼
- Open Cluster ☼
- Globular cluster ⊕

Star Magnitudes

● -1 ● 0 ● 1 ● 2 ● 3 ● 4

WITH BINOCULARS AND SMALL TELESCOPES

NGC104	⊕	47 Tucanae, an intense globular cluster containing millions of stars. Easy to locate. A nice object for beginners in astrophotography.
NGC2070	☐	The Tarantula Nebula, such a beautiful object in the Large Magellanic Cloud. Worth a trip to the southern hemisphere with your camera.
NGC5128	🌀	Centaurus A, a wonderful galaxy with round bright core and a large dust ring. A must for astrophotographers.
M4	⊕	A globular cluster. It appears as a fuzzy object in small telescopes. Quite easy to locate as it is very close to Antares.
M5	⊕	A globular cluster, appearing as a cloudy spot with binoculars. Difficult to locate though as it has no bright neighboring star. Use the PathFinder function from Arcturus.
M8	☐	The Lagoon Nebula, a giant interstellar cloud in the Milky Way. Appears as a white fuzzy object in binoculars. A must for astrophotography.
M10	⊕	Easily seen with binoculars as a nebulous spot. Individual stars can be identified with larger telescopes. Good candidate for astrophotography.
M16	☼	An open cluster in the Eagle Nebula. Appears as a diffuse spot. The nebula can only be observed with astrophotography. Also known as the 'Pillars of the creation'.
M19	⊕	A globular cluster close to Antares. Appears as a diffuse spot with binoculars.
M22	⊕	Well observed with binoculars even if no stars can be identified. Close to Kaus Borealis and easy to locate. Contains a planetary nebula accessible to larger telescopes.
M28	⊕	A small tightly packed globular cluster in the Milky Way. Easy to locate, close to Kaus Borealis. Can be observed with binoculars.
M53	⊕	A small globular cluster looking like M3. Hard to distinguish individual stars in the cluster. Reached by star hopping from Vindemiatrix.
M55	⊕	A large globular cluster in Sagittarius, with a loose arrangement of stars. A good candidate for astrophotography.
M62	⊕	A compact globular cluster near the center of the Milky Way. Bright. Easy to find near ε-scorpii.
IC2602	☼	The Theta Carinae Cluster or Southern Pleiades is fainter than the Pleiades. Best views with binoculars, from Miaplacidus.



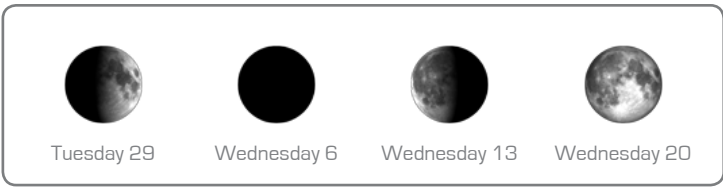
Available on the
App Store

Starmap

A PLANETARIUM IN YOUR POCKET

The most informative and interactive hand-held planetarium App ! Starmap is available on the iPhone™, iPad™, and iTouch™. When your device has a compass, Starmap displays exactly the portion of the sky you are pointing at. Hold the device parallel to your line of vision and discover the map smoothly scanning the sky as you move.

MOON CALENDAR



HOW TO USE THE MAP

The map shows what you see looking at the zenith. The apparent inversion of East and West compared to road maps is normal. Hold the map face down above your head, and the cardinal points will be oriented as usual.

As a starting point, face North, holding the map in your eyesight direction, with its North down. As you change the direction, rotate the map accordingly.

The objects listed on the first page can be observed with naked eyes, in clear skies, with moderate light pollution. Close your eyes one minute and let them adapt to darkness. You will be surprised how many more details will be apparent.

Using binoculars, preferably with a tripod, will considerably enhance your star gazing experience. Many deep sky objects like galaxies and clusters will be within reach. Jupiter satellites and Saturn's rings will also be visible. A spectacular experience for beginners in astronomy...

Avoid the nights when the Moon is too bright as its light would make the observation of faint objects difficult.

FOR LARGER TELESCOPES ^[1]

M20	☐	The Trifid Nebula, a must for telescope owners. Best observed with astrophotography.
M54	⊕	Another small globular cluster, close to ζ-centauri. A very dense cluster, best observed with astrophotography.
M64	🌀	The Black Eye Galaxy is another beautiful object best seen with astrophotography. Beautiful contrast between the surrounding dust and its bright core.
M88	🌀	A faint spiral galaxy in the Virgo Cluster. Nice bluish color with a bright yellow core.
M104	🌀	The Sombrero Galaxy is a must for astrophotographers. A beautiful halo around a central bright core and a very contrasted outer ring of dust.
NGC6302	🌀	The Bug Nebula or Butterfly Nebula is a bipolar planetary nebula. Small and bright object.
M12	⊕	A globular cluster, reserved to larger telescopes or astrophotography given its low stars density.
M18	☼	An open cluster with wonderful bluish stars on long exposures
M49	🌀	One of the brightest galaxy in the Virgo cluster. An elliptical galaxy with no arms to be seen. Star hopping from δ-Virgo.
M58	🌀	A barred spiral galaxy in Virgo. Best suited for astrophotography with a large telescope.
M59	🌀	Another member of the Virgo cluster of galaxies. Difficult to observe without astrophotography.
M60	🌀	A large elliptical galaxy located within the Virgo cluster. Close to M59 with large fields. No real structures visible.
M61	🌀	A faint spiral galaxy in the Virgo cluster of galaxies. Good conditions required and long exposures.

[1] In order to keep the map readability, these objects are not displayed on the map