Tähtikuvaus Australiassa

Tomi Kurri

Syvä taivas -tapaaminen 2023

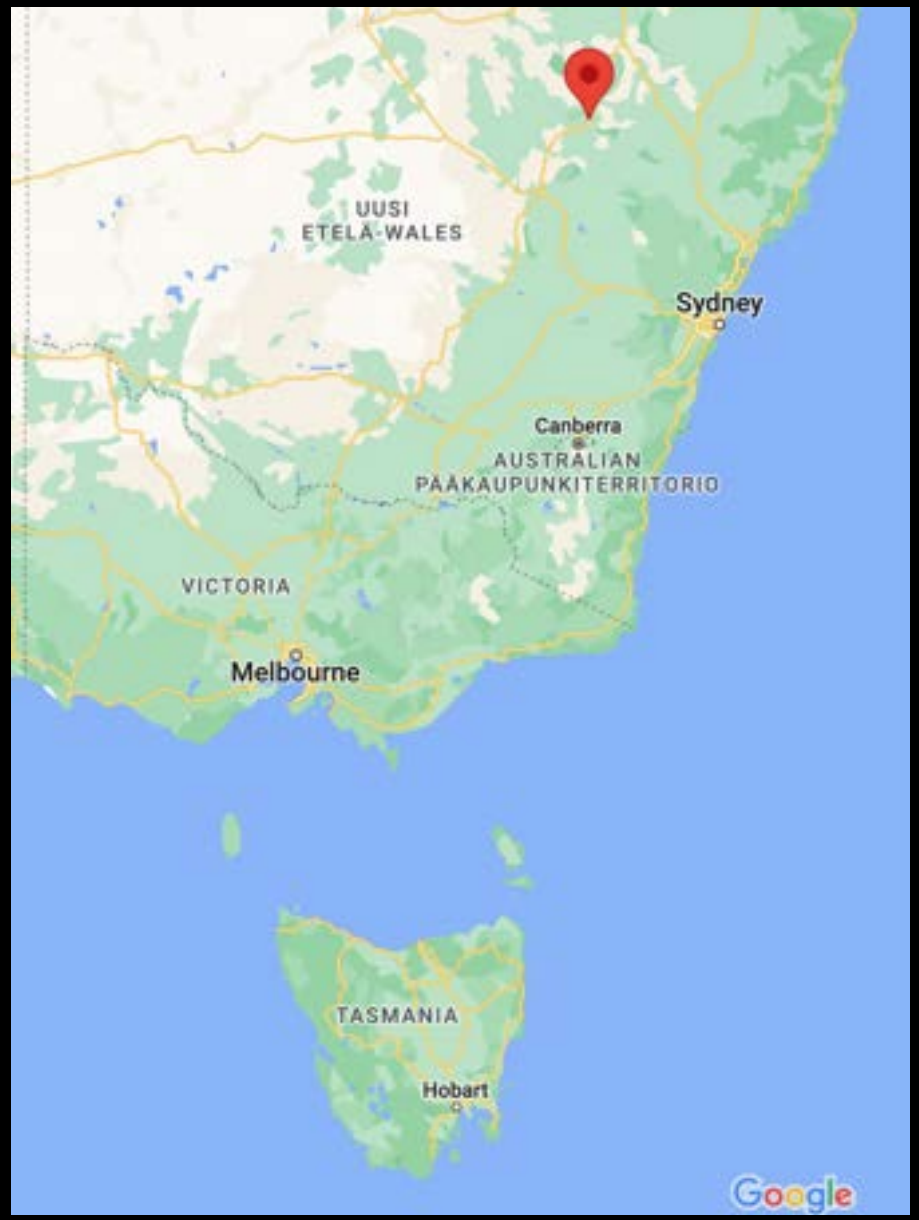
Kuka?

- 26v insinööri Tampereelta
- Tähtiharrastaja jo pienestä pitäen
- Mukana Porin Karhunvartijoissa ja Tampereen Ursassa

Reissun taustaa

- Heinäkuun 2022 lopussa menolippu Australiaan. Tarkoitus viettää maassa noin vuosi.
- Pitkäaikainen haave, joka vaati paljon valmisteluja.
- Sijainti eteläisellä pallonpuoliskolla → erityisen kiinnostava maa tähtiharrastuksen kannalta.

Astronomisia matkakohteita


UUSI
ETELÄ-WALES
Sydney
Canberra
AUSTRALIAN
PÄÄKAUPUNKITERRITORIO
VICTORIA
Melbourne
TASMANIA
Hobart
Google

SIDING SPRING OBSERVATORY
VISITOR CENTRE
Australian
National
University

DID YOU KNOW?

Coloured astronomy photography was invented here?

This image was taken by Dr David Malin in the UK Schmidt Telescope and was one of the first images in the world of the galaxy in colour.
Because of its shape, this known as the Horsehead Nebula. The bright star near the center is located in the belt of the familiar constellation of Orion. The horse head feature is dark because it is a dense dust cloud which lies in front of the bright nebula and blocks the light. The nebula's red color is caused by electrons recombining with protons to form hydrogen atoms. Also visible in the picture are blue reflection nebulae. This type of nebula contains dust which preferentially reflects the blue light of nearby stars.

BOOK A TOUR & LEARN MORE HERE

The World's Largest
Virtual Solar System Drive
A scaled model 38 million times smaller than outer space!
The Sun is the closest star to Earth. The ancient Romans named the Sun 'Sol' after their god of the sun. It is by far the largest object in our Solar System. The International Astronomical Union has designated that 8 planets orbit the Sun (as do many other objects).
For 76 years, Pluto was considered to be the 9th planet of our Solar System. However, after years of intense debate and controversy, in August 2006,the IAU reclassified Pluto as a dwarf planet.
At the scale of our Solar System model (1:38,000,000) the Sun would be the same size as the nearby dome of the Anglo Australian Observatory which houses the giant 3.9 metre mirror Anglo Australian Telescope.
Coonabarabran, the 'Astronomy Capital of Australia' is home to Australia's largest astronomy research facility. Maps and guides are available to assist your journey through the Solar System from Visitor Information Centre's along the 5 tourist drives and from the Exploratory Centre right here at Siding Spring Observatory.
THE SUN
To MOREE
Bellata
NARRABRI
GUNNEDAH
TAMWORTH
COONABARABRAN
BINNAWAY
GILGANDRA
COOLAH
DUNEDOO
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The World's Largest
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VENUS

The World's Largest
Virtual Solar System Drive
A scaled model 38 million times smaller than outer space!
MARS
Mars, the 4th planet from the Sun and the 7th largest was named in honour of the Roman god of war because the planet appeared to be blood red. Although much smaller than Earth, Mars has roughly the same land surface and features which dwarf Earth's terrain. The Martian mountain Olympus Mons is 2.8 times higher than Mount Everest and the Martian canyon Valles Marineris (Mariner Valley) would span the width of Australia! Mars has 2 moons that are named after the horses that pulled the god of war's chariot - Phobos (Terror) and Deimos (Panic).
AusIndustry
www.solarsystemdrive.com
Ph 1800 242 881
Warrumbungle

JUPITER

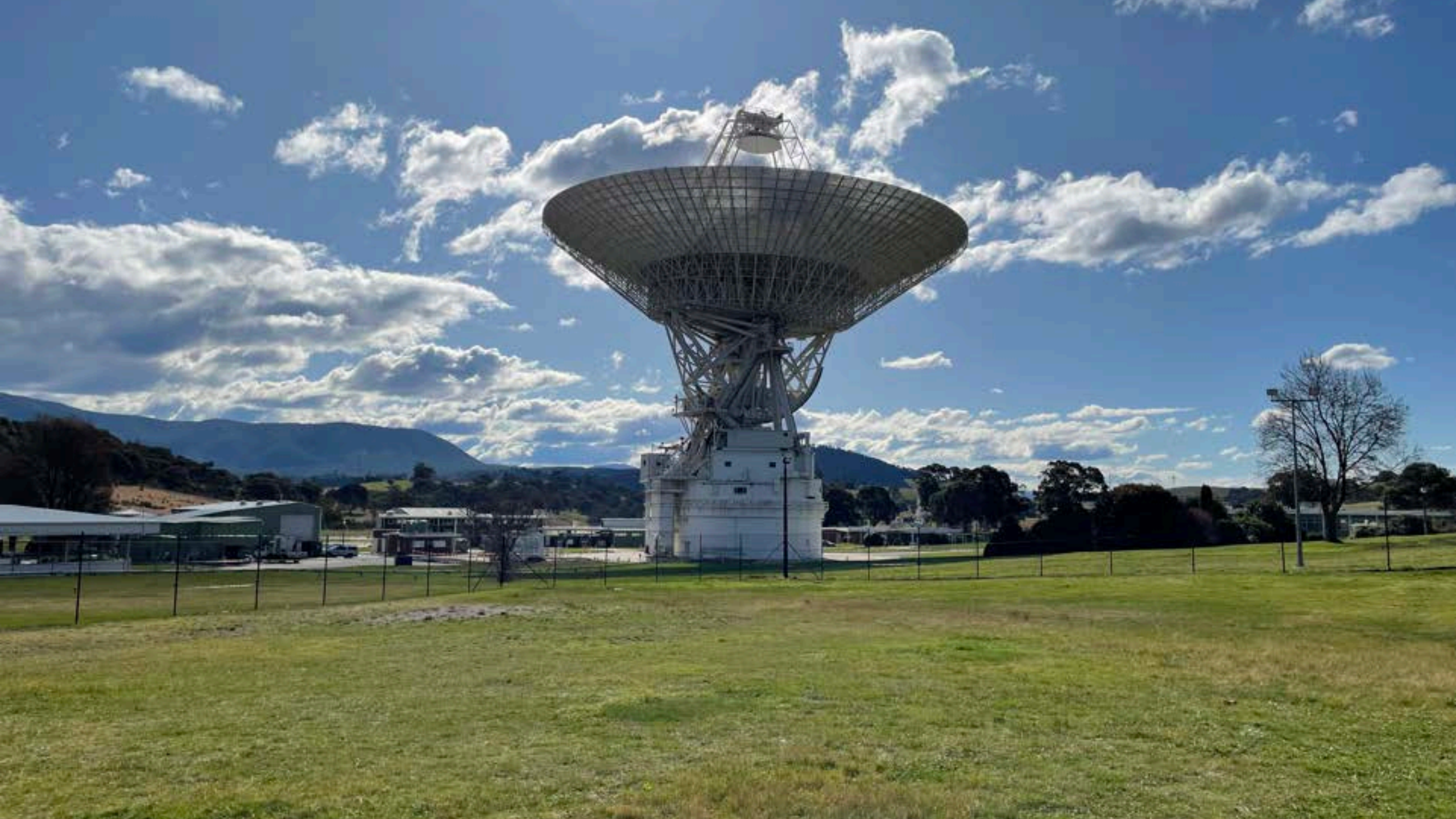
NEXT
22 km

The Australia Telescope
Compact Array
Welcome to the Paul Wild Observatory, home of CSIRO's Australia Telescope Compact Array.
We invite you to look at the exhibits here. These tell you about astronomy and the work done with the Compact Array.
The Compact Array is operated by CSIRO's Australia Telescope National Facility. CSIRO (the Commonwealth Scientific and Industrial Research Organisation) is Australia's largest national research body. It covers many areas, from agriculture and the environment to information technology and manufacturing, and works on major problems facing Australia.
This observatory has two 'sister' observatories, both in NSW, which are also run by the Australia Telescope National Facility. They are:
•the Mopra Observatory near Coonabarabran, home to a 22 m diameter dish; and
•the Parkes Observatory, home to the 64 m Parkes telescope ('The Dish').

4
4

BEWARE OF
SNAKES

WELCOME TO NASA'S
DEEP SPACE NETWORK
NASA
JPL
CSIRO
CANBERRA DEEP SPACE COMMUNICATION COMPLEX
managed in Australia by the
Commonwealth Scientific and Industrial Research Organisation
TEMPORARILY CLOSED



Syvän taivaan kuvaaminen

Mukaan pakattu kuvauskalusto

- Canon EOS 6D astro-modattu järjestelmäkamera
- Sky-Watcher Star Adventurer seurantajalusta
- 14mm, 50mm ja 135mm objektiivit
- Suodattimia ja lankalaukaisin
- Hiilikuitukolmijalka
- 10x30 kiikarit visuaalihavaintoja varten
- Tietokone kuvankäsittelyyn

Linnunradan keskustan alue

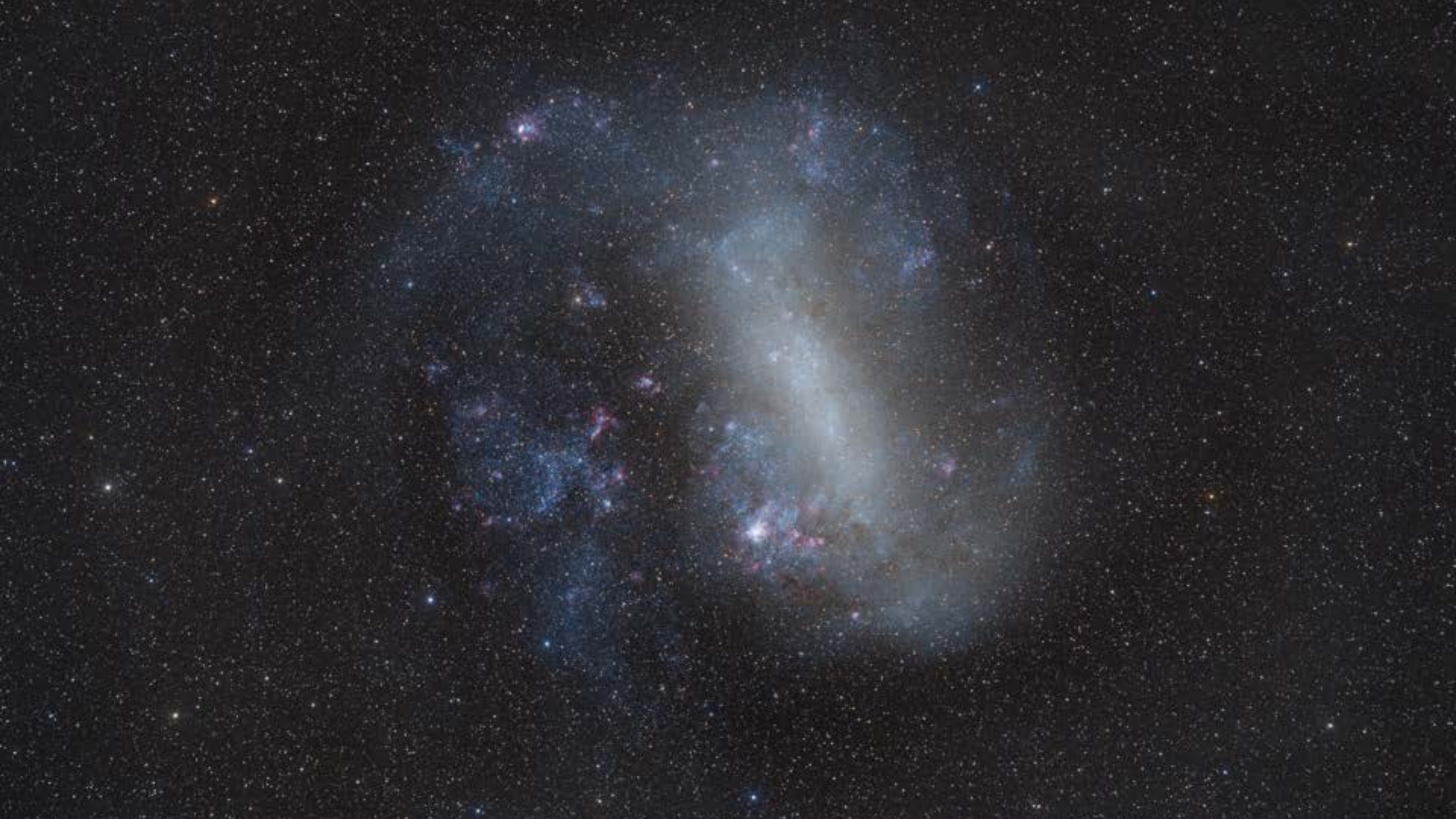
Kuva: Stellarium

45"
1.8
100-0817
50/52

Eteläinen syvä taivas

Magellanin pilvet

- Iso Magellanin pilvi (LMC) ja Pieni Magellanin pilvi (SMC)
- Linnunradan kaksi seuralaisgalaksia. Havaittavissa paljain silmin.
- Eivät näy koskaan Euroopasta käsin.

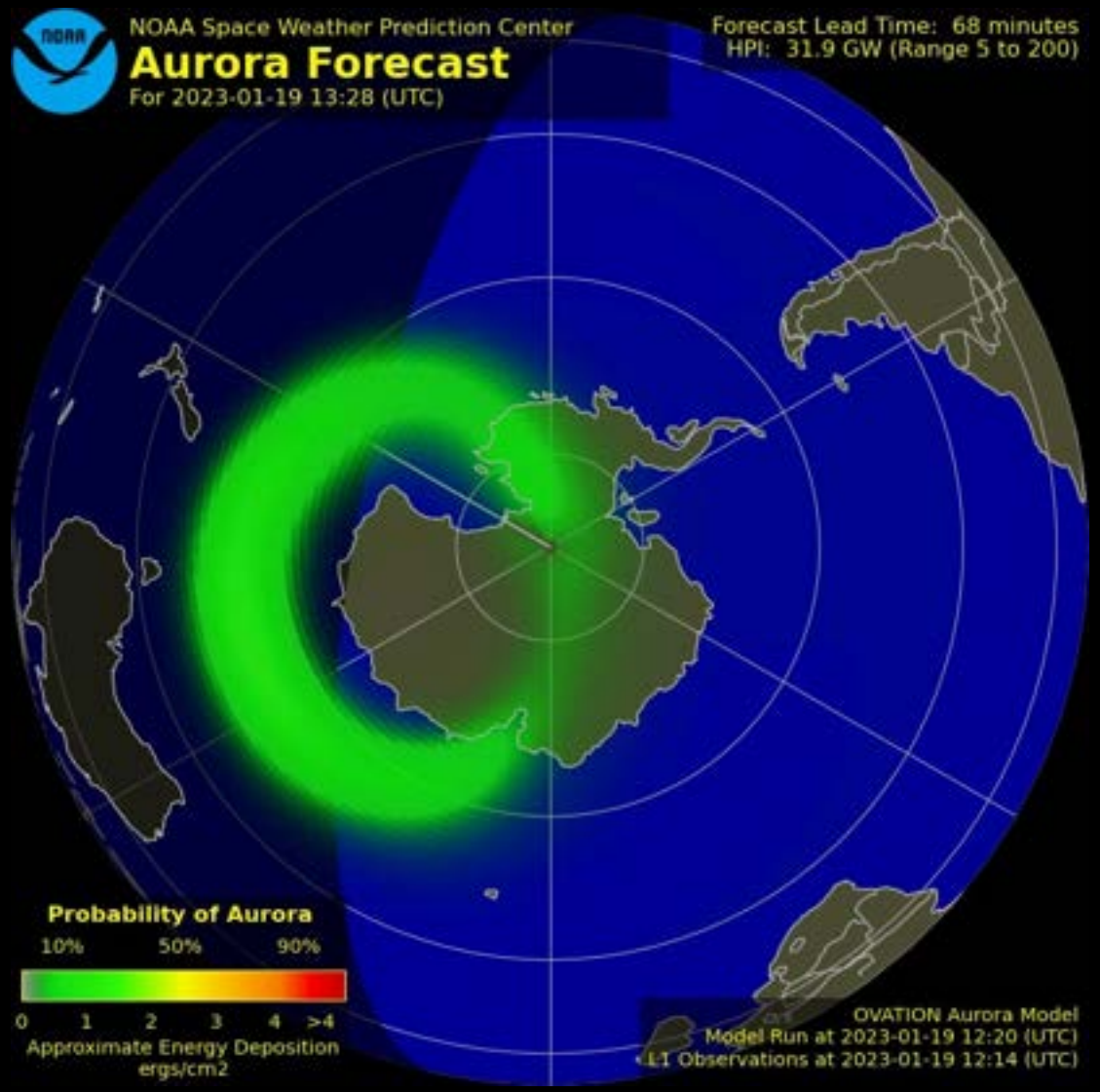


Linnunrata - ja revontulikuvaus

Revontulet (Aurora Australis)

- Revontulia näkyy myös eteläisellä pallonpuoliskolla

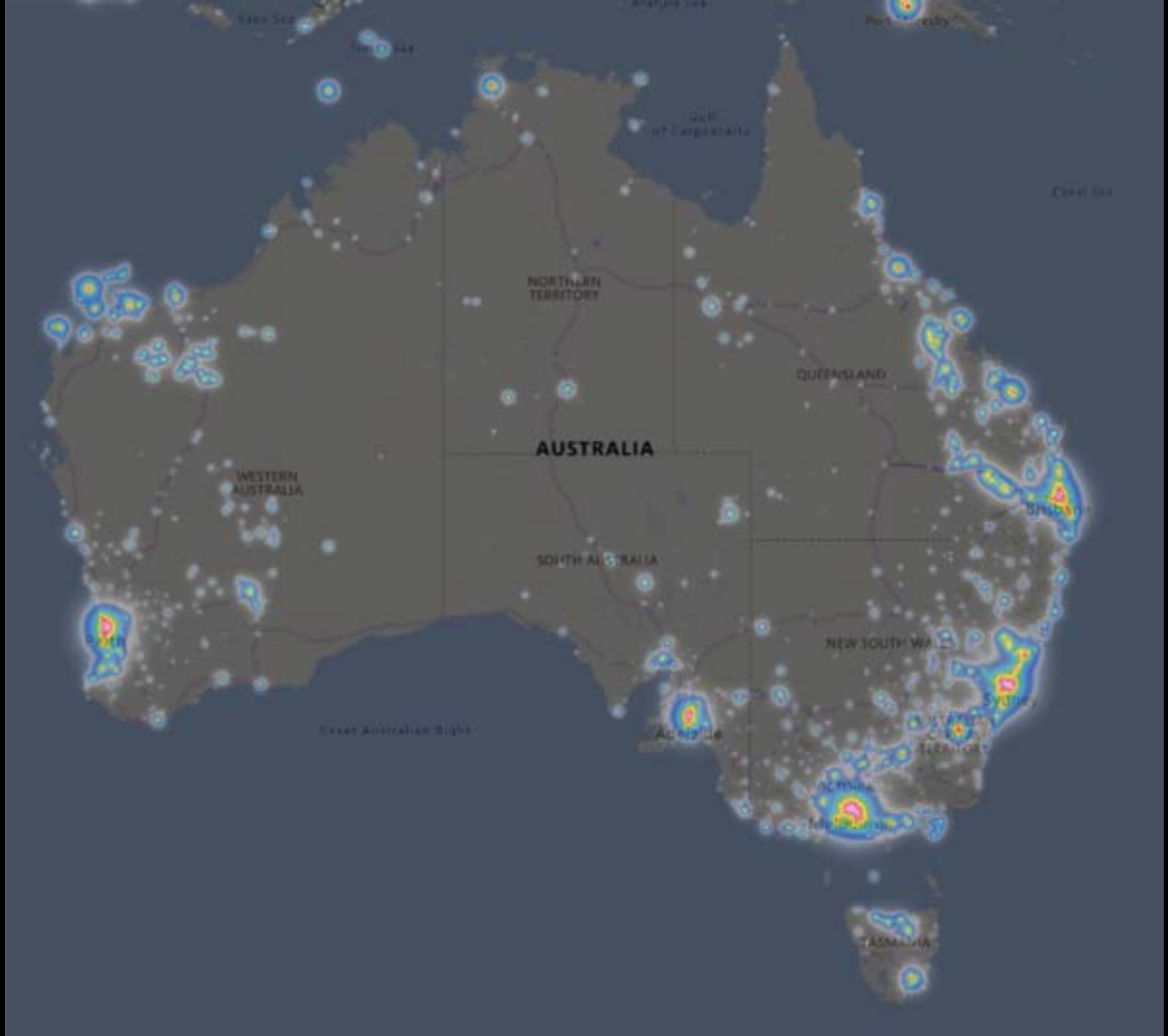
- Etelämantereen lisäksi parhaita paikkoja havaita ovat Australia, Uusi-Seelanti, Etelä-Afrikka ja Etelä-Amerikka



Haasteita

- Napasuuntaus
- Kameran lämpökohina
- Pimeitä paikkoja löytyy, mutta ajomatkat ovat hyvin pitkiä

Kuva:
Lightpollutionmap.info



Kiitos! Kysymyksiä?