



# THE 2024 OZSKY STAR SAFARI

COONABARABRAN, NSW, AUSTRALIA

MARCH 8 – 15, 2024

[WWW.OZSKY.ORG](http://WWW.OZSKY.ORG)

## 2. OBSERVING AT THE OZSKY STAR SAFARI

The southern night skies at the OzSky Star Safari are something to behold! Not only does the hub of the Milky Way reach the zenith (yes, both *Sagittarius* and *Scorpius* will cross through the zenith!), but you'll also enjoy Omega Centauri overhead, the entire Crux / Carina region, the stunning Magellanic Clouds and so much more.

### POSSIBLE TELESCOPES AT OZSKY

Unlike most "regular" star parties, you're probably already aware that you don't NEED to bring your own telescope to the OzSky Star Safaris, as numerous large telescopes are provided for shared use by all attendees – hence our strict limit on the number of people permitted to register for this unique event.

The range of equipment usually made available at the OzSky Star Safari often includes:

- **Two 25" f/5 Classic Obsessions**  
- 31mm, 17mm & 9mm Naglers;
- **One 20" f/5 Classic Obsession**  
- 31mm Nagler + 17mm & 8mm Ethos
- **Four 18" f/4.5 Classic Obsessions**  
- 26mm, 12mm & 7mm Naglers
- **One 18" f/4.2 Ultra-Compact Obsession**  
- 22mm Nagler + 13mm Ethos
- **One 14" f/4.5 SDM dobsonian**  
- 22mm & 12mm Nagler + 8mm Radian
- **One 12" f/5 binocular telescope (dobsonian)**  
- 24mm Panoptics + 13mm Naglers + 10mm Radians
- **One 10" f/5.6 home-made dobsonian telescope**  
- 23mm, 15mm, 7mm SkyWatcher 82° eyepieces
- **One 25x150mm Fujinon Giant Binoculars**  
- on a motorized SkyRover StarChair with joystick control

How many, and which of these telescopes are brought out for your use depends on the number of people in attendance.

However, as it is looking like OzSky 2024 will have yet another "Full House" of observers, there is a very good chance that most of the telescopes in the arsenal should be available for your observing pleasure.



A small selection of the OzSky Star Safari telescopes

Most of the telescopes are equipped with the incredible Argo Navis Digital Telescope Computer, so finding your way around the Southern Night Skies should be a breeze, especially with the assistance of your experienced Aussie volunteers.



A small selection of telescopes will also be provided without any guidance systems to enable observers to complete observing lists which require star hopping only.

Of course, we fully encourage you to bring your own small, rich-field telescope or imaging gear if that's something you're interested in, but that's entirely up to you.

The intention of the OzSky Star Safari is to provide an impressive range of LARGE telescopes which would otherwise be prohibitive to transport across the Pacific.

### EYEPIECE SELECTIONS AT OZSKY

Every telescope is equipped with its own dedicated set of quality TeleVue, Nagler, Ethos, Radian and Panoptic eyepieces which have been perfectly matched to each telescope to optimise views of the southern skies.

Please feel free to bring some of your own favourite eyepieces (and filters) if that's what you prefer to observe with. In the past, some attendees have even brought their own BinoViewers with full paired sets of eyepieces, for example – that part is entirely up to you.



A small selection of the OzSky Star Safari eyepieces

*Note:* Due to the long drive home on the morning of our departure, all OzSky telescopes and equipment will be shut down at midnight on Friday 14<sup>th</sup> March 2024 for the safety of all participants and volunteers.

## **SHARED ACCESS TO ALL OZSKY TELESCOPES**

Folks often ask how each of the telescopes will be "allocated" during the OzSky Star Safari – We are pleased to advise that all official OzSky telescopes on site will be available for shared/communal use by all attendees, every night.

There may also be a small number of additional (*privately-owned*) telescopes on site which *may* be made available by their respective owners, however access and control of those privately-owned telescopes lies entirely with their respective owners.

At the OzSky Star Safari, telescopes are never allocated to specific people or groups, however, at virtually all past OzSky Star Safari trips it is usually found that folks with similar observing interests tend to group together around one or two telescopes to observe similar observing lists, often leaving some of the other telescopes unused for long periods of time.

If you would like to use a specific telescope and there is already another observer or group using it, that's not a problem at all - simply join the queue and you will be warmly welcomed.

If there are several people on one telescope with different observing lists, it is suggested that observers take turns shifting from one observer's list to the next.

If you do have a specific observing list or program which you wish to complete during your time at the OzSky Star Safari, please feel free to let the rest of the group know using this group mailing list [OzSky2024@OzSky.org](mailto:OzSky2024@OzSky.org). You may find that there are others in the group who also have identical or similar wish-lists.

No matter who you are, or what you want to observe, you will have ample opportunity to use all the official telescopes on site.

Everyone is strongly encouraged to roam around the observing field checking out the various telescopes, and keep in mind – you will hear frequent calls for **"Who wants to look at 47 Tucanae in the 25-inch telescope?"**

## **OZSKY OBSERVING SITE CO-ORDINATES**

**31.27°S | 149.19°E**

The co-ordinates of the OzSky Star Safari observing site are: **31.27°S, 149.19°E**. [Google Maps View](#).

The street address of the observing site is the Warrumbungles Mountain Motel, 882 Timor Road, Coonabarabran NSW 2357, Australia.

## **STRICT OZSKY DARK OUT PROVISIONS**

One of the reasons folks travel half-way across the world to observe or do astro-imaging at the OzSky Star Safari is to take advantage of the sheer darkness and the amazing skies we have to offer.



The night skies at OzSky are usually in the range of SQM 21.4–21.9 mag/arcsec<sup>2</sup> (Bortle 1–3) and it is not unusual to see shadows being cast by the Milky Way itself.

Each of the volunteers at the OzSky Star Safari feel a duty of care to ensure that the best possible experience can be enjoyed by all OzSky guests, and as such we implement strict Dark Out provisions requiring that only **dim, red** light sources may be used on or around the observing field between 7:00pm and 5:00am.

Any light sources which are not generically "astronomy friendly" (*such as too bright, or white light etc*), must be switched off during official dark out hours, so as not to affect the enjoyment, dark adaption, or photographic exposures of other folks at OzSky.

On-Site room lights must also remain off during this period (*unless curtains are fully drawn, and windows shielded*) which is particularly important to note for any non-observers in the group.

For those on-site rooms which have a bathroom facing the observing field, black plastic sheeting will be available to shield the observing field from those lights, as curtains are not installed on those windows.

***Note: Remember to pack your red LED flashlight for use while observing, but please do not bring a "head-light" (even if it is red) as these are typically way too bright for serious observing and generally cause more damage to dark adaption than good.***

***Also leave at home any flashlight which can accidentally be switched to white light – these are strictly prohibited on the observing field and may be confiscated immediately.***

## **DIGITAL OBSERVING AIDS**

Folks often raise concerns about modern devices such as kindles, smartphones, tablets, laptops, etc being used on the main observing field.

Feel free to bring your favourite digital devices, but please remember they must not interfere with any other observer or imager during official Dark Out hours.

Without going into details of appropriate shielding options for laptops, tablets, smart-watches and other light emitting devices, common sense should, of course, prevail.



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## EYE CANDY, OBSERVING LISTS & OTHER RESOURCES

While this list is by no means exhaustive, it will hopefully act as a starting point to help you get your own personal observing lists started, or perhaps provide some inspiration to get yours refined if you've already started one.

### CRUX/CARINA/CENTAURUS, VELA, MUSCA

- Ruby Crucis DY Crucis / EsB 365
- Jewel Box NGC 4755
- Coal Sack
- Eta Carinae Nebula NGC 3372
- Homunculus NGC 3372
- Keyhole Nebula NGC 3372
- Football Cluster NGC 3532
- Southern Pleiades IC 2602
- Carina Wolf-Rayet NGC 3199
- Son of Omega NGC 2808
- Pencil Nebula (*Vela SNR*) NGC 2736
- Eight Burst Nebula NGC 3132
- Spiral Planetary NGC 5189
- Omega Centauri NGC 5139
- Centaurus A NGC 5128
- Blue Planetary NGC 3918
- Centaurus Cluster Abell 3526
- Centaurus Cigar NGC 4945

### OTHER REGIONS (NO PARTICULAR ORDER)

- Fornax Barred Spiral NGC 1365
- Antlia Spiral NGC 2997
- Ara Globular NGC 6397
- Southern Pinwheel NGC 5236 / M83
- Meathook Galaxy NGC 2442
- Ghost of Jupiter NGC 3242
- Thor's Helmet NGC 2359
- Norma Planetary Shapley 1
- Antennae Galaxies NGC 4038 / 4039
- Sombrero Galaxy at the zenith!! NGC 4594 / M104
- Starfish / Pavo Cluster NGC 6752
- The Dark Doodad NGC 4372 region
- Silver Dollar Galaxy NGC 253
- Sculptor Cigar NGC 55
- The Hand of God CG 4
- Helix Nebula NGC 7293
- Saturn Nebula NGC 7009
- Wild Duck Cluster NGC 6705 / M 11
- Orion Nebula & The Trapezium NGC 1976 / M 42

### SCORPIUS / SAGITTARIUS (AT THE ZENITH!)

- Scorpius at the zenith
- Sagittarius at the zenith
- The Bug Nebula NGC 6302
- Trifid Nebula NGC 6514 / M 20
- Lagoon Nebula NGC 6523 / M 8
- Swan / Omega Nebula NGC 6618 / M 17
- Zeta Scorpii – One of the most luminous stars

### CHALLENGE OBJECTS

- Murrell 1 – *Planetary Nebula discovered by OzSky's very own Andrew Murrell*
- Horsehead Nebula (IC 434) – *A classic, but it's technically a Southern Object!*
- The Emu (Dark Nebula) – *not really a "challenge", but you won't believe it until you see it!*
- Proxima Centauri – *The closest star to Earth (other than the Sun, of course!)*
- The "Field of Nothing" – *You guessed it: a field of view containing absolutely nothing (well, almost...)*
- The Aurora Australis – *Yes, The Southern Lights. Not at all likely to see this, but we have seen it from "worse" latitudes in the past!*

### TUCANA & DORADO

- 47 Tucanae NGC 104
- Tucana Spare Globular NGC 362
- Small Magellanic Cloud SMC / NGC 292
- Large Magellanic Cloud LMC
- The Tarantula Nebula NGC 2070
- Dorado Seyfert Galaxy NGC 1566

## **ONLINE OZSKY RESOURCES**

The OzSky Star Safari website contains several very useful observing resources which you might like to review prior to your trip, including:

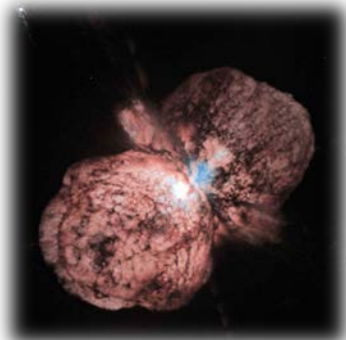
- [The Bambury 600 List](#)
- [The Small Magellanic Cloud \(SMC\)](#)
- [The Local Group of Galaxies](#)
- [Treasures of the SMC](#)

Further information and additional observing lists can also be found on the OzSky Star Safari website at <https://www.OzSky.org> under the "[Resources](#)" link, however in the interim, hopefully this email will serve to whet your appetite for what else there might be to discover in the Southern Night Skies at the OzSky Star Safari.

As mentioned previously, this list is just a very small sample of some of the Southern Skies Eye Candy objects and will hopefully inspire you to get some ideas together for your own OzSky Star Safari southern skies observing lists.



*47 Tucanae (NGC 104) in Tucana*



*The Homunculus  
in Carina*



*Seyfert Galaxy (NGC 1566)  
in Dorado*



*Spiral Planetary (NGC 5189)  
in Musca*



*The Jewel Box (NGC 4755)  
in Crux*



*The Tarantula Nebula (NGC 2070) in Dorado*