# Miami nights

**Mark Radice** ventured south to the Sunshine State for the Winter Star Party, an epic seven days of observing in the Florida Keys.

**O** years I have wanted to head out to the Winter Star Party in the Florida Keys. This week-long event, organised by the Southern Cross Astronomical Society, is held at new Moon each February/March and takes advantage of southern skies and pleasant Florida weather. Most of North America is under snow and ice at this time of year so it draws amateur astronomers from all over the continent as well as overseas.

After the wettest, windiest winter for years it was a pleasant relief to say goodbye to England's awful skies. By contrast, at 26 degrees north the Sun was shining and the sea warm but more importantly I was going to immerse myself in a whole week of astronomy.

I took a 100mm (four-inch) f/5 ST102 refractor, a giro mount, a handful of eyepieces, a camera and 15 × 50 binoculars. The optics went in my hand luggage while the tripod, mount and camping kit went in the hold. Although I would have preferred to take a larger telescope, this set up was a good compromise of price, portability and performance as it allowed wide-field views of deep sky objects and reasonable views of the Moon and planets albeit with a degree of false colour.

After a ten-hour flight to Miami I got my hire car, checked into the airport hotel and crashed out. My body clock, however, had not adjusted so I was up at 5am UK-time. A quick look out of the hotel window showed a crescent Moon, so I set up the telescope on the poolside patio. Being about a mile from a major airport, the

The author among the many telescopes set up on the berm.



light pollution was horrendous. The Moon, though, was a glorious sight as was Mars (despite its small size), Venus and Saturn. Best of all, I was joined by other early risers and some of the hotel staff.

# Scttling in

A few hours drive south got me to the queue for the campsite. People sleep in their cars overnight so that they can grab one of the limited spaces with clear, unobstructed views to the southern horizon on the sandy berm that makes up the shoreline. The downside is that there is little shade and no shelter from the wind.

I adopted a different strategy and set up on a south facing shady spot in the trees on the edge of the berm. I wanted to explore the southern skies that I cannot see from the UK but also be able to lie in after late nights without being boiled out of my tent as the Sun and temperature rose. Of course, my little telescope could be picked up and relocated around the trees unlike the carefully aligned SCTs/refractors and big Dobsonians. Care has to be taken not to set up camp or telescopes under palm trees where there is a risk of heavy coconuts falling from a great height, nicknamed widow makers!

A few things were readily apparent. The number and size of large telescopes exceeded anything I have seen at the Kielder and Kelling Heath star parties in the UK. Telescopes with apertures between 300–400mm (12-16 inches) were routine, 560mm (22-inches – over half a metre) was getting somewhere and 760–910mm (30-36 inches) were the real light buckets. Everyone was really friendly and I had fantastic views through nearby telescopes of eight, twenty-two and thirty inches throughout the week. Perhaps it would have been possible to bring just a camera and binoculars and still enjoy time at the eyepiece.

The Winter Star Party skies are fairly dark, although light domes from the nearby towns of Key West and Marathon are visible. These, however, are to the north and the interesting stuff is to the south. If there is cloud or haze on the southern horizon, the light dome of Havana in Cuba can be seen some 90 miles away.

As the star party takes place relatively near the equator, the planets are very high in the sky. Jupiter was practically overhead in the evening sky (making it a challenge with an alt-az mount!). In fact during the week Mercury, Venus, Mars, Jupiter, Saturn, Ceres, Vesta and the Moon were observed. Not a bad Solar System haul for a four-inch f/5. I also saw the zodiacal light, a band of faint light that rose through Pisces, Aries and up into Taurus. On the solar front, a number of nearby telescopes afforded white light and hydrogen-alpha views of our nearest star. Orion and Taurus high above, seen through the palm trees. All images: Mark Radice.

Being in the tropics, the bird and wildlife is fantastic. I saw manatees swimming in the sea, ospreys returning to the nest with a catch, iguanas around the site, pelicans, vultures and many beautiful song birds. The downside is that the sand-flies (very small insects that leave a small itchy bite) and occasionally the fire ants (many painful bites) can be problematic. The camp ground had been treated for fire ants so they were not around, thank goodness, but I am still itching from numerous sand-fly bites while writing this report! In addition to the insects, one, of course, has to be careful to avoid the effects of the tropical Sun.

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### Strange skies

Having set up and met my new neighbours – a couple from Minnesota and a Canadian – we went to the opening address by the star party's founder, Tippy d'Aura. He spoke about the many wonderful sights we would see – seven planets, the spring galaxies, summer skies and the fantastic objects way down south. He also advised us to take it easy as one can become quite jaded after seven nights. I came to understand why as the week went on and I became steadily more fatigued.

As darkness fell on the first night, my UK eyes were quite disorientated. Everything was in the wrong place! Ursa Major hugged the horizon, Orion was high near the zenith, Jupiter was overhead and there were



The 100mm telescope that the author took with him to Florida, set up at dawn with the Moon and Venus rising.

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### **MIAMI NIGHTS**

unfamiliar constellations under Canis Major. I used pages in my pocket sky atlas that I had never turned to before! I really enjoyed star-hopping through the Milky Way with the little four-inch. There were so many beautiful clusters – and often clusters of clusters – that I would spend an hour or two each evening working my way through the Argo constellations of Puppis, Vela and Carina.

As the week went on, I developed a routine that allowed me to continue observing without turning into a fatigued zombie:

- Chill out during the day, ideally at the nearby beach;
- Catch an hour's sleep in the late afternoon;
- Set up at dusk;
- Star hop through the southern Milky Way;

• Chat with neighbours and sneak views through nearby telescopes;

• Walk around to the berm for some high-aperture viewing;

• Take a quick cat nap in the small hours;

• Catch the pre-dawn sky of Cygnus, Scorpius, Sagittarius, Venus and the late crescent Moon;

• Bed at dawn until my tent became too hot by midmorning.

I managed to observe every night bar one, when a front passed through. Although it was a shame to lose a night, it was actually a relief to catch up with some sleep and enjoy some cool weather.

# **Observing highlights**

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I enjoyed many new and familiar objects throughout the week. In no particular order, a few highlights come to mind.

The wonderful false comet in Scorpius, made up of bright zeta Scorpii, the bright and dense open cluster NGC 6231 and loose, trailing Collinder 316, was one. To the naked eye, it does look like a short stubby comet with a bright coma and fan shaped tail. Through the 100mm refractor at 21×, it was spectacular.

Jupiter through a twelve-inch f/8 planetary Newtonian was excellent. I cannot recall the magnification but Jupiter looked like a Voyager photograph in near perfect seeing. The belts and zones were covered in micro-features normally seen in webcam images.

The Eta Carina Nebula through a 22-inch – what a view. This was the first time that I had seen this beautiful, enigmatic object. Embedded inside the nebulosity is the parent star in the Homunculus, a very strange object that glows bright orange and is surrounded by swirls of nebulosity. Although the telescope was horizontal, the view was reminiscent of the Orion Nebula seen overhead! It must be truly stunning from the Southern Hemisphere where it is much higher in the sky. Suitably inspired, I found it in my four-inch. While the view through my telescope was nothing in comparison, it did have a much wider field-of-view allowing me to see the whole of the nebula. Interestingly, the UHC filter made the Homunculus take on a very strange appearance. The nebulosity glowed but in the middle it had a bright red central star, like a spark, that twinkled with the seeing. Without the UHC, the nebulosity was a uniform glow and the central star was not visible. Very eerie!

Omega Centauri was simply huge! It is interesting to compare it in size to other globular clusters but it is not really fair. The cluster was visible to the naked eye and especially stunning in a neighbouring eight-inch SCT at 250x while above Omega Centauri was the unusual galaxy

28 | Astronomy Now | June 2014



Centaurus A, nicknamed the Hamburger because of its dark dust lane.

I observed a number of classic, bright Messier objects through nearby 16 and 22-inch driven Dobsonians. The galaxies M83, M51, M101 and M99 were simply stunning: spiral arms, star clouds and star-forming regions were obvious. Globular clusters M3, M10, M12, M13 and M4 were all different shapes, sizes and layouts. The Ring Nebula, M57, showed faint tendrils of nebulosity on the ansae as well as a gentle yellow tint. The open cluster M46 and foreground planetary nebula NGC 2438 were wonderful.

After drinking in countless deep sky objects and high magnification planetary views, it was a pleasure to relax with a cup of tea and watch the crescent Moon and Venus rise together, lighting up the pre-dawn sky.

The dawn of 1 March was new Moon. It was spectacularly clear with no cloud on the eastern horizon.





The summer Milky Way was so bright that it looked like a line of cloud. As it climbed higher, the dark lanes and rifts became easily visible to the naked eye. Through a pair of Kowa 30 x 80 binoculars the clusters, nebulosity and dark lanes in this rich part of the Milky Way were simply unbelievable. To cap it all, brilliant Venus followed the Milky Way into the pre-dawn sky and was so bright that it affected my night vision. In turn, Venus was followed by tiny Mercury against the dark blue pre-dawn.

# Not just observing

During the daytime there were vendors, a second-hand swap meet and a number of talks. I particularly enjoyed Tippy d'Auria's talk on comets that concluded with a demonstration on making a comet from dry ice (frozen carbon dioxide) and various household chemicals. Don Parker, a veteran planetary observer and imager, gave a truly brilliant talk about Mars. It was full of witty anecdotes, puns, one-liners and a lot of very useful and inspirational information.

Although I was tempted by the trade stands, I limited myself to a red LED stalk light with a clip for my sketching pad. I then saw a secondhand binoviewer power switch in the swap meet that I could not refuse. This allows me to change magnification (and filters) without the need to swap eyepieces over, which is very useful when using a binoviewer.

All too soon it was time to go to the end-of-the-week prize draw. Alas I did not win anything but one chap who had flown from Canada won a Celestron C8 that cost him several hundred dollars to ship home. I am not sure if this was lucky or not!

I returned home with my sand-fly bites, several hundred photos and numerous pages of notes and sketches to write up. I did not process any photos while I was there as it was too bright to see a camera or computer screen in the day while at night, of course, white light was forbidden.

So, is the Winter Star Party worth it? Travelling from the UK is not cheap with an international flight, hire car, insurance and so on. It is, without doubt though, an excellent experience: clear skies, friendly participants and views through big telescopes. I had six-and-a-half nights of observing, observed countless new southern objects that I had only previously read about and enjoyed high-powered lunar and planetary viewing in perfect seeing. The best bit? Observing in t-shirt and shorts until the small hours of the morning! The downside is that observing in the UK will never be quite the same again.

Mark Radice observes from his home observatory www.yewtreeobservatory.com.



June 2014 | Astronomy Now | 29

26\_WinterStarParty\_Jun14.indd 29

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