

Clear but distant Skies

For all those fed up with cloudy or light polluted skies, Keith Venables describes a week at the 2001 Texas Star Party. Run in May each year, now is the time to book a place and start arranging transport. By Keith Venables FRAS.

Imagine a night sky so clear you can observe galaxies all the way down to the horizon. Imagine that the sky is so dark that you can see stars an extra two magnitudes dimmer with the naked eye. Imagine sharing this with 700 other serious amateur astronomers, each of whom is happy to let you look through their telescope or to let you try their favourite eyepiece in your telescope. Imagine doing this not just for one night, but for a whole week.

This is what attracted me back once again to the Texas Star Party. When people hear I have been to a Star Party in the States, they usually imagine a glittery party full of Hollywood film stars. Many attendees are indeed famous, (to astronomers!), and a good time is had by all, but that is where the similarity ends! Such events are fairly common in the States, where some large clubs are very active, and there are a lot of enthusiastic amateur astronomers. They are usually each held at the same time each year, at a good dark site, with the prospect of at least a few clear nights.

Some of them are bigger than others, the Texas gathering being one of the largest. Others include Florida, Montana, and Washington State. When they get big they are a real masterpiece of organisation and planning. My first Star Party was a small gathering in Yucca Valley, up in the high desert east of Los Angeles. I managed to combine a business trip during the week, with the Star Party the following weekend. It was a low key event, but the combination of really dark skies and the opportunity to live and breath astronomy for a couple of days was inspiring. It some how relieved the frustration built up after a year of poor nights in the UK!



Just a few of the 500 telescopes set-up at the 2001 TSP. Equipment ranged from binoculars to 36" dobsonians.

Bitten by the bug, I sought a bigger thrill, and of course Texas does things big. The timing was good being close to my birthday, which might have helped my already understanding wife let me take off for whole week on my own.

Location and what to expect

The TSP is held on a ranch high up in the Fort Davis Mountains. At an altitude of 5500ft the air is fairly clear, and the far west of Texas is one of the few areas left in the States that is still free from light pollution.

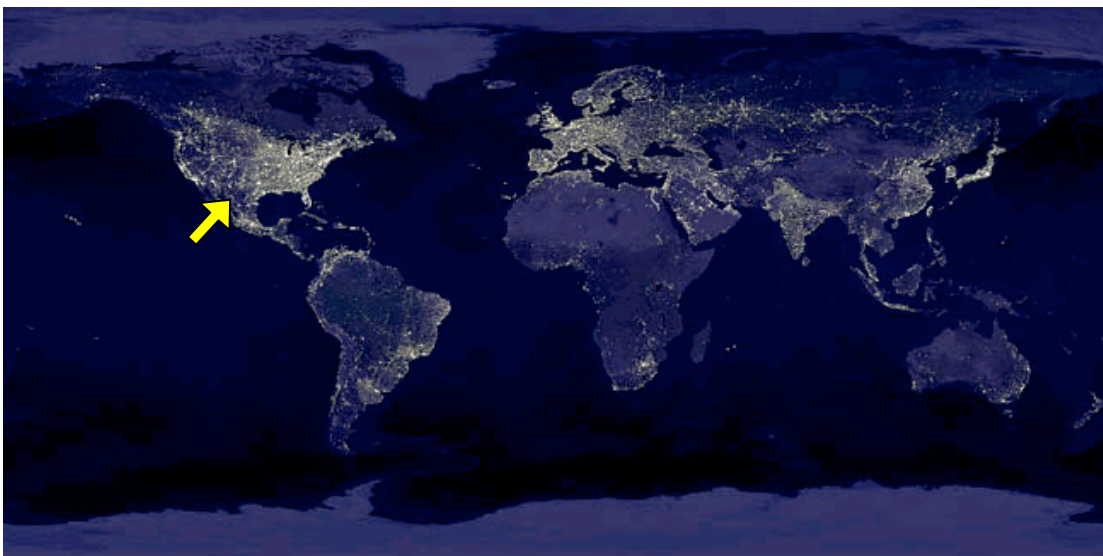
Accommodation is varied, including

bunkhouses and shared rooms on the ranch, there are a few guest houses and motels nearby, and there is plenty of space for RV's and tents on the ranch. The ranch provides all meals for those who want them, and there are some simple restaurants in Ft Davis. I stayed in a bunkhouse this year, and the total cost for accommodation and food on the ranch for a week was less than £200. Its basic, but it does also help to give a frontier flavour to the experience. There is a strong Mexican influence on the region, especially the food.

The land is a cross between desert and shrub, with daytime temperatures in May typically 28deg C, falling to 10 at night. Importantly dew is very rare.

Getting there

From the UK the best way of getting there is to fly to El Paso via Dallas, and then drive about 180 miles to the ranch. The flight is the major expense of the trip, but early booking gets the maximum discounted fair. The car hire is also quite expensive, so I use it to see some of the magnificent countryside. The Rio Grande is a good day trip to make.



The Texas Star Party location is still a dark site, and is relatively far South giving good sky coverage.



The Texas Star Party is held in a remote site high up in the Davis Mountains, West Texas. The site is in the centre of the photograph.

Those with small portable scopes are now all set. Those with medium scopes are probably thinking its impossible to take their favourite scope. Of course any one with a big scope will have to leave it at home, but having ones' own scope there is not essential at all. I estimate around 1 in 10 attendees have no telescope.

I've carried an ETX90 and a Nexstar5 on as



The author with his telescope, ready for a perfect night of observing.

cabin baggage with no problems, and these represent the limit of what the official airline carry-on policy will permit. This year I took a Vixen 102 Fluorite, and by removing the mounting rings, diagonal and dew cap, I managed to pack the tube assembly into a 6" diameter cardboard tube just 33" long. With this and a single carry-on case of eyepieces and other valuables I had no trouble at all either getting on to planes or finding stowage space. Now that airport and airline security is more rigorous it might be wise ask the airline in advance for advice on what you can carry-on.

The rest of the equipment was packed into a couple of large heavy duty ABS cases, using clothes and sleeping bag as padding. These together weighed 61kg, just 1 kilo under the transatlantic baggage allowance!

Bigger scopes must be checked into the hold, but if they are well packed there is little risk of damage.

Normal travel insurance probably wont cover expensive and delicate telescopes, but as they were listed in my home contents policy as valuables, they were well enough insured.

However you manage to transport your telescope and accessories, you need to be ready for security and customs checks. In both cases you might need to unpack what you are carrying, so be ready for this. At customs you might also need to prove that you are only temporarily visiting, and the equipment is for your own personal hobby, and will be returning with you. I managed

this by taking photos of my equipment set-up in the UK, purchase receipts, plus documents describing the Star Party. This all proved essential this year when I was stopped at US customs on the way in through Dallas, and had to satisfy the officer that I wasn't importing goods!

Getting set-up

Star Parties seem to differ a little in their organisation and facilities, but the big ones all have web sites that explain things. In all cases I have found that telephone calls and emails to check bookings or details are handled very efficiently and friendly.

When finally arriving at the Star Party the test of a true astronomer is whether they set-up their telescope first or their accommodation! I go for the first of course, not least because it immediately leads to introductions and conversations with your new neighbours on the observing field. Plentiful advice and help will flow.

You will also need to book-in or register when you arrive. You will be given timetables of events during the Star Party, and a chance to buy the inevitable cap, tee shirt and mug!

Now its time to have fun!

If you've travelled a long way to a Star Party then pick one that runs for a whole week. You can then settle into a relaxing routine and make the most of the facilities, events and skies.

Generally the usual pattern is to observe through the night until dawn, and then catch a few hours sleep before lunch. In the afternoon there may be vendor displays and talks organised, or you can go off and do some sightseeing. The TSP is right next to the McDonald Observatory, and the special guided tours they arrange for attendees are a must.

After dinner, there may be more talks, or some just prefer to chill out on the observing fields resting or chatting before darkness arrives kicking-off another observing session.

There is always something going on, and you'll always be welcome to join in. Walk around the fields during the day and you will spend hours chatting to like minded astronomers. We all have something to learn (and teach), and this to me is just as important as the observing sessions. It also makes it easier to find your way back in the middle of the night to try out other peoples interesting scopes and accessories.

This year at the TSP there were 700 registrants, with about 500 scopes. These ranged from the smallest budget scopes, up to giant home made 36" Dobsonians. Every type of telescope was there, including SCTs up to a massive 16", refractors up to 8", and Newtonians up to 18". Just about every conceivable accessory was there, from eyepieces to homemade observing chairs. This brings me to the dangerous part! The combination of all this equipment, plus a fine display of vendors, means that temptation to buy some new gear is very strong. On the other hand the prices are usually discounted

for the Party, and can be half what you might have paid outside of the US.

Getting results

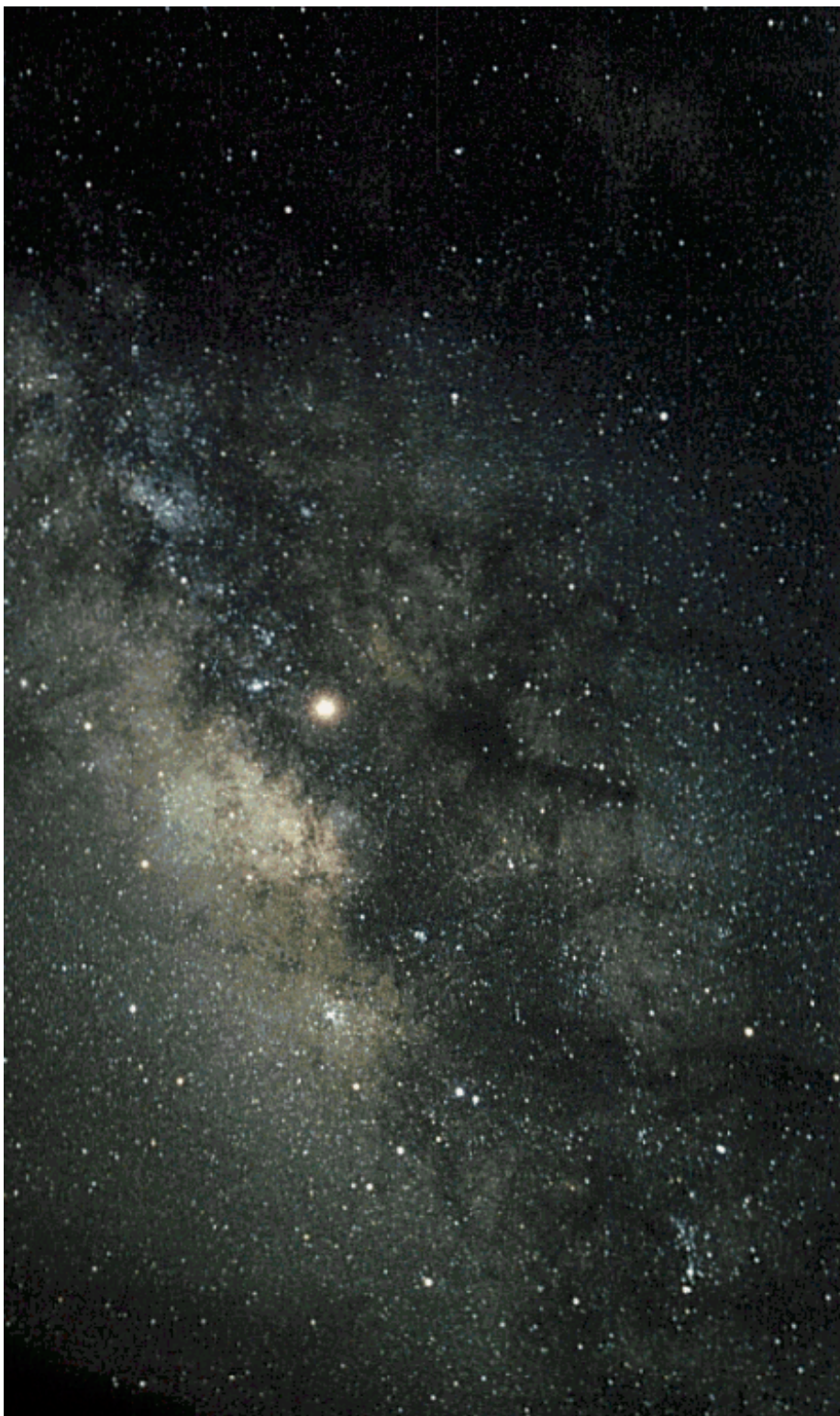
At the TSP, observing programmes are devised by John Wagoner, one of the organisers and a very experienced observer. Various lists of objects are provided, the challenge being to see around 25 from the list. Different lists are drawn up for novices, binocular users, and experienced observers. The reward for reaching the target number of objects is a handsome enamel badge, and a great sense of achievement. I like to split my time between the lists, and my own observing programme.

This year my own programme centred on Mars, and also a challenging set of double stars and dark nebula.

Mars was a gem, rising more than 30degrees above the horizon, with seeing conditions near perfect. Each night I must have spent an hour gazing at the planet, picking out the sort of detail normally only seen in photographs. This was a time when my lowly 102mm refractor excelled, giving amongst the best images seen at the Star Party. The larger aperture scopes came into their own when looking at the faint fuzzies. This is when the friendships are built as observers gather around each others telescopes to admire some particular image or other. I can still remember the strikingly image of M51 and its companion, seen in a 32" dob, with all the spiral structure clearly visible to the eye. Seeing the central star in M57, the Ring Nebula was also a first for me.

Every night around midnight a bright cloud comes over the eastern horizon, threatening an early stop to the nights observing. For those new to such skies, it is with relief and amazement that it soon shows itself to be in fact the Milky Way rising. Well dark-adapted eyes soon become accustomed to the intricacies of this magnificent splendour. What a shame it can be so rarely seen in its full glory now. Any observing programme must include hours in which the rich fields of stars, clusters and nebulae can be swept across. Wide fields of view are a must, but large apertures are not necessary. Binoculars are good if held in a good steady mount, but personally I prefer my refractor with a 17mm Nagler or a 35mm panoptic. The later gives a 2.5degree field of view and when it is combined with an OIII filter, targets like the Veil, Trifid and Lagoon Nebulae become stunning.

The photograph on this page of Mars set in the Sagittarius region of the Milky Way gives just some idea of the observing conditions at the TSP. I realised one night that Mars was almost exactly over the galactic centre, and very nicely framed by the Milky Way. My CCD camera wasn't going to do it justice, but my friend and neighbour on the field offered his wife's SLR camera. This was about 3am and she had long since retired to bed and thereby had given up all rights to her camera! There were just two exposures left on a roll of standard 200ASA print film. I fixed the camera piggy back on my Vixen, and with a



This photo of Mars framed in the Sagittarius region of the Milky Way goes some way to illustrating the observing conditions at the TSP. The horizon can just be seen at the lower left corner.

50mm lens advice from those still awake on the field was that around 20-30 minutes exposure should work.

I thought my polar alignment was very good, so I trusted to luck and took a single 25 minute exposure without guiding. Back home in the UK I had almost forgotten I had taken the photo, when my friend emailed me a scan of the resulting image.

With such success from my first ever astrophotograph using film, I am now inspired to try again when we get some dark nights this

winter. My CCD camera will be demoted to the role of auto-guider.

I hope from this account that others will be motivated to make the journey to a Star Party, either in the UK or abroad. I'm certainly going to more and hope to see you there!

Keith Venables is a fellow of the Royal Astronomical Society, and an occasional contributor to Astronomy Now.