



SCORPIUS

THE JOURNAL OF THE
MORNINGTON PENINSULA ASTRONOMICAL SOCIETY INC.

Volume XVIII, No. 2 (March/April 2009)

The Mornington Peninsula Astronomical Society (formerly the Astronomical Society of Frankston) was founded in 1969 with the aim of fostering the study and understanding of Astronomy by amateurs and promoting the hobby of amateur Astronomy to the general community at all levels.

The Society holds a focused general meeting each month for the exchange of ideas and information. Regular public and private observing nights are arranged to observe currently available celestial objects and phenomena. In addition, the society encourages the services of its members for educational presentations and observing nights for schools and community groups.

In 2009, we celebrate the society's 40th Anniversary.

MPAS 40

CELEBRATING 40 YEARS OF ASTRONOMY IN 2009



One of the first IYA2009 special events for the year is the upcoming 100 Hours of Astronomy. The 100 Hours of Astronomy Cornerstone Project is a worldwide event consisting of a wide range of public outreach activities, live science center, research observatory webcasts and sidewalk astronomy events. One of the key goals of 100 Hours of Astronomy is to have as many people as possible look through a telescope as Galileo did for the first time 400 years ago. 100 Hours of Astronomy will take place from 2-5 April when the Moon goes from first quarter to gibbous, good phases for early evening observing. Saturn will be the other highlight of early evening observing events.

While groups like ours will be planning their own events, 100 Hours of Astronomy has its own global events that organizations worldwide will take part in. These include:

- **Opening Event:** A VIP event at the Franklin Institute in Philadelphia will feature one of Galileo's telescopes. The Director of the Institute and Museum of the History of Science in Florence, which holds the two remaining Galileo telescopes, will speak on the importance of Galileo's telescopes and the discoveries he made with them.
- **Live Science Centres Webcast:** Select science centres will participate in a live webcast featuring discussions on current topics in astronomy on 2 April. Live observations will be made by visitors to select science centres using telescopes operated remotely over the Internet. Science centres worldwide will feature enhanced outreach programmes, many with the participation of amateur astronomy groups holding public observing sessions.
- **Live 24-hour Research Observatory Webcast:** Astronomers at professional research observatories around the world will take viewers inside their telescope domes and control rooms during a live 24-hour webcast on 3 April.
- **24-hour Global Star Party:** For 24 hours on 4 April, telescopes (including solar telescopes) will be made available for public viewing by astronomy clubs and observing groups, with the goal to allow as many people as possible the chance to look through a telescope.

For ourselves on the Mornington Peninsula, we have our regular monthly public viewing night on Friday 3rd of April, and on the Saturday night we host the CSIRO's Double Helix Club. And remember the Briars facility is available for use by members at all times, including the 100 Hours of Astronomy.

Article extracts and logo from <http://www.100hoursofastronomy.org> website

Also in SCORPIUS for March & April...

• Upcoming Events • Astro News • Society News & Pics • Skywatcher •



www.astronomy2009.org.au

YOURS TO DISCOVER IN MARCH 2009

- Fri 6th - Public Viewing Night at The Briars (8pm)*
- Wed 18th - General Meeting at The Peninsula School (8pm)
Session 1 - Speaker - To Be Confirmed
Session 2 - Open Forum & 'Sky for the Month'
- Fri 20th - Lara Secondary College Yr10 visit to Briars. (8pm)*
(approx. 30 people likely)
- Wed 25th - Committee Meeting
- Sat 28th - "Ken Bryant Scope Day" incorporating the monthly Members Viewing Night at The Briars (4pm onwards)

YOURS TO DISCOVER IN APRIL 2009

Thurs 2th to Sun 5th - 100 Hours of Astronomy

- Fri 3rd - Public Viewing Night at The Briars (8pm)*
(A 100 Hours of Astronomy event)
- Sat 4th - CSIRO Double Helix Club visit to Briars The Briars (8pm)*
(approx. 100 people likely. *A 100 Hours of Astronomy event*)
- Wed 15th - General Meeting at The Peninsula School (8pm)
Session 1 - Speaker - To Be Confirmed
Session 2 - Open Forum & 'Sky for the Month'
- Sat 25th - Members Viewing Night at The Briars
- Wed 29th - Committee Meeting

THE UNIVERSE
YOURS TO DISCOVER



INTERNATIONAL YEAR OF
ASTRONOMY
2009

* Denotes assistance in the form of telescopes and general evening operating assistance (i.e. - parking, answering queries, organising supper, etc.) for the public/school nights would be appreciated.

Summer Public Nights

We sort of knew that with this year being IYA and all, we would be getting a bit of extra public interest in Astronomy, but the first couple of months of 2009 has seen an explosion of public interest in our viewing nights. Conservatively, we have welcomed about 300 people to our recent viewing nights in 2009. All this would not be possible without the help of our wonderful volunteers who help out on these nights, so take a bow everyone in a fantastic effort. And for any members who want to help, come along and enjoy a night of showing the public what you love about astronomy - any assistance is always welcome.

2009 Calendar Correction

In the previous Scorpius, you would have received the 2009 MPAS Calendar. We have since realised we made a mistake with the 1st Term school holidays (they were 2 weeks later than they should have been). This has now been corrected and is available for download at the society website www.mpas.asn.au, or available at the Briars and at the general meetings.

Scorpius Online (and beyond)

In 2009, your society newsletter, Scorpius, will be available as a PDF, online in the members section of the society website. Viewing online enables you to see Scorpius a few days prior to receiving the journal in the mail.

Also, we have been able to make this an interactive PDF - 'What does this mean?' It means as you run your cursor over certain parts on the PDF, the cursor itself will change to the 'pointing-finger', indicating if you click on that section it will open your web-browser and take you to more information about that particular article.

So to go beyond what is in Scorpius, check out the members section of www.mpas.asn.au, login and check out the PDF version of Scorpius. The PDF can be viewed in Adobe's Acrobat Reader - a free download from the Adobe website.





The Committee
and Society
welcome the following
new members.

Wishing you all
clear skies.



Gwen Vanstanden
Paula & Ian Hales
Alex Cherney
Rod Stone

Bruce & Janice Richards
Klaus Novotny
Graham Fraser



February's Public Telescope Learning Day

A warm night, lots of interested members of the public (about 53) and about 26 telescopes made for an enjoyable Telescope Learning Day for 2009 at The Briars last night. People were coming and going for most of the time, dependent on their commitments outside. We even had pizza ordered in from Mornington thanks to our delivery man, Ian Sullivan.

The telescope talks were given inside by Peter Lowe, and most members present were seen during the afternoon/evening helping others assemble their Christmas presents which they didn't know how to use. I even think I saw John Cleverdon with screwdriver in hand helping someone far, far less knowledgeable get theirs up and running and going away most grateful for the assistance. Some were missing various screws, or had a screw loose, or were such a quality that one piece of plastic or another had fractured rendering them not very useful. Of course the evening was perfectly clear, and the breeze from the east meant no bushfire smoke was evident, though Venus was boiling quite a bit when low in the west.



Many appeared embarrassed at having such a small instrument compared with the impressive member instruments present of all shapes and sizes. However, in a Paul Hogan moment, I think I probably put most of their minds to rest as I had the smallest there. I brought along my 2.8 cm diameter refractor (yes the decimal point is correct). No, it's not my main one, but rather a student optics learning telescope released by H.B.Selbys in the 1970's that I bought while still at school, comprising a cardboard tube and removable inserted plastic lenses. At a magnification of about 3 it'd struggle on Saturn's rings even.

We also had a retired engineer turn up with a home built orrery of the sun, moon and earth he was doing as a pet project, and asking us questions about whether he'd got the motions and plane angles correct. Ian ably set him on the right track by pointing out he he'd forgotten about the Saros 18 year cycle and needed to turn up a few more gears as a result.

The ISS went over on cue, and apparently took a photo of us as the field lit up with flash light as it went over (according to one of the kids present on the upper observing slab, who mistook a terrestrial photo from one taken from on high).

From Peter Skilton's E-Scorpius article, 15th February, 2009. Photos by John Cleverdon.

January 2009 General Meeting

After running a bit behind due to some local scrub fires, Peter Lowe welcomed us to the first General Meeting for the year, and the International Year of Astronomy. While he maintained the IYA is in celebration of our society reaching it's 40th anniversary, he did note IYA would be a big year ahead for all those involved with astronomy - both professional and amateur. With about 27 people in attendance, he gave us a bit of general astronomy and space news before handing it over to Bob

Bob almost started the evening with the white board until we figured out how to turn on the overhead projector, but in the end he was able to get his "Sky for the Month" together and present it as usual. After this Peter Lowe gave us his updated presentation of the evolution of species on the Earth, taking into account new scientific findings over the past year. We concluded the evening with tea and coffee, albeit without the hot water kettle working. The meeting concluded at 10:30pm.

February 2009 General Meeting

Coffee, tea and biscuits in the students common room started off our February general meeting, as we briefly overlapped a school function with the use of the lecture theatre at the Peninsula School. After the more social beginning to our meeting, eventually we had access to the lecture theatre to begin our presentations.

Peter Lowe welcomed everyone and gave a brief summary of functions and events the society has been involved in over the last month, especially thanking volunteers for their support over the busy summer period. This led into Bob's "Sky for the Month" presentation for February and March. After this we welcomed back Ian Sullivan (after his long summer trip) and were presented with a brief video presentation of Aboriginal Astronomy by John Morieson, who lectured at Swinburne.

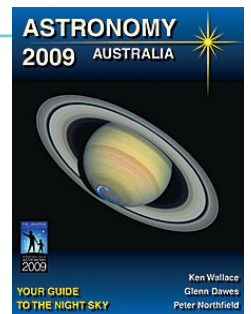
The video was made in 1999, but Morieson wrote his thesis years before. No date was on the thesis book, but it was inspired by the writing of a paper presented to the Philosophical Society of Victoria 30 Sep 1857 by William Stanbridge, farmer and amateur anthropologist. Based on contact with the Aboriginal communities of Swan Hill and Horsham, descendants of the Boorong and a disappeared culture from North Western Victoria. The second part of the video will be presented at the March general meeting. The meeting concluded around 10:45pm.

"It's Trek, Jim. But not as we know it"

Just an early reminder that in this International Year of Astronomy, we will be trying to organise a couple of social events. The first event being the May release of the new film "Star Trek". You know the characters, but this time around the *Trek* you know gets done in a new re-imagined way. The plans are to meet at Village Cinemas Karingal on Tuesday 12th of May, for an around 7pm showing of "Star Trek", followed by supper afterwards at one of the cafes there. Final details will be released in E-Scorpius, and on the society's website closer to the final release date (currently down for a 7th of May release here in Australia). For a peek look at what the new movie is like, check out www.startrekmovie.com/intl/au/

ASTRONOMY 2009 AUSTRALIA

The society will be fortunate enough to secure your guide to the astronomical year ahead with the 2009 ASTRONOMY AUSTRALIA. This practical guide to all things astronomical in the Australian skies is a wonderful reference for all levels of star-gazers, from newcomer to expert. Pricing is \$24 to the public, though society members can get it at the discounted rate of \$20. Orders and payments can be made in person at any MPAS gathering, by cheque to P.O. Box 596, Frankston 3199, or by phone by leaving a message on 0419 253 252. These sky almanacs will be available at any society gathering, from mid-November onwards. *Hurry*, the society only orders in a specific quantity each year, and it's first come, first served.



VASTROC 2009: Galileo to Google

Just a reminder, on the weekend of May 1st through to 3rd in 2009, the Ballarat Astronomical Society will be hosting VASTROC (Victorian Amateur Astronomers Convention). Unlike a star party, amateur astronomers and interested public will gather to share ideas, experiences, and good company. Lectures by experienced amateurs and workshops will occur. Early registration opens on Friday evening (May 1st) with a BBQ at the Ballarat Observatory, and the weekend wraps up on Sunday around 2:30pm. Details regarding this event will be online soon, at the Ballarat society's web page <http://observatory.ballarat.net>

At this time, the organisers of VASTROC 2009 are currently putting out a call for presentation papers. Presentations may take the form of a Full paper presentation (20 minute talk with an additional 10 minutes for questions), a Poster paper, a 'Take-10' presentation, or a Workshop presentation. If you feel you have something you would like to present to fellow astronomers from around Victoria, please email the Ballarat society via the contacts link on their website. VASTROC 2009 is an International Year of Astronomy 2009 event.

Snake Warning for the Briars

It may technically be the end of Summer now, but there is still some Summer-Sting in the weather. With this in mind, we wish to remind all members that it is the time of the year again when we must be aware of snakes at the facility. Usually there are a few sightings reported each Summer. If anyone does come across a snake on the site or in any part of the grounds at the Briars then the best thing to do is to walk away and alert other people of the presence of the snake. Do not disturb the snake or attempt to kill the snake under any circumstances as they are a protected species on the Briars site.

Continuing with our journey looking back at the Society over the past 40 years, Peter Norman notes down some key early events, and pictures.

Some Happy Memories – by Peter Norman

1974 I joined when monthly meetings were held at Frankston High School.

1975 Meetings moved to Frankston Teachers College.

1976 The College built a roll-off roof observatory to house the B.J.Smith 30 cm reflecting telescope on loan to us. Several members attended NACAA in Sydney. Many members observed the total solar eclipse in October.

1977 Don Leggett joined the society which included Peter Brown (*treasurer*), Bruce Tregaskis, Steve Malone, Peter Lowe, Ken Bryant, John Palmer, Keith Ward, Arthur Higginson and others.

1978 Several members attended NACAA in Canberra when we observed a total lunar eclipse at Mount Stromlo Observatory.

1979 Society newsletter was prepared by Ken Bryant and typed by Mary Cabena. Brian Cabena (ex 3MBS) became the first Public Officer when the Society was Incorporated.

1980 Several members attended NACAA in Geelong and Ballarat where we inspected a range of excellent telescopes.

1981 Society had an astronomical float in the Frankston Australia Day parade in an appeal for a new site for the observatory.

1982 Observatory and meetings were removed to Peninsula School, rent-free! Several members attended NACAA in Brisbane

1983 Arthur Higginson installed a 20 cm reflector with a Springfield mount at his home with the help of members. Some years later after Arthur had used it very successfully, his widow gave it to the society where Greg Walton has rebuilt it very well for use by all.

1984 Several members attended NACAA in Perth.

1985 Members attended a public lecture about astronomy by Patrick Moore at Monash University.



1986 Halley's comet was observed and photographed by members. The society arranged a large public viewing night of the comet. This was held at Baxter Park on the night of a total lunar eclipse.

1987 Supernova 1987A was observed by all members. Bruce Tregaskis plotted a very accurate light curve of the radioactive decay of the nickel formed in the explosion of the original super-giant star.

1988 Dobson, the American inventor of the altazimuth mounted Dobsonian telescope gave a memorable address to the society.

1989 The Voyager fly-by of Neptune was seen by many members at a special public lecture at Ballarat University.

1990 The Society hosted it's first NACAA at the Ambassador motel.

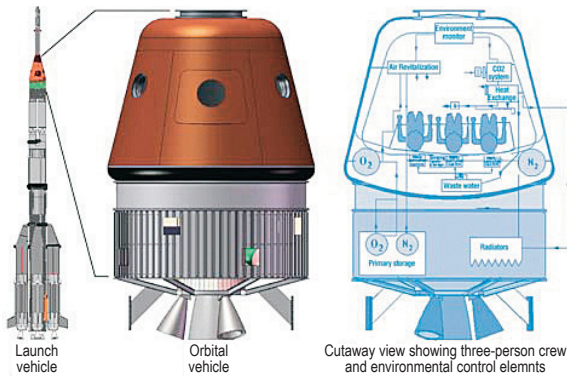
1994 A caravan organized by Steve Malone for the 'Astronomy on the Move' presentations (used before going to the Briars).



Just a note: I would like to collate as many pictures and stories from members of the society's history, so if you would like to add your part of the story to our society's please send me a note or better yet come and talk to me.

Peter Lowe.

Designs for India's First Manned Spaceship



BANGALORE, India -The Indian Space Research Organisation (ISRO), with help from Russia, hopes to join the ranks of nations capable of independently launching astronauts into space around 2015 and has revealed the designs for its first orbiting crew capsule.

In its maiden manned mission, ISRO's largely autonomous 3-ton capsule will orbit the Earth at 248 miles (400 km) in altitude for up to seven days with a two-person crew on board, ISRO chairman G. Madhavan Nair announced Jan. 3 at the Indian Science Congress held in Shillong. The capsule will be designed to carry three people, and a planned upgraded version will be equipped with

a rendezvous and docking capability, he said.

ISRO spokesman S. Satish told Space News Jan. 10 that the program is estimated to cost about 100 billion rupees (approx AUS \$ 3.2 billion) over an eight-year period dating back to 2007. The manned mission was formally proposed to the government in 2006. Although full-mission funding has yet to be approved, Satish said preliminary work has already begun using 950 million rupees (approx AUS \$ 30 million) allocated for the effort in ISRO's 40.7 billion rupee (approx AUS \$ 1.25 billion) budget for 2007-2008. The necessary mission infrastructure includes a new launch pad at ISRO's Satish Dhawan Space Centre in Sriharikota, Satish said. Another key facility is an astronaut training center to be located in Bangalore.

Today only Russia, the United States and China are capable of independently launching astronauts. China joined the exclusive club in 2003 using a capsule that was developed with Russian assistance.

Article extract & Image Credit: www.space.com

US, Russian Satellites Collide in Space

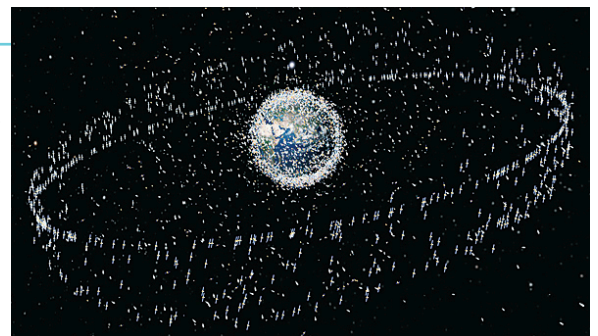
US and Russian satellites crashed in space, the first known major accident of its kind, creating two clouds of debris that were being tracked by experts on Thursday. According to Space News, NASA issued an alert Tuesday 10th February saying the 900 kilogram (1,980 pound) Russian Cosmos 2251 satellite collided with Iridium's 560-kilogram (1,232-pound) craft at 16:55 GMT, some 790 kilometers (490 miles) above Siberia. The Russian satellite was launched in 1993 and ceased to function two years later, he added.

NASA was tracking hundreds of particles of debris from the collision, and said the orbiting International Space Station faced a small risk of being struck, Space News reported. In a statement, Iridium called the crash an "extremely unusual, very low-probability event."

Cosmic collisions of space junk are not unheard of, but NASA officials said it was the first involving two intact satellites, the Post reported. NASA spokesman John Yembrick told the paper the collision debris would continue to spread and could end up forcing the space station into evasive manoeuvres. "The space station does have the capability of doing a debris-avoidance manoeuvre if necessary," and has done so on eight occasions, he said.

Some 6,000 satellites have been sent into space since the Soviet Union launched the first man-made orbiter, Sputnik 1, in 1957. About 3,000 satellites remain in operation, according to NASA. Experts are increasingly concerned about orbital debris, fast accumulating from more than five decades of human activity in space. Before the latest incident, there were over 300,000 orbital objects measuring between 1 and 10 centimeters (0.4 and four inches) in diameter and "billions" of smaller pieces, according to a report issued last year by an international monitoring group called the Space Security Index. Travelling at speeds that can reach many thousands of kilometers (miles) per hour, the tiniest debris can damage or destroy a spacecraft worth billions of dollars.

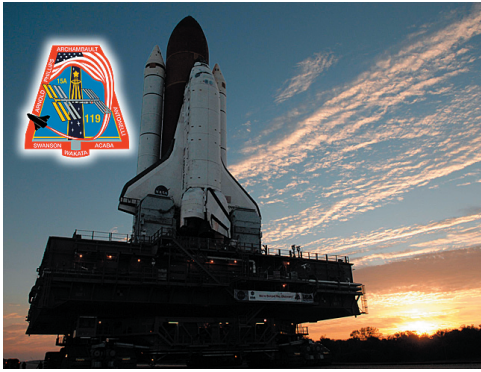
In 1996, a French spy satellite, Cerise, was hit at about 50,000 kilometers (30,000 miles) per hour by a wheeling fragment left from an exploded Ariane rocket. In June 1983, the windscreen of the US space shuttle Challenger had to be replaced after it was chipped by a fleck of paint measuring 0.3 millimeters (0.01 of an inch), that impacted at four kilometres (2.5 miles) per second. Space junk eventually falls to Earth, where it is usually completely consumed in the fiery heat of friction with the atmosphere. Re-entry can take weeks, months or many years, depending on how far into orbit the object was.



A computer-generated image released by the European Space Agency (ESA) shows trackable objects in Low Earth Orbit (LEO).

Image Credit: ESA/Xinhua/AFP Photo

Article extract from <http://www.france24.com/> and AFP



Waiting to place final set of wings on ISS

In late February, during a thorough review of Space Shuttle Discovery's readiness for flight, NASA managers decided more data and possible testing are required before proceeding to launch. Engineering teams have been working to identify what caused damage to a flow control valve on shuttle Endeavour during its November 2008 flight.

The shuttle has three flow control valves that channel gaseous hydrogen from the main engines to the external fuel tank. Teams also have tried to determine the consequences if a valve piece were to break off and strike part of the shuttle and external fuel tank.

STS-119 is due to take up the fourth and last set of solar arrays to the ISS. Due for launch back in February, Discovery now looks more likely to be launched sometime in March.

Article extract from NASA website. Image credit: NASA/Kim Shiflett

Society Projects

Building my Roll-off-Roof Observatory by David Rolfe

I hate carrying my gear from the House to the yard all the time. I am fairly strong but carrying the mount itself is heavy and awkward. I decided I needed an observatory. I looked around the web and was considering a Sirius, but they were too expensive. Then I nearly bought a XL3 Skyshed pod clamshell, but the wait was too long and people complained about water leakage and the inability to view the zenith. It looked like a good week for a DIY project.

I started out by finding a location in the back yard with the most sky view and then applied to the wife for a building permit. I decided to make the roof slide over an existing water tank to save yard space. I liked the roll-off-roof design as you can see the whole sky when slewing around. Looking at the conventional styles I felt claustrophobic, only seeing a small slit. The additional expense of roof movement for unattended imaging was also prohibitive.



I drew up plans checking there was enough room for a desk and the full movement of my longest OTA. Then the frame went up. I used steel for the roof rolling track and gantry over the tank. The remainder was from treated timber pine.



The roof rollers are automotive bearings that run in lipped channel steel.



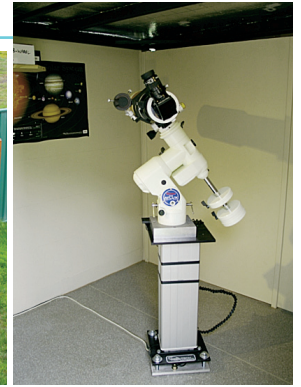
The remaining jobs were to finish the roof (0.55mm colour bond) on a 25x25mm RHS frame and clad the walls. I used fibro sheet on the inside and timber on the outside to match existing features on the house. I built a desk in the corner and some shelves as well. The room has dim-able red lights and power across to the pier.



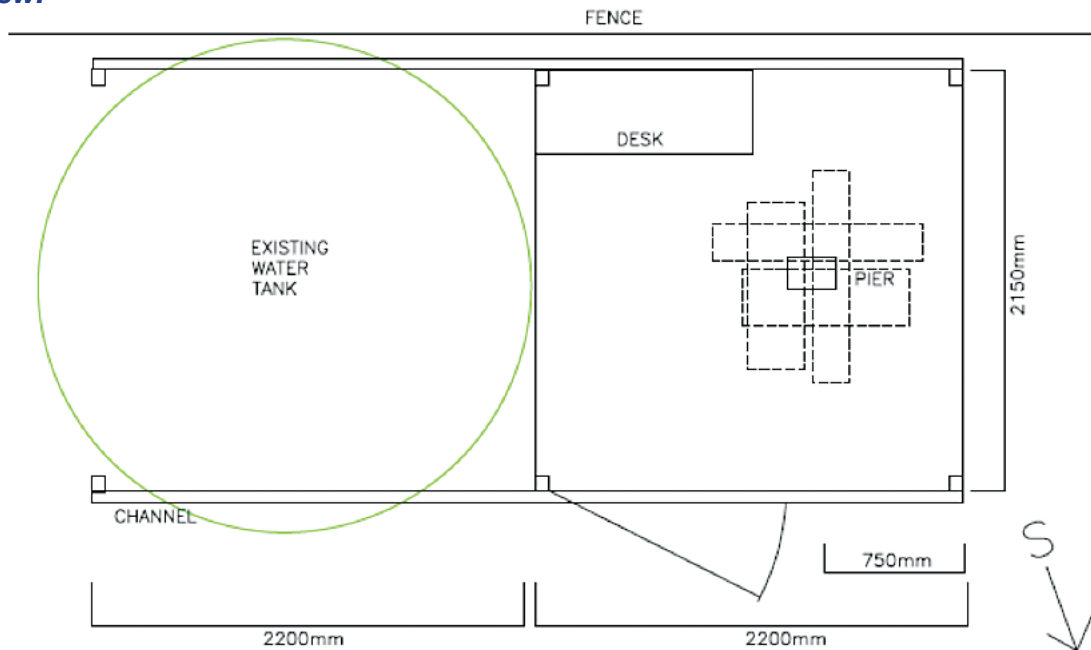
Building my Roll-off-Roof Observatory (cont.)

Before I put the pier down, I installed vinyl flooring to keep the dust at bay and some added insulation bats and foam inside the roof area to stop condensation drips. Then I painted the inside walls a light colour so later I could take flats of it.

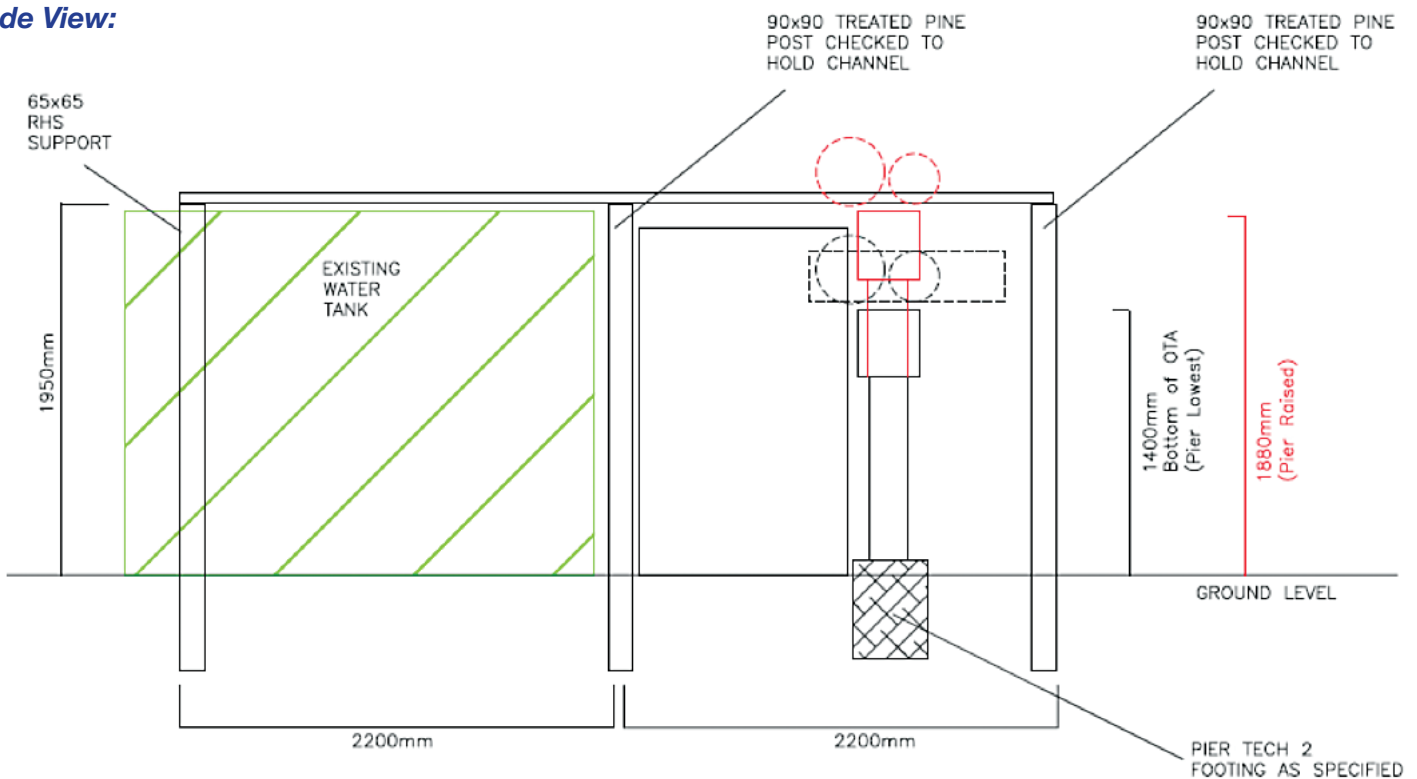
Hence, an observatory for half the price of a commercial one! The plans are below:



Plan View:



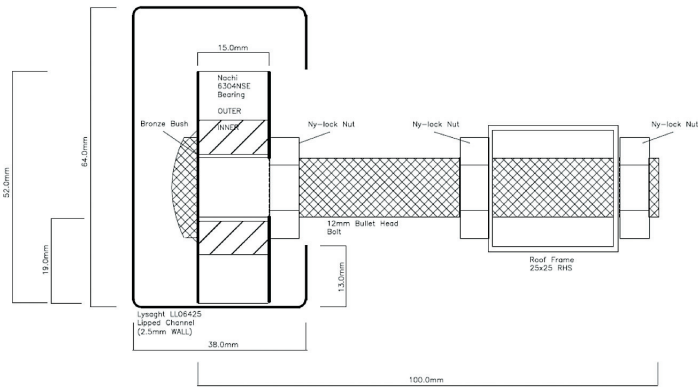
Side View:



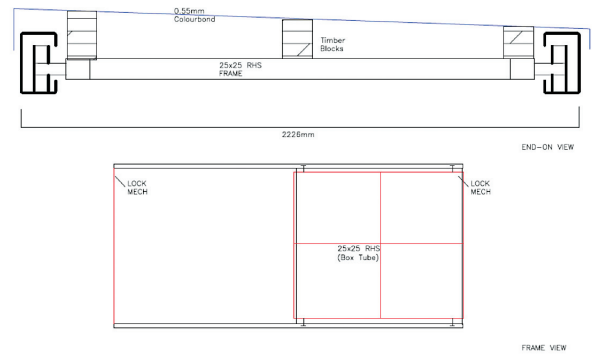
Society Projects

Building my Roll-off-Roof Observatory (cont.)

Roof Rollers:



Roof View:



Society Pics

And with all that hard work done building the observatory, here are some images from our new MPAS member David Rolfe. To see more of his work, along with other members images, go to:

http://www.mpas.asn.au/Astro/Photos/Astro_Photos.htm



NGC2070 - Tarantula Nebula

Information:

Instrument: William Optics FLT132

Exposure: 3 x 5 min for each LRGB

Camera: SBIG STL11Km

Date: 24/12/08

Exposure start: 1:30

Location: Thorpdale, Vic

Autoguider: William Optics Megrez288FD + Meade DSI2

Enhancement: CCD Soft, Adobe Photoshop CS3,

Notes: Fighting a lot of dew on the guide scope, tracking was 9.5/10

© Dave Rolfe

M8 and M20 - Lagoon and Trifid Nebulae

Information:

Instrument: W.O. FLT132

Mount: Vixen New Atlux

Exposure: 1 x 15 Minute in each RGB

Camera: SBIG STL11k

Sensitivity: N/A

Date: July 26, 2008

Exposure start: ?PM

Location: Cranbourne, Vic

Autoguider: Saxon ED80, Meade DSI, Shoestring GP-USB

Enhancement: None (All in CCD-Soft)

Notes: First Colour Shot in with SBIG

© Dave Rolfe



Office bearers of the Mornington Peninsula Astronomical Society

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Vice President: Bob Heale

Treasurer: Marty Rudd - 5977 8863

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Public Officer: Rhonda Sawosz

Committee: Ian Sullivan, Kevin Rossiter, Trevor Hand,
Brett Bajada, Fiona Murray

Phone Contact: Peter Skilton - 0419 253 252

Web Master: Steven Mohr

GENERAL MEETINGS

Meeting Venue: Peninsula School, Wooralla Drive, Mt. Eliza, (Melways map 105/F5) in the Senior School at 8pm, on the 3rd Wednesday of each month, except December. Entry is via the main gates or Gate 2, off Wooralla Drive. Exit is via Gate 2 (see map).

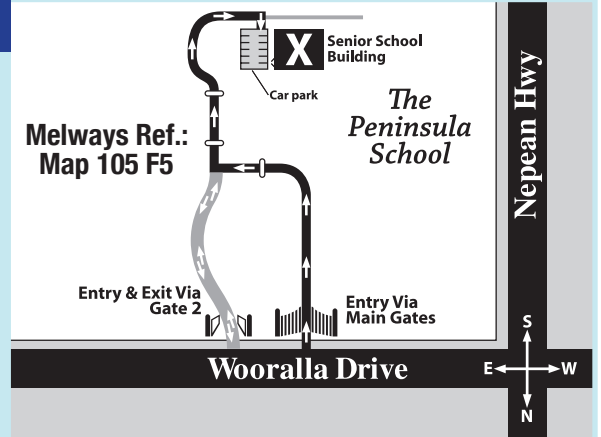
For additional details:

Phone: 0419 253 252

Mail: P.O. Box 596, Frankston 3199, Victoria, Australia.

Internet: <http://www.mpas.asn.au>

email: welcome@mpas.asn.au



LOAN EQUIPMENT

The Society has a variety of telescopes including an 8-inch reflector, 80mm refractor and binoculars, all available for loan. Contact Kevin Rossiter or a committee member to arrange the loan of equipment. The Society also has books and videos for loan from its library, made available during General Meetings.

CONTRIBUTIONS TO SCORPIUS

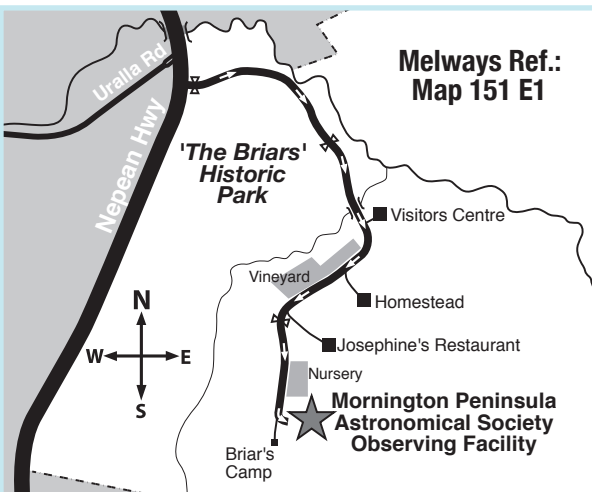
If you would like to submit an article or written contribution to Scorpius, then please send your submission to M.P.A.S., P.O. Box 596, Frankston 3199, or you can now email to welcome@mpas.asn.au.

Any astronomical events that you have witnessed or tales you would like to tell, things you have for sale (eg: telescopes, eyepieces, etc.) then please send them in. And the new 'Society Pics' page requires images that you have taken for all members of the society to see - don't keep them to yourself! All contributions are welcome.

E-SCORPIUS NEWSGROUP

The M.P.A.S. has an online newsgroup called E-Scorpius. Here you will be kept up to date with the latest M.P.A.S. news and event information as well as being able to join in discussions and ask questions with other members. To join, go to <http://groups.yahoo.com> and sign up to Yahoo groups. You require to sign up to Yahoo groups to join E-Scorpius.

Once you have signed up at Yahoo groups, email skywatch@iprimus.com.au saying that you want to join E-Scorpius and you will be added to the E-Scorpius list. Come on, join up. The more people in the group the better.



VIEWING NIGHTS - MEMBERS ONLY

Any night, at The Briars, Nepean Hwy, Mt. Martha, starting at dusk. If you would like to know if others are observing at the site, then call the society's site mobile on 0408 127 443.

Members visiting The Briars for the first time must contact Greg Walton on either 9773 0098 or 0415 172 503 if they need help in getting to the site. Upon arrival at the site, remember to sign the attendance book in the observatory building to verify that the mobile is turned on.

For additional details:

Internet: <http://www.mpas.asn.au>