November 2007
Volume 12, Issue 10

Macarthur Astronomical Society Inc.
Journal

PRIME FOCUS

Inside this Issue

MAS Committee

President
John Rombi

Vice President
Martin Ferlito

Secretary
Bob Bee

Treasurer
Dick Everett

Committee Members
Lloyd Wright
Kate Johnston
Daniel Ross

MAS Postal Address

P.O. Box 17
MINTO NSW 2566

Ph: (02) 4647 4335
Web: www.macastro.org.au

Prime Focus Editor
Kate Johnston
cyberpiggy@optusnet.com.au

Presidents Report

John Rombi

Welcome to all members and guests, well here we are at the end of another year with Christmas only 5 weeks away.

It has been a year of growth and change for M.A.S; we have welcomed 12 new members and farewelled Noel Sharpe from the position of president, a role that Noel held for nearly ten years.

Noel has been a driving force in making sure that M.A.S is the vibrant club that we have today, for this we owe him a BIG THANKYOU!!

Kate Ross took over the reins of *Prime Focus* from our founding member and first and only editor, Bob Bee. Like Noel, Bob's passion for the written word kept *Prime Focus* fresh and informative and I'm happy to see that Kate has kept up the standard.

As I mentioned earlier we have had an influx of new members and with that a swag of new telescopes, this has meant a lot of new faces attending observing nights.

Our website has been moved to a new provider, this has taken our capacity from 40mb to a whopping **150Gb.** This is a massive increase in capacity, but at a considerable **decrease in cost.** I would like to thank Chris Malikoff for the invaluable advice concerning this.

Chris and Martin have been working very hard with our completely new website and we should see the fruits of their labour in the early part of the New Year.

The new site will incorporate many new features, the larger capacity will allow an archive section, so with this in mind I would like all members to take as many photographs (astronomical +club related) to include onto the site, also I'm sure Kate would like as many *articles* as possible **from you!!.**

Last month

Our speaker was Master Optician Mark Suchting. Mark took us through the trial and tribulations in the figuring of a mirror for astronomical use. He brought with him a set of **"12" Binoculars"** with M.S optics. After the meeting Mark took us for a tour of the sky.

Owning a 12" myself, I could see the difference in the images as seen with two eyes. They were definitely given a 3D effect. I know there are a few members hoping that Santa has room in his sack for one of these beauties.

Christmas Party

We have set the time and place for our Christmas Party. It will be held at The Forest on the new moon weekend of December 8th. Arrive by 3pm for a 4pm start, it's BYOE, we may be able to hold a B.B.Q depending on the fire regulations of the day.

Tonight

I would like to welcome Don Whiteman; Head Technician at Bintel and long time amateur astronomer, his presentation will be on Charles Messier, the famous French Astronomer and the man that lends his name to the Messier List.

Bits n Pieces

Our observing sessions will continue as normal, the first General meeting of the year will be on January 21st.

I have acquired four speakers for next year,
February sees Geraint Lewis from Sydney University speaking about "*Galactic Cannibalism*".
March, will have Kate & Daniel Ross presenting an "*Astronomical tour of the U.K*"
May, we have highly respected Prof Bryan Gaensler from Sydney University.

Fred Watson has also put up his hand to make a return journey to M.A.S; the date has not been set.

Due to the proximity to Christmas, there won't be a monthly meeting in December.

OBSERVING DATES

01/12/07 Starguard
08/12/07 The Forest
& Christmas Party

Finally

I would like to wish you all a very Holy and Happy Christmas and a prosperous New Year.

Clear Skies, John

Stargard Field Liaison Officers Report.

Noel Sharpe

Hi everyone, I recently had the opportunity of attending a meeting of the Management Committee of the Dudley Chesham Sportsground. For those who don't know I am a committee member for the Sportsground and also the society's official representative.

The position was created in order to fulfill our responsibilities as an official user group of the sportsground, also to someday have an opportunity of having our own large telescope on site. We have council permission to use the filed at the rear of the sportsground in tandem with The Oaks Pony Club.

At this point I wish to offer a sincere apology, whilst in my duties as President I put forward the idea of obtaining grant to purchase a large telescope, which would be housed on the site. Whilst endeavoring not to over promise and under deliver I did get caught up in the moment, and I do apologise for that.

I put in a lot of work for little result and as such should not have detailed plans and ideas that needed a lot of good fortune to come into play. We had what seemed to be strong support; however the application process and commitments placed on the society were unworkable.

I was asked some time ago if I saw any light at the end of the tunnel, I said yes, however that light has been very dim for a while but its now gaining in magnitude, so to speak.

Having got all that off my chest I now tender a report of that meeting, let's keep the dream alive; you never know it might happen one day.

The Report

The meeting was held Thursday the 8th of Nov; it was attended by the Cricket, Netball, Rugby and Tennis clubs, and of course MAS. The Pony Club was not in attendance. The Pony Club's operations have been curtailed by the horse flu epidemic, they may resume around February.

I was also informed that the Pony Club is doing some ground work and some top soil is present on site. I inspected the field on Friday the 9th of Nov, all seems Ok. A bit soggy given all the recent rain.

1) Major new sub division proposed for The Oaks, first one for many years, indicative plans to upgrade some facilities at the ground due to commitments of section 94. i.e. developers must contribute to provide or upgrade community facilities for new developments, like parks, clubhouses, cycle ways etc. I addressed the meeting to find out exactly where the development will take place.

It's on the road out to Picton, John Street that becomes Montpelier Drive. It's sufficiently along that road to have limited impact on us. However I will obtain information about councils lighting policy and controls regarding new developments.

2) We have received the invoice for our Hire Fee, its $57.00, next years fee looks to be of a similar amount.

3) I conveyed that we have no confirmed plans for next year, also I confirmed my contact details as the societies official representative.

4) The Oaks Heritage Centre is planning a 150-year celebration next year; I think when The Oaks was developed. They will contact the user groups to join in on the celebrations.

5) Tennis club receives a grant a small from Pat Farmer, I have already visited Pats office and spoke to his personal assistant, as Pat was unavailable, will follow up to see if anything can be done for us, re Stargard Field Telescope proposal.

6) Advised some replanting has occurred as per my request, have visited the field and confirmed eastern boundary now planted, small saplings, mainly gums. I will follow up with council to thank them, also to find out if the work is still ongoing.

Next meeting for the Management Committee is around March next year.

Regards
Noel Sharpe
Stargard Field
Liaison officer

MAS CHRISTMAS PARTY 2007

Saturday 8th December 2007
3pm @ The Forest

Bring your own everything!!!
All Family Welcome

BBQ may be available depending on Fire Restrictions

Seeing Double - Grus

David Hall

Yet another southern constellation, so sorry to you internationals who live in the northern hemisphere... you could move here!

Grus is latin for crane and yet doesn't even vaguely resemble one... who makes these up anyhow? I hear you ask. Well Grus was created by Pieter Dirkszoon Keyser and Frederick de Houtman between 1595 and 1597 and was considered part of the constellation Piscis Austrinus until about the 1600s' when it became a constellation in its own right. From light polluted skies of Campbelltown the constellation forms a vague cross shape which at the time I viewed it was laying on its side and looked rather squashed.

There are only 2 stars in Grus that are brighter than magnitude 3, Alpha Grus also known as Al-Na'ir is mag 1.7 and Beta Grus at mag 2.07. Besides binaries there is little here for the small scope owner. For the large scope owner and astrophotographer there are a whole bunch of mag 11-12 galaxies including the Grus Quartet.

1. hj5319 7.5/7.5 2.1": a fairly easy split under reasonable conditions this showed as a yellowish primary and white secondary in my 8" f6 with a 7.5mm EP.

2. jc19 6.5/7.5 24.8": go the mighty eels!!! This pair is not an actual binary according to some sources. Still, with a yellow primary and a blue secondary its a pretty sight.

3. i136 7.5/9 1.7": close double that's going to need your focusing skills. I picked A to be white and B to be a pinky red... it was hard to determine colours though. I'd suggest getting you mirror to ambient before trying. Also try for the grus quartet of galaxies right near by!

4. hj 5366 7.8/8 14.8": an easy split white and yellow pair just a short hop from a whole bunch of really dim DSOs that I'll never see in my scope! Very pretty.

5. i1467 7/8.5 0.5": gosh! Why did I put this one in!!! Well for those with aperture try it... I didn't stand a chance! We are talking about 0.5" split here. I nabbed it from a list on the internet.

6. dun246 6/6.5 8.6": an easy split and quite a stunner too. A is white and B has a bluish tinge. Quite bright.

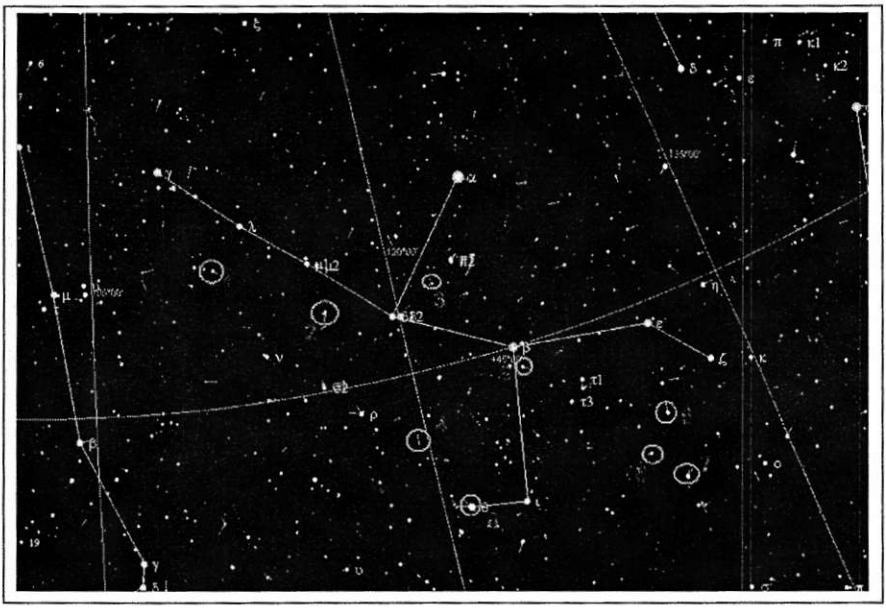
7. dun248 6.5/7.5 26.5": another easy one for you. White primary and a bluey secondary... off to hunt some more.

8. jc20 4.5/4.5": a visual double that has binary components. The lower of the 2 has a secondary only 1.4" apart. I am coming back to this one under better conditions but I swear I got a split (or at least elongation). Near by is a small galaxy which I had a go at and managed.... at about 12 mag it was averted vision only (ngc 7476, mag 12.6).

9. HJ 5362 6.64/ 9.90 10.4": just below beta grus' brilliant red glow is this lil' one. A is white and B is a definite blue. Well worth a look.

Well that's it. Where to next month I don't know...
but I'll come up with something :)

Sharp splitting all!



How Big Is The Milky Way?

Ian Cook

Well, I'm sure several of you readers could tell me just what are the accepted dimensions of our galaxy, to the nearest light year. But it wasn't always so, and we owe our improved understanding largely to one woman Henrietta Swan Leavitt and to one man, Harlow Shapley.

Now I can see Lloyd's ears pricking to attention at the mention of Shapley and we shall discover more later.

The size or scale of the Universe was the big question of the early twentieth century and the young Shapley was right in the middle of it. Remember, Hubble had not even started his work that finally determined many nebula were actually separate galaxies.

Born in 1885 on his parent's farm, Harlow Shapley intended to study journalism in his home state at the University of Missouri. Due to a delay in opening the School of Journalism he decided to study the first subject listed on the university course list. Rejecting Archeology because he couldn't pronounce the word he enrolled in the Astronomy course at the age of 22 in 1907.

Upon graduating he went to Princeton to work under Henry Norris Russell of Hertzprung-Russell fame where he wrote his thesis on analysing light from eclipsing binary stars to determine stellar mass.

Photo American Institute of Physics
Niels Bohr Library
2 November 1885 - 20 October 1972

In 1914 he was recruited by George Hale to work at Mt. Wilson Observatory on Cepheid stars and the structure of the Milky Way galaxy.

In 1912 Henrietta Swan Leavitt had published her findings about the distance measuring abilities of Cepheid variable stars.

Cepheid variables are class F and K high mass dwarf stars that have begun uneven helium burning. They expand and contract, brightening and dimming over time as a variable star.

Leavitt discovered a relationship between the period, or time taken to complete one cycle of variation and the brightness. The brighter a Cepheid actually was, the more slowly it varied. This was called the Period-Luminosity Relation.

Shapley added to her work by concluding that the brightness

variation of Cepheid stars was due to physical pulsations not a binary system, as most astronomers then thought.

Measuring the period of a Cepheid revealed its absolute magnitude. Then by measuring the **apparent magnitude** of a star you can know if it is near or far.

Conversely or to put it another way, if we know the **apparent brightness** and the distance of an object, we can work out the **absolute brightness** of that object.

Ejnar Hertzprung measured the actual distances to several Cepheids within the Milky Way using a parallax version. Leavitt was able to apply this discovery to her own studies and in collaboration with Shapley devised an accurate method for measuring large distances on a galactic scale.

Henrietta Leavitt
1877 - 1925

Shapley noticed that a group of giant variable stars called RR Lyrae also exhibited a period-luminosity relation; therefore, they too, could be used to determine distances.

RR Lyrae variables are low mass, hot (6500 – 8000 K), class A to F blue-white giants that go through their period-luminosity cycle in less than 24 hours! They pulsate very fast and are mostly found in globular clusters.

Shapley took the period –luminosity relationship applied to RR Lyrae stars, and used it to determine the distances to 93 globular clusters. From their directions and distances, he mapped out the distribution of these clusters in three-dimensional space.

After a year, he had noticed a peculiarity of his globular clusters. Most were widely scattered around the constellation Sagittarius. After a further two years in 1917, Shapley had discovered that the globular clusters were located in a spherical shape centred on a point in the Milky Way toward Sagittarius. From this he made a bold conjecture.

All globular clusters orbit round the centre of the Milky Way; therefore they outline the true size and reach of our Galaxy!

He announced correctly, that the Galaxy was far larger than anyone believed at the time.

In 1920 he was one side of 'Astronomy's Great Debate' with Heber D. Curtis on the structure and scale of the universe.

In 1921 he was head-hunted to fill the shoes of Edward Pickering as director

of the Harvard College Observatory, where Henrietta Leavitt worked.

He developed the Harvard College astronomy graduate school and moved their overseas observing station from Arequipa, Peru to South Africa

During his time at Harvard he studied the Magellanic Clouds and made catalogs of galaxies. Using photographic plates from the College Observatory in South Africa he reported the discovery of 76,000 galaxies brighter than magnitude 18 in just one-third of the southern sky.

He discovered a concentration of galaxies in Centaurus which was additional to, and much further away than the superclusters known in Coma and Virgo. This concentration now bears his name as the core of the Shapley Supercluster.

The most recent work on Shapley's supercluster is using survey plates from the UK Schmidt Telescope at Siding Springs

OCT CROSSWORD SOLUTION

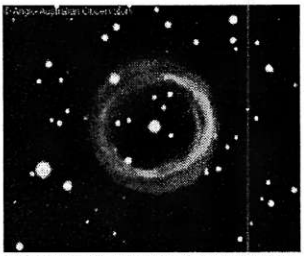
Across

1. Scutum
5. Nova
7. Nuclear
8. Armstrong
11. Corona
12. Christy

Down

1. Shadow
2. Uranus
3. Revolution
4. Luna
6. Andromeda
9. Gravity
10. Umbra

He wrote many books and was a popular speaker on science topics. He was the president of many organizations and a cofounder of the UN Education, Scientific, and Cultural Organization.



Shapley 1: An Annular Planetary Nebula
Credit & Copyright: D. Malin (AAO), AATB

And yes! Shapley 1, Shapley 3, a crater on the moon, and an asteroid, are named in his honour.

Truly a worthy giant of astronomy and aren't we lucky that course in Journalism was delayed in starting!

Prime Focus Article Submission

We will be having a January Prime Focus in 2008. Deadline for article submissions for the January edition of Prime Focus is

Friday 11th January 2008

All Articles can be submitted via email cyberpiggy@optusnet.com.au
Or via snail mail to the MAS Postal address

Thanks to all the contributors for this month.....

This Fabulous Earth.

Noel Sharpe

After Fred Watson's fantastic talk at September's meeting I felt compelled to dust off the old typewriter and bang out an article. If I may at this point say how well everything seems to be going for the society, and especially how great it is to see so many new members.

Congratulations must go to John for doing a great job as President, and of course everyone in the committee for their and enthusiasm and dedication in making MAS so successful. I would dearly like to make more appearances to our events and meetings as I do miss the camaraderie and general goings on, sometimes though things just tend to happen, often at the last minute. Early nights have pretty much become the norm, well for this little black duck anyway.

The Greatness of Being.

Personally there are times when I cannot help but feel that our little blue dot in space, i.e. "The Earth", is very much a one off, never to be repeated, you beaut special! The evidence for this is right in front of our noses, so to speak. The approach is at it's most simple, seeing is believing. We understand the world around us by using our senses, so take a moment and see, touch, taste, smell, and hear our planet.

There is a myriad of other life forms that co habit this great world of ours adding to the great powerhouse of diversity and energy, even from the smallest microbes to the largest predators. The way each and every life form on this planet is engineered in a purposeful way, to add to the collective and make no mistake we are all very dependent on each other.

For example we human beings would not function without the billions of microorganisms that happily call our body's home, especially in our digestive tract where there are 400 types of bacteria happily keeping us on the go. In order to add some scientific creditability to this article I submit as evidence acidophilus and bifidobacteriun, I won't name the other 398.

I believe the simple things can be taken for granted, often without a moments thought and discarded in the general hustle and bustle. So take time and use our full range of senses to acknowledge and enjoy the simply things, like feeling the warmth on your face on a cold winters day, the gentle cool breeze near the ocean on a warm day, the rustle of leaves swirling in gentle eddies across a green lawn.

Enjoy the majesty of snow capped mountains, the vastness of dessert sands, the endless paddocks and

grazing lands which provide the bountiful harvest that sustains us, there's a lot to be said about "This Fabulous Earth".

Not Going Bananas Yet

How if you think that I have been stopping and smelling way to many roses lately I do have an astronomic slew for this article. Our wonderful blue oceans and puffy white clouds encircle our globe, we sit in space at just the right distance from what they say is a very ordinary star. Nowhere else in our solar system do the conditions on Earth seem to exist. Our advancements in space exploration and scientific endeavors have never been greater, yet we still sit alone in space.

The night sky still astounds me, a sea of black with lots of small white dots pasted upon it. I can understand and admire those who marvel at the faint nebulas and galaxies, often after many hours of searching to locate them. Even through our formidable armoury of telescopes a faint smudge is often what greets us after navigating the vast reaches of the cold and dark universe.

Bang For your Buck

I like excitement, give me the big stuff. I want to be blown away and so convinced that this little planet is but a small part of a much, much bigger picture. Let me be in awe as I am about the Earth. The Aurora's I have seen were a touch of fire in the sky, frightening and beautiful at the same time.

The unimaginable power of celestial motion like Solar and Lunar eclipses, look out the worlds going to end! The great Comet McNaught, now that was a sight to behold, lucky it didn't pay us a more up front and personal visit.

Give me all the great fireballs and meteor showers, the craters on the moon and the rings of Saturn and Jupiter's belts. Even give me Alpha Centauri just twinkling there only 40 odd trillion clicks away.

Yes there is wonder in seeing the faint stuff, its just my personal view that I want to be hit in the face with something so big that it would make the Earth seem not quite so alone. Imagine a discovery so big in astronomy circles that it would be akin to office workers in the city taking their lunch break in Hyde Park and seeing a Flying Saucer land next to the Archibald fountain, now that would be big news!

Of course it's not a given that the space ship would even be from another planet, it might have dropped in from another dimension, alternate universe, cannot rule out Atlantis either, or maybe just simply a time travel back from the future. So despite even a flying saucer in Hyde Park my unique one and only Earth would still be in tact.

Something Astronomic.

The extra solar planets so far discovered now number some 251. Given what I have said above it seems to me that our planet is just at the exactly right position from our ordinary star, lucky its not a double and absolutely everything is very, very perfect for the abundance of life to have developed.

Given that nearly all these extra solar planets detected are mostly huge gigantic Jupiter type bodies that orbit within a hairs breath of massive suns could it not be possible that they are all simply smaller binary companion stars that have failed to ignite, after all over half the stars in the night sky are doubles and many are multiple.

The tug from these failed stars would explain the oscillations observed by the measurements of Doppler shift, which is how they have made the discoveries of extra solar planets. That would mean no planets; in fact Jupiter is a gas giant that supports its own mini solar system and in itself is a small failed star so I can hold that up as support.

I have definitely taken a very basic and perhaps naive approach here; certainly I can admit that physics and science were not a strong point of mine. I have also added some poetic licence with what I have said but my aim of this article is to convey my thoughts that we do have a most very precious asset on our hands, i.e. The Earth and I don't think there are to many around.

Email To Fred Watson

I was fascinated by the part of Fred's Talk that detailed the examination of atmospheric detail of these extra solar planets using spectrographic instruments planned to be used by the latest large-scale land telescopes.

For the most part none of these extra solar planets have been actually seen, so the idea of these huge mega big telescopes not only observing but taking measurements off the planets atmosphere is definitely a very "Big Bang for your Buck Moment".

Some of the content of the email to Fred Watson.

Hi Fred, I very much enjoyed your talk at our club last Monday; sorry I could not stay longer. I hope its OK to contact you, I felt most inspired about the part of your talk about the use of the EELT for optical planet detection, especially the part of detecting the planets spectra.

I want to write up an article for our next months journal on this, but would like to have more information if possible, ie what scopes, location, whose involved etc. maybe when this will take place, instrumentation etc.

I realize that these may only be indicative plans but I would be very

pleased if you could point me in the right, or any direction. I really would like to provide some "meat in the "sandwich" for my article, it would be great to paste in some writings from yourself if I have your Ok on that. Or simply if you just want to throw a web address at me that's fine as well.

If I can ask some questions?

Have they detected extra solar planets at close distances, i.e. 45 to 75 light years?

Could not all detections so far just be small failed stars? Like most stars are doubles, maybe these just failed to grow, like me!!!

Anyway I have taken enough of your time, look forward to your reply

Thanks Again
Noel Sharpe
MAS, member.

Fred Writes.

Check out the E-ELT website for info on their aspirations
regarding planet discovery. I think there's quite a lot, from
memory - Isobel Hook is the UK project scientist for E-ELT, and
she's pretty switched on. Yes, I think the majority of detections so far are at distances less than 100 l.y.

The idea of small failed stars is ruled out by physics. Above 13 Jupiter masses, the gravitational potential is enough to
kick-start deuterium burning, and the object is a brown dwarf
star - or "failed star". But below this mass, which is the regime
in which all the newly discovered planets sit, it has to be a
Planet.

Hope that helps - it was good to see you again.
All the best
Fred

The Great Beyond

After receiving the email from Fred I had a chance to look up the European Extremely Large Telescope website, EELT for short.
I found out that the EELT was previously called the OWL, Overwhelmingly Large Telescope.

I guess at 100 meters in diameter the OWL got a bit too big for it's boots and as such has been morphed into the 40 meter EELT.

Planned operational date is 2018, it's a massive project and I guess I will have to wait for that whiff of oxygen and water atmosphere detected from the spectrometers. But it is a definite research goal.

But did you know Spanish astronomers on the 2nd of August took a test drive of the worlds largest telescope built so far, the 10.4 meter Gran Telescopio Canarias. Its sits atop

a mountain range overlooking the Canary Islands.

One of its research goals is planet hunting and will no doubt lay some groundwork for the EELT, which of course is very much larger. Nasa will be launching it's James Webb space telescope in 2013, at 6.5 meters in diameter it's a baby by comparison, however don't let size get in the way of a good story, its will be operating mainly in the infra red spectrum which will make it a very powerful instrument, it can also do optical wavelength work as well. The main research goal of the James Webb is the study of dust clouds forming planetary systems, of particular interest is one of our favorite areas of the sky, the Great Orion Nebulae.

The James Webb space telescope is the successor to the Hubble space telescope. James E Webb ran NASA from 1963 to October 1968, he was acclaimed as being one if Nasa's most successful administrators and put Nasa right in the foreground of space exploration.

In My Pension Years.

It looks like I will eventually get my big bang for my buck, not really anytime time soon but it will happen in my lifetime. Space exploration will again be at the forefront as I sit glued to my Plasma, new missions to the moon, a lunar base and a manned trip Mars.

There was a great 60 minutes special featuring Australia's one and only Andy Thomas. It was all about the future Lunar and Mars missions, he explained that perhaps deep in the frozen ice of Mars there could be bacteria or microbes. That would be big news! Please don't bring them back here as a don't want to catch anything.

With the EELT and James Webb space telescope busy planet hunting, bugs on frozen Martian soil, the NASA space plane, new discoveries galore and it all looks amazing. Perhaps just a little step closer to proving me wrong, that this Earth is not a one off.

I was really amazed when I heard Andy Thomas end his interview on 60 minutes with some of the words that I have often alluded to when coming to terms with the enormity of it all.

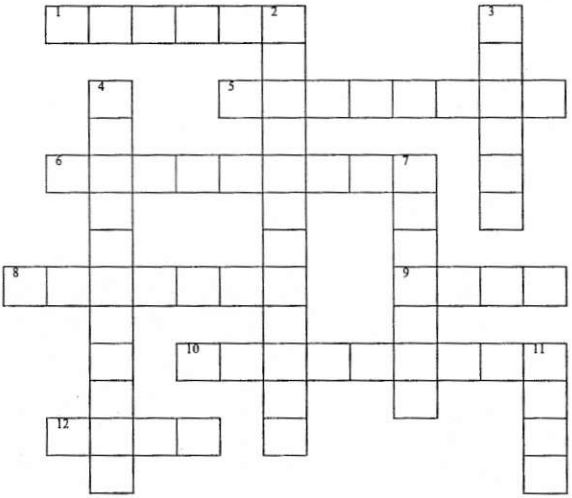
So I will end this article and leave you with Andy's quote.

"The oceans of the universe are unimaginably vast, all we have done is gone to the beach and splashed our toes in the water. We have a long way to go".

King Regards
Noel Sharpe

Crossword No 8.

Ivan Fox



Across

1. NAME OF TWICE FAILED SOVIET MISSION TO LAND A PROBE ON A MARS SATELLITE [6]
5. BRANCH OF ASTRONOMY IN THE STUDY OF NUCLEAR REACTIONS DURING SUPERNOVA EXPLOSIONS [8]
6. THROUGH THIS PROCESS A CELESTRIAL BODY INCREASE IT'S MASS OBTAINED FROM SURROUNDING GAS AND OBJECTS DUE TO GRAVITY [9]
8. A 1.09 MAG STAR IN SCORPIUS [7]
9. INITIALS OF A 1.2 METRE RESEARCH TELESCOPE AT THE AAO [4]
10. ABBREVIATIONS MEANING A PLANET THAT IS NOT IN THE SOLAR SYSTEM [9]
12. INSULATED OBSERVATORY COVER [4]

Down

2. THROUGH IT SCIENTISTS CAN DISCOVER THE CHEMICAL COMPONENTS OF DISTANT CELECTIAL BODIES [12]
3. SURNAME OF ASTRONOMER WHO CATALOGUED OVER 7000 STARS FROM THE OLD PARRAMATTA OBSERVATORY [6]
4. AN EVENT IN WHICH A CELESTIAL BODY IS OBSCURED BY ANOTHER [11]
7. CLOUDS IN SPACE [7]
11. USUALLY ASSOCIATED WITH COMETS [4]

Astronomy on Our Holiday.

Ursula Braatz

This time I did not work much with my telescope in our holiday, because there is always light pollution in caravan parks, I had only Jupiter in focus. But I enjoyed naked eye view and looking through binoculars.

We started our trip on the 2.7.07 and our first stop was Coonabarabran and we stayed there for two nights in a caravan park. This time we wanted only to visit the Sky Watch Observatory 2km of Coonabarabran, because we saw the Siding Spring Observatory already twice. The Sky Watch Observatory provides daily guided astronomy sessions to view the sun and nightly stargazing tours. So we went there on the 3.7.07 and looked at the sun through a telescope. The sun had just one spot on the left side. After this we looked at the astronomical posters inside on the wall, and watched video in the theater. First we saw the Omega Star Cluster and were amazed how dense the Cluster is in the middle. With thousands of stars it is still very rare that some of them are colliding. Then we saw Orion Nebula, Sombreo Galaxy and many more Galaxies and Nebulae. We wanted to come back for a stargazing tour at night, but unfortunately the sky was cloudy, that we wouldn't see anything if we were there.

On the 4.7.07 we went further north to Moree to visit the Artesian Thermal Pools. We went into the bath from late afternoon to 6.00 pm. While I was in the pool I saw Venus in the West and Jupiter in the East, beautiful! At night I looked at the sky, but all I could see was the Southern Cross and the false Cross, because there is a lot of light in this caravan park. We drove further north on the 9.7.07 through Goondiwindi on the Leichardt Hwy to Queensland. It is a nice Area were we went through and stopped in a caravan park " Wandoan" and on the 10.7.07 we went to the coast and we camped 200 km north of Rockhampton on free Rest Area St. Lawrence. There was a beautiful sky – the Milky Way, Jupiter in Scorpio, and all the other Constellations. Venus was very bright and Sirius real yellow and I saw Ursa Major, the Big Dipper, like I saw it years ago on this place, I enjoyed all this without my telescope, only my binoculars.

On the 11.7.07 we arrived at our Destination, the Whitsunday Islands and stayed there to the 8. 9. 07 in the "Seabreeze Tourist Park at Cannonvale 3 km from Airlie Beach, which is a beautiful Tourist Town. There is a big swimming pool called the Airlie Lagoon. On the 16.7.07 two days after New Moon there was a good show in the western sky – Venus and underneath Regulus in Leo, the Sickle Moon and Saturn, on the right Leo Minor and Ursa Major, you don't really need a telescope for this show. In August Venus, Regulus and Saturn were more in twilight and difficult to see and Leo Minor and Ursa Major were gone. In September I saw Venus as a Morning Star again. Of course we did not miss the Lunar Eclipse on the 28.8.07 My friend in Liverpool did call me by mobile pone and we could compare what we saw. It was clear sky in Liverpool and cloudy in the Whitsundays, I was lucky to see the Eclipse; the Moon was sometimes behind clouds. On the way back home we had a beautiful starry sky when we camped overnight, on the 11. 9.07 it was New Moon and on the 12. 9. 07 we were home.

MERRY CHRISTMAS & A HAPPY NEW YEAR