



SCORPIUS

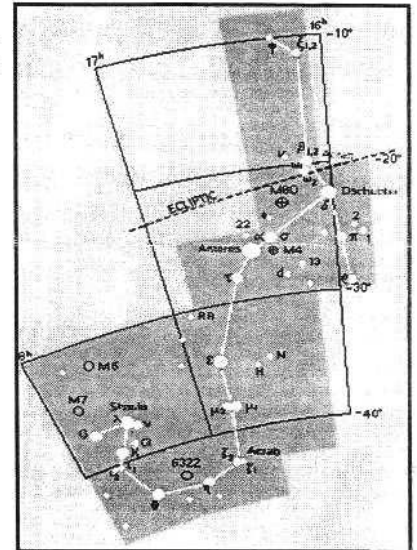
The Journal of the
Astronomical Society of Frankston Inc.

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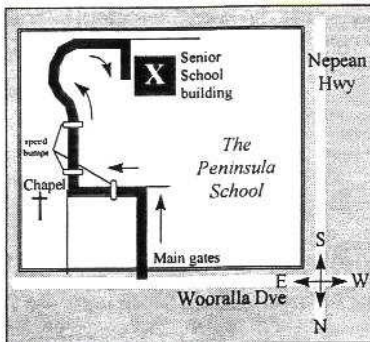
Volume XII, No. 2 (March 2003)

The Astronomical Society of Frankston was founded in 1969 with the aim of fostering the study of Astronomy by amateurs and promoting the hobby of amateur Astronomy to the general public. The Society holds a General Meeting each month for the exchange of ideas and information. Regular observing nights, both private and public, are arranged to observe currently available celestial objects. For decades the Society has provided *Astronomy on the Move* educational presentations and observing nights for schools and community groups exclusively in the Peninsula and surrounding regions to Moorabbin, Dandenong & Tooradin.

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.
Phone: 0419 253 252 **Mail:** P.O. Box 596, Frankston 3199, Victoria, Australia
Internet: http://www.asfnet.20m.com
E-mail: aggro@peninsula.starway.net.au



Visitors are always welcome!



Annual Membership

Full Member	\$35
Pensioner	\$30
Student	\$25
Family	\$45
Family Pensioners	\$40
Newsletter Only	\$16
Organisation	\$50

DUE 1ST JAN EACH YEAR

President	
David Girling	(0421) 452 428

Vice President	
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Treasurer	
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Sally Zetter	(03) 5976 2679

Editor

Richard Pollard (0419) 100 802

Committee of Management:

Roger Chandler, John Cleverdon, Don Leggett, Jane McConnell, Ian Sullivan

The public officer is Russell Thompson.

All calls after hours and pre- 8:30pm please.

FUTURE EVENTS

General Meetings:

WED 19 March 2003:

Session 1: **Replay of the BBC's 'Space'**
 Session 2: **video on "Parallel Universes"**.
 Session 3: **Informal interaction.**

Wed 16 April 2003

Session 1: **Observing Mars** with David Girling and others, and Ian Sullivan on the upcoming transit of Mercury.
 Session 2: **video on "The Sun"**
 Session 3: **Informal interaction.**

The Library will be open at General Meetings from 7:15pm to 7:55pm and again during the tea break.

Viewing Nights:

Members Only:

NOTE: Members nights are also now held on Fridays!

March 7th /8th and 21st /22nd, April 4th /5th, 11th /12th and 25th /26th, all at The Briars, Nepean Hwy, Mt. Martha.

New attendees must always confirm with David Girling on 0421 452 428 before attending. Remember for security reasons you can only attend on planned Members' Nights, unless by prior arrangement with David who will liaise with *The Briars* accordingly. Last person out must switch on the shed security light. All attendees must sign the visitors' book in the observatory for insurance reasons.

Public, School & Community Groups Viewing/slide nights:

If you can assist, please contact the Secretary.

TUE March 11th. Camp

Manyung, Sunnyside Road, Mount Eliza. 5 scopes needed.

FRI March 14. Braeside Park, Braeside. Numbers unknown. As many scopes as possible.

THU March 20th AND MON March 24th. Mt. Martha Primary. 6 scopes needed.

The once-a-month basic public viewing nights at *The Briars* will continue on the first Friday of each month. The next nights are 7th March, and 4th April, all at 8pm. Assistants are required. New members are welcome to watch and participate if desired.

YOUR SOCIETY

Welcome to the following new Society member(s):

Jarrod Mills
Ray Ranson

Current number of members is 174.

Presidents Report

Hello All,

It has been a very trying couple of months for us. The passing of Peter Densley and David Huby is a great loss to us, they both will be sorely missed.

On a brighter note we had a very successful Solar Day & viewing night on the 8th of February. Thanks to Ian Sullivan and John Skicko for showing us through the Coronado Ha filter, this filter showed the Sun in a very different light!

We had many School nights as well as our regular public nights at the Briars. Thank you to all those whom helped. February's meeting was the first discussions on our name change, and see elsewhere in the newsletter for committee's recommendations.

The next couple of months are very busy so check the newsletter and the yearly calendar for upcoming events. Remember time to get those telescopes ready... Mars is coming! More on this at the April meeting.

If you have something to say on the ASF or have any problems in the Society please do not hesitate to see me or phone me on 0421 452 428 or e-mail me at dgirling@pen.hotkey.net.au.

Clear Skies
Dave Girling.

Society Name Change

Following the proceedings of the February general meeting, the committee has decided to conduct the matter of the name change in the following manner: -

Any member who wishes to put forward a possible new name may do so in writing or by email (dgirling@pen.hotkey.net.au) no later than 28th March.

The committee will select a short list of names for all members to vote on in the May edition of *Scorpius*.

Following this vote the committee will make a decision in the light of the result of the vote. **It is important to note that only financial members may vote.**

Larger type for Scorpius Readers

In this edition, I have increased the type size slightly (with the exception of AstroNews) to make it easier for members with less than perfect eyesight to enjoy the newsletter. This means only a slight reduction in content, but a better read! - Ed.

First Social event for the Year 2003:

'DINNER AT THE DAVA'

WHEN: Friday 21st March from 6.30 PM onwards.

WHERE: The Dava Family Hotel and Bistro, The Esplanade MT MARTHA

FAMILIES: Children welcome (Children's meals available) Playground, video machines and games for the kids...

COST: Drinks and meals are at Hotel prices (Pay as you order).

BOOKINGS: A \$10.00 booking fee is payable by the next members meeting to ensure that a seat is secured on the night. The \$10.00 fee is refundable to the members on the night. This way pre booked will definitely get in, those that just turn up on the night may not get in. Money to be paid to Doris Weigert at the meeting. Please make an effort to come and get to know other members of the Club.



Peter Densley
David Huby

Sadly, in the last weeks of February, the ASF lost two of its keenest members.

Peter Densley was a familiar sight at the Briars observing nights and daytime activities. A relative newcomer to the ASF, what he lacked in knowledge was more than matched by his enthusiasm. Peter was the winner of the free raffle at the recent Ken Bryant Scope Day, and also built tripods for our members. Sally Zetter shares her thoughts:

I only knew Peter for such a short time. He touched my heart in a special way. Peter was always friendly, enjoyed a chat and was keen to show you what he had found in his new scope.



He loved his astronomy and this showed, he would travel from his home on Philip Island to the Briars whenever the weather was clear, set up his scope and settle down for some viewing. He would stop to have a cup of coffee or two and a talk, then back to his scope for some more objects to search for.

I will miss Peter and will remember him as a "gentle giant".

Sally Zetter

He passed away suddenly at his home on Philip Island on Saturday, February 15. His funeral was held on 20th Feb. and was attended by Richard Pollard, Sally Zetter and the Cleverdon family. Peter was 41.

David Huby was well known to all that helped out on Public and School nights. Usually the first on the scene at such events (he was a paramedic after all) David was always willing to lend a hand even

when his health was deteriorating. He also helped promote the ASF with laminated business cards he produced at his own expense. He passed away on Tuesday 18th February, aged 49, after a relatively short illness and his funeral was held on Monday the 24th, with several ASF members attending. The following is the short eulogy given by Richard Pollard on behalf of the ASF:

"David was a big man, not just in the physical sense, he was also big on helping others.

This is reflected in his chosen profession as a paramedic, and also how he gave his time to help us out the ASF, particularly with our viewing nights.

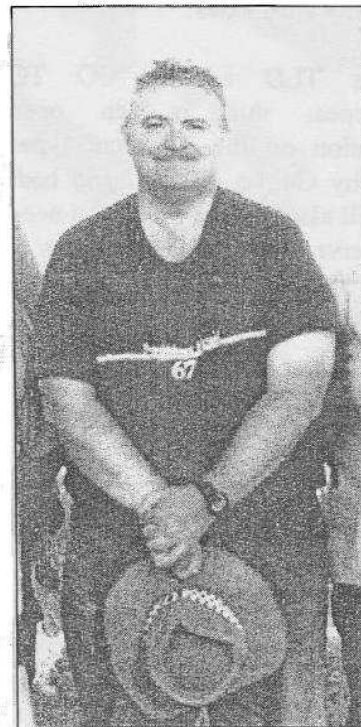
Whether it was for the general public, or for any one of the many schools in the area, you could rest assured the burgundy XF Falcon would be one of the first in the car park. Often when I arrived for such an event David would be in the process of setting up his telescope in anticipation of the night's activities. Even later, as his health was failing, David would still attend, to spend time with us, again, to help out, to share his knowledge of the skies with others or just to tell a joke, despite his obvious pain. He also helped promote the ASF by producing some laminated business cards.

One Sunday afternoon last year, David, my nephew Philip and I took to the skies for a quick flight over the Morningside Peninsula, and David shared with us his experiences as a would-be pilot with the Peninsula Aero Club in Tyabb.

"The instructor was making notes on my progress" he said, confessing he had a propensity to talk through the procedures to himself. This was duly noted in the instructor's paperwork.

"Student talks to himself excessively" was the entry, with the observation added after landing: "Student doesn't listen to his own advice."

That sunny afternoon is how I will remember him, and others in the ASF will have their own way of recalling how he touched or lives. Hopefully, we can all take just a little comfort in the knowledge that David's suffering is now at an end, his pain over, yet he will live on in the hearts and minds of his friends at the Astronomical Society of Frankston. Clear skies, David".



David was later laid to rest at the Flinders Cemetery.

T.L.D.

I thought I would give you a gentle reminder on our Telescope Learning Day's, or T.L.D.'s.

TLD's are were you can come along and learn how to use your new Telescope and the ins and outs of different Telescopes available. Our last TLD was on February 8th as part our Solar Day, where we learned how to observe the sun safely. Contrary to what some of you may have heard, you can observe the sun quite safely.

TLD was one the most successful activities of the ASF last year, being held about once a month. This year due to time constraints

Vale David Huby



Guard of honor for paramedic

THE ambulance service formed a guard of honor on Monday for the funeral of David Huby at the Rosebud Funeral Services Chapel.

Mr Huby passed away at the Maryvale Private Hospital in Morwell, last Tuesday, aged 49. The service celebrated the life of an easy-going man with "a good sense of humor." A man who was a "quiet achiever that simply did what he could without too much fuss and bother."

Mr Huby spent his early years in Yallourn and joined the ambulance service in Frankston as a cadet aged 17. He spent the next 32 years in the service and "served with distinction," as a Paramedic.

The mourners heard how Mr Huby "had achieved more in his short lifetime than most others would do in twice the time." He qualified as a light aircraft pilot, was a member of the Peninsula Astronomy Group, and an active member of Apex.

Mr Huby was "never one to seek the limelight, recognition or thanks." He served with the Angel of Mercy rescue service and played the role of Santa at various peninsula hospitals, but not many knew his name. "He was just the man from Rosebud Ambulance that does Santa. Even when life was a struggle for him he completed all but one of his planned appearances."

Mr Huby had battled with bad health for the past 18 months. He was buried at Flinders cemetery.

they are bi-monthly. So I hope you attend all this years event
Our next one is on April 12th, and like all TLD's start at 3pm and go into the night (of course). A BYO bbq is on offer and tea and coffee is supplied.

TLD's are held at our Briars Observing site, where there is plenty of room for your scope, including mains power, and hopefully clear skies!

April's TLD is on GO TO telescopes; this is an open discussion on the different types and why Go To is good and bad! We will also discuss what you need to observe Mars, the ins and outs of colour filters. Also a few hints on keeping your telescope in top condition.

I hope to see ALL of you that have a keen interest in viewing the night sky. Also if you have a new telescope and having trouble using it, come along and we'll get you going. If uncertain about weather or anything regarding TLD's, don't hesitate to contact me.

Clear Skies, Dave Girling

Past Event Summary

The **Viewing Night for Coast Action on January 10** was attended by about 15 people, who gathered under perfect skies at the Briars Visitors Centre. On hand were several members to assist and after the obligatory slide show, which included connections to the coastal theme, the guests were treated to Saturn, the Moon and other current highlights. Also on hand were a bright Iridium satellite flare and a pass by the ISS that grazed the Moon. A big thank you to all involved.

The **January meeting** was chaired by President David Girling who welcomed members and guests to the first meeting for 2003. Approximately 61 members

attended and Dave thanked all those who had helped throughout the last year with working bees, viewing nights, catering bbq's etc. Socially, March 25th has been selected for the next club dinner. Details of venue, cost and time to follow but... members will be required to pay a deposit to avoid problems of the last event when only half those who had booked attended.

Dave announced the library would now be open at 7.15pm, this would give members more time to browse. Treasurer Marty Rudd tabled the Treasurer's Report, which had not been available at the AGM.

This was adopted, and seconded by Jane McConnell.

The guest speaker was Hugh Carman who gave a very interesting insight into the world of fossils and their origins. Slides of some of Hugh's field trips showed various terrains and hard work entailed in collecting these fossils.

Hugh also presented a very impressive display of fossils collected from all parts of the world.

After the tea break the raffle was drawn and Peter Skilton gave a brief account of the Museum event with photographs, which obviously generated much interest and was a great success.

Marty Rudd followed up with an account of the eclipse from the Stuart Highway - great atmosphere and super viewing.

The video Accidents in Space was shown in the library room.

Mars - the Red Planet is going to be a spectacular event for 2003, during August in particular. At the moment Mars is approximately 339,500,000 km from Earth, but during August it will be approximately six times closer. It has been calculated that this will be the closet approach of Mars to the Earth for at least two thousand years. So this is the year, August 30th - be ready.

Bob Heale presented Sky for the month, bringing the meeting to its closure.

The meeting closed at 10.25pm.

February's meeting of the Society saw a last minute change of venue due to double booking by the school of an internal function, necessitating the meeting to be moved to Ansett Hall elsewhere in the school grounds. This prevented any second session video from being shown. The meeting was chaired by the President and saw 35 in attendance. The main session involved discussions and debates over a handful of the proposed society's new names, timeboxed to 5 minutes each. At times these were particularly lively and emotive, not too different from what longer standing members might remember from previous times over the years when name changes have been touted! The free expression of sometimes-contradictory views is healthy for a developing Society as it demonstrates the breadth of stakeholder opinions and world views (at least of the fraction that was able to make it to the meeting).

The talks given by members present were typically interactive with the audience. The costing of the change was the first point raised, and a detailed breakdown was presented by the President in response. Presentations were then given by Elizabeth Skringar, who based on her professional training objectively emphasised the importance of understanding overall Society strategy before contemplating name change (irrespective of the name). Peter Lowe then showed the results of an historical analysis he had done of Society finances, and pointed out vital financial considerations that any name change could adversely impact upon if the name was chosen for the wrong reasons. The up-shot was that a bad choice of name or strategy could raise the spectre of financial ruin for the Society. Peter Skilton then followed by explaining an objective and general process of how to

arrive at a name by a systematic analysis stepping from strategic aims in the Constitution, to foreseeable strengths, weaknesses, opportunities and threats, to current and proposed future activities performed by the Society, to categorisation into keywords, where the name is then assembled from the keywords and tested. The intention of this systematic approach is to side-step the inevitable divisions and raised passions that arise when an inevitably large number of personally derived proposed names are voted upon, possibly first boiled down by a select group of members. The outcome of the process was a broad activity-based name that raised several contrary personal views around the room. Speeches were also given by Russell Thompson and a number of other observers and social participants who passionately favoured a name more focussed locally on the Briars or on the immediate Mornington Peninsula vicinity around it. A map prepared by John Cleverdon of member distribution around Victoria showed less than half of current members lived on the Mornington Peninsula (which is south of Frankston). David Girling pointed out that wider considerations must be understood, but that he felt the Society would never have sufficient backbone to match some of the names being discussed and activities being proposed for the future, which prompted lively exchanges between members. He also presented some impressive looking logo designs (name independent) that he had had professionally drafted by a colleague at work who knew little of astronomy. Doris Weigert very reasonably challenged as to why are we bothering to change names at all – what is wrong with the existing name?

While the meeting did not achieve consensus on a proposed name, a number of issues and important opportunities for further

exploration were surfaced that can then be furthered by Committee in taking this forward objectively, and in this sense the discussion forum was particularly valuable and positive, albeit at times lively.

After breaking for a very late tea, the group reassembled to hear Bob Heale present Sky for the Night without a data projector. Meeting closed at 10:45pm.

The **Public Viewing Night on January 24** was not heavily publicised, and as a result only four people showed up. The skies were heavily polluted with smoke from the bushfires in North East Victoria and visibility was severely limited. After a quick slide show we did witness something those were there will surely remember: a bright, almost overhead pass by the ill-fated shuttle *Columbia* as it carried out its last mission

WORKING BEE

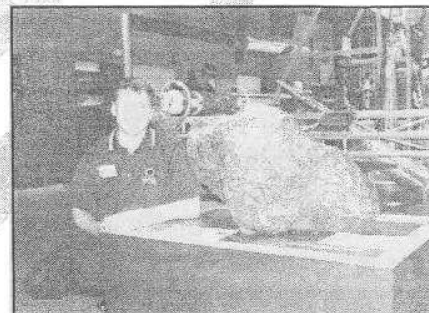
The first working bee at the Briars for 2003 was held in the wake of the loss of the Shuttle *Columbia*; as members battled hordes of flies while they completed a variety of tasks. Roger Chandler, John Cleverdon, David Girling & kids, Mark Hillen, Don Leggett, Jane McConnell, Heinz & Ilse Rummel, Jeremy Scott & daughter, Greg Walton, and Doris Weigert attended, and spent a couple of hours busily making the site look neater. Work done included weeding around and watering the trees, and hammering in home stakes; the trees are looking good now. The time capsule was removed from its hole to be stored in the caravan, while the hole was cemented over. The insides of the caravan windows were painted for security, and the top shed was cleaned out. Collimation work was also done on the Society 12-inch scope.

After this, Doris took the turn as the BBQ chef, and the workers enjoyed sausages and hamburgers.

John Cleverdon

SOCIETY SHINES AT MELBOURNE MUSEUM "SEEKING SPACE" EXHIBITION

The Museum of Victoria approached the Society to take part in an exhibition at the Melbourne Museum called "*Seeking Space*" on February 11th and 12th, together with seven other space groups and Universities. With only 7 days warning of the request, the members of the Society rallied together and pulled off an excellent display that was on show all that weekend and truly was a showstopper.



This included 4 metres wide and 2 metres high of display space, which we adorned with very colourful photographs of Society activities, phenomena observations taken by members, and achievements over several years. In addition, another 4 metres wide was taken up with our general space and astronomy posters. Furthermore, a veritable constellation and variety of our telescopes was on show, which is just as well as the other groups only managed to scratch together one small instrument between them on the two days. Furthermore, Peter Skilton's video taken from north of Woomera near Lake Koolymilka of the recent solar eclipse was played

continuously during the day as a drawcard.

The instruments we had on show ranged from various Russian-made and US-made reflectors and refractors, to member-made Dobsonians up to 23 inches diameter. Those members who attended received free passes to the museum and the Mars Exhibition that is currently on show until April. This exhibition also features a full scale replica of the Venera craft that landed on Venus last century, various missiles from Woomera, and the 1 tonne 10th fragment of the Cranbourne meteorite for anyone to touch.

Special thanks to the Skilton family for burning the midnight oil all week to get the display materials together and compose them on the day, and to them, Peter Lowe, Greg and Val Walton for bringing their telescopes and binoculars on both days that helped catch people's attention, especially Greg's velvet black leviathan "Sky Dancer". Thanks also to Simon Birch, Roger Chandler and Jane McConnell for bringing their home-made and computer-controlled instruments on the Sunday, and Greg and Simon for bringing their laptop computers with astronomy software and images on show, as well as Peter Lowe for bringing mirror blanks and materials, and Peter Skilton for giving the public a solar system lecture complete with meteorite hand-around on both days and a solar eclipse photo taken by daughter Cassandra.

Thanks also to Richard and Kay Pollard for their support and taking of digital photos, Michelle Hickman from the aurora alert group, and Marty Rudd for assembling a display book of his various colourful astrophotos over the years.

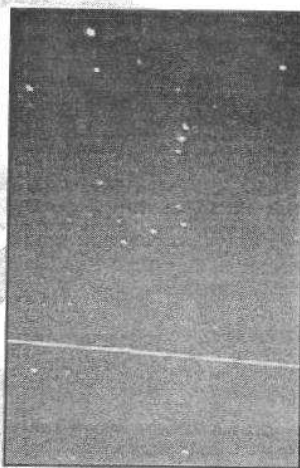
Overall we probably saw 350 people on the Saturday and 600 on the Sunday, with those with the more serious interest seeming to

come on the Sunday, where they were braver at coming up to the display area. On the Saturday about 50 or so came up to us, the rest we had to go up to them.

The Museum's InfoZone co-ordinator, Simon Hinkley, passed on his hearty best wishes as I left on Sunday afternoon. He said that he was incredibly impressed by our efforts, and felt sure there would be similar opportunities in future years, possibly out at ScienceWorks instead for a *Seeking Space 2*, or something similar.

AstroNews

STS-107: Tragedy over Texas



Like everyone, I was shocked and saddened to hear of the loss of the Shuttle Columbia over Texas about 2:00 AM

our time on Sunday, February 2nd.

We had observed the shuttle pass overhead at our Briars public night on January 24th and it was truly a spectacular sight. I had earlier that week taken a slide image of STS-107 as it passed silently through the constellation of Orion (see image). There was a distinct Melbourne connection with the mission, with the Glen Waverley Secondary College's 'Spiders in Space' experiment on board.

The media has covered the tragedy in detail, so I will not attempt to cover old ground here. The latest news almost confirms the skin of the left wing was breached and that led to a total structural failure, and it was most likely

caused by the impact of one or more pieces of insulation at launch.

Peter Skilton writes:

"For those that decided to watch the video at January's meeting, entitled "Accidents in Space" and which looked at all the fatalities that had occurred to date and why they had occurred (including those from the Soviet Union that were not published in the media at the time), every space shuttle launch carries a recognised 1 in 60 probability of ending in catastrophic disaster, as occurred to Columbia. It is an incredibly sophisticated machine, and complexity tends to bring vulnerability especially if budgetary needs are balanced against safety needs.

I'm not sure how many shuttle launches have occurred since the Challenger disaster, but 1 in 60 now feels a very realistic estimate in retrospect.

Just imagine for a moment if you were to hop in your car to go to work or the shops just once each a day, there was a chance that on average you'd only do this for 2 months before being killed. Alternatively, keep rolling two dice indefinitely - you're allowed to roll only one double six, then the second double six will be fatal.

It takes a special breed indeed to take those sort of risks in their job.

As I discovered for myself about the true final moments of the Challenger some years ago now through astronaut contacts at that time at the Johnson Space Centre, the information that NASA releases to the public is not always complete as it is felt that the entire truth can be too shocking to release. This is not conspiracy theory, just contingency planning to curb negative impacts on public perception and image, and avoid mass hysteria. Therefore in the days and weeks ahead, please take everything you read or hear about Columbia with a grain of critical appraisal.

The cause will be found, fingers will be pointed, and the procedures tightened based on the learnings so as to prevent a reoccurrence of the particular problem, but you can guarantee the next group of astronauts will be just as eager to take the risks

for the experience of zero G and to push the boundaries."

At the time of compiling this edition, it was revealed that engineers at NASA had expressed concern among themselves about possible damage to the shuttles left wing. Here's the latest from Space.com:

HOUSTON -- Internal e-mails released by NASA Wednesday 26th February show that engineers and flight controllers responsible for the shuttle's landing gear continued discussing how they might deal with potential life-threatening scenarios aboard Columbia until just a few hours before the vehicle and crew were lost on Feb. 1.

Their concern centred on what they might recommend to the Flight Director in a time-critical situation if they started seeing certain sensor indications during Columbia's re-entry and had to choose between making an attempt to touchdown with damaged landing gear or ordering the crew to bail out over the Atlantic Ocean. The discussions were prompted by the analysis of potential heat protection tile damage on Columbia's left wing caused by a falling piece of foam insulation from the external tank, which occurred about 81 seconds after the shuttle's Jan. 16 launch.

Although mission managers agreed that any damage was not life threatening, engineers responsible for the shuttle's tires, brakes and landing gear at NASA's Johnson Space Center (JSC) here and Langley Research Center in Hampton, Va., decided to review their options based on the approach of "what if this analysis is wrong."

"They were doing this on a purely, what if, devil's advocate type scenario, which they discount in their e-mail as being implausible and something they did not expect to see happen," said NASA spokesman James Hartsfield.

During the next few days the e-mails flew back and forth among the engineers, some writing more colourfully than others, in describing what they thought might happen if the tile damage analysis was wrong and how they might have to end the shuttle mission.

In one case, Kevin McCluney, a mechanical engineer at JSC, displays a keen understanding of his systems in describing what might happen if hot gas from re-entry were to somehow get inside the left-hand wheel well and begin causing sensors to fail -- laying

out a scenario that is nearly identical to what actually happened.

"What does the alert (flight controller) do in the event such a signature as described above? There are only a limited number of choices," McCluney wrote. Those choices ranged from doing nothing, to attempting a landing or bailing out.

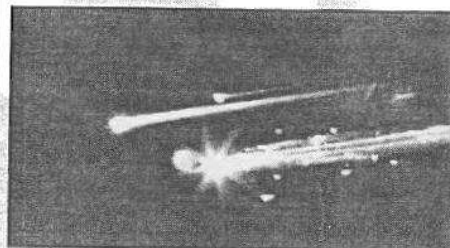
In another e-mail, flight controller Jeffrey Kling wrote what is the most haunting phrase found within the package of communications when he described what he thought would be his team's recommendation if they started to see some of the sensor indications described.

The choice "is going to be to set up for a bailout (assuming the wing doesn't burn off before we can get the crew out)," Kling wrote adding parentheses to his off-the-cuff, but prophetic, comment. Despite such dramatic talk none of the people writing in their e-mails openly or directly disagreed with the tile debris analysis.

"Serious scenarios are discussed a lot in Mission Control, in a what if-ing sense, that can occur. If the flight controllers involved had concerns, they would have elevated them. They did not have concerns that needed to be elevated, that was their conclusions," Hartsfield said.

The e-mails also provide some insight into NASA's decision not to seek the help from Department of Defence in taking pictures of Columbia's belly while it was still in orbit.

There have been rumours that the DOD was asked to take satellite pictures of Columbia, and as it turned out that request was made, but it came informally between shuttle and military managers at Kennedy Space Centre and Patrick Air Force Base in Florida.



Before any pictures were taken by the military, the formal process set up for such requests put a stop to it because NASA officials by then had concluded the images wouldn't show anything, and the tile damage assessment was such that there were no concerns.

The e-mails were, in effect, an apology from NASA to the Air Force and an assurance that in the future such requests would only be made, and should only be accepted, through the formal process set up between the two governmental agencies.

Pioneer 10 Spacecraft Falls Silent

LOS ANGELES (AP) -- Pioneer 10, the first spacecraft to venture out of the solar system, has fallen silent after travelling billions of miles from Earth on a mission that has lasted nearly 31 years, NASA said Tuesday 25 February.

What was apparently the spacecraft's last signal was received Jan. 22 by the Jet Propulsion Laboratory's Deep Space Network. At the time, Pioneer 10 was 7.6 billion miles from Earth; the signal, travelling at the speed of light, took 11 hours and 20 minutes to arrive.

The signal and the two previous signals were very faint. The Deep Space Network heard nothing from Pioneer 10 during a final attempt at contact on Feb. 7. No more attempts are planned.

Pioneer 10 was launched March 2, 1972, on a 21-month mission. It became the first spacecraft to pass through the asteroid belt and the first to obtain close-up images of Jupiter. In 1983, it became the first manmade object to leave the solar system when it passed the orbit of distant Pluto.

For plans and instructions to build a 60cm paper model of Pioneer 10, have a look at:

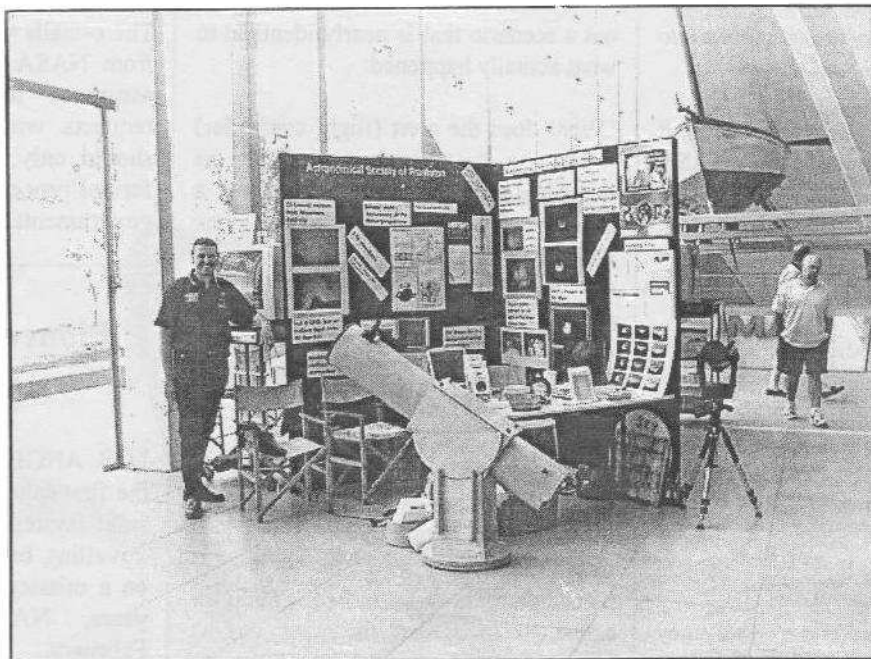
<http://quest.arc.nasa.gov/sso/cool/pioneer10/education/paper/index.html>

If you have something you'd like published in Scorpius, simply e-mail it to me, either in a document file or as part of an email to:

alphacent@iprimus.com.au

or, post it to 9 Genista Rd, Cranbourne 3977.

Thanks,
Richard Pollard (Editor)



ASF Display at the Seeking Space Expo at the Melbourne Museum.



ASF at Seeking Space
Exhibition 11th to 12th
January 2003

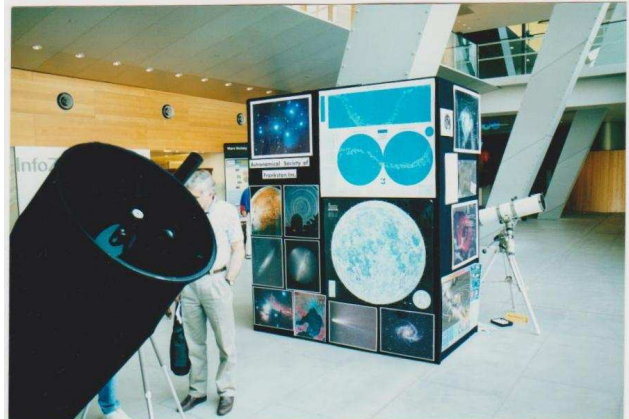
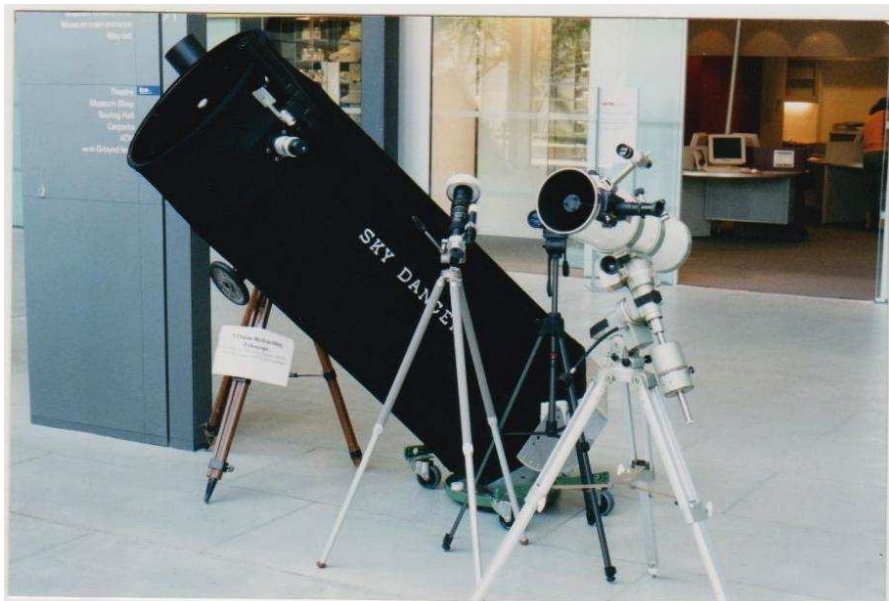
All Photos - *By Peter Skilton*



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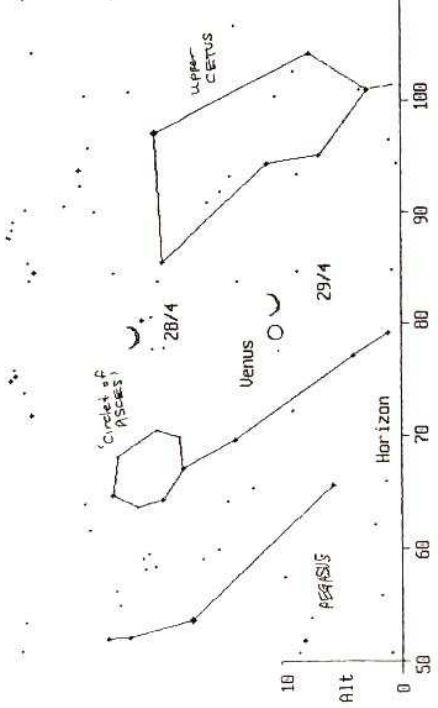
ASF at Seeking Space Exhibition 11th to 12th January 2003

All Photos - *By Peter Skilton*

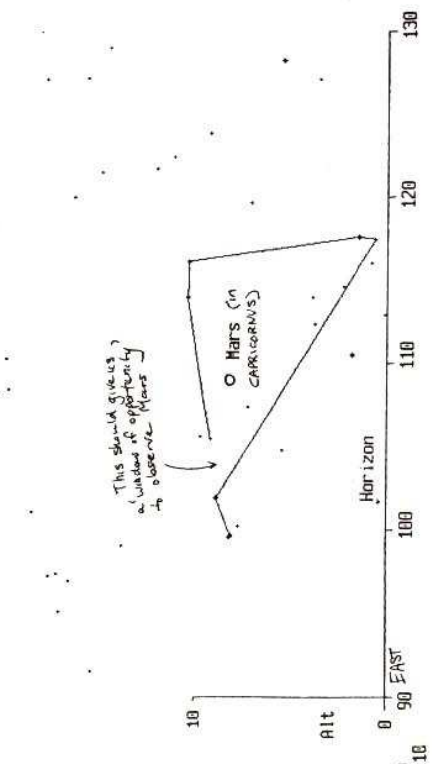


SKY FOR THE MONTH 16 APRIL TO 20 MAY 2003 MORNINGTON PENINSULA

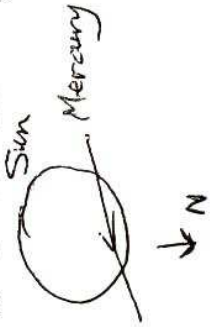
5 25 am Near East Dark Sky 29th April 2003 Standard Time
 U1.00 (c) Bob Heale 13/1/03
 All objects no fainter than 5.4 I X Sky View



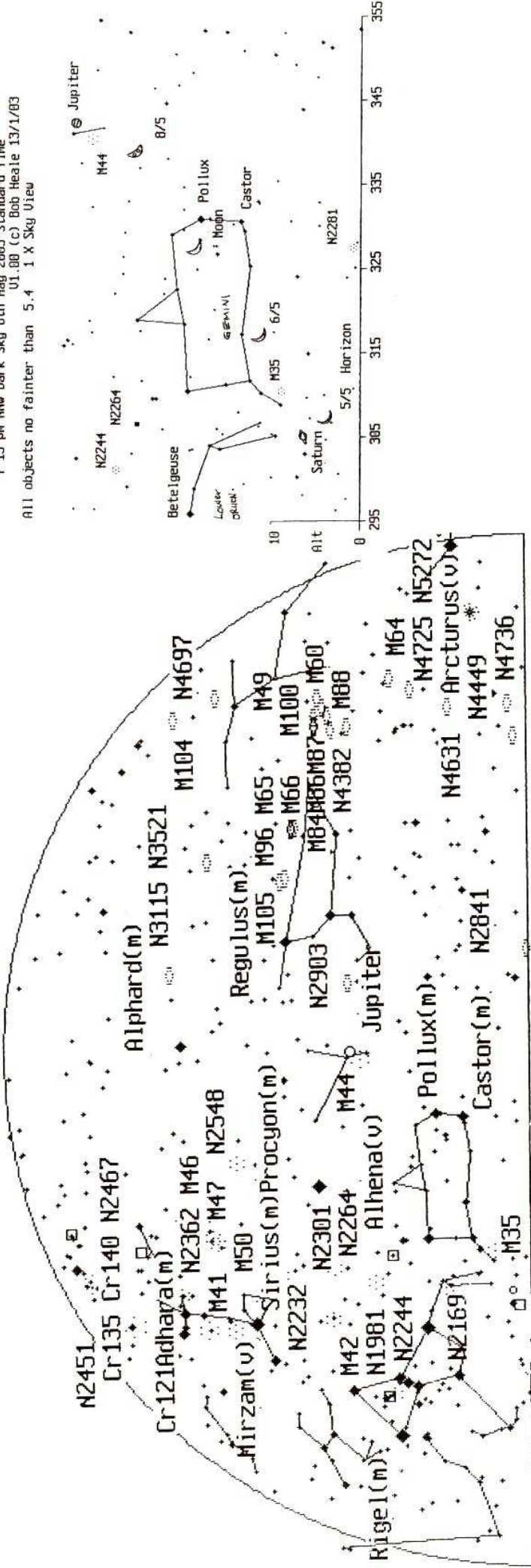
11 50 pm Near East Dark Sky 4th May 2003 Standard Time
 U1.00 (c) Bob Heale 13/1/03
 All objects no fainter than 5.5 I X Sky View



Don't forget May 7
 from 3 14pm onwards
 Mercury moves across the
 of Sun, without aid the
 View is higher east to lower
 west, in Sun's lower region



7 15 pm MNW Dark Sky 6th May 2003 Standard Time
 U1.00 (c) Bob Heale 13/1/03
 All objects no fainter than 5.4 I X Sky View



Bob Heale ASF
 16/4/2003

7 45 pm 3rd May MNW Night Sky 2003 Standard Time
 Also 8 45pm 19th April and 6 45pm 17 May Standard Times

