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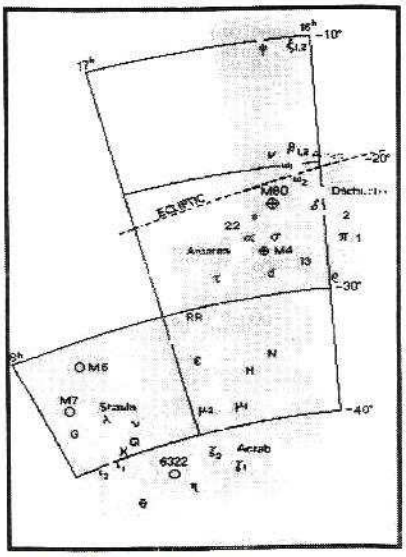
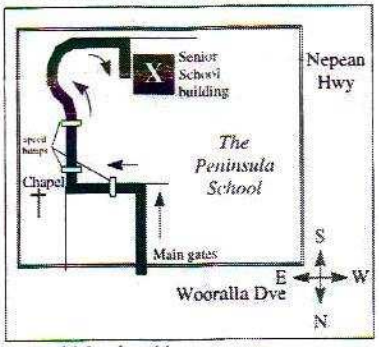


The Astronomical Society of Frankston was founded in 1969 with the aim of fostering the study of Astronomy by amateurs and promoting the hobby of amateur Astronomy to the general public. The Society holds a General Meeting each month for the exchange of ideas and information. Regular observing nights, 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

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 21 May 2003 at Peninsula School.
Session 1: Guest Speaker: Tanya Hill on Black Holes.
Session 2: Video on Catastrophe - The Day the Sun Went Out.
Session 3: Open Forum and Sky for the Month.

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!

May 3rd/4th and 24st/25th, June 7th/8th , 21st/22nd and 28th/29th, all at The Briars, Nepean Hwy, Mt. Martha.

New attendees must always confirm with **David Girling** on 5975-6506 or 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.

MON 5th. May. Langwarrin Park Primary School. Northgate Way, Langwarrin. **Over 100 children expected.**
At least seven scopes needed.

WED 11th. June. CAMP

MANYUNG. Caulfield South Primary School. 90-100 5th.& 6th. graders.
At least seven 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.

Welcome to the following new Society member(s):

Tony Wolfe
Constance Ramsdell & Graham Hunt
Steven Garcia
Paul, Jackie, Sarah & Jack Taylor

Current number of members is 162.

Last Call for Swinburne's 'Astrotour'

To all Members!

We still have 20 places to fill for Swinburne's 'Astrotour' It is on Friday May 23rd and starts at 6:30 pm. Members will have to make their own way as it is too early in the evening to hire buses. It will be well worth while going to see this 3 dimensional virtual space presentation if you are really interested in studying the night sky. As we are an amateur astronomy group they have promised a much longer viewing than is shown to the general public plus information to anyone who has questions, so come along and you will not be disappointed. The cost is $10-00 per head which will be collected at the next general meeting in May. **Melways ref. Map 45 E 10.**

Messier Night

Have you ever wanted an opportunity to observe as many Messier objects as you can on the one night? Well, now you can, with the ASF's *Messier Night*, on Saturday 31 May.

This night will be held at the Society's Briars Site (Melways 151 E1), and will run from dusk until dawn. Maps will be available for members making their first visit to the site (on the Internet at: http://www.cdi.com.au/~johnc/ASF_Briars.pdf, or printouts available at the May meeting).

A list of Messier objects will be available on the Internet at: http://www.cdi.com.au/~johnc/asfactiv.htm or will be provided for those without access to the Net. There will be around 85 Messier objects on this list to work through. These objects will be sorted by their set time.
Not all 110 Messier objects will be visible on this night, due to the geographic location, and the time of year.

All types of telescopes can be used; whether using computer-controlled, setting-circles, star-hopping, or whatever. All you need to do is observe the objects, and tick them off as you see them.

Tea and coffee will be available throughout the night at the site to keep you going. A certificate will be given to the member who sees the most Messier objects on this night.

John Cleverdon

Activities Report

The public viewing night at The Briars on March 7th saw 25 overall in attendance under mostly overcast skies. The slide show was given by Richard Pollard. Thanks again in the field to John Cleverdon, Don Leggett, Sally Zetter and others who ventured out on a less than ideal evening.

Fifty-five boys and teachers from Camberwell Grammar were visited at Camp Manyung on March 11th. The talk and Q&A session was given by Peter Skilton, who fielded many probing questions (particularly around black holes again). The assembly then moved outside under beautifully clear skies under a first quarter moon to see the sights on offer, including Saturn. Comet NEAT was in the sky, but due to its low altitude and local tree line, observation of it by the pupils was not possible.
Thanks in the field with telescopes to Don Leggett, Simon Birch, Ian Sullivan and Greg and Val Walton.

Friends of Braeside Park was visited again on March 14th after an absence of several years. Peter Skilton gave the talk to a full house of 60 of all ages (and one fruit bat) on a warm evening, and fielded lots of wide-ranging questions with almost total cloud cover outside. Towards the end of the talk, a hole opened in the cloud, enabling some to see Saturn through the assembled telescopes. Thanks in the field with instruments to John Cleverdon, Don Leggett, Simon Birch, Val and Greg Walton.

A viewing night was held for Mt.Martha Primary school on March 20th. The talk was given by Don Leggett. Unfortunately rain and cloud cover prevented the 80 Year 6 pupils and teachers from viewing through the assembled telescopes from John Cleverdon and others. Another viewing night for Mt.Martha Primary year on March 24th had more luck, with perfectly clear skies and reasonably mild conditions. Don Leggett once again gave the talk, then the group moved outside to the various large and computer controlled instruments set up on the basketball court. Thanks in the field to Roland Knabe, Bob Heale, Alex

Dickson, Greg and Val Walton, John Cleverdon and Peter Skilton. Several satellites were tracked across the sky, and a few sporadic meteors were seen. Magnificent views were had of Jupiter, Saturn and the coma of comet NEAT (now without a discernable tail), together with a few planetary nebulae and other deep sky objects on show in the moonless sky.

The public viewing night on April 4th at The Briars was attended by 30 on a cool, dark evening with very clear conditions. The talk was given by Peter Skilton and saw a few members of the public present who had extremely good knowledge of astronomy. Thanks in the field with telescopes to Greg Walton, Don Leggett, Jane McConnell, Sally Zetter, Bob Heale, Roger Chandler, Simon Birch, John Cleverdon, David Girling and Peter Lowe.

Aprils Working(?) Bee

Sunday, 4th April at our Briars observation site was, well, as good as it gets. Warm sun, faint breezes and plenty of time to enjoy the food and the company. Thank you to those who came along to lend a hand.

Roger rearranged the plumbing in the observatory shed. We now have a tap up the wall, convenient to reach and/or place a basin beneath; and an outside extension where the hose can be attached, as required. (The outside tap is secure, as the control valve remains locked inside the shed.) Richard and Jeremy offered their advice and assistance while Lucy (who had ridden the motorbike down with her Dad) trotted between, carrying messages. John was a bit of a hero with the grass under the caravan. As I had forgotten my whipper-snipper, he dug it all out instead and now the area is as clear as can be. He dealt with the small dead wattle and some of the plastic growth-shields as well. Richard headed out with the pruning shears and trimmed the more mature growth, to its advantage. We enjoyed hamburgers and snags, and lazed in the sunshine talking telescopes. Doesn't get much
nicer. Thanks to all of you for coming along.
Jane.

The general meeting for March saw 45 in attendance on a mild evening, and was chaired by the President. Due to the absence of a speaker, a short video was shown up front on Hubble in the main theatrette, before drawing the raffle and breaking for an informal social chat before tea. The planned video could not be shown as it had disappeared unexpectedly from the Library. Following a longer tea break, where Jakub Bukovsky had some books, leaflets and skymaps on show from his recent trip to Prague, the group reassembled to hear Bob Heale give Sky for the Month and an endorsement of GOTO telescopes. John Cleverdon then followed with a presentation on sky mapping software, and Ian Sullivan presented his eclipse photos from Ceduna to inspiring classical music. There was no parallel session run as advertised. Meeting closed 10:40pm.

April's meeting was chaired by the President and saw 47 in attendance on a clear night. Ian Sullivan gave a rundown on the May 7th transit of Mercury across the face of the Sun, explaining why transits are more likely in November than in May, and that this transit will be an excellent trial run for observing the equivalent transit of Venus next year. The main presentation then followed as a collaborative effort between David Girling and Jason Zetter, and featured a multimedia presentation on how to enjoy observing Mars, for example through different colour filters, including many images from the Association of Lunar and Planetary Observers. In late August this year, Mars will approach the Earth closer than it has in the last 59,000 years, meaning that it will be closer, bigger and brighter to observe from Earth than anytime in recorded history. Mars will be positioned in the constellation of Aquarius at this opposition. Following the show, the group adjourned for tea, before reconvening in one of two sessions. One session was a video on The Sun in the library room, and the other heard Bob Heale present sky for the month, accompanied by his customary hand-out sheet. The meeting was not video taped, and closed early at 9:40pm.

AstroNews

SARS Possibly from Space, Scientists Tell Tabloid

Cardiff University researcher Chandra Wickramasinghe told the British tabloid newspaper The Sun that the deadly disease SARS, or severe acute respiratory syndrome, might have come from outer space.

Wickramasinghe and his long-time collaborator, the late Sir Fred Hoyle, have for decades said the flu and other bugs rain down from above and could be responsible for outbreaks. The researchers have never provided any evidence that convinces mainstream scientists, however. The SARS claim fits within a broader theory called panspermia, which holds that life itself did not originate on Earth but was delivered here, perhaps inside a comet. While panspermia was

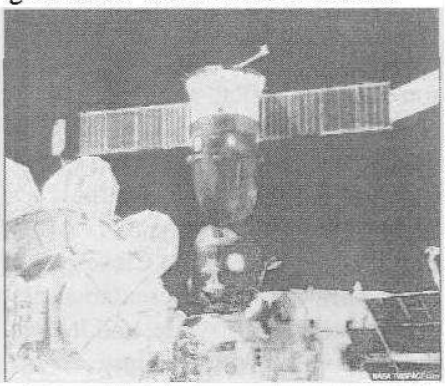
once scoffed at, most scientists have given it much more consideration in recent years. Still, most experts say, it is not a logical leap to assume that any disease comes from space.
Wickramasinghe has in the past claimed finding extraterrestrial microbes high in Earth's atmosphere, via balloon experiments. Other scientists say those bugs are probably of terrestrial origin.

In the new SARS claim, Wickramasinghe is joined by Milton Wainwright of Sheffield University, who said the novel nature of the virus and the fact it was first detected in China point to the possibility of ET origins. The virus causing the disease might have arrived protected inside a comet, hung out in Earth's upper atmosphere for a while, then been dragged down by the high peaks of the Himalayas, according to the article. **(Space.com)**

NEW CREW FOR ISS

MOSCOW (AP) -- American astronaut Edward Lu and Russian cosmonaut Yuri Malenchenko greeted the three-man crew on the International Space Station with hugs on Monday 28th April after the Soyuz TMA-2 capsule carrying the U.S.-Russian duo successfully docked with the station.
After the docking took place 250 miles above Russian territory, the crew already aboard the space station opened the hatch and Lu and Malenchenko poured in through the narrow opening.
Lu and Malenchenko are replacing the trio of U.S. astronauts Kenneth Bowersox and Donald Pettit and Russian cosmonaut Nikolai Budarin, who were stuck on the station after the Columbia Shuttle disaster Feb. 1.

The Russian Soyuz became the only ship capable of carrying crews to and from the space outpost, giving it a vital role in keeping the station manned. The Soyuz trip was put together in record time.
Frederick Gregory, deputy administrator of NASA, called Monday's manoeuvre a 'beautiful docking.'
"The International Space Station partnership has been tested by a great challenge. The partnership has risen to the challenge and demonstrated that we are able to overcome any obstacle on this road to the future," Gregory said.
Maintaining a manned presence on the space station and keeping it in good condition is vital until shuttle flights resume, at which point work on building and developing the station can continue, Gregory said.
The U.S.-Russian space team gave a thumbs up in a videolink established shortly after the new crew entered the station. "We're very, very proud today at the work of our international team," Bowersox said. Asked how he felt to be back on the international space station, Malenchenko said: ``It has become so big and beautiful ... We are very glad to be here, very glad to see our friends. Thanks to



Soyuz TMA2 docks with ISS

everyone for the opportunities given to us."
Back on Earth, Lu's mother, Snowlily, was on hand for the docking at Mission Control outside Moscow. ``I am just so happy and proud to see everything work out so well," she said. Snowlily Lu, the astronaut's brother, Rick, and his fiancee, Christine Romero, stood and leaned forward while watching the screen during the docking. They applauded and cheered when the vessels made a connection.
Downstairs from the observation area, flight controllers also applauded. "This is amazing ... It gives me a lot of relief to see that they're up there," Romero said. "Everyone is proud not just for what Ed is doing, but for NASA and the international space station and for the space program as a whole, especially after the Columbia." Snowlily Lu said that space officials were setting up equipment for her to communicate with Edward from her home. ``The first thing I'll say is congratulations. You've done a great job," she told reporters.

The Russian spacecraft had blasted off Saturday morning from Russia's Baikonur cosmodrome in the steppes of Kazakhstan on its way to the $60 billion international space station. Shortly after Monday's automated docking, the Russian spacecraft began the process of sealing to the space station. After 90 minutes of checks for any leaks, the hatch was opened and the crews greeted one another. Lu and Malenchenko were bringing gifts to celebrate the birthdays of Pettit, who turned 48 on April 20, and Budarin who turns 50 on Tuesday, Russia's ITAR-Tass news agency reported. But there won't be much time to celebrate: the crews have a lot of information to exchange. The trio currently on the international space station must give the newcomers a tour and explain safety procedures. The American and Russian duo were to give Bowersox, Pettit and Budarin a refresher course on how to operate the Soyuz capsule, which they will use to return to Earth on May 3.
The three returning crew members will be taking back an older Soyuz already docked to the station, while the one carrying Lu and Malenchenko will stay up there with them as an ``emergency lifeboat" in case they need to quickly evacuate.
The trio's return on the Soyuz will mark the first time that U.S. astronauts have come home on a

Russian space vessel. Originally they had planned to return on a U.S. shuttle but the Columbia disaster forced the grounding of the U.S. fleet. Lu and Malenchenko are scheduled to remain onboard until October. **(Associated Press)**

BeppoSAX Satellite Falls Harmlessly Into Ocean

Everything that goes up must come down, including a 3,086-pound Dutch-Italian satellite that splashed into the Pacific Ocean seven years after being sent into space.

The BeppoSAX satellite re-entered the Earth's atmosphere around 5:57 p.m. EDT Tuesday, mission member Giovanni Mussoni said by phone from Rome.

It fell in the equatorial Pacific with the debris closest to land splashing down about 186 miles northwest of the Galapagos Islands.

"The important thing is it fell in the Pacific," Mussoni said.

The Agenzia Spaziale Italiana initially put 39 countries on notice that portions of BeppoSAX could come down on their territory.

But the odds were always greatest that the fragments would splash harmlessly into the ocean, said William Ailor, director of The Aerospace Corp.'s Center for Orbital and Reentry Debris Studies in El Segundo. The Italian space agency estimated that as much as 1,325 pounds of the satellite would survive the fiery passage through the atmosphere and rain down on Earth. Those fragments were expected to include chunks of stainless steel and titanium weighing as much as 220 pounds.

BeppoSAX's end came nearly seven years to the day after its April 30, 1996, launch. The Earth-orbiting, X-ray observatory is best known for its discovery of 50 gamma-ray bursts, explosions more powerful than anything known since the Big Bang.

The satellite was switched off April 30, 2002.

As many as 100 basketball-size and larger human-made objects fall to Earth each year. Only one person is known to have ever been struck by orbital debris -- an Oklahoma woman who was not injured, Ailor said **(Associated Press)**

Shuttle Columbia Investigators Close to Best Theory

Columbia accident investigators said Tuesday they are close to zeroing in on where a hole opened up in the spaceship's left wing and strongly suspect the fatal blow was caused by a chunk of flyaway foam at liftoff.

NASA Adminisator Sean O'Keefe with Columbia's nose wheel.

"I feel that we're probably within 30 inches of where the actual breach occurred," said Roger Tetrault, a member of the Columbia Accident Investigation Board. "We're closing in." A fragment of a panel or seal along the vulnerable leading edge of Columbia's left wing is almost certainly what was missing when Columbia descended through the atmosphere three months ago this week, the board said. This missing mystery object floated away two days into the doomed flight, unnoticed by the crew or ground controllers.

Tetrault said he and colleagues have narrowed down the location of the deadly breach to either the lower half of a reinforced-carbon panel or a section of one of the carbon seals on either side, just a little more inboard than previously thought. All the data and debris seem to support this position on the underside of the wing, and further analysis should pinpoint it further, he said. The top portion of the panel in question -- and possibly part of the two seals as well -- have been found and show extreme heat damage. In addition, X-rays have uncovered small drops of molten metal sprayed uniformly on the back of the same panel fragment, making this a likely area for the breach, Tetrault said. The sequence of failing sensors and burning wires during Columbia's descent also points to this area.

The gap created by the broken panel or seal let in the scorching gases of atmospheric re-entry and led to the shuttle's breakup over Texas on February 1. All seven astronauts were killed.

"My hope is that we'll be able to get to the bottom of this and be able to say, with some precision, where the hole is and what size the hole is," said Tetrault, a retired corporate executive who worked with nuclear submarines.

Tetrault said the hole was at least 100 square inches, and "the weight of the evidence right now is fairly solid" it was created by a suitcase-size piece of foam insulation that ripped off Columbia's fuel tank shortly after liftoff in January. It's "highly likely" that the foam, the mystery object on flight day two and the catastrophe are all related, he said. "If things keep progressing the way they are, I think you'll be able to say that it would be highly unlikely not to be" the foam, he added. "But I don't think there's anybody on the board who's ready to jump and say at this particular

point that it is certain that the foam created the breach."

The chairman of the board, retired Navy Adm. Harold Gehman Jr., said he hopes to have a working hypothesis in the next one or two weeks, based on "mountains of data and mountains of debris."
Nearly 40 percent of Columbia has been found -- 78,000 pieces in all -- and the intensive search in Texas is wrapping up.
While much of the focus in recent weeks and months has focused on temperature, pressure and strain measurements collected during Columbia's final minutes, the board has just initiated an inquiry into similar data gathered during launch. Many of these readings come from an onboard recorder that was found on a muddy hillside 1 1/2 months after the disaster.

Gehman said none of the launch data "leaps out at you as being startling" but noted that some readings show "little squiggles" in pressure, strain and temperature variations that require more scrutiny. "It's really premature to speculate if there's anything there," Gehman said. "We really are doing this from the point of view of not missing anything, rather than we smell a rat."

Also still hanging is a series of foam impact tests at Southwest Research Institute in San Antonio. The tests will begin this week with shuttle thermal tiles and lead up to the most critical targets -- real shuttle wing panels and seals -- in June. Chunks of foam will be hurled at these objects around 450 mph, the speed at which the launch debris is believed to have struck the edge of Columbia's left wing.
(Associated Press)

Private Spaceship Unveiled – Inspired by $10M X-Prize Space Race

St. Louis, MO (Tuesday, April 22, 2003) - The X PRIZE took another step into the history books this past weekend when famed aircraft designer Burt Rutan unveiled his future manned spacecraft, a space-faring vehicle called SpaceShipOne. At a media event in Mojave, California on Friday, April 18, more than 300 guests witnessed what Rutan has labelled the "world's first private space program."
Burt Rutan was the first person to register for the X PRIZE, shortly after its formation in May 1996.
The X PRIZE was our main inspiration for building SpaceShipOne," stated Rutan. "Our goal is to be the first private spaceship to fly private astronauts to 100KM. I hope our progress will inspire others to follow in our footsteps."

"We're going to space because that's where the view is," continued Rutan. "This event is not about dreams, predictions or mockups. We are showing actual flight hardware: an aircraft for high-altitude airborne launch, a flight-ready manned spaceship, a new, ground-tested rocket propulsion system and much more. This is not just the development of another research aircraft, but a complete manned space program with all its support elements."

Rutan is one of 24 competitors in the X PRIZE competition, a $10 million purse to be awarded to the first person or team to fly a privately-funded suborbital spaceship 100km (62 miles) to the edge of space, return safely, and then fly again within two weeks. The spaceships must be capable of carrying three individuals - to further the mission of the X PRIZE: private space travel. Burt is a legend in the aircraft business, known principally for designing and flying the Voyager, which today hangs in the National Air and Space Museum in Washington, DC. Voyager was the first plane to fly around the world without refuelling.

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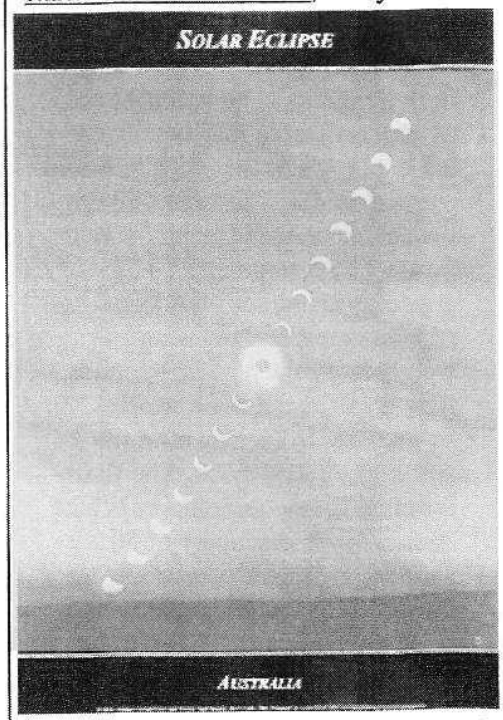
ASF Marketplace

SOLAR ECLIPSE POSTER!

The society has an opportunity to obtain a number of excellent unlaminated posters of the Australian solar eclipse from December last year in South Australia, as photographed as a sequence by Melbourne-based photographer Logan Shield from the Outback. The posters are sized 24 inches x 36 inches and are printed on 170gsm gloss varnished paper. As someone who was stationed at Koolymilka north of Woomera, I can vouch they look precisely like the authentic event, with a dark bluish sky (due to the Moon's shadow not being wide enough to cover horizon to horizon) over an orange-red outback horizon. They retail for $20, but as a special offer to members, they are available for $12 if ordered by the May general meeting. You can place orders for the posters with Peter Skilton by email at starman@acslink.net.au, or by phone to 0414 645 077.



ASF Photos from the past

This photo shows an ASF member looking through the 4 inch refractor fitted with the 60 mm Coranado hydrogen alpha filter owned by ASV and brought by John Skicko. current Director of ASV Solar Section (at left) at the ASF Solar Day on Feb 8. This followed the observation of sundial noon with a shadow stick organized by Ian Sullivan. The viewer with his head concealed is, none other than, President David Girling.

Left - ASF society dinner at the Dava Hotel on the 21st March 2003

Photo - *By John Cleverdon*

Bottom Left - Working Bee at the ASF Briars site on the 6th April 2003

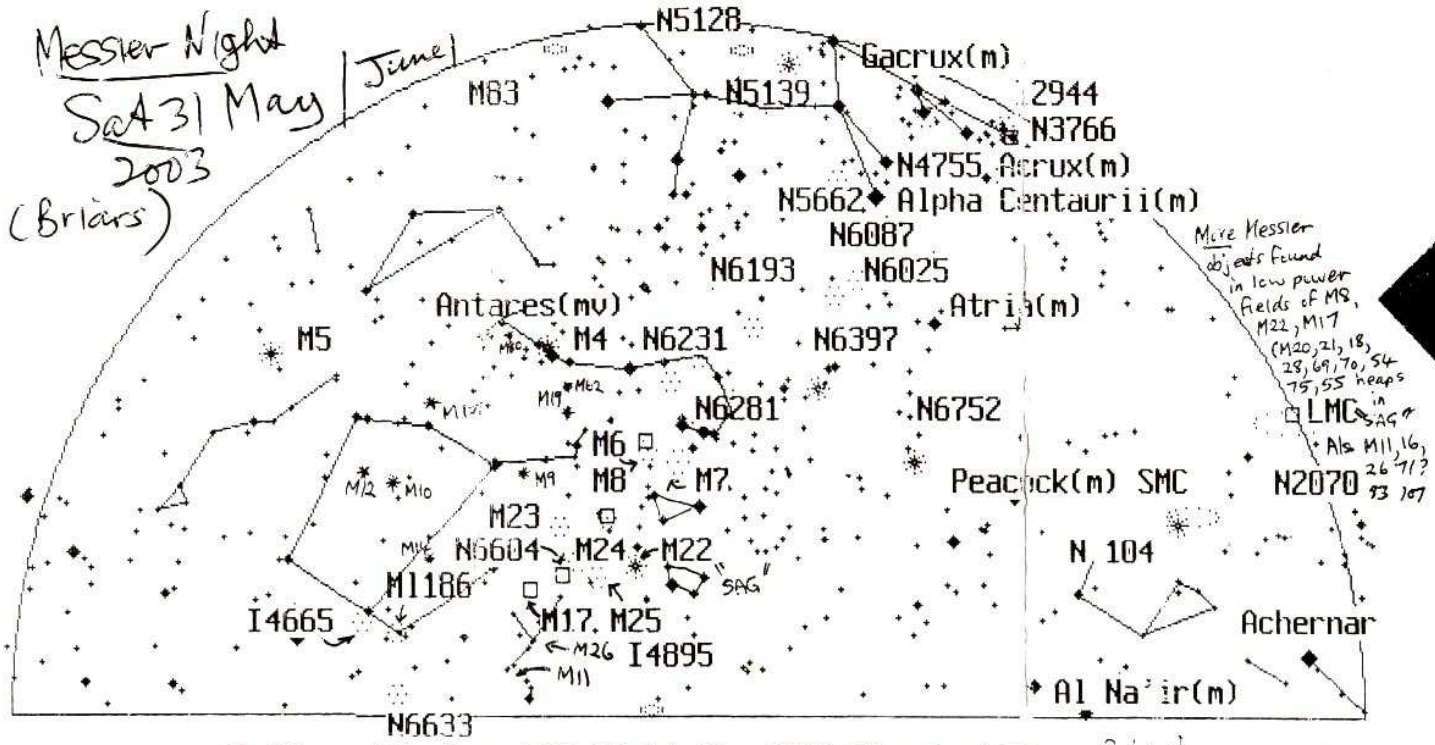
Photo - *By John Cleverdon*

Bottom Right - Telescope Learning Day at the ASF Briars site on the 12th April 2003

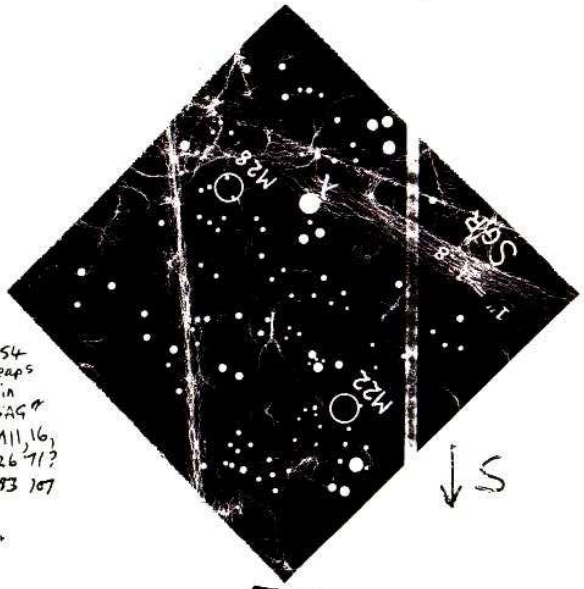
Photo - *By John Cleverdon*

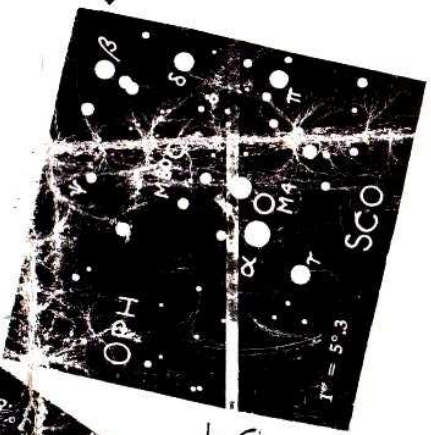
Kindly reproduced by Jane McConnell and collated/posted by Mary Westaway

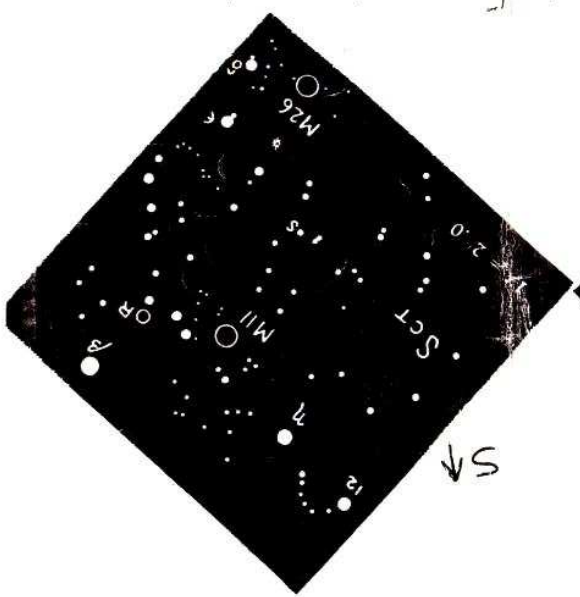
Messier Night
Sat 31 May | June
2003
(Briars)

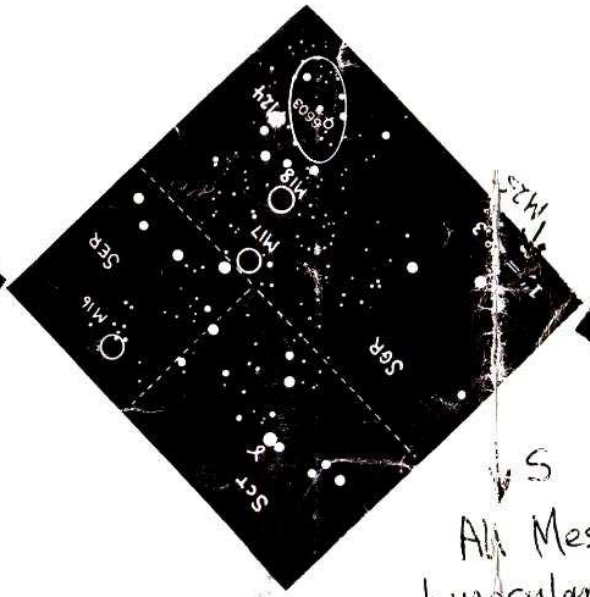


8 30 pm 4th June ESE Night Sky 2003 Standard Time Bobay!
Also 9 30pm 21 May 7 30pm 18 June Standard Times







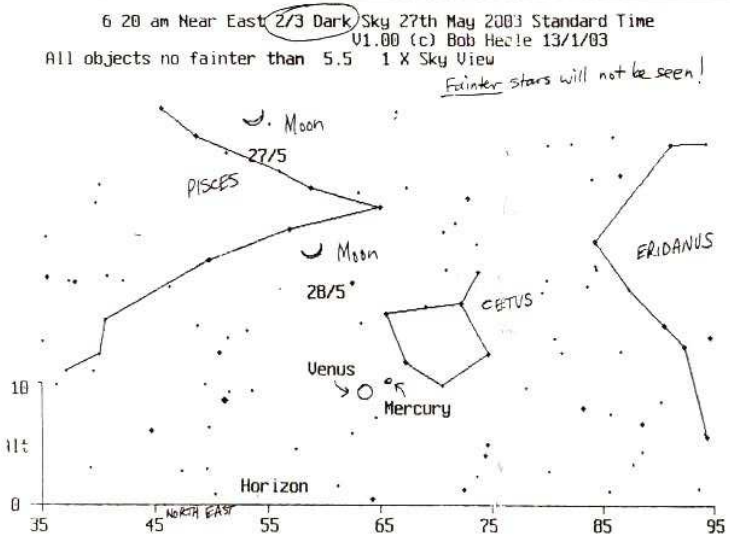


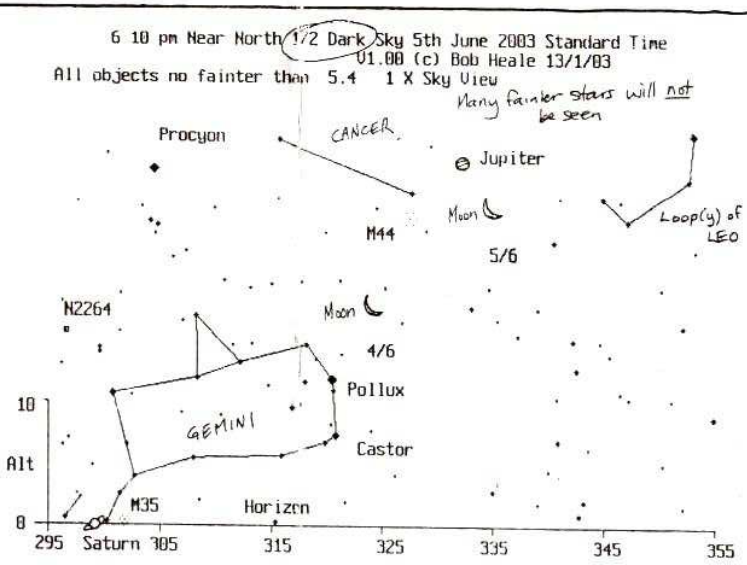
All Messier binocular finder orientations

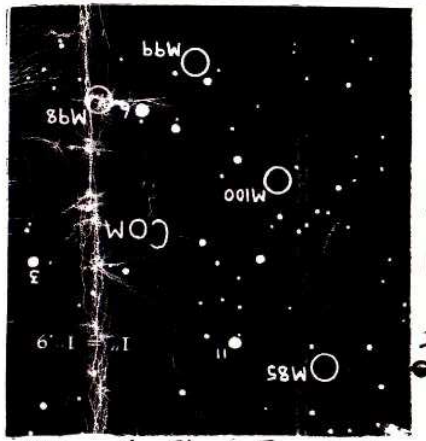
Bob Healis, ASF
20/5/'03

Mornington Peninsula Astronomical Society

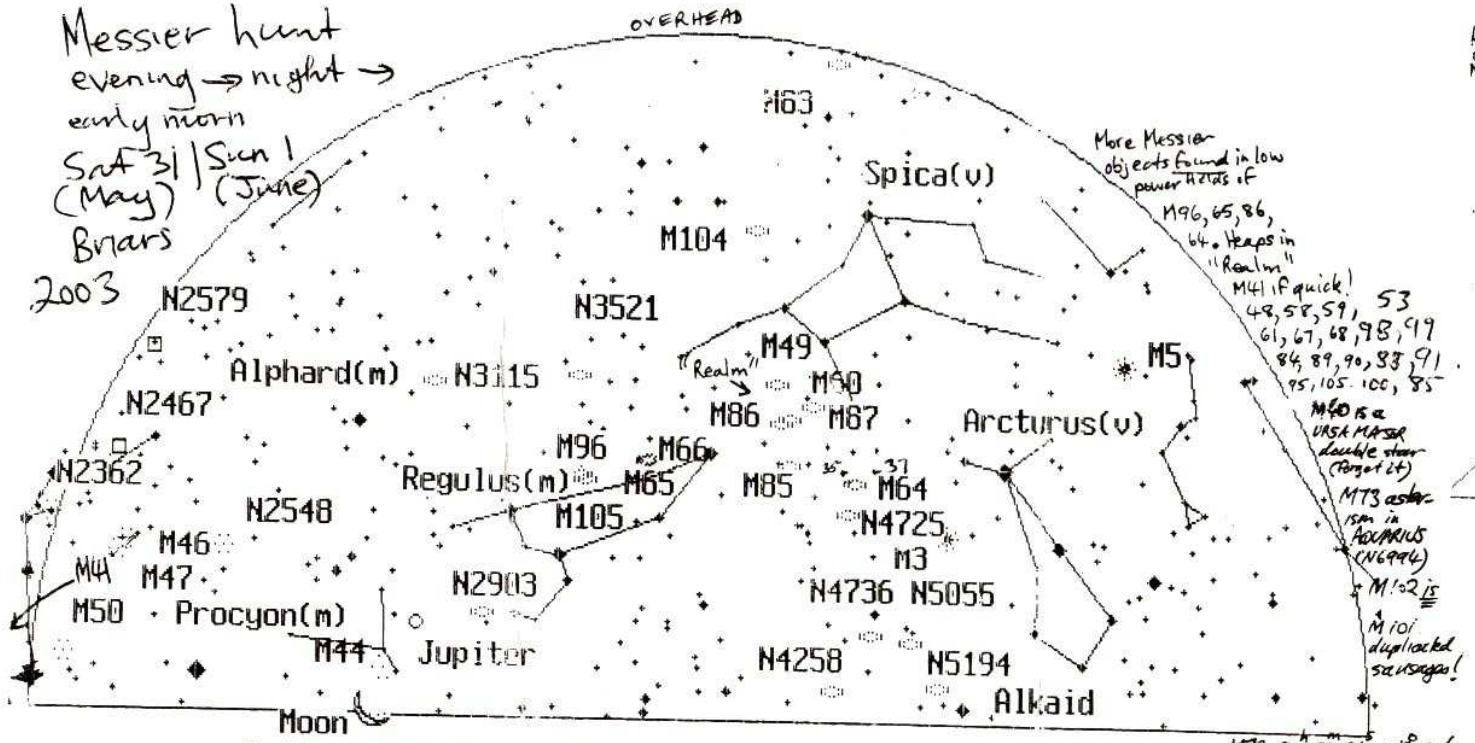
SKY FOR THE MONTHS 21ST MAY – 17 JUNE 2003 MORNINGTON PENINSULA







Messier hunt
evening → night → early morn
Sat 31/Sun 1 (May) (June)
Binars
2003



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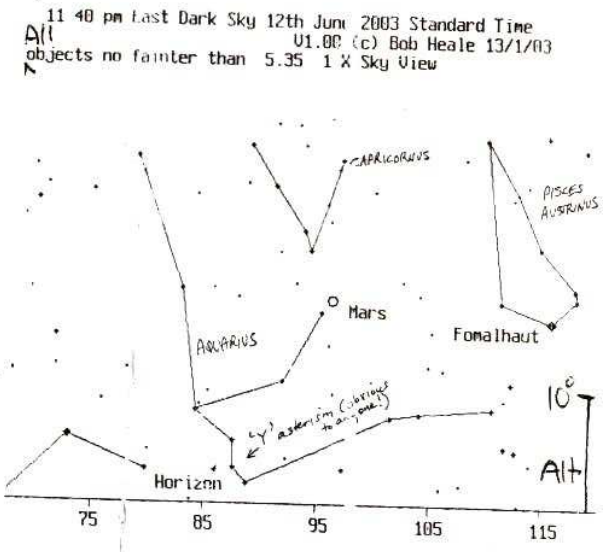

Bob Heale, ASF
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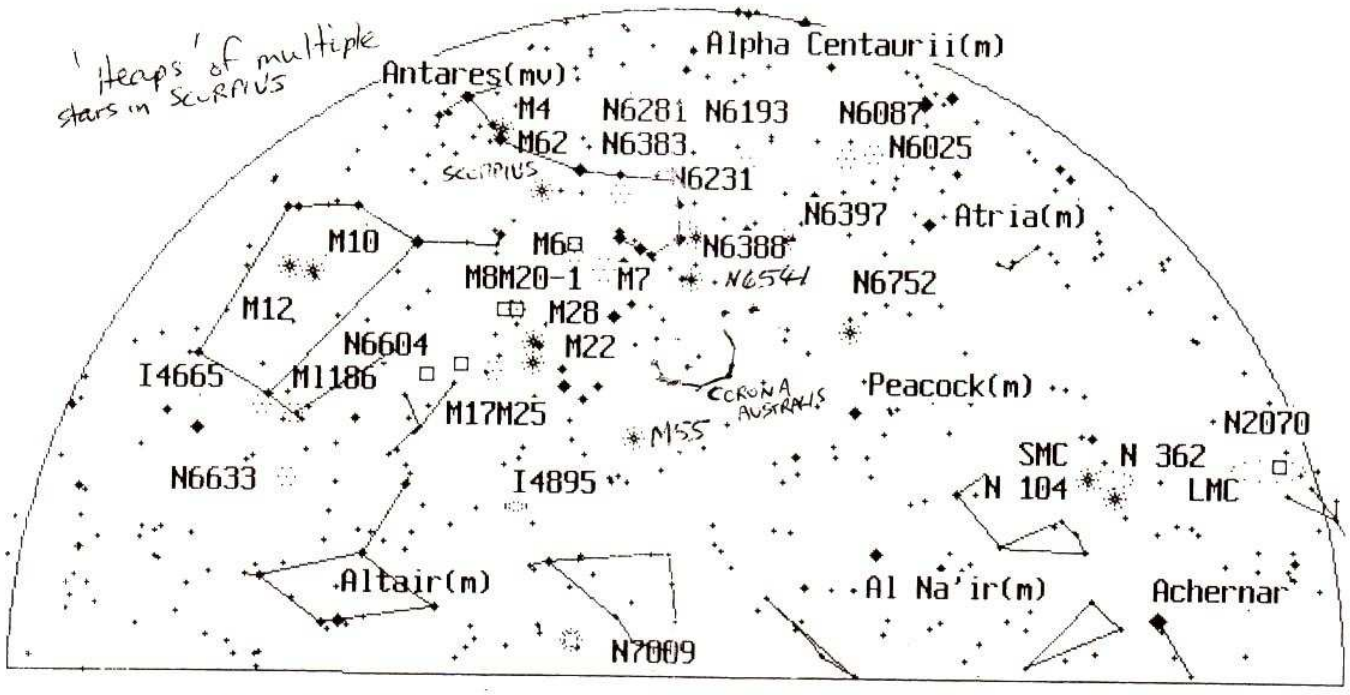
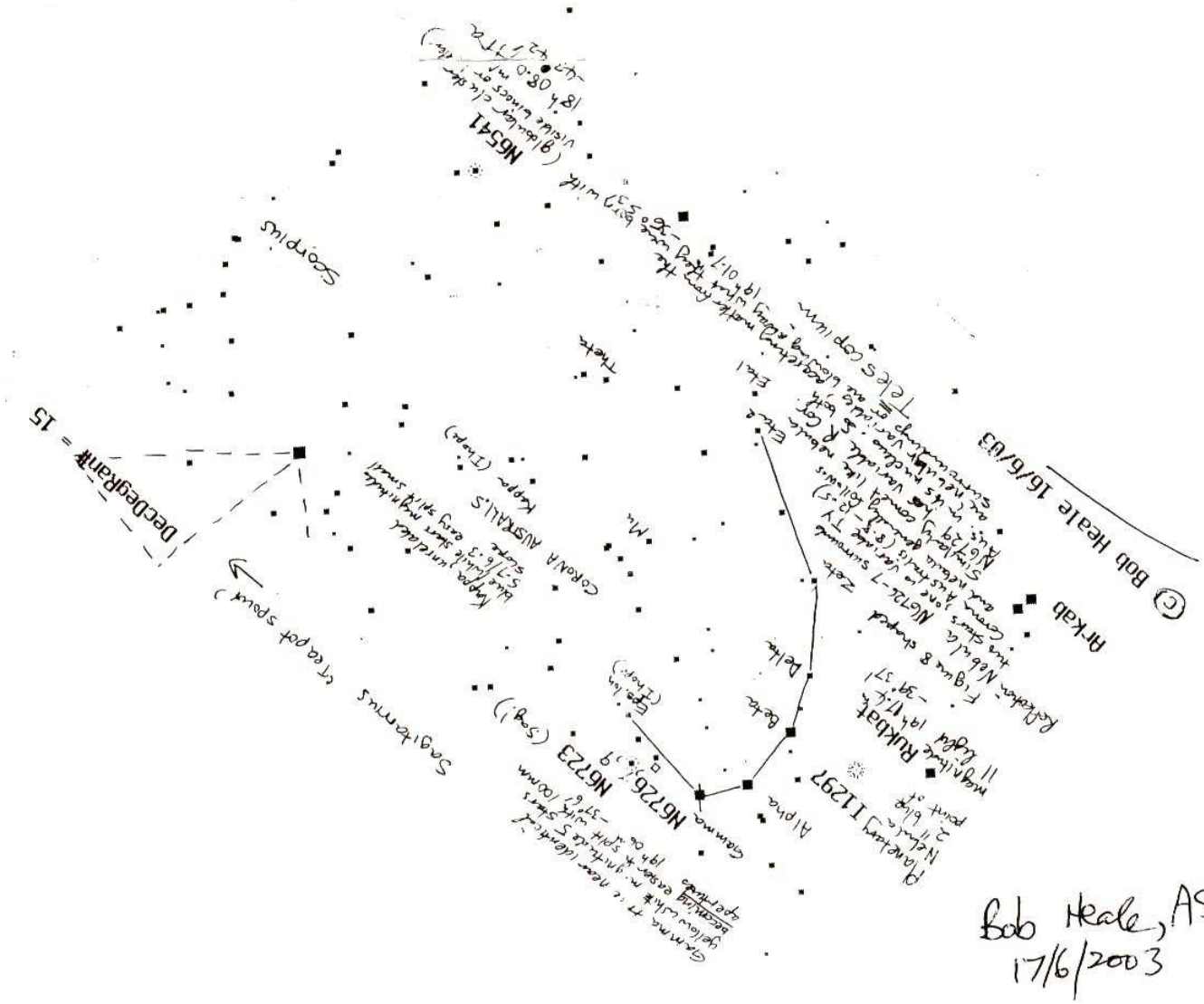


8 30 pm 2nd July ESE Night Sky 2003 Standard Time
Also 9 30pm 18th June, 16 th July 7 30 pm also Standard Times



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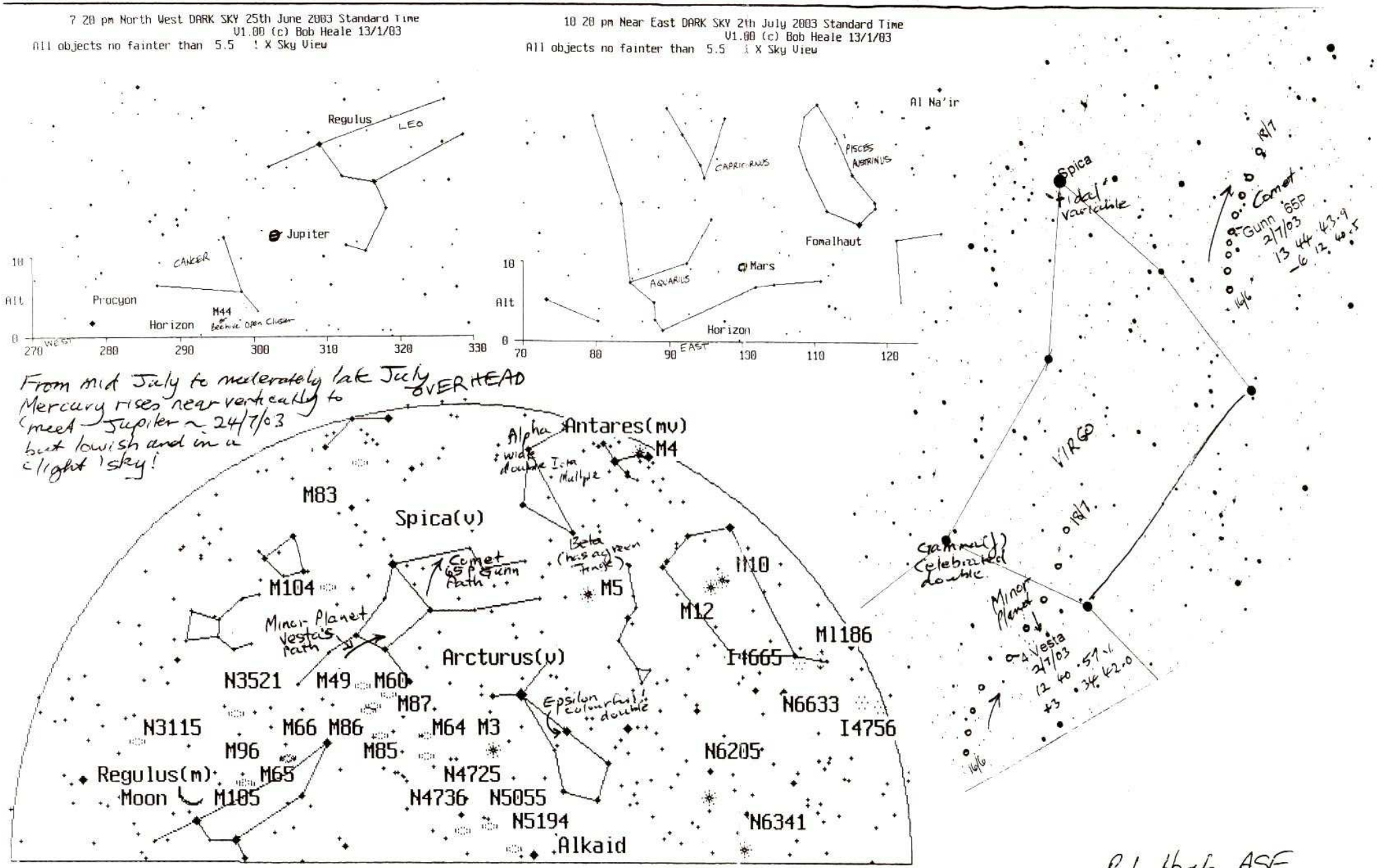
SKY FOR THE MONTH 18 JUNE – 15 JULY 2003 MORNINGTON PENINSULA



8 30 pm 2nd July NNW Night Sky 2003 Standard Time
Also 9 30 pm 18th June, 7 30 pm 16 July also Standard Times

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17/6/2003

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