



# SCORPIUS

THE JOURNAL OF THE  
MORNINGTON PENINSULA ASTRONOMICAL SOCIETY INC.

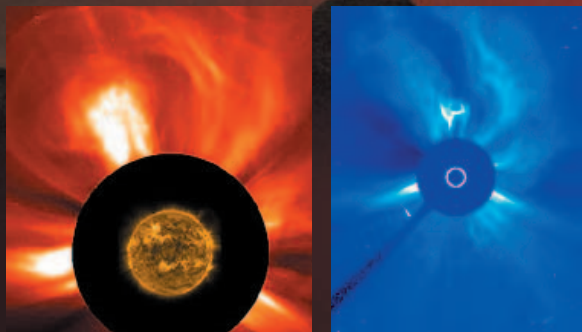
Volume XXI, No. 1 (January/February 2012)

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

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

## A Glowing start to 2012

Main Image: © Alex Cherney  
[www.terraastro.com](http://www.terraastro.com)



Insert Images: © SOHO (ESA & NASA)  
The images combine the wider field of view from SOHO's C2 coronagraph with the Sun itself as seen in extreme UV light by Solar Dynamics Observatory (SDO).

Back on January 19th of this year, the orbiting SOHO (Solar and Heliospheric Observatory) satellites captured the Sun unleashing two blasts in quick succession, sending particle clouds headed towards Earth (see insert images). This 'Solar Storm' was able to produce a welcome return of auroras to southern Australia.






Not to be outdone by the SOHO images, a few of our members on the Peninsula were able to witness this phenomena and get their own spectacular images.

MPAS member Alex Cherney reported "The show was going on pretty much all night, very strong display around 10-11pm and then the intensity of Aurora diminished but more structure was visible to the naked eye with grey-ish columns moving from West to South".

More Solar activity can be found at:

<http://sohowww.nascom.nasa.gov/>

# CALENDAR

JANUARY 2012						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
 1 First Quarter 17:15 Venus 34° E	2 <b>NEW YEAR'S DAY PUBLIC HOL.</b>	3 Moon Apogee 07:19	4 Quadrantids 18:23	5 Perihelion 14:59 Moon-Pleiades 20:17	6 <b>PUBLIC VIEWING NIGHT 8PM @ BRIARS</b>	7 Moon D Node 01:30 Moon N Dec 08:46
8	 9 Full Moon 18:30	10	11	12	13 <b>PUBLIC VIEWING NIGHT 8PM @ BRIARS</b>	14
15	 16 Moon-Spica 18:21 Last Quarter 20:08	17	18 <b>GENERAL MEETING 8PM @ THE PENINSULA SCH. Moon Perigee 08:28</b>	19	20 <b>PUBLIC VIEWING NIGHT &amp; TELESCOPE LEARNING EVENING 8PM @ BRIARS</b> Moon A Node 05:26 Moon S Dec 13:12	21
22	 23 New Moon 18:39	24	25	26 <b>AUSTRALIA DAY PUBLIC HOL.</b>	27	28
29	30	 31 Moon Apogee 04:42 First Quarter 15:10	1 Venus 40° E	2 Moon-Pleiades 04:42	3 <b>PUBLIC VIEWING NIGHT 8PM @ BRIARS</b> Moon D Node 07:02 Moon N Dec 18:11	4

*Sky Events Calendar by Fred Espenak and Sumit Dutta (NASA's GSFC)*

## PUBLIC NIGHT THANK-YOU

Recent public viewing nights and school viewing nights have continue to be very well received by the attendees. It is no coincidence that this is due to the efforts put in by the members that help out at these events. To everyone that has helped out over the past few months, a very big thank-you goes to you all. Your efforts are very much appreciated, and are being very well received.

# THANK YOU

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### Newsletter Disclaimer

The Scorpius Newsletter is published online, once every two months for its membership, by the Mornington Peninsula Astronomical Society, for Educational Purposes Only

As a newsletter, this publication presents news spanning a spectrum of activities, reports, and publications in order to keep society members abreast of a variety of events and views pertaining to astronomy. While prudent, reasonable effort has been utilized to verify factual statements made by authors, inclusion in this newsletter does not constitute or imply official MPAS endorsement. All materials (except previously published material, where credited) are subject to copyright protection © 2011, Mornington Peninsula Astronomical Society.

# CALENDAR

FEBRUARY 2012						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
29	30	31	1	2	3 <b>PUBLIC VIEWING NIGHT</b> 8PM @ BRIARS Moon D Node 07:02 Moon N Dec 18:11	4
5	6	7 Moon Apogee 04:42 First Quarter 15:10	8	9 Venus 40° E Moon-Pleiades 04:42	10	11
12 Moon Perigee 05:32	13	14	15 <b>GENERAL MEETING</b> 8PM @ THE PENINSULA SCH. Last Quarter 04:04	16 Moon A Node 07:16	17	18
19	20 Neptune Sun 06:53	21	22	23	24	25 <b>SOLAR DAY &amp; MEMBERS VIEWING NIGHT</b> 11:30AM ONWARDS @ BRIARS
26 Moon-Venus 08:44	27 Moon-Jupiter 17:16	28 Moon Apogee 01:02	29 Moon-Pleiades 12:46	1 Moon D Node 09:37 First Quarter 12:22 Venus 44.3° E	2 <b>PUBLIC VIEWING NIGHT</b> 8PM @ BRIARS Moon N Dec 03:13	3

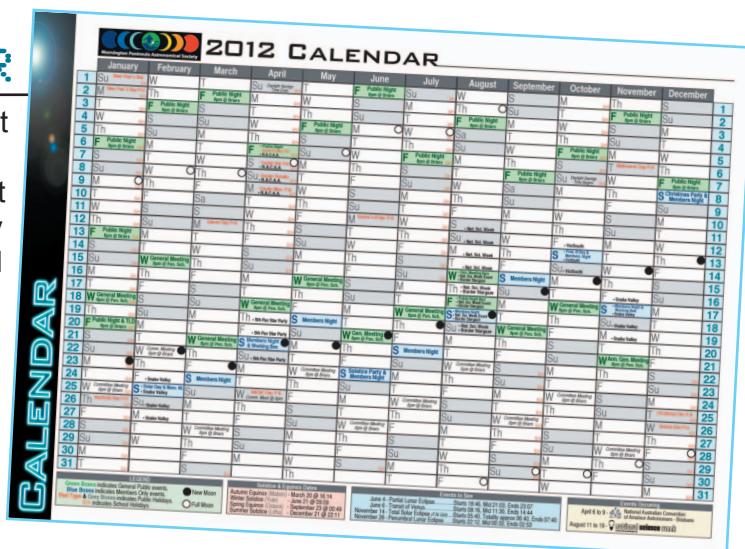
*Sky Events Calendar by Fred Espenak and Sumit Dutta (NASA's GSFC)*

## 2012 SOCIETY CALENDAR

Need to look further ahead to see what is happening in 2012?

Then the MPAS 2012 Calendar is what you need. For the full listing of this year's society events, go to the MPAS website, and download the calendar from **Upcoming Events** page, or visit E-Scorpius and download from the online files section, under **Calendars**.

Printouts are also available at the monthly General Meetings and at the Briars Observing Facility.





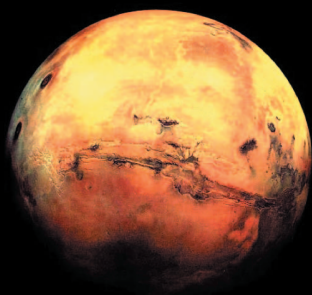
January's General Meeting at the Peninsula School kicked off a little after 8 o'clock with about 20 people in attendance. Peter Lowe welcomed back members after the Christmas holidays, and just started the evening by going over some recent astronomy news.

Peter was also our main speaker for the night with his updated talk on 'The Search for Life on Mars'. This talk covers the previous missions to Mars and the results (in some cases 'lack of results') from their excursions, as well looking at what is planned for Mars in the near future.

After this Greg gave his 'Sky for the month' presentation, with some time lapse video showing Christmas' Comet Lovejoy. After this we drew the raffle, and finished the evening with our 'Astronomy over Coffee' in the common room.

Next month's talk will be announce on the "What's On" email, in early February.

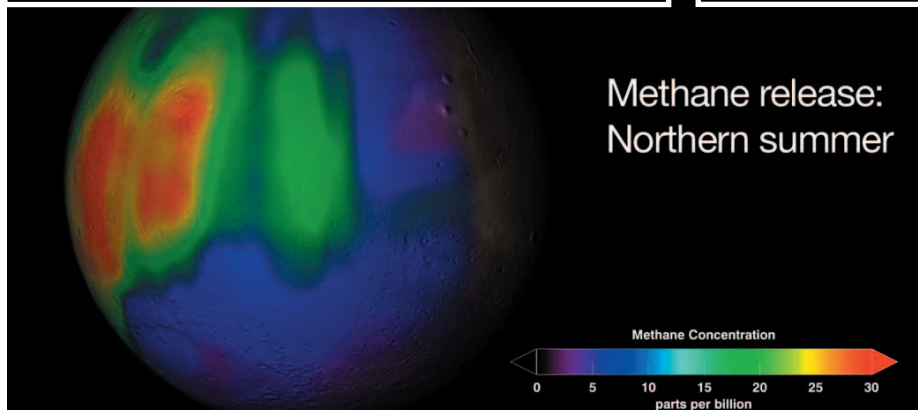
### Viking Orbiter / Lander



### Mars

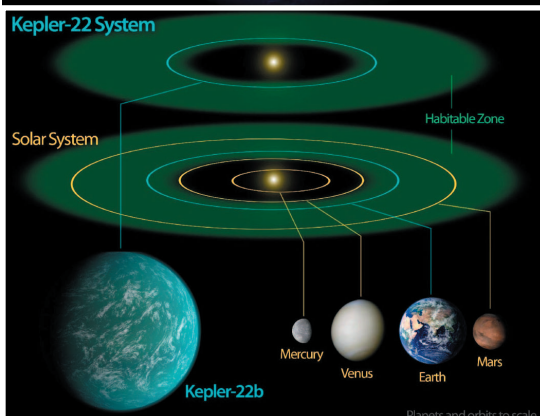


- Mars Year = 687 days
- Mars Day = 24½ hours
- Third the size of Earth (0.11 Earth mass)
- very Earth-like in the past (Oceans, rivers)
- volcanic history
- CO<sub>2</sub> atmosphere 6mBar
- Surface Temps (-140°C to +27°C)
- No magnetic field (atmosphere stripping)
- Life Today ???

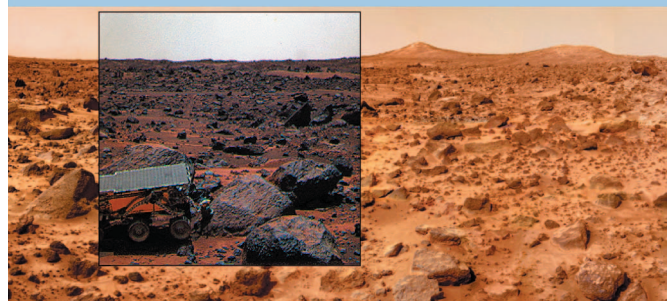


Insert Images:

Some of the PowerPoint slides from Peter Lowe's presentation on 'The Search for Life on Mars'.



### Pathfinder/Sojourner 1997





Main Image: © Alex Cherney. [www.terraastro.com](http://www.terraastro.com)



Comet Love joy 4am 22dec11 by Greg Walton



Comet Lovejoy 4am 24dec11 By Greg Walton



Comet Lovejoy 4am 28dec11 by Greg Walton

There must have been more 'Nice' astronomers, then the 'Naughty' astronomers back in 2011, because we all got a celestial Christmas present in the form of Comet Lovejoy.

Formally designated C/2011 W3 (Lovejoy), the comet was discovered back in November 2011 by Australian amateur astronomer Terry Lovejoy, and earned the nickname "The Great Christmas Comet of 2011".

### SOCIETY FEES REMINDER

The ticking over of the new year also means that society fees are now due to be paid. The society has worked hard to ensure that 2012 fees are still the same as last years prices. So to assist the society in maintaining the facilities and services we provide, we appreciate your prompt payment for the 2012 year ahead.

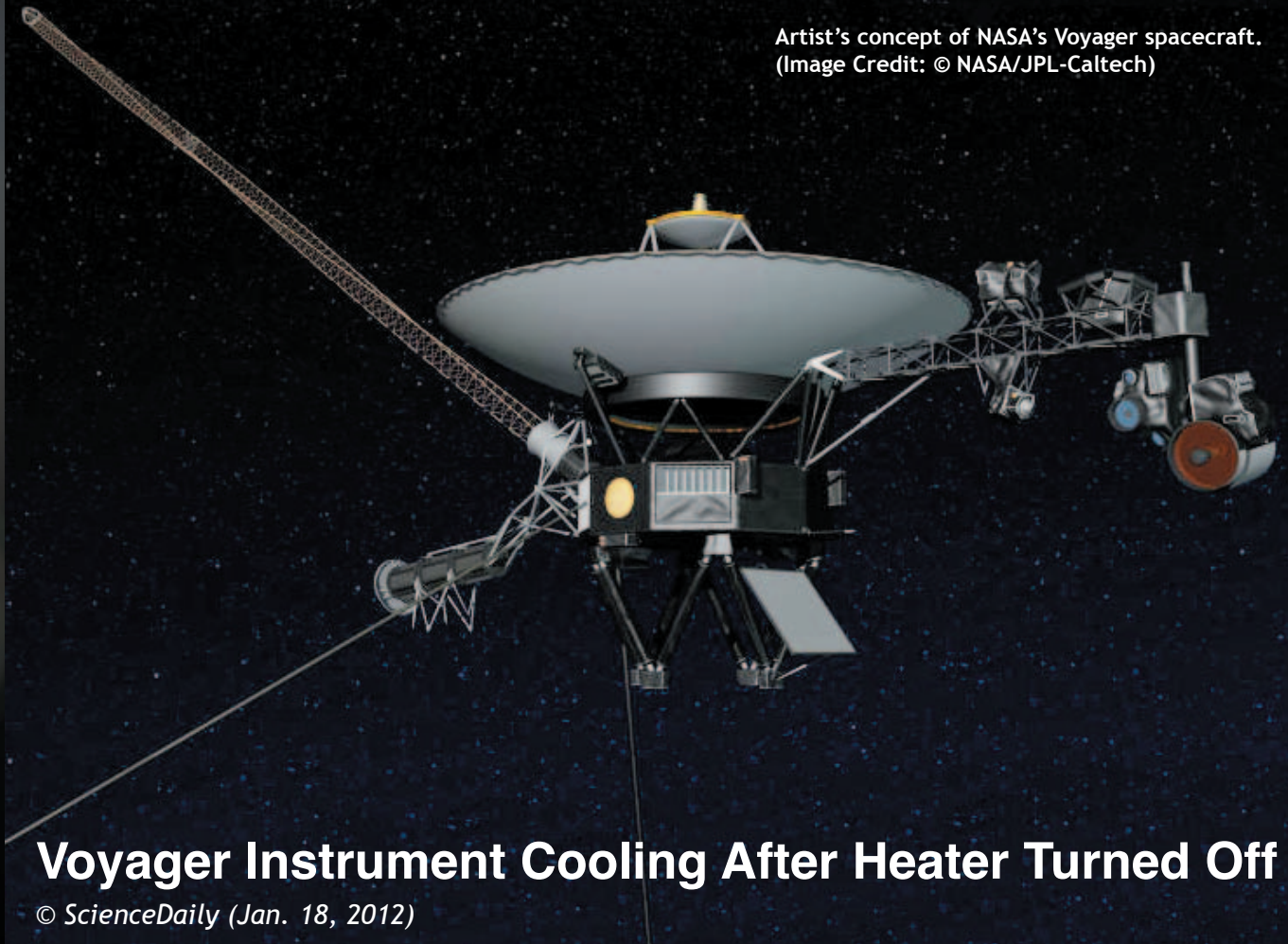
As a reminder, the following structure of the fees are:

- \$50** - Full Member
- \$45** - Pensioner Member
- \$65** - Family Membership
- \$60** - Family Pensioner Membership

As an alternative, multi-year memberships are available upon request, and can save you some money over the long term. Please see a committee member about these options.



Artist's concept of NASA's Voyager spacecraft.  
(Image Credit: © NASA/JPL-Caltech)



## Voyager Instrument Cooling After Heater Turned Off

© ScienceDaily (Jan. 18, 2012)

In order to reduce power consumption, mission managers have turned off a heater on part of NASA's Voyager 1 spacecraft, dropping the temperature of its ultraviolet spectrometer instrument more than 23 degrees Celsius (41 degrees Fahrenheit). It is now operating at a temperature below minus 79 degrees Celsius (minus 110 degrees Fahrenheit), the coldest temperature that the instrument has ever endured. This heater shut-off is a step in the careful management of the diminishing electrical power so that the Voyager spacecraft can continue to collect and transmit data through 2025.

At the moment, the spectrometer continues to collect and return data. It was originally designed to operate at temperatures as low as minus 35 degrees Celsius (minus 31 degrees Fahrenheit), but it has continued to operate in ever chillier temperatures as heaters around it have been turned off over the last 17 years. It was not known if the spectrometer would continue working, but since 2005, it has been operating at minus 56 degrees Celsius (-69 degrees Fahrenheit.) So engineers are encouraged that the instrument has continued to operate, even after the nearby heater was turned off in December. (The spectrometer is likely operating at a temperature somewhat lower than minus 79 degrees Celsius, or minus 110 degrees Fahrenheit, but the temperature detector does not go any lower.)

Scientists and mission managers will continue to monitor the spectrometer's performance. It was very active during Voyager 1's encounters with Jupiter and Saturn, and since then an international team led by scientists in France has been analyzing the spectrometer's data.

This latest heater shut-off was actually part of the nearby infrared spectrometer, which itself has not been operational on Voyager 1 since 1998.

The Voyager spacecraft were built by NASA's Jet Propulsion Laboratory in Pasadena, Calif., which continues to operate both. JPL is a division of the California Institute of Technology in Pasadena. The Voyager missions are a part of the NASA Heliophysics System Observatory, sponsored by the Heliophysics Division of the Science Mission Directorate in Washington.

For more information about the Voyager spacecraft, visit:  
<http://www.nasa.gov/voyager> or <http://voyager.jpl.nasa.gov>

Article Link <http://www.sciencedaily.com/releases/2012/01/120118200826.htm>





## A Visit to Much Hoole

by Ian Sullivan

Above Image: St Micheals, Much Hoole  
(Ian Sullivan)



Image: Location of Much Hoole, U.K.  
(© Google Maps)

Even the transport officials of Liverpool England today have to look at a map to find this little town which is just over the county border in Lancashire. It is easier reached from Preston, so we took a train there, and sought a taxi. They have Indian immigrant drivers there, just like here in Australia and he knew where to go.



Above Image:  
St Micheals Church 2004 Transit  
Commemorative Window  
(Ian Sullivan)



Above Image:  
Plaque to Horrocks  
in Hoole Church  
(Ian Sullivan)

It seemed that everyone in that town knows it was the place from where a transit of Venus was first observed in the rule of the unpopular King Charles I.

The observer was a brilliant young man Jeremy Horrocks who studied at Cambridge, but lived at a time when scientists were not greatly valued and usually lacked secure employment.

He was associated, (but not officially), with the beautiful little Anglican church of St Michael and lived for a time in a three storey dwelling called Carr House within walking distance.

Both buildings are in good repair despite enduring at least 400 years of occupation. It was from the second or third floor of the house he projected a

solar image and spotted the tiny black disk therein on Sunday 4th of December 1639.

Only his friend and colleague William Crabtree, at his home in Manchester, also saw the spectacle on that winter day advised by Horrocks of the fateful day. Horrocks had studied the planet tables of the great Kepler who predicted the 1631 transit, and a 'near miss' for 1639. Horrocks decided to agree with Lansberg who predicted a transit.

The 1631 event was not seen by anybody as it was not visible from Europe. However a month before in November 1631, Gassendi had viewed a Mercury transit from Paris, predicted by Kepler.

*Ian Sullivan.*



Right Image:  
Carr House, Much Hoole  
(Ian Sullivan)



## OFFICE BEARERS OF THE MORNINGTON PENINSULA ASTRONOMICAL SOCIETY

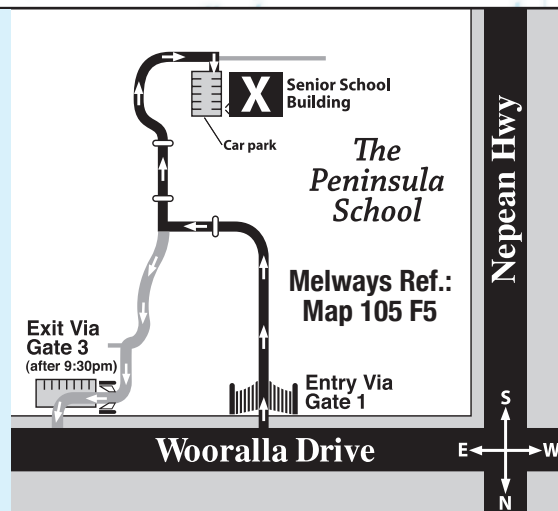
**President:** Peter Lowe  
**Vice President:** Brett Bajada  
**Committee:** Ian Sullivan, Trevor Hand, David Rolfe,  
 Tony Coventry, Fiona Murray, Greg Walton.  
**Phone Contact:** Peter Skilton - 0419 253 252

**Secretary:** Peter Skilton  
**Treasurer:** Marty Rudd  
**Public Officer:** Rhonda Sawosz  
**Web Master:** Steven Mohr  
**Scorpius Editor:** Brett Bajada

## GENERAL MEETINGS

**Meeting Venue:** The Peninsula School,  
 Wooralla Drive, Mt. Eliza, (Melways ref. 105/F5)  
 in the Senior School at 8pm,  
 on the 3rd Wednesday of each month  
 (except December).  
 Entry is via the main gates or Gate 3, off Wooralla Drive.  
 Exit is via Gate 3 Only after 9:30pm (see map).

**For additional details:**  
**Internet:** <http://www.mpas.asn.au>  
**email:** [welcome@mpas.asn.au](mailto:welcome@mpas.asn.au)  
**Phone:** 0419 253 252  
**Mail:** P.O. Box 596, Frankston 3199, Victoria, Australia.



## LOAN EQUIPMENT

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

## E-SCORPIUS NEWSGROUP

M.P.A.S. main line of communication is the online newsgroup called E-Scorpius. Here you will be kept up to date with the latest M.P.A.S. news and event information as well as being able to join in discussions and ask questions with other members.

To join, go to: <http://groups.yahoo.com/group/e-scorpius> and sign up to Yahoo groups  
 - You require to sign up to Yahoo groups to join E-Scorpius. Once you have signed up at Yahoo groups, email [welcome@mpas.asn.au](mailto:welcome@mpas.asn.au) saying that you want to join E-Scorpius and you will be added to the E-Scorpius list.

## VIEWING NIGHTS - MEMBERS ONLY

Any night, at The Briars, Nepean Hwy,  
 Mt. Martha, starting at dusk.  
 Members visiting The Briars for the first time  
 must contact Greg Walton on either 9773 0098 or  
 0415 172 503 if they need help in getting to the  
 site. Upon arrival at the site, remember to sign  
 the attendance book in the observatory building.

**For additional details:**  
**Internet:** <http://www.mpas.asn.au>  
**email:** [welcome@mpas.asn.au](mailto:welcome@mpas.asn.au)  
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