Cover image - Bruce Tregaskis at the Briars,
watching the transit of Mercury on 6th November 2006.

SCORPIUS

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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.

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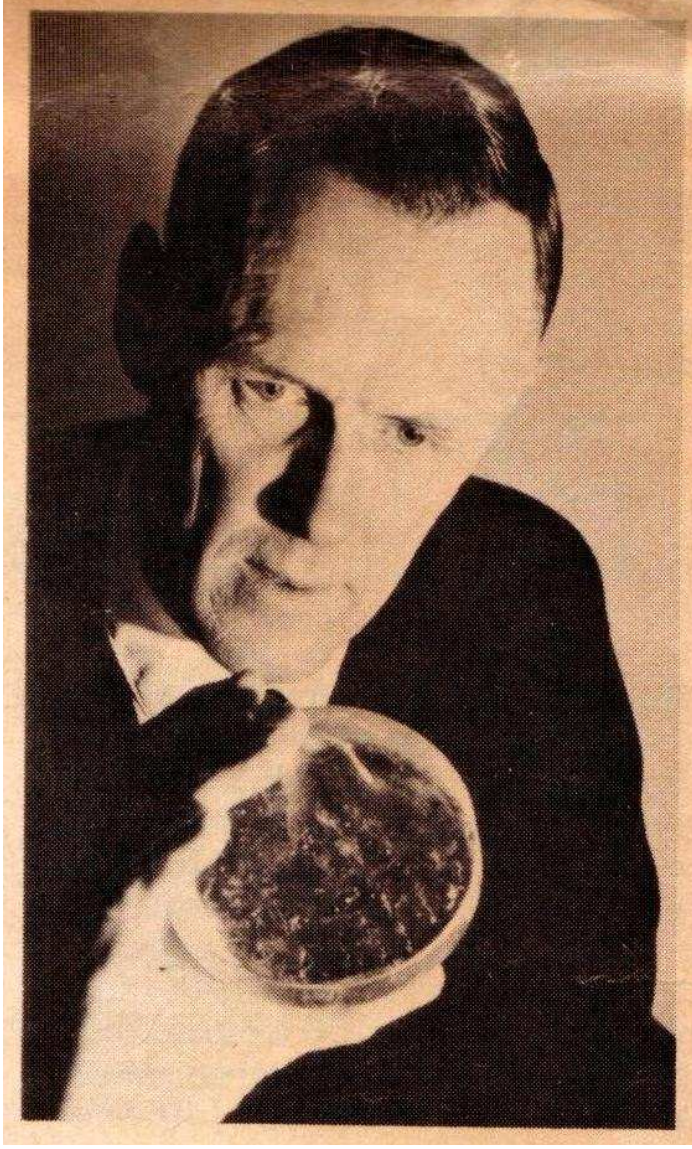
This is a special edition of the Mornington Peninsula Astronomical Society News letter in memory of Bruce Tregaskis (1927-2008)

Bruce Tregaskis was a past president of the Frankston Astronomical Society & the Astronomical Society of Victoria (1971-1972, 1976) also member of Latrobe valley Astronomical Society.

BRUCE IS UP THERE WITH THE STARS...



The giant leap for mankind that Neil Armstrong took when he stepped onto the lunar surface last month was, in terms of astronomy, rather like a man strolling from his hallway onto the patio.

For while Apollo 11 was speeding across the quarter-million miles to the moon, Bruce Tregaskis and his friends were studying star systems 100 million light years away.

Bruce, Electrical Engineering Superintendent, Works Division, Richmond, is one of the State's leading amateur astronomers.

Director of the Auroral Section, Astronomical Society of Victoria, he has built several telescopes, including one with a lens of 12 inches which is on loan to the Latrobe Valley Astronomical Society.

At the moment Bruce is building a 4-inch telescope. The hardest part of the work is of course making the lens (that's what he is holding in the picture) which can take about 50 hours of shaping, grinding and polishing.

Bruce has recently been involved in work for Professor H. D. Cole, of the School of Physical Sciences, La Trobe University. He has helped to organise, collect and participate in observations of the aurora australis.

Bruce is up there with the stars. This news paper article is from 1969, were Bruce's 12 inch is mentioned, the same telescope which is now at the Briars Observatory. Also mentioned is the making of Bruce's 4 inch mirror which he fitted to his travel scope, the same telescope he took on many of his solar eclipse expeditions, schools viewing and ASF/MPAS public nights. This 4 inch telescope was also fitted with a equatorial platform with the electronics built in a cake tin.

When Bruce pasts away in November 2008, we had a call from Bruce's wife, "Betty". Asking if we wanted his telescopes. We said, yes please. On arrived we were lead to a room filled with astronomy books, magazines, boxes of papers and old photos. We also found his 4 inch and 6 inch Newtonian telescopes in the garage. Betty said, there should be another large telescope here someway in the garage. At the time we could only see mounds of junk Bruce had collected over the years.

Betty, then took us to the back corner of her garden where we were confronted by a large concrete lump of a mount. Used to carry he 12 inch F8 Newtonian telescope.

We asked our selves, want have we got our selves in to here. I lent against it to see if it was solid, it did not move at all. The equatorial axis was made from a old rusty car differential. It looked more like a sculpture than a telescope mount. I could see it had not been used for a while, as the trees had grown up over it & had blocked out most of the sky. We took photos of all the parts, making sure to get photos of all the rusty bolts.

We gathered up books, magazines and the smaller 4 and 6 inch telescopes. Then politely said, thank you and then left, scratching our heads. Probably thinking that we would not return.

After a few days of thinking about the old telescope. I decided we should at least move the telescope to the Briars.

The biggest problem is the mount being located at the back of the property, were there was no car access & the ground looked very soft, nothing solid to move it on. We would need to brake it down in to 5 parts, but the bolts holding it together looked very rusty.

Betty told us, Bruce & her move the telescope from the Latrobe valley in a little box trailer, when they moved to Mt Eliza.

So we made the phone call. Betty sounded glad that we were coming to remove the telescope.

I loaded everything I could think of to make the job easier, crow bars, chain blocks, trolleys, planks of wood, round logs, bits of round steel tube, rope & chains in the back of the ute. The first job was to remove the counter weight, moss and all. Lucky it's round and we could just roll it to the ute.

We then remove the differential. Amazingly all the bolts come undone bar one which snapped off. We put the diff in the back of the ute. We then found the telescope tube hidden under a pile of wood in the back of Bruce's garage. We cleared a path through the junk before carrying the telescope tube to the ute. A bit more hunting around and we found the 12 inch mirror in a cupboard box. We had a quick glance at its coating, not too bad, usable!

Time to unbolt the smaller north pier, we were surprised that the bolts came undone. We put this in the ute and decided by then we had a load and headed to the Briars to off load.

Only the 2 heaviest parts to go now. We unbolted the large south pier and carefully rocked it back and forth, placing planks of wood underneath to get it high enough, to get over the bolt that had been cast in to the concrete. This pier was made from a concrete pipe filled with concrete.

We joined 2 hand trolleys together, so we could move this heavy south pier over the soft ground to the ute. Were it sat for a while.

We turned our attention to moving the base. Again it was a case of jacking it high enough to get some rollers underneath. Then moving it inch by inch with a crowbar, moving the rollers in the front, in the direction we were heading.

We soon had it behind the ute. Getting it in the ute would be another thing. Luck the ford ute comes with 2 strong anchor point in the back, were we attached a chain and hooked up a 1 ton chain block. Attached another piece of chain to the base, then lent a plank of wood on the back of the ute and started to haul away. The base moved slowly up the plank in to the ute, with Vivienne Lowe doing most of the work.

Almost there!!! We had to move the chain to the other end of the base for the last move.

We cleared a spot in the back of the ute for the south pier. Laid out some old curtains, then carefully tipped it over and slide the south pier in beside the base. We through the troller & tools in, then shut the tail gate on the ute.

All gone!!!

We looked at were the mount once sit, thinking glade that's over.

Then headed back to the Briars to unloaded. The south pier slide out easy, then we roped it to the wall in the big shed, as we did not want it to fall on anyone.

Now that base!!!! How will we get that out of the ute? Well I backed the ute up to a tree and hooked up the chain block, the jammed the wooden plank under the front edge and just drove off. Miracles sometime happen the base slide out the some way it went in, with the wooded plank saving the tail gate.

I think, that concrete base sat there in the field for about a year before I got around to putting the mount together. In April 2011 MPAS was hosting Vastroc and I thought it would be nice if Bruce's 12 inch telescope was working. First we moved the base on to the new concrete slab behind the lower shed. Then we chiselled off the flaking paint on all the parts, assembled the mount with the help of a engine crane and painted the whole thing white. The telescope tube is made from cardboard and had gone soft in a few places, we just put more paint on in those places hoping this would hold it all together. We painted the inside flat black after cleaning out all the cobwebs. Then put glossy black paint on the outside of the tube near the eyepiece, a nice touch as this is what Bruce had done originally to help keep ones eyes dark adaptored. We also made some black lettering about the telescope tube specifications. The primary mirror being 320mm in diameter, probably meant it was made from 12 1/2 inch port hole glass, as this would give you a 12 inch window once mounted.

The original tube mounting bolts were very rusty, so I made new bolts from stainless steel. We then cleaned the secondary mirror & finder scope, before refitting the 12 1/2 inch primary mirror. By this time the tube was getting too heavy for one person to lift. So we used the engine crane to lift the tube on to the mount. We then had to adjust the position of the count weight, without dropping it on any feet. Now all back together is was an impressive sight.

A small group of MPAS members took turns in climbing the ladder to look at various objects. The planets looked surprisingly sharp, but most deep sky objects looked a little dull, due to the long focal length at 2600 mm. But still a very memorable night stepping back in time, as this telescope is around 50 years old.

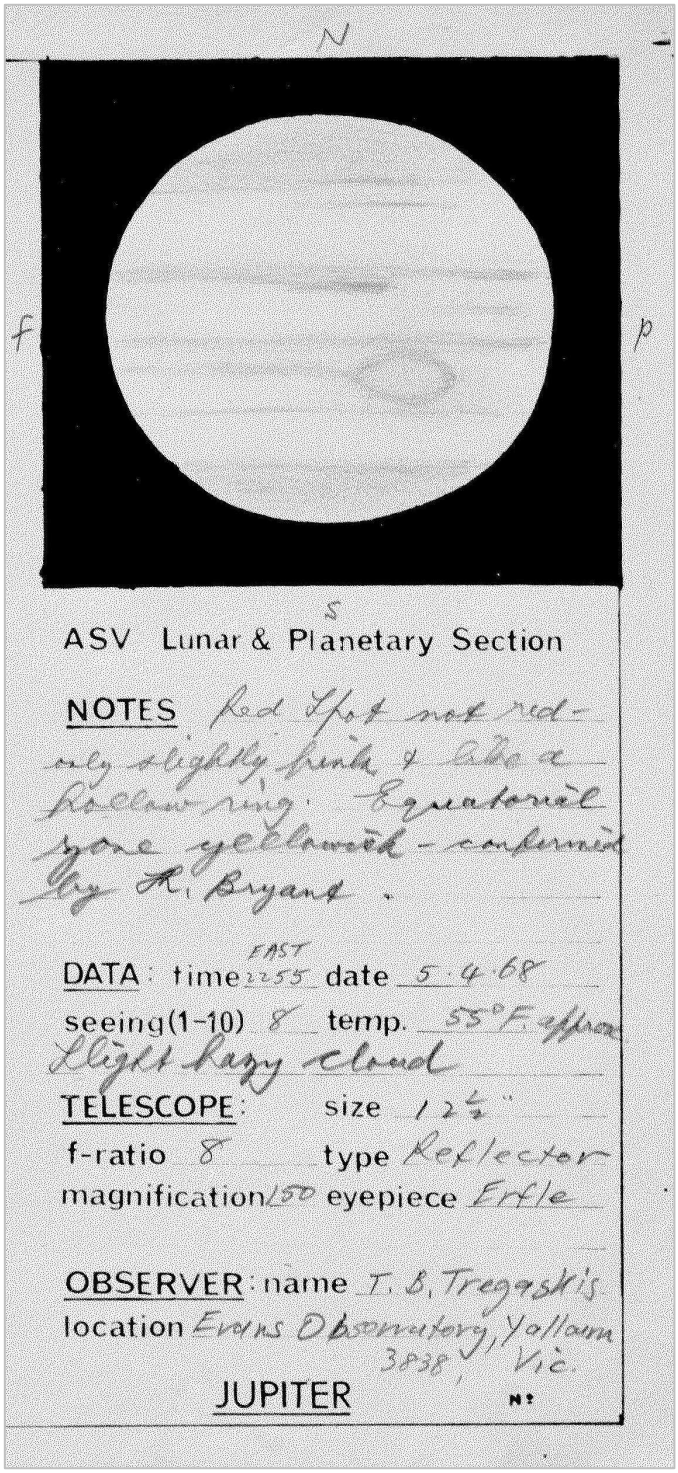
While Vastroc was on and for about 2 weeks after, we left the telescope outside. Just covering it with a large trampoline when on in uses.

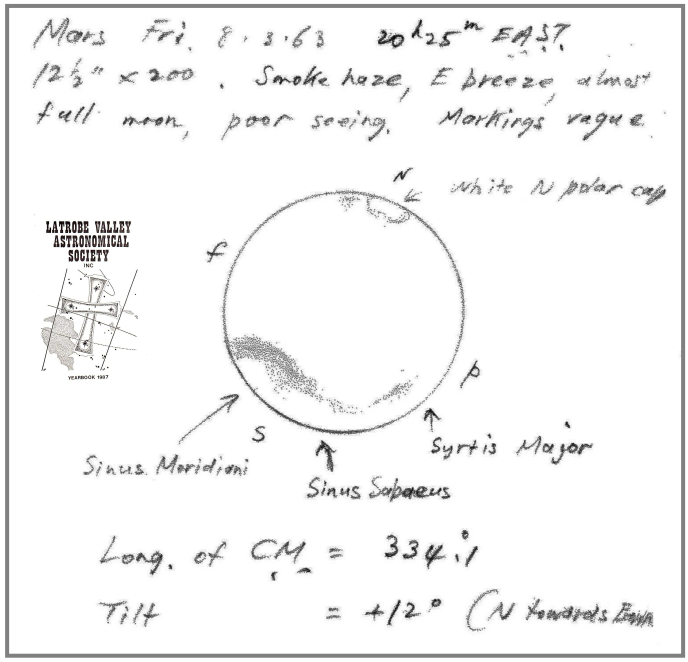
Photo at right - Now Bruce's 12 1/2 inch telescope is stored in the observatory, as the concrete slab it sat on, it the base for the soon to be built MPAS observatory.

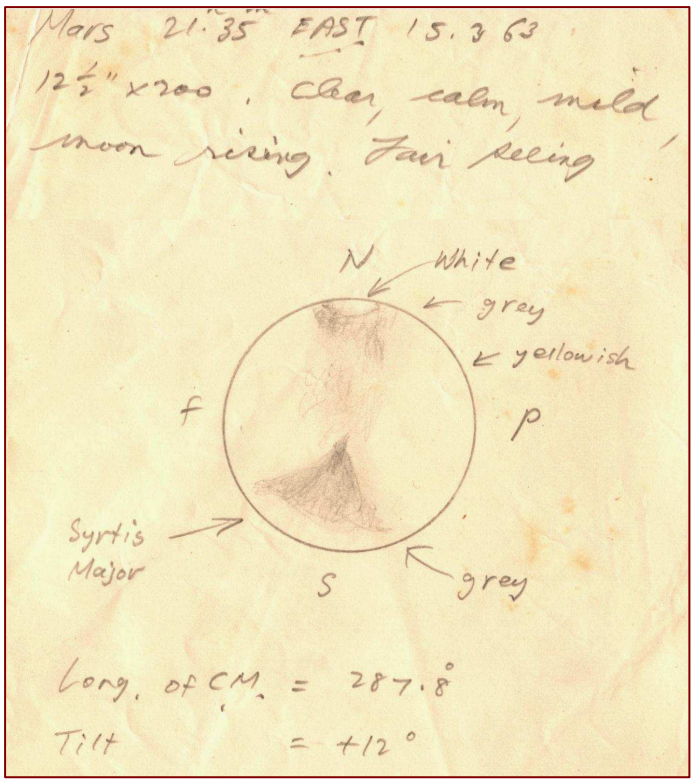
Photo below - Bruce's mount on the observatory slab.

Below Left is a drawing of Jupiter, Bruce did on the 5th April 1968, using the 12 1/2 inch F8 telescope mentioned in the story above. At the time located at the Latrobe valley Astronomical Society in Yallourn.

Below Right is 2 drawing of Mars, Bruce did on the 8th & 15th March 1963, using the 12 1/2 inch F8 telescope.



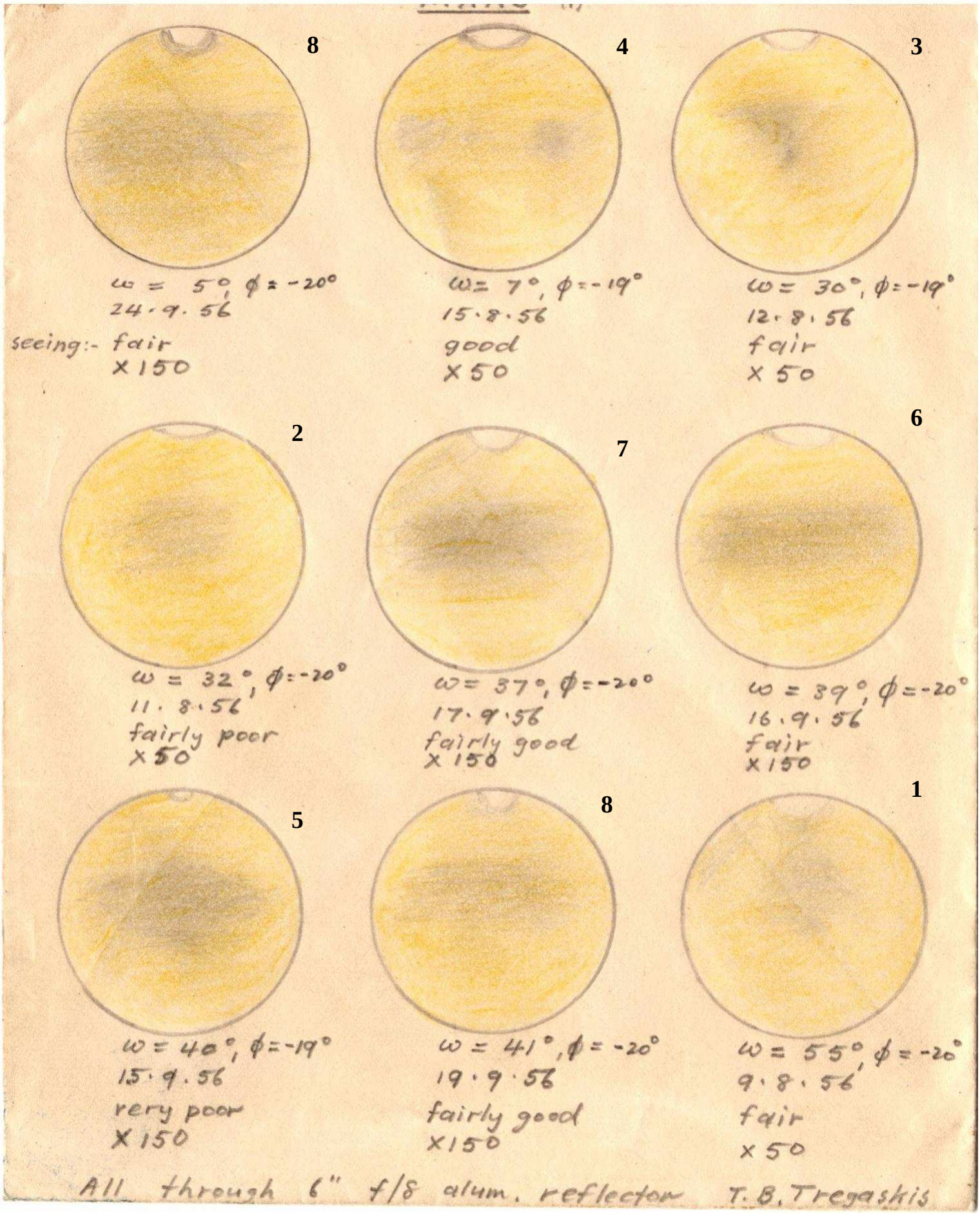




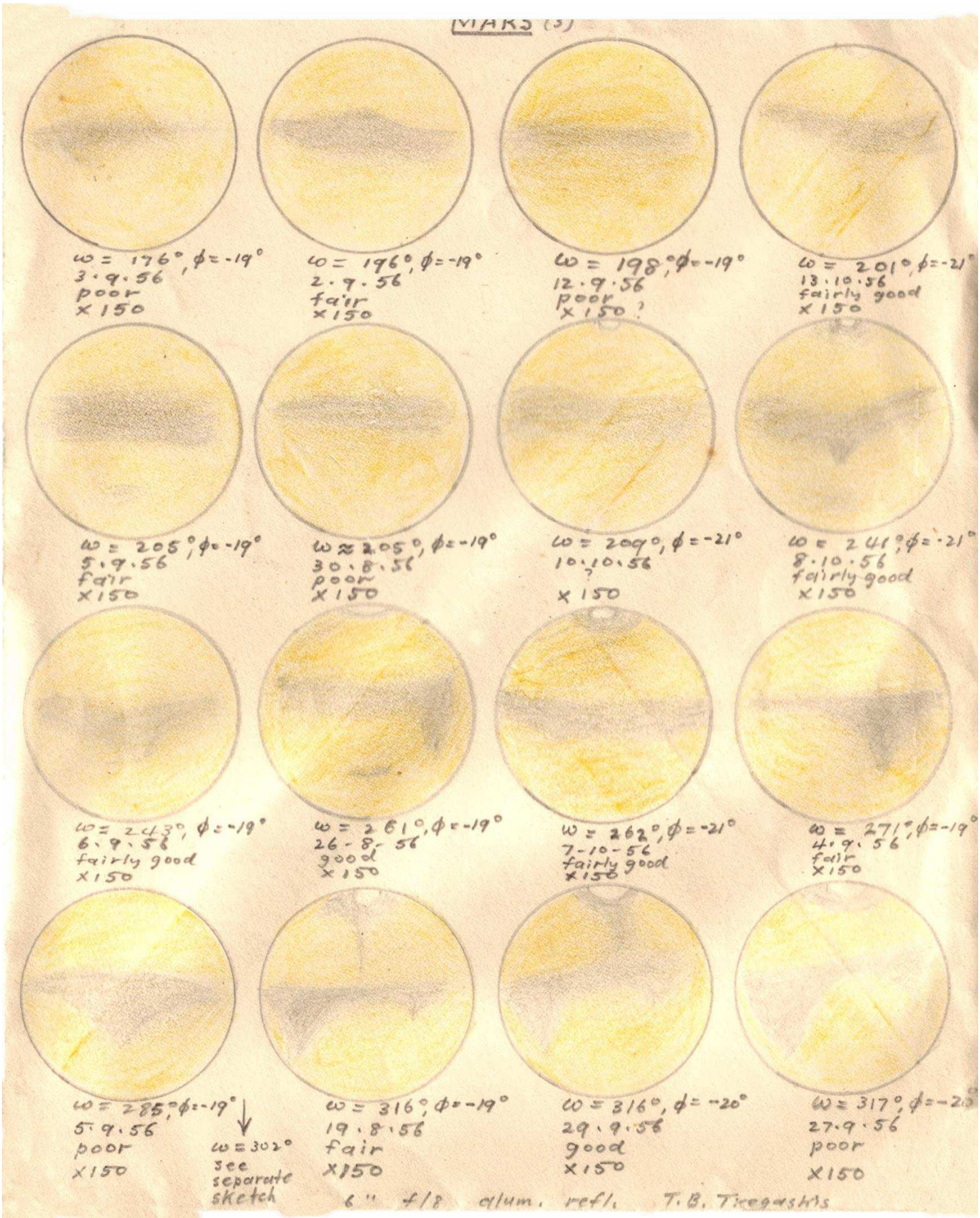
Bruce's 6 inch F8 Newtonian telescope has a octagon tube made from wood. The simple mount is made from water pipe fittings & concrete counter weight (very popular design in the 1950's) mounted on tubular steel with a base made from a heavy old car fly wheel filled with concrete, making it hard to move. Bruce left the mount permanently polar aligned outside in his garden & just attached the telescope tube when needed. I painted the mount white & added 3 wheels, this meant we could leave the telescope tube permanently attached. Then we could easily move the whole telescope around. This was the telescope Bruce used the most as the 12 1/2 inch telescope took at least 2 people to assemble. Bruce did most of his variable star measurements with the 6 inch & did a series of mars drawings in 1956, also drawings of Jupiter in 1958 with many observational notes, can be see on the next pages.

Bruce's 6 inch F8 Newtonian telescope at the Briars.

Below is a sequence of Mars drawings at opposition in 1956, by Bruce Tregaskis.

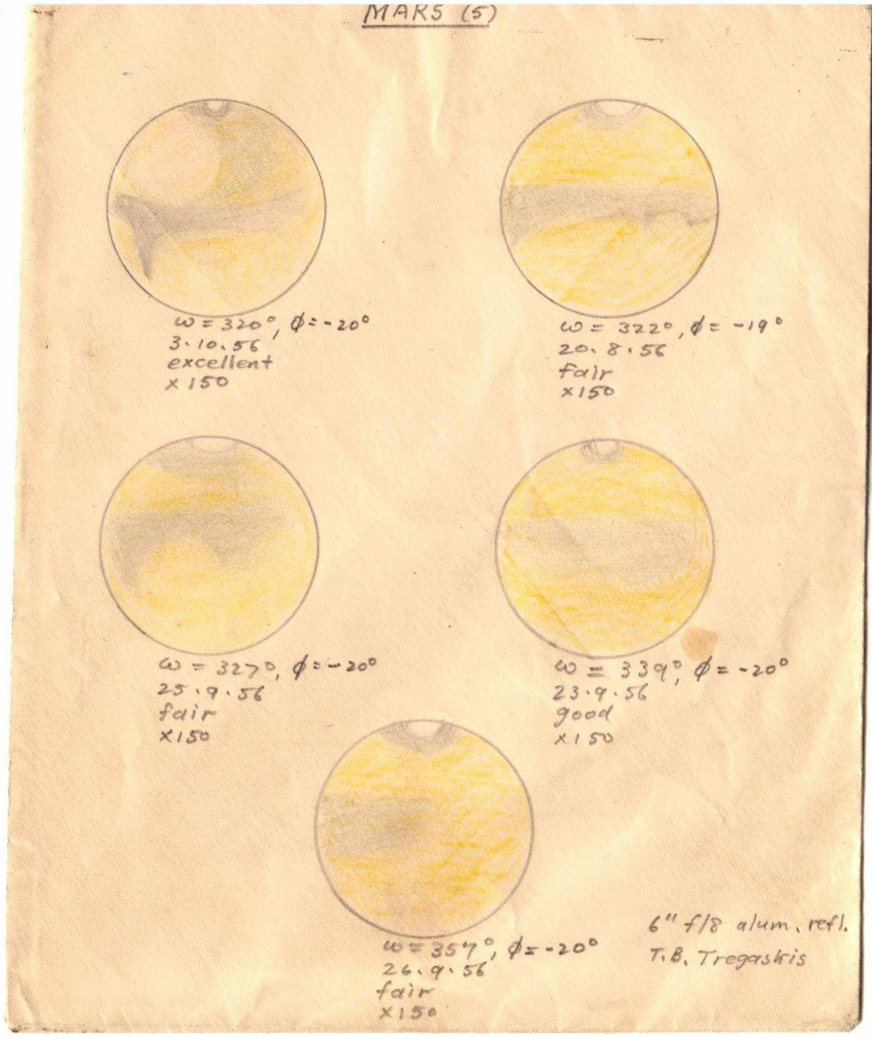


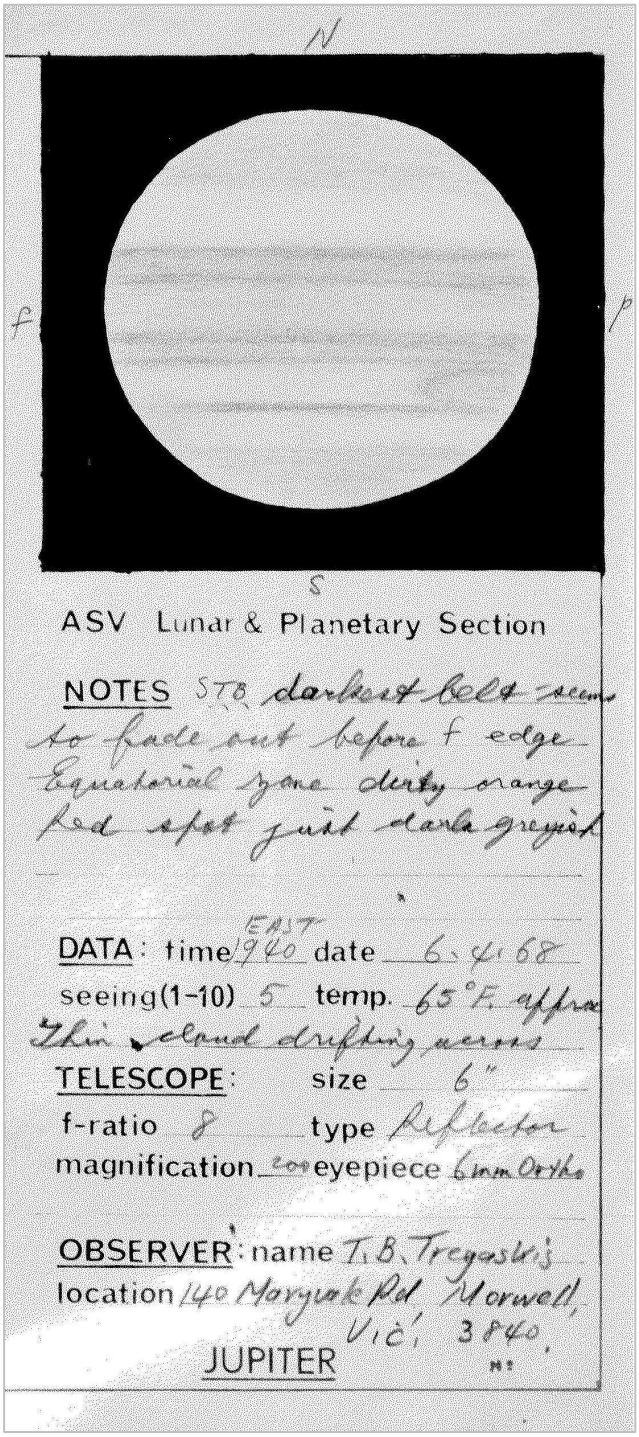
Below is a sequence of Mars drawings at opposition in 1956, by Bruce Tregaskis.

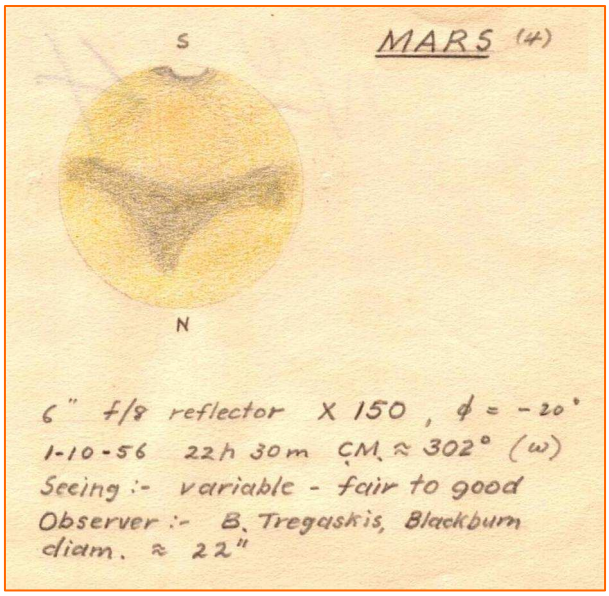


Below right is a drawing of Jupiter, Bruce did on the following night, using his 6 inch F8 Newtonian telescope from his home at Morwell in 1968.

Below more drawings of Mars







Bruce liked to record all his observation and publish his finders.
An examples of Bruce's work below - Observations of Jupiter in 1958 by Bruce Tregaskis.

OBSERVATIONS OF JUPITER

by

T. R. Tregaskis

During 1958, 52 sketches of Jupiter were made on eight nights between March 3rd, and October 1st from Yallourn, Victoria - Lat. 38°12'S., Long. 146°20'E.

A 6" f/8 aluminised reflector was used. For 37 sketches up to August 15th, an eyepiece similar to a Ramsden, and giving a magnification of 140, was used. For the remaining 15 sketches, a Goto orthoscopic eyepiece, giving a power of 200, was employed.

No transits were timed, although the times of the whole disk sketches were noted. A grid was later drawn up on tracing paper so that this could be placed over the sketches to estimate the approximate longitudes of markings. However this method is considered very inferior to transit determinations, except perhaps when markings are near the central meridian.

Seeing conditions were noted on the various nights as follows:-

excellent	-	1 night
good	-	7 "
fair	-	18 "
poor	-	12 "
bad	-	10 "
very bad	-	1 "

A few other observations were made but the seeing was too bad to enable any details to be seen.

Descriptions of the main features noticed in each region follow :-

South Polar Region (S.P.R.) This was generally drawn smaller than the north polar region (N.P.R.), (See Figs. 1 - 12). It was noted on a number of occasions that this region was darker and bluer than the N.P.R. No other details were noticed, apart from the normal effect of the region darkening towards the pole.

S.S. and S.S.S.Temperate Belts. These were indistinguishable from the S.P.R.

South Temperate Belt (S.T.B.). This was seen quite clearly, usually as a fairly thin belt, right through until July 30th, when it was recorded as very indistinct. Thereafter, it was only seen occasionally, or recorded as doubtful. It was not shown on eight drawings, but seeing conditions on these nights were mostly bad. (See Figs. 1 to 12).

In the south edge of the S.T.B. were observed two, and possibly three, long white oval spots. The first one was noticed on April 2nd, when it was centred on a System 2 longitude of approximately 310°. (See Fig. 1). It was then overtaking the great red spot (R.S.) and its following edge had almost reached the longitude of the centre of the R.S. The northern edge of the white spot was approximately centred on the S.T.B., but the southern edge seemed to bulge out slightly beyond the S. edge of the S.T.B. It was contained on the S. side within a thin, dark filament, which sometimes appeared continuous and sometimes broken.

By April 28th, when this spot and the R.S. were both again visible on the disc together, the white spot had moved well past the R.S., the former being centred on about 265°, and the R.S. on about 314° (System 2). On May 15th, the difference was greater, the figures being 243° and 316° (See Fig. 8).

After that, this spot was not definitely seen again, although it may have been visible on May 20th (Fig. 9), and August 4th. It had been seen quite definitely on four nights.

The average length of this spot, from measurements of five drawings, was 42° of longitude. The average period of rotation was found by plotting the longitudes against dates, and came to the unusually short period of 9h 54m 37s ± 20s. This is about half a minute shorter than previously published figures available for this region, but it is not felt that a great deal of weight should be placed on this figure, due to the paucity and method of observations.

The second white spot seen in this belt was first observed on April 8th at a longitude of 88° (System 2), (see Fig. 2) It also decreased in longitude until on the fifth and last observation on June 19th, it had reached 34° (See also Figs. 3 & 4). It was not seen after this.

on June 19th, it had reached 34° (See also Figs. 3 and 4). It was not seen after this.

The appearance of this spot was slightly different from the one previously described, in that it was always seen more like an open elongated bay in the southern edge of the S.T.B. The southern border of the spot was never closed in with a dark streak, as was the previous spot, but the curving in of the promontories at each end gave the illusion of an elliptical spot. Its average length was 30° in longitude.

From the five observations, a rotation period of 9h55m 11s ± 10s was derived. The figure agrees well with previously published data.

A third white spot may have been present, but the two observations on 20th May, and 24th June only gave vague indications of something at 188° and 130° longitude respectively.

These two or three white spots are almost certainly the ones which have been seen by other observers since 1939 - 1940, and which have been well described by Peek in "The Planet Jupiter". Radio noise from Jupiter also seems related to these spots. One of these spots is visible near the R.S. on published photographs of Jupiter taken through the 200" telescope on October 24th, 1952. (see Peek - "The Planet Jupiter" or Richardson - "Exploring Mars" etc.)

Red Spot. This was first seen clearly on March 31st, when at a system 2 longitude of about 310°. On April 2nd (Fig.1) it was noted as having a pale pink colour. It was seen clearly on ten occasions, the last definite observation being on June 1st, when at a longitude of about 320° (See Figs. 6, 8 and 10). On June 18 th, only a hazy patch was visible where the R.S. should have been, but the seeing was bad. However the spot was not seen definitely again, although most of the latter observations were of other parts of the planet.

From the drawings, the average length of the R.S. was found to be 30° of longitude. Its apparent width was about half its length. The rotation period was estimated to be 9h55m45s ± 5s, some seven seconds longer than the past average.

In all the observations, the R.S. appeared to be attached to the S edge of the S.T.B.

South Equatorial Belt (S.E.B.) Before June, this belt (or at least rather faint parts of it) was seen only intermittently, (See Figs. 1 - 9), but from June 19th onwards, the belt was always visible, and in fact towards the end of the apparition the belt often appeared just as prominent as the S.S.B., being broad and dark. (See Figs. 11 and 12).

During the early observations the belt sometimes appeared as two rather faint thin components (Fig.1), and sometimes as a single streak, and on April 27th and 29th the position where the single belt divided to form the two components, was noticed at a longitude of about 190° (System 1) or 35° (System 2) (Fig.4).

When these early markings were plotted (together with the non-visibility of the belt) against System 2 longitude and date, it was found that a definite pattern emerged. It seemed that the belt was only visible over a small section of the planet at first (in March), but that the belt gradually lengthened over a period of about three months, until the two ends met up by about the end of May. It then completely girdled the planet.

However it was found that this original small lengthening section of belt was decreasing very rapidly in longitude, from a central longitude of about 130° early in March to 0° (System 2) early in May, and 288° by May 20th.

The markings were therefore plotted again against System 1 longitude and date, when it was found that the shift in longitude was now much less, being from a central longitude of 230° early in March to 170° by May 1st. This gave an average rotation period of about 9h49m50s. The preceding edge of the belt appeared to be rotating in about 9h49m10s and the following edge in approximately 9h50m30s, but insufficient observations were obtained, to enable anything but a very rough determination to be made.

It also seemed as if a disturbance had taken place in the belt, perhaps early in April, as a dark patch was observed at about 50° (System 2) on April 10th (Fig. 5), when no other signs of the belt were in evidence. The region where the belt split was also near this longitude (as mentioned above) on 27th and 29th April. On May 9th and 11th (Figs. 6 and 7), a single distorted belt was observed, the twisted region once again being close to the same

longitude (in System 2). This region was not observed again until June 1st, when a single bulge (seen) (Fig.10). This seemed to be the S component, but it was noticed that where it passed the red spot, it was flicked away from the spot, appearing like the S.S. hollow, only farther from the R.S. If this was the same disturbance, it had apparently decreased in longitude to 350° (System 2), in the mean time and had almost reached the longitude of the R.S.

It is not known for certain what happened to the disturbance after this, for there were few observations of this region for some time. However disturbances were noted at 280° on June 18th, 40° on August 13th, and 320° on September 8th and 13th (all System 2). If these were all in fact connected with the previous disturbance, it indicates that this active region accelerated with time, decreasing its rotation period from one close to that of System 2 to one approaching that of System 1. However this is largely surmise.

North Equatorial Belt (N.E.B.) This was practically always the most prominent marking on the planet and was always visible. During the earlier observations, it was usually seen somewhat thinner than in later observations, but its shape and width varied considerably. Sometimes it seemed to taper, and at other times it appeared undulating, and quite often it had spots or streaks associated with it.

On one occasion it seemed to have a small section of a northern component. This was seen on April 10th, centred on a System 2 longitude of 58° (Fig. 3).

The most prominent dark spot seen on the whole planet was observed on the northern edge of this belt on about nine occasions. This was first noticed on the 27th March as a loop of fairly dark matter centred on a longitude of approximately 170° (System 2). It then occupied about 17° of longitude. On 6th April, the S.S.S. appeared to kink northwards at about the same longitude.

On May 5th, a prominent dark promontory was seen at this longitude again, preceding a long bay on the north edge of the belt (Fig.5). By May 20th it appeared more as a definite elliptical shaped spot (Fig. 9).

It was more prominent, and pointed at each end, on June 22nd and August 4th, 9th and 21st (Fig. 11). It still occupied about 15° to 20° of longitude and seemed practically stationary in system 2.

September 2nd was the last observation of it, when its appearance was similar. This region of the planet was only observed once more (on October 1st), when the seeing was bad and the spot, if still there, was not noticed. Its rotation time was found to be 9h55m40s ± 4s and it was felt that this was the most accurate rotational period determined during the apparition.

A few other markings were noticed on this edge of the belt at time, but nothing as prominent as this particular spot.

During the first 5½ months up to 15th June, a number of dark projections, humps or streaks were noticed on the south edge of this belt. The streaks always ran away in a south following direction from the belt. Practically all these markings were seen between longitudes 140° and 230° (System 1) and the tendency for the markings to be drifting towards decreasing longitudes seemed apparent (see Figs. 1, 4, 8 and 9). However, it was not possible to positively identify markings on different dates, even after plotting against longitude and date, so no definite rotation periods could be derived.

The only other unusual marking noticed in this belt was a diagonal white streak which cut across the belt from the south, preceding to the north following side, finishing at a System 2 longitude of 95°. It was only seen once, on April 8th (Fig. 2)

N. and S.N. Temperate Belts. The north temperate belt was never as conspicuous as the S.T.B. was early in the apparition. The N. and N.N. temperate belts, generally blended in with the shading of the S.P.R., but on a number of occasions a definite darker belt was noticed, apparently in the position of the N.T.B. On two or three occasions, two dark belts were drawn in this region, but no other details were ever noticed. (see Figs. 1, 4, 9 and 9).

North Polar Region (N.P.R.) This was generally seen larger fainter and of a warmer tone than the S.P.R., although the greater size was probably due to the blending in of the N. and N.N. temperate belts. A darkening towards the pole was usually noticed.

Satellite 3, and its shadow were seen over this region on April 8th (Fig.2).

JUPITER 1958

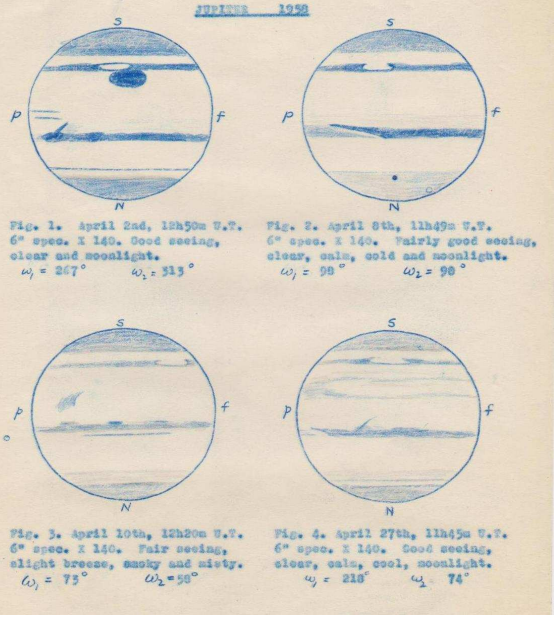


Fig. 1. April 2nd, 12h50m U.T. 6" spec. X 140. Good seeing, clear and moonlight. $\omega_1 = 267°$ $\omega_2 = 313°$

Fig. 2. April 8th, 11h49m U.T. 6" spec. X 140. Fairly good seeing, clear, calm, cold and moonlight. $\omega_1 = 98°$ $\omega_2 = 98°$

Fig. 3. April 10th, 12h20m U.T. 6" spec. X 140. Fair seeing, slight breeze, smoky and misty. $\omega_1 = 73°$ $\omega_2 = 58°$

Fig. 4. April 27th, 11h45m U.T. 6" spec. X 140. Good seeing, clear, calm, cool, moonlight. $\omega_1 = 218°$ $\omega_2 = 74°$

JUPITER 1958

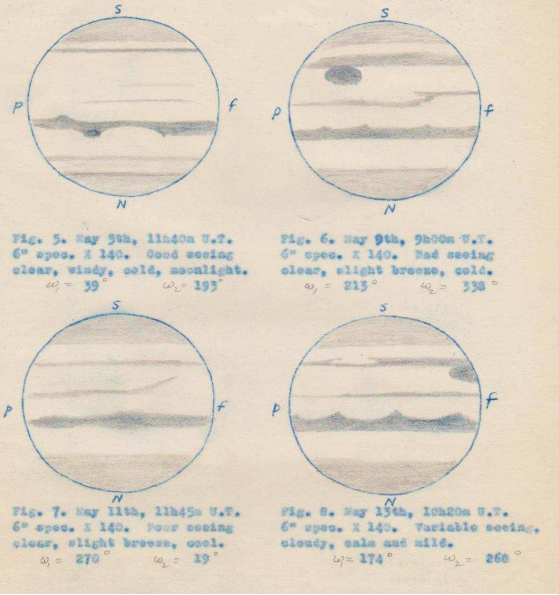


Fig. 5. May 5th, 11h40m U.T. 6" spec. X 140. Good seeing clear, windy, cold, moonlight. $\omega_1 = 39°$ $\omega_2 = 193°$

Fig. 6. May 9th, 9h00m U.T. 6" spec. X 140. Bad seeing clear, slight breeze, cold. $\omega_1 = 215°$ $\omega_2 = 338°$

Fig. 7. May 11th, 11h45m U.T. 6" spec. X 140. Poor seeing clear, slight breeze, cool. $\omega_1 = 279°$ $\omega_2 = 19°$

Fig. 8. May 15th, 10h20m U.T. 6" spec. X 140. Variable seeing, cloudy, calm and mild. $\omega_1 = 174°$ $\omega_2 = 268°$

JUPITER 1958

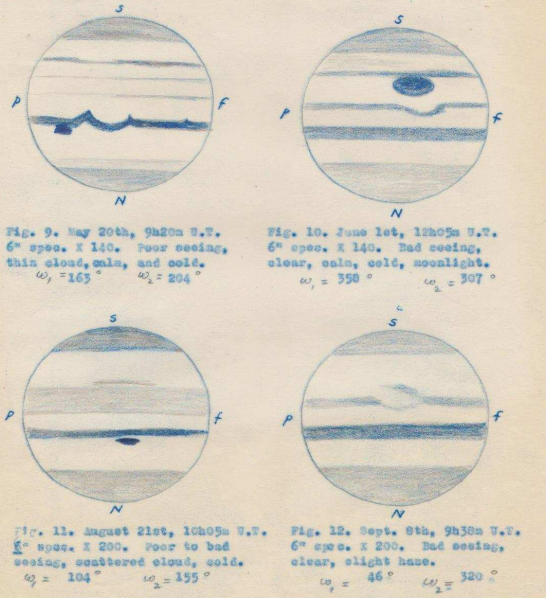


Fig. 9. May 20th, 9h20m U.T. 6" spec. X 140. Poor seeing, thin cloud, calm, and cold. $\omega_1 = 163°$ $\omega_2 = 294°$

Fig. 10. June 1st, 12h05m U.T. 6" spec. X 140. Bad seeing, clear, calm, cold, moonlight. $\omega_1 = 358°$ $\omega_2 = 307°$

Fig. 11. August 21st, 10h05m U.T. 8" spec. X 200. Poor to bad seeing, scattered cloud, cold. $\omega_1 = 104°$ $\omega_2 = 155°$

Fig. 12. Sept. 8th, 9h30m U.T. 6" spec. X 200. Bad seeing, clear, slight haze. $\omega_1 = 46°$ $\omega_2 = 320°$

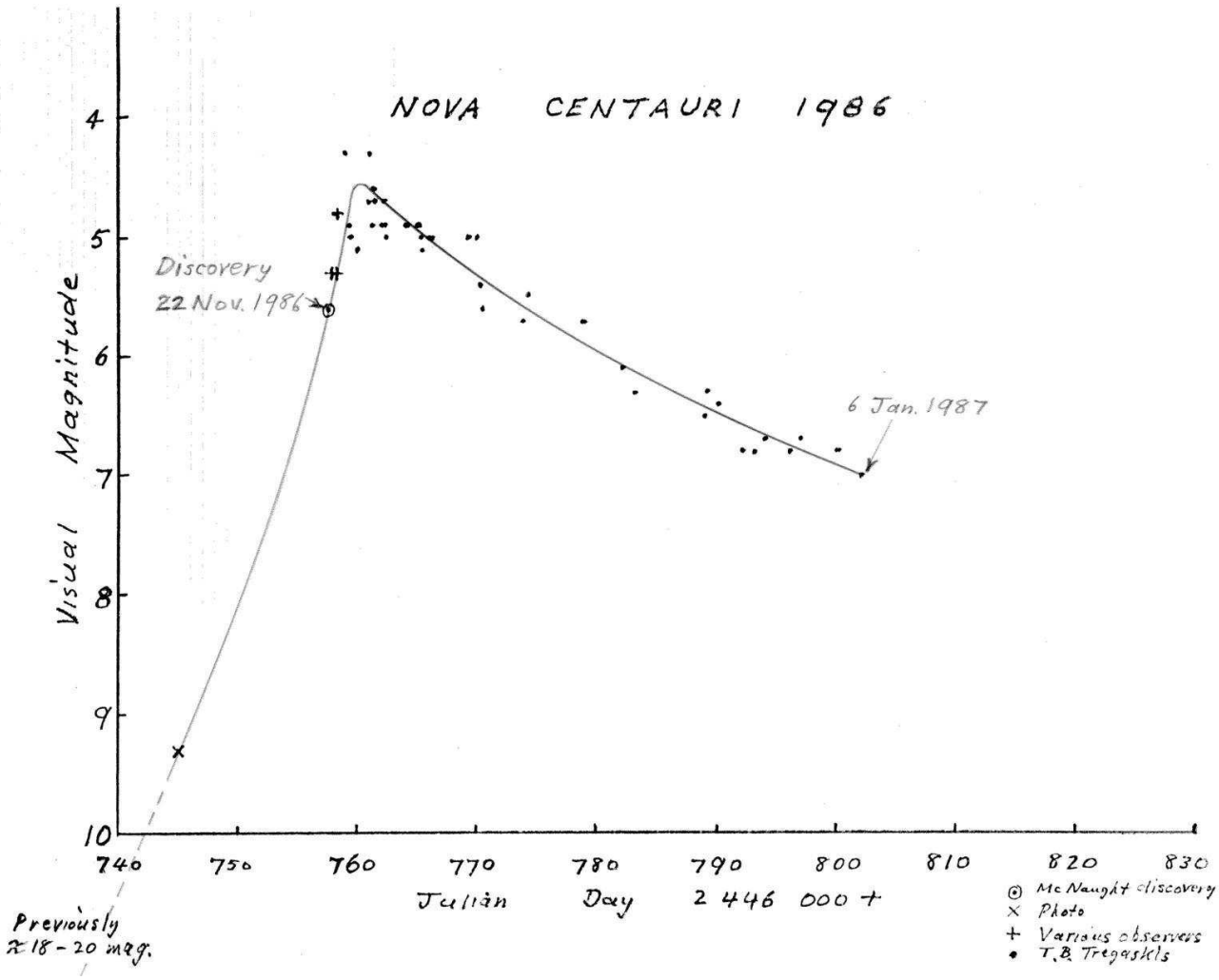
Bruce spent most of his spare time observed variable stars & recording there magnitude (brightness) sending the information to the RASNZ Variable star section. Up to recently professional astronomers relied heavily on amateur to make observation for them over long periods of time, which would have otherwise tied up telescopes for years. But today the professional astronomers have automated telescope in space orbiting the earth, doing these tasks producing more data then we can use. Making these types of observations redundant. Below is an example from one of Bruce's log books.

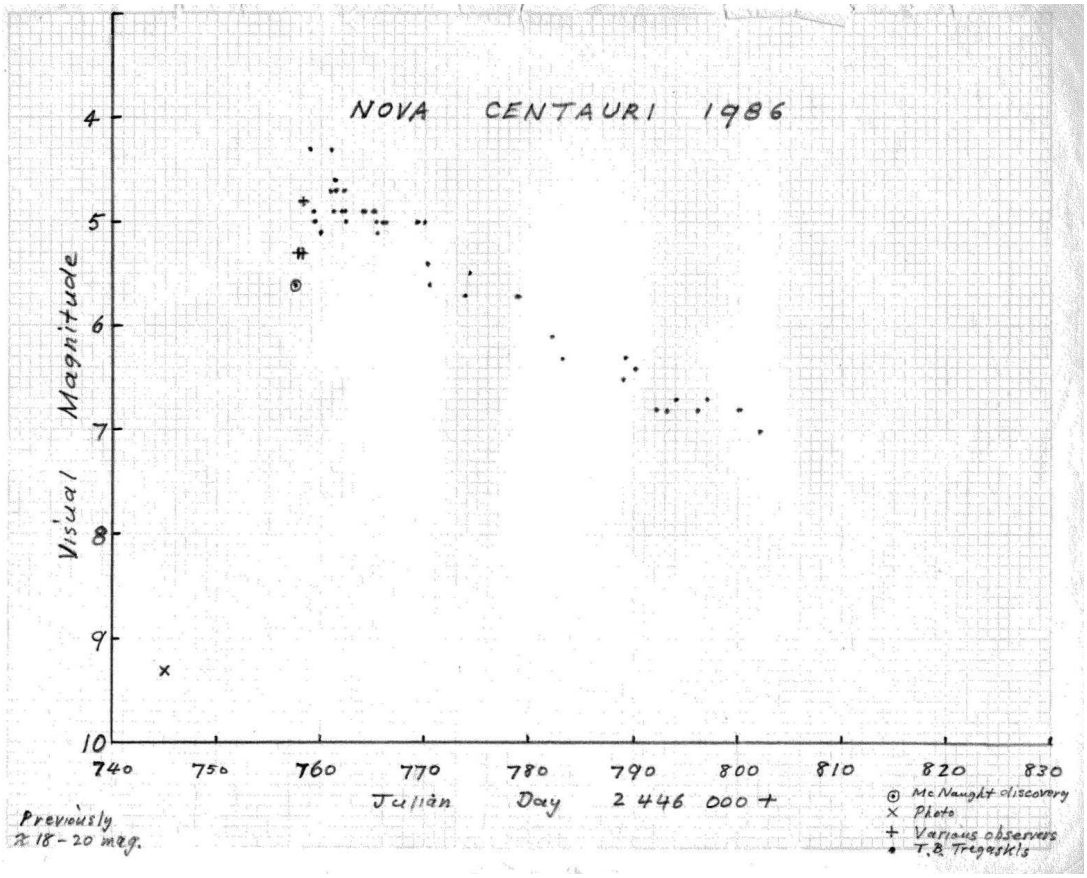
1959 March & April

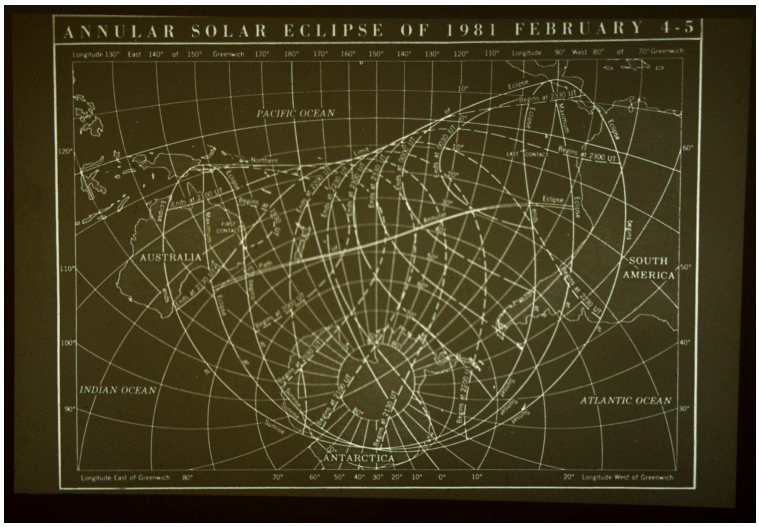
Star	Date (1959)	G.M.A.T. h	m	J.D. 2436	Inst.	Estimate	Dec. Mag.	Sky	Class
T Cen.	Apr. 10	00	10	669·0	T1 64X	74 (4) V (3) 82	7·6	1	1
"	11	23	50	671·0	T1 64X	74 (1) V (1) 82	7·8	1	1
R Cen.	Mar. 12	22	25	640·9	F1 6X	65 (1) V (3) 73	6·7	2 (H.)	2
"	" 14	00	10	642·0	F1 6X	V = 65	6·5	1	1
"	" 17	23	44	646·0	F1 6X	V = 65	6·5	2 (M.)	2
"	Apr. 4	23	17	664·0	F1 6X	V = 64	6·4	1	1
"	" 9	23	56	669·0	F1 6X	V = 65	6·5	1	1
"	" 11	23	55	671·0	F1 6X	V = 64	6·4	1	1
S Aps.	Mar. 12	22	58	641·0	T1 64X	103 (1) V (6) 94	10·2	1	1
"	" 13	23	45	642·0	T1 64X	94 (4) V (1) 103	10·1	1	1
"	Apr. 9	23	42	669·0	T1 64X	V = 103	10·3	1	1
"	" 12	00	04	671·0	T1 64X	V = 103	10·3	1	1
RS Sco.	" 12	00	20	671·0	T1 64X	88 (1) V (5) 94	8·9	2 (H.)	2

T1 signifies 6" f/8 aluminised reflector (equatorial).
F1 " 1¾" 6X refractor (hand held).
T.V. under "sky" signifies interference from T.V. antenna.
When observing R Cen. on Mar. 11 & 13, 83 appeared brighter than 80, therefore these two stars were not used for comparison. B. Tregaskis.

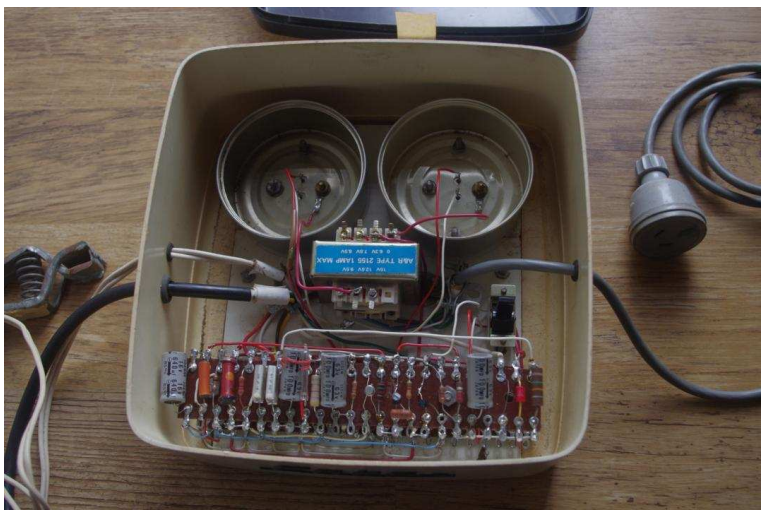
Below is a chart Bruce made of a Nova in the constellation Centauri discovered on 22nd November 1986, Bruce made accurate measurement of its magnitude (brightness) and plotting it over time on graph paper.



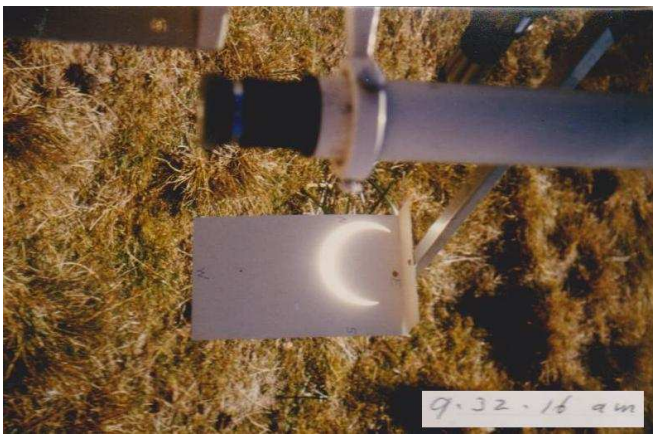


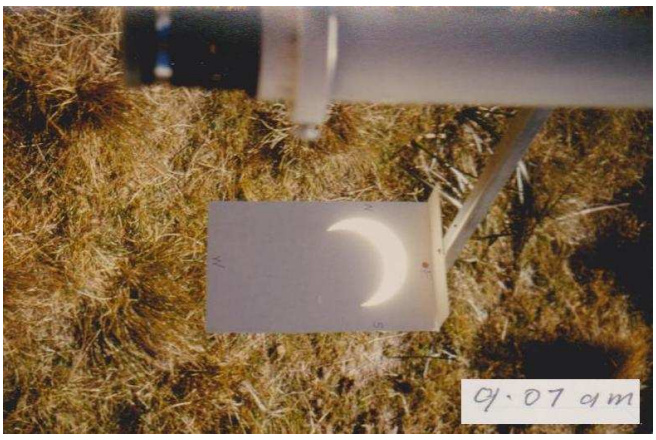

ANNULAR SOLAR ECLIPSE OF 1981 FEBRUARY 4-5
PACIFIC OCEAN
AUSTRALIA
SOUTH AMERICA
INDIAN OCEAN
ATLANTIC OCEAN
ANTARCTICA


Coke

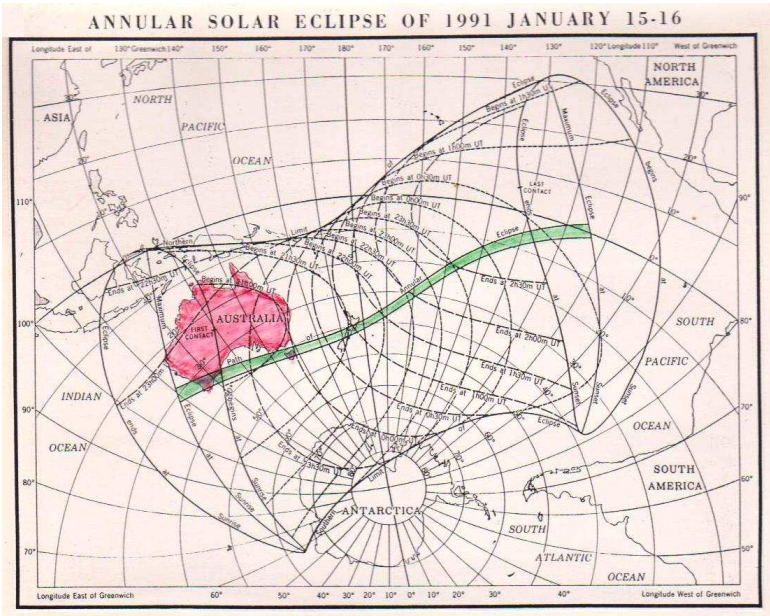


Bruce 4 inch telescope travelled with him on many of his solar eclipse expeditions. Photo right show Bruce recording the times at various points at which things were happening, with the time signal playing on the short wave radio in the foreground.





Bruce Tregaskis with tape recorder, radio (for VNG) and 4" f/6 reflector showing annular solar eclipse from Walkers Lookout, Flinders Island. 16-1-91



Above - Path of the eclipse (Green)

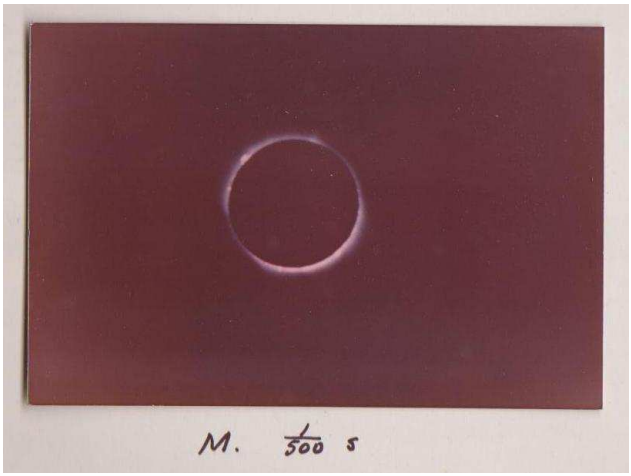
Left - Photos of annular solar eclipse

Below - Bruce's equipment list

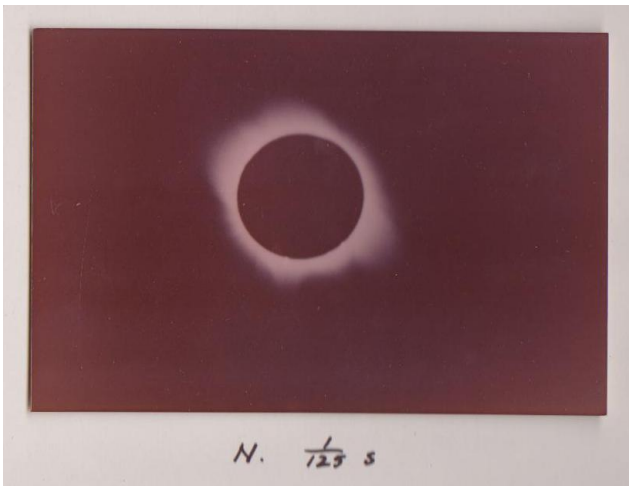
EQUIPMENT TO TAKE TO AN ECLIPSE SITE

Telescope, mounting, eyepieces and accessories.
Solar filters and/or projection equipment.
Cameras, telephoto lenses, tripods, cable releases and films.
Any required attachment screws, universal joints or adaptors (e.g., camera to telescope or tripod).
Short wave radio to pick up VNG on 5, 10 or 15 MHz.
Tape recorder (may be combined with radio).
Watch or clock (may require alarm).
White sheet or card (to search for shadow bands before and after totality).
Notebook, pen and pencil.
Torch (may be required to set camera during totality).
Stool or folding chair.
Tools.
String, rope, wire, plastic or masking tape, Tarzan's Grip, etc. (for last minute temporary repairs or modifications).
Any other special items.

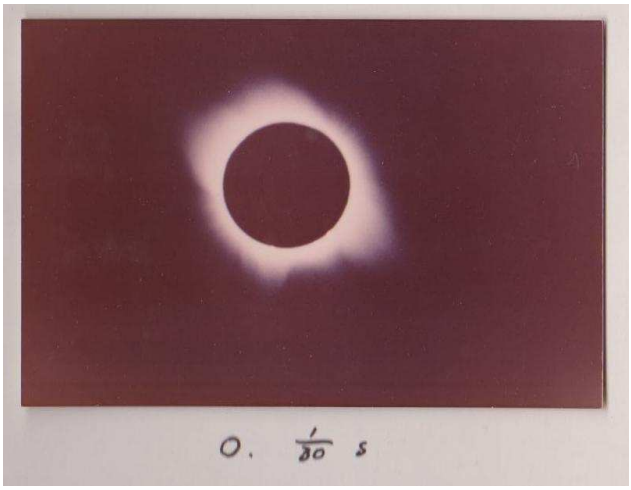
Bruce 4 inch telescope at solar eclipse expeditions in Papua New Guinea 23rd November 1984.
See SLR camera piggy backed on his telescope.



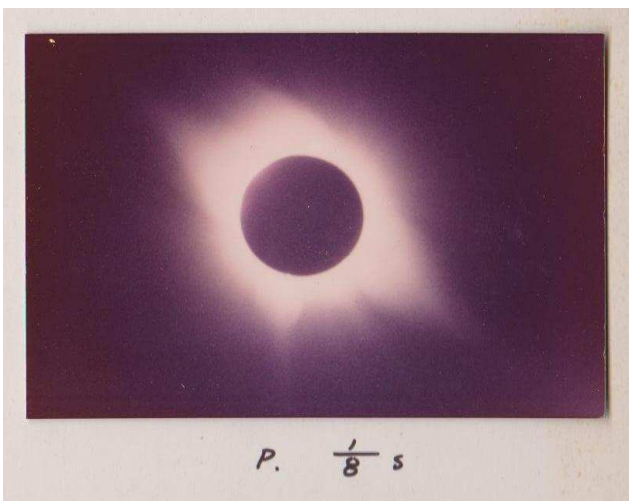
M. 1/500 s



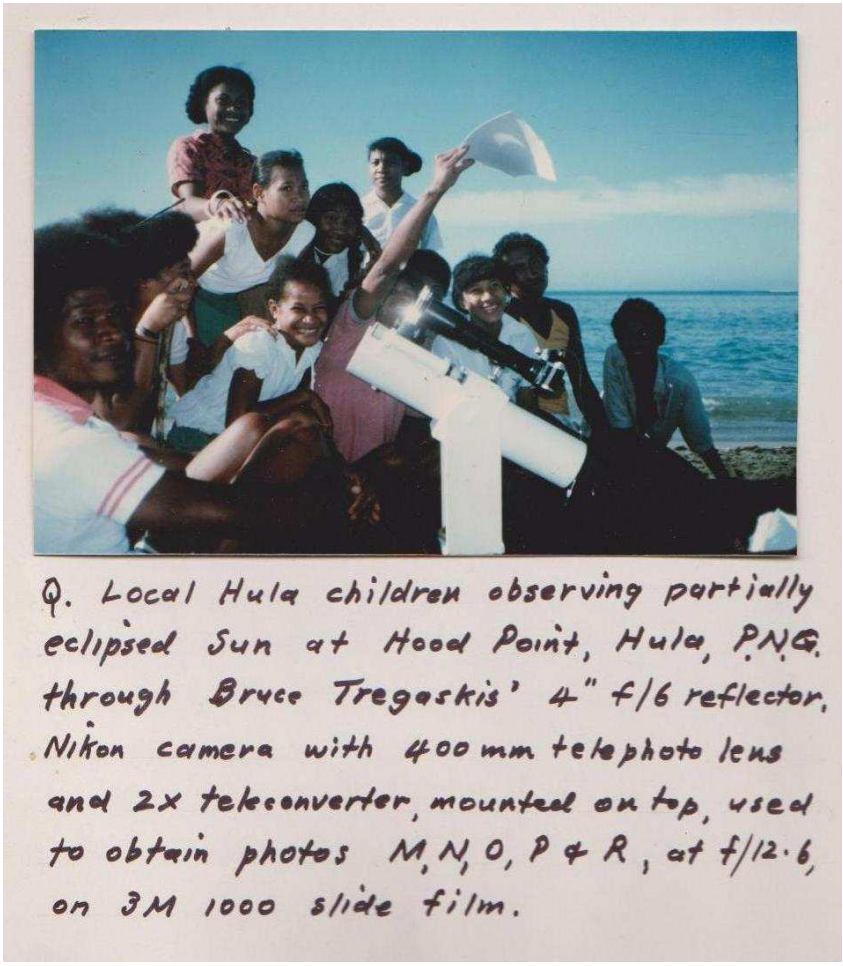
N. 1/125 s



O. 1/30 s



P. 1/8 s



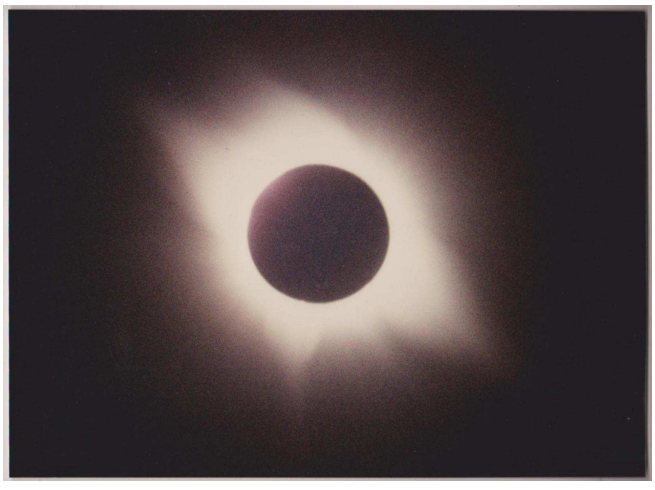
Q. Local Hula children observing partially eclipsed Sun at Hood Point, Hula, P.N.G. through Bruce Tregaskis' 4" f/6 reflector. Nikon camera with 400 mm telephoto lens and 2x teleconverter, mounted on top, used to obtain photos M, N, O, P & R, at f/12.6, on 3M 1000 slide film.

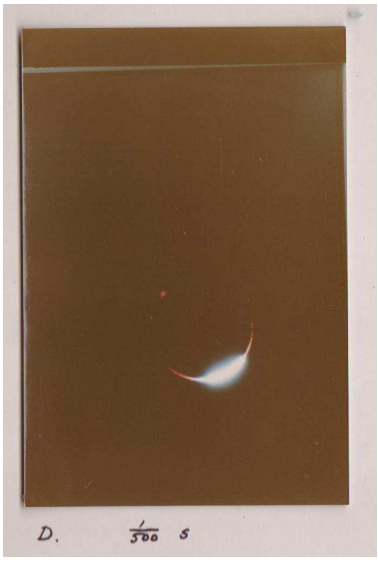
Below - From ASF news letter February 1985

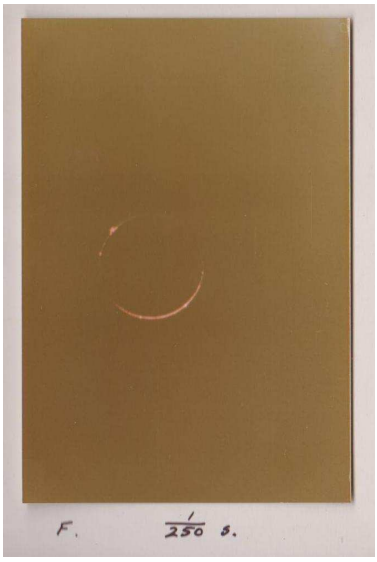
Society News

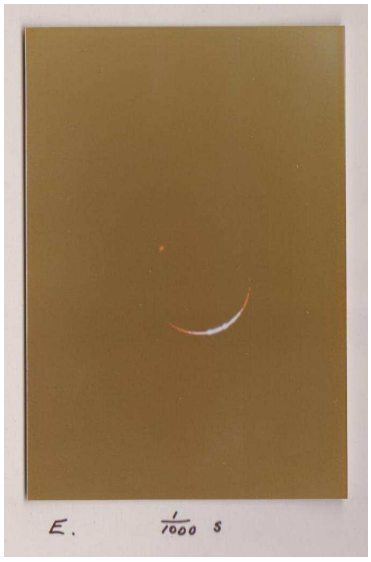
Bruce Tregaskis provided members will first hand accounts of his, now numerous, observations of total solar eclipses at the Society's January meeting. Bruce's first experience of a "total solar" was in Western Australia in 1974 and since then he has been well and truly bitten by the eclipse bug, observing not only the 1976 total solar in Victoria, but visiting a site near Winnipeg in Canada to observe the 1979 eclipse in bitter cold and surrounded by snow.

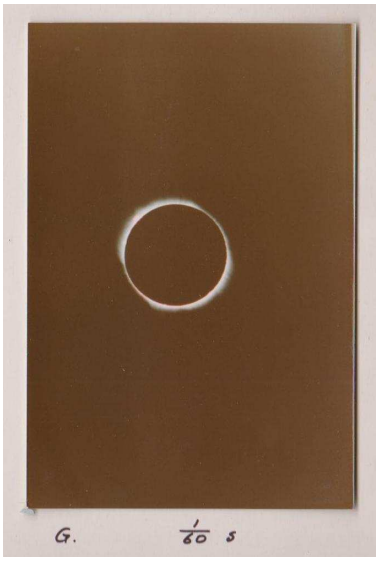
Most recently he travelled to Papua New Guinea to observe the November 1984 eclipse from a beach area near Port Moresby and obtained excellent views and photographs of this event. Bruce's talk was illustrated by numerous slides, not only of the eclipses themselves, but of a variety of local sights and scenes at the different eclipse sites. In addition, Bruce displayed charts showing paths for future eclipses, to the end of the century and beyond, some of which he is already planning to visit.

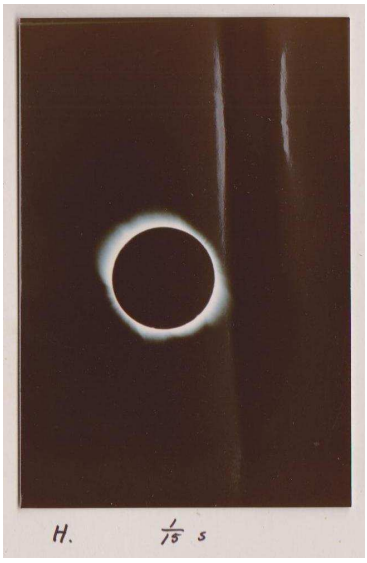


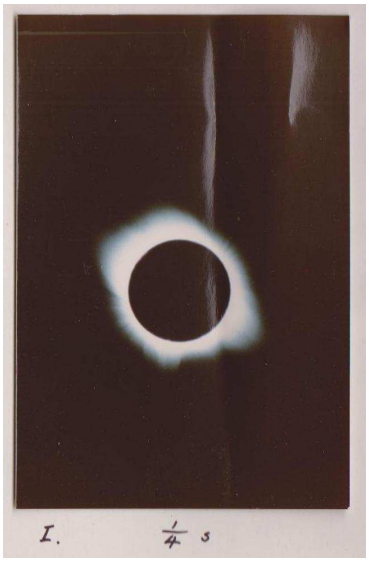

D. 1/500 s

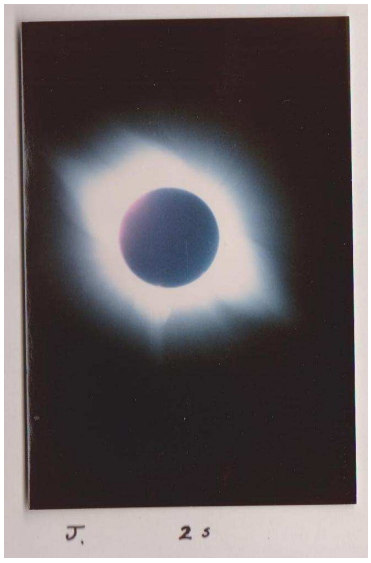

F. 1/250 s.

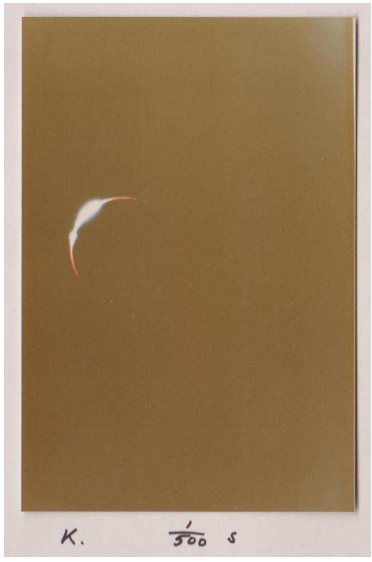

E. 1/1000 s

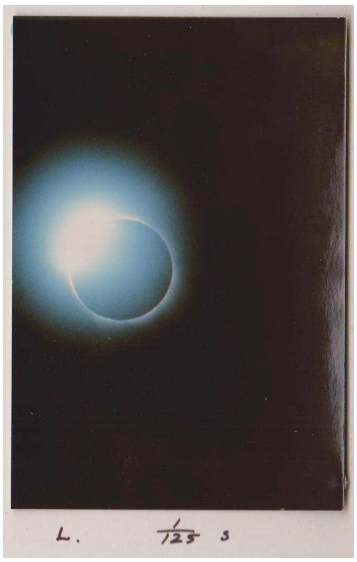

G. 1/60 s


H. 1/15 s

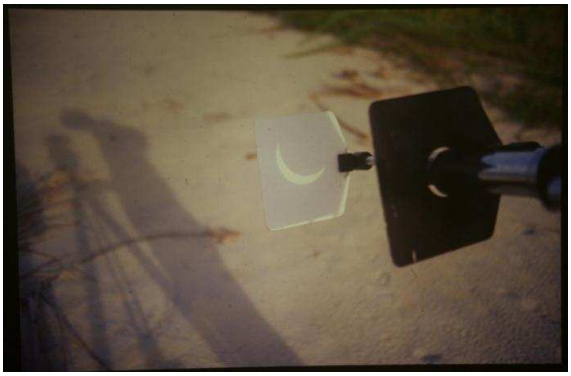

I. 1/4 s

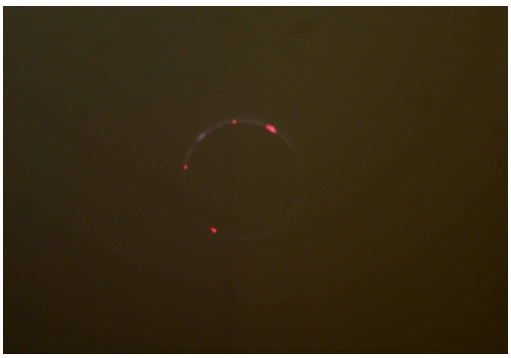

J. 2 s

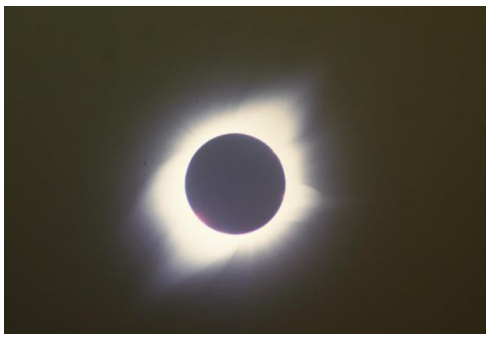

K. 1/500 s

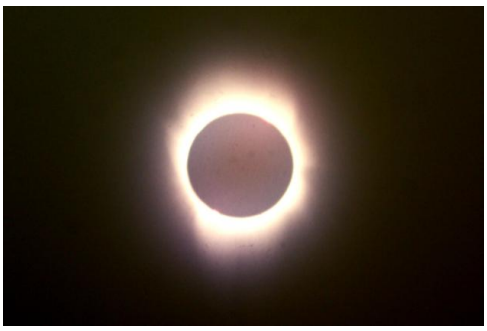

L. 1/125 s

More photo from the PNG solar eclipse



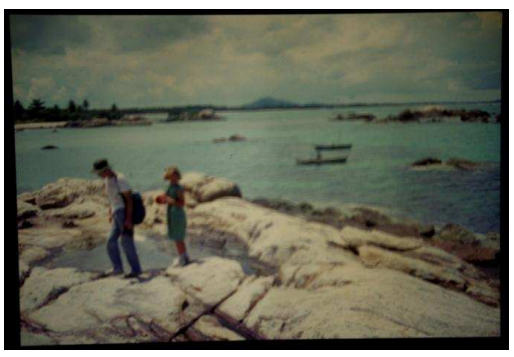







KOKODA TRAIL
NATIONAL WALKING TRACK


THEIR NAME LIVETH
FOR EVERMORE



General Society Information

Office bearers of the Mornington Peninsula Astronomical Society

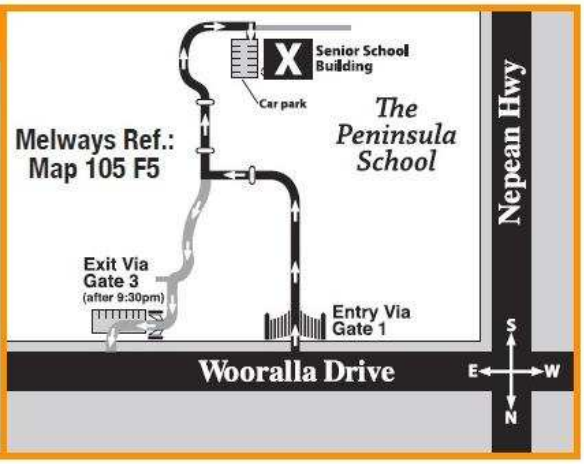
President: Peter Lowe
Vice President: Brett Bajada
Committee: Ian Sullivan, Trevor Hand, David Rolfe, Bob Heale, Fiona Murray, Greg Walton.
Phone Contact: Peter Skilton - 0419 253 252

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

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



Loan Equipment

The Society has a variety of telescopes including an 8-inch reflector, 80mm refractor and binoculars, all available for loan.

Contact 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.

Contributions to Scorpius

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

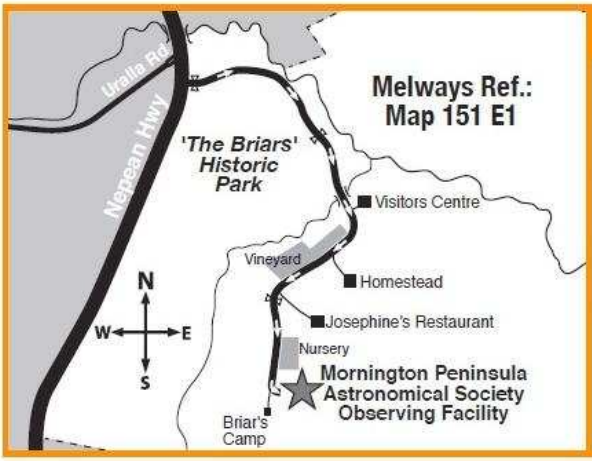
Any astronomical events that you have witnessed or tales you would like to tell, things you have for sale (eg: telescopes, eyepieces, etc.) then please send them in. All contributions and any feedback you wish to make about the newsletter are welcome.

E-Scorpius Newsgroup

M.P.A.S. has an online news-group 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** saying that you want to join E-Scorpius and you will be added to the E-Scorpius list. Come on, join up. The more people in the group the better.



Viewing Nights - Members Only

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

For additional details: **http://www.mpas.asn.au**