WELLINGTON ASTRONOMICAL SOCIETY

Two 6 inch dobbies Photo ©Gordon Hudson

MONTHLY MEETING
WEDNESDAY 9th May 2007
7.30 PM
SCIENCE HOUSE
TURNBULL STREET
THORNDON
WELLINGTON

Choosing and caring for telescopes by Gordon Hudson.

In this talk I will discuss and show various types of telescopes that are available and the different uses for each scope. I will also be looking at the care of your telescope, how to check the collimation and how to realign the optics. I will also touch on eyepieces and the care of them. I will also look at polar aligning telescopes and show an easy way to polar align certain types of mounts.

Sidewalk Astronomer's Day- Saturday May 19

We are looking at doing something for Sidewalk Astronomy Day. Any suggestions contact Vicki Irons ph 970-5215, email virons@astronomy.wellington.net.nz or Brenda Johnston Ph 461-6612, email bjohnston@astronomy.wellington.net.nz or speak to us at the next WAS meeting

Obituary for Frank M. Bateson (OBE FRAS FRASNZ) Royal Astronomical Society of New Zealand. Information taken from . Email Newsletter Number 80, 18 April 2007

New Zealand astronomers and many others around the world were saddened to learn last Monday of the death of Frank Bateson, for long New Zealand's most famous astronomer. Grant Christie of Auckland's Stardome Observatory, and RASNZ Vice President, has complied the following tribute.

Frank Bateson organised variable star observing in New Zealand, providing leadership to the field in the Southern Hemisphere for 78 years. The son of Charles and Alice Bateson, he was educated at the Hurworth Preparatory School in Wanganui, NZ and at Scots College, Sydney, Australia. He developed a keen interest in astronomy after reading "Great Astronomers" by R. S. Ball. He made his first observations of meteors in1923 (Donovan Prize, 1923) and then variable stars in 1924 (Donovan Prize,1924). He joined the BAA (NSW), was lent a small refractor and allowed to use the refractor at the Sydney Observatory.

Bateson left school and started working in 1925 in business administration and accountancy, a career that he followed for most of his working life. He returned to NZ in 1927 and founded the Variable Star Section (VSS) of the NZ Astronomical Society (later the Royal Astronomical Society of NZ).He served continuously as Director of the Section for the next 78 years.In 1931 he married Doris McGoldrick and they had two daughters, June and Audrey. Throughout these years Bateson continued his observation of variable stars and worked tirelessly to expand the VSS with its network of observers. During the Depression, the Batesons moved first to Auckland and then in 1937 to a job in Whangarei, which allowed plenty of time to devote to astronomy. After the end of war in 1945, Bateson moved to the Cook Islands to manage a trading company. From the tropics he continued his own observations (now with an 8 inch refractor) while also directing the VSS. Under his leadership, the number of active observers increased as did the number and types of variable stars covered, most notably the dwarf novae. He established close working links with professional astronomers and provided them with data obtained through the extensive network of observers. He developed methods

that allowed the observational results to be rapidly communicated.
In the late 1950s he began promoting his vision of a professional observatory in New Zealand in collaboration with Frank B. Wood of the University of Pennsylvania. Bateson conducted an extensive site-testing survey and recommended the site at Mount John near Lake Tekapo. The Mount John Observatory was established with the University of Canterbury in 1965; Bateson served as Astronomer-in-Charge until his retirement in 1969.

From his home in Tauranga, NZ, with his wife Doris he established a private non-profit company (Astronomical Research Ltd) to administer the network of variable star observers. Bateson's research in variable stars has achieved international recognition, particularly from the professional astronomers who made extensive use of the results he collated. Approximately one million observations have been recorded and these have been published in hundreds of publications. Over 1000 charts of southern variable stars have been published (most with Mati Morel). In addition, he has personally authored over 300 scientific papers.

Frank Bateson was elected as a Fellow of the Royal Astronomical Society of New Zealand (RASNZ) in 1963 and was a member of the Society for over 80 years. He served on the Council for many years and was a past President (1966-67). He was also an Honorary Member of numerous astronomical societies both within New Zealand and around the world.

Over his long career, Bateson was honoured by many major prizes and awards. He was elected to full membership in the International Astronomical Union and served as the first NZ representative. He received the Jackson-Gwilt Medal and Prize of the Royal Astronomical Society in 1960 and an honorary doctorate from the University of Waikato in 1979. He was awarded the Order of the British Empire (OBE) in 1970 for services to astronomy and the Amateur Achievement Award of the Astronomical Society of the Pacific in 1980. The asteroid 2434 Bateson was named in his honour. With justification, he has been widely recognised as the father of modern New Zealand astronomy. His autobiography "Paradise Beckons" was published privately in 1989.Frank Bateson died peacefully in Tauranga on April 16, 2007 in the company of his family. BATESON, Frank Maine born 31st Oct 1909 in Wellington, NZ. died 16th Apr 2007 in Tauranga, NZ.

How to receive your WAS newsletter by email

At our last AGM, the incoming council was asked to set up a system where WAS members could receive their newsletter over the internet (rather than by post).if you wish to receive your newsletters this way, then please send an email to ;newsletter-subscribe@was.org.nz with your full name in the body of the email (a subject line is not required).I need your name in the email as it is not clear from some email addresses who the email is actually coming from.

You should then receive an automatic reply, asking you to confirm you want to subscribe (and to check your email address is okay). I (as moderator) will then get a request to subscribe you. After I okay your subscription you should get another message telling you it's been done. When each newsletter becomes available, I will email a short message to all subscribers to that effect and provide a link to the newsletter. In this way you can download the newsletter at your own convenience. The newsletters will be in pdf format, and are typically 1 - 2MB in size.

Note; this is only intended for current WAS members, which is why I have to okay each subscription request. The only exceptions will be for companies that advertise in the newsletter or other astronomical societies that swap newsletters with us. Further note that for the first few months you will also continue to receive your newsletter in the post. Once we're confident the system is working well, you will only receive the newsletter via email.

RASNZ Conference 2007, Auckland. Information taken from the RASNZ website

The 2007 RASNZ conference will be held from Friday 29 June to Sunday 1 July. The Auckland Astronomical Society is hosting it. The venue will be the Quality Inn, 477 Great South Road, Manukau. This is 15 km to the south of Auckland City and within a few kilometres of Auckland Airport. It is hoped the guest speaker for the conference will be David Dunham, long term president of IOTA, the International Occultation Timing Association.

Registration form for the 2007 conference and symposium is found on the RASNZ website www.rasnz.org.nz where there is also a Submission form for presentation of papers. Reservations at the Quality Inn can be made on line, by email or by phone to 0800 700 477. More details of the venue can be found on the Quality Inn web site.

The First Trans-Tasman Symposium on Occultations

The Conference is likely to be followed by an Occultation Workshop/Symposium probably starting Sunday afternoon after conference closure and continuing throughout Monday 2 July. David Dunham is likely to be a participant. There will be a separate registration for the Symposium. Please refer back to this site and to the Occultation Section website for further details which will be posted as they become available. **Further details** of the conference and symposium, lists of speakers and their topics and the conference programme will be posted on this site as they become available

Upcoming Star Parties

We often post up-to-date information about upcoming star parties on the society's announcements' email group. If you'd like to join, send a blank email to: announce-subscribe@was.org.nz.

The Gifford Observatory star party is being held on Saturday 12th May. The contact person is Marilyn Head ph 389-0882 email marilyn@actric.gen.nz The phone number at the Gifford is 021 450-882

Pauatahanui Star Party will be held on Saturday May 26th. Observing will commence after dark. The Phone number at Pauatahanui is 021-102-6056.

Please note that mobile charges may apply when you phone some of these numbers

Thomas King Observatory

Although Carter Observatory will be closed to the public from Thursday 3rd May it is expected that W.A.S members will still be able to use the TKO on any Tuesday night. Contact Ross Powell Ph 389-9765, email rpowell@was.org.nz or Vicki Irons Ph 970-5215 email virons@was.org.nz for more details.

Galactic Circle feature

Galactic Circle will be on the 23rd May between 4.30 and 6.30pm at the Kelburn Scout Hall due to the closure of Carter Observatory for redevelopment. The group is coordinated by Marilyn Head ph 389-0882 email marilyn@actric.gen.nz. We look forward to seeing you all there.

What's in the Sky in May: Information provided by Carter Observatory

Planets

May is a good month for viewing the planets. Venus, Mars, Jupiter and Saturn will be visible for all of the month. Mercury will be visible towards the end of the month.

Venus will be visible in the evening sky. At the start of the month it sets at 19 35 and at 20 08 by month's end. Venus starts the month in the constellation of Taurus, moving into Gemini on May 10. Its brilliant magnitude slightly increases from –4.1 to –4.2 during May.

Saturn will be visible for the first half of the night. At the start of the month it sets at 00 16 and at 22 21 by month's end. Saturn is in the constellation of Leo, in which it remains until September 2009. Its magnitude slightly fades from 0.4 to 0.5 during the month.

Jupiter will be visible for all of the night except at the start of the night at the beginning of May. At the start of the month it rises at 19 29 and at 17 19 by month's end. Jupiter is in the constellation of Ophiuchus, in which it remains until 2007 December. Its magnitude slightly increases from –2.5 to –2.6, it's brightest for the year.

Mars will be visible for the last quarter of the night. At the start of May it rises at 02 45 and at 02 42 by month's end. Mars start the month in the constellation of Aquarius, moving into Pisces on May 10, into Cetus on May 25 and finally back into Pisces on May 30. Its magnitude slightly brightens from 1.0 to 0.9 during the month.

Mercury will be visible in the evening sky towards the end of May. By May 22 it sets at 18 05, an hour after Sunset and at 18 24 by month's end. Mercury starts the month in the constellation of Aries, moving into Taurus on May 10 and finally into Gemini on May 30. From May 22 its magnitude fades from –0.5 to 0.3.
All times are for Wellington unless otherwise stated. Other centres may vary by a few minutes.

Phases of the Moon

Full Moon – May 2 at 22 09. Last Quarter – May 10 at 16 27.New Moon – May 17 at 07 27. First Quarter – May 24 at 09 03.

Comets
No bright **comets** are predicted to be visible during May.

Meteor Showers

May is an exciting month for **meteor showers**. The alpha Scorpids shower is active until May 12, with a maximum on May 3, when there should be about 10 meteors per hour with an average magnitude of 2.5. The radiant position is R.A. 16h00m and Dec. -27°. The radiant is in the constellation of Scorpii, near to Antares (alpha Scorpii), which is visible for all of the night, except early evening at the start of the month.

The major shower active until May 28 is the eta Aquarids. Maximum activity should occur on May 03 when about 50 meteors per hour, with an average magnitude of 2.7, can be expected. The radiant is at R.A. 22h24m and Dec. -02°. The radiant is in the constellation of Aquarii, near to alpha Aquarii (Sadal Melik, sometimes called Rucbah), which is visible for about the last half of the night.

Diary of Astronomical Phenomena: Information provided by Carter Observatory

May

2	Full Moon at 22 09.
3	Mercury in Superior Conjunction (on far side of Sun) at 16 00.
5	Antares very close to Moon just before Sunrise.
6	Jupiter 6°N of Moon at 00 00.
16	Moon at perigee (closest to the Earth) at 03:00. (Distance = 0.0024024 AU = 359,390 km).
17	New Moon at 07 27.
28	Moon at apogee (furthest from the Earth) at 10:00 (Distance = 0.0027103 AU = 405,460 km).
30/31	Venus close to Pollux in the evening sky.

Sunrise/Sunset

Alongside are Sunrise and Sunset times for each Monday of the month for Wellington, The table also gives the time of Transit (Trans), the maximum Altitude (Alt) and the Azimuth (Az).

The time of transit is when the Sun crosses the local North-South meridian from East to West. At the time of transit, shadows will point South. The transit time is also the time at which the Sun is at its maximum altitude (Alt). Assuming your horizon is at sea level, the Azimuth is the position on the horizon where the Sun rises or sets. The angle is measured from true North (not magnetic North), towards the East for Sunrise and towards the West for Sunset.

An azimuth of 90°, for Sunrise, means the Sun rises exactly in the East and for Sunset the Sun sets exactly in the West. For azimuths less than 90°, the Sun rises to the North of East and sets to the North of West (Winter months). For azimuths greater than 90°, the Sun rises to the South of East and sets to the South of West (Summer months). Other New Zealand centres may differ slightly from Wellington

Date	Alt	Az	Rise	Set	Trans
May	°	°	H M	H M	H M
7	36	69	07 13	17 21	12 17
14	35	67	07 21	17 14	12 17
21	33	65	07 27	17 07	12 17
28	32	63	07 33	17 03	12 18

Moonrise/Moonset

The table alongside gives the Moonrise and Moonset times for Wellington for the month. The times for other New Zealand centres may deviate by up to 30 minutes, and this difference will vary during the month. (Unfortunately it is not possible to estimate this difference by consulting the Sunrise and Sunset tables above as the Sun differences between Auckland, Wellington, Christchurch and Dunedin bear little resemblance to the Moon differences because of the Moon's declination).

In the table, we include the Azimuth (Az) that the Moon rises and sets on the horizon. It assumes your horizon is sea level. Azimuth is measured in degrees from True North (not Magnetic North) either towards East or West depending on whether it is for Moonrise or Moonset.

So for an Azimuth of 90°, the Moon will rise exactly in the East and set exactly in the West. For Azimuths less than 90°, the Moon will rise to the North of East and set to the North of West. Similarly, for Azimuths greater than 90°, the Moon will rise to the South of East and set to the South of West.

Moonrise and Moonset for Wellington

Date	Rise	Az	Set	Date	Rise	Az	Set
May	H M	°	H M	May	H M	°	H M
1	16 32	109	05 42	16	06 23	65	16 16
2	16 55	115	06 45	17	07 47	58	16 57
3	17 33	122	07 49	18	09 05	53	17 48
4	17 56	126	08 53	19	10 15	52	18 50
5	18 38	129	09 56	20	11 12	53	19 59
6	19 29	130	10 54	21	11 57	57	21 12
7	20 29	128	11 47	22	12 31	63	22 22
8	21 35	124	12 31	23	12 58	70	23 29
9	22 46	119	13 07	24	13 20	77	-- --
10	23 59	111	13 38	25	13 40	84	00 33
11	-- --	105	14 04	26	13 59	92	01 34
12	01 12	102	14 28	27	14 17	99	02 34
13	02 27	93	14 52	28	14 37	107	03 34
14	03 44	83	15 16	29	14 59	113	04 36
15	05 02	74	15 43	30	15 25	120	05 39
				31	15 57	124	06 43

Accurate Sunrise/set and Moonrise/set times for any location, in New Zealand or anywhere in the World, are available from Carter Observatory. Other data, such as the position in the sky of the Sun and Moon (or planets) at a particular time, twilight times, illumination from the Sun or Moon, can also be supplied. There may be a charge for this information.

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COUNCIL OF THE WELLINGTON ASTRONOMICAL SOCIETY INC.

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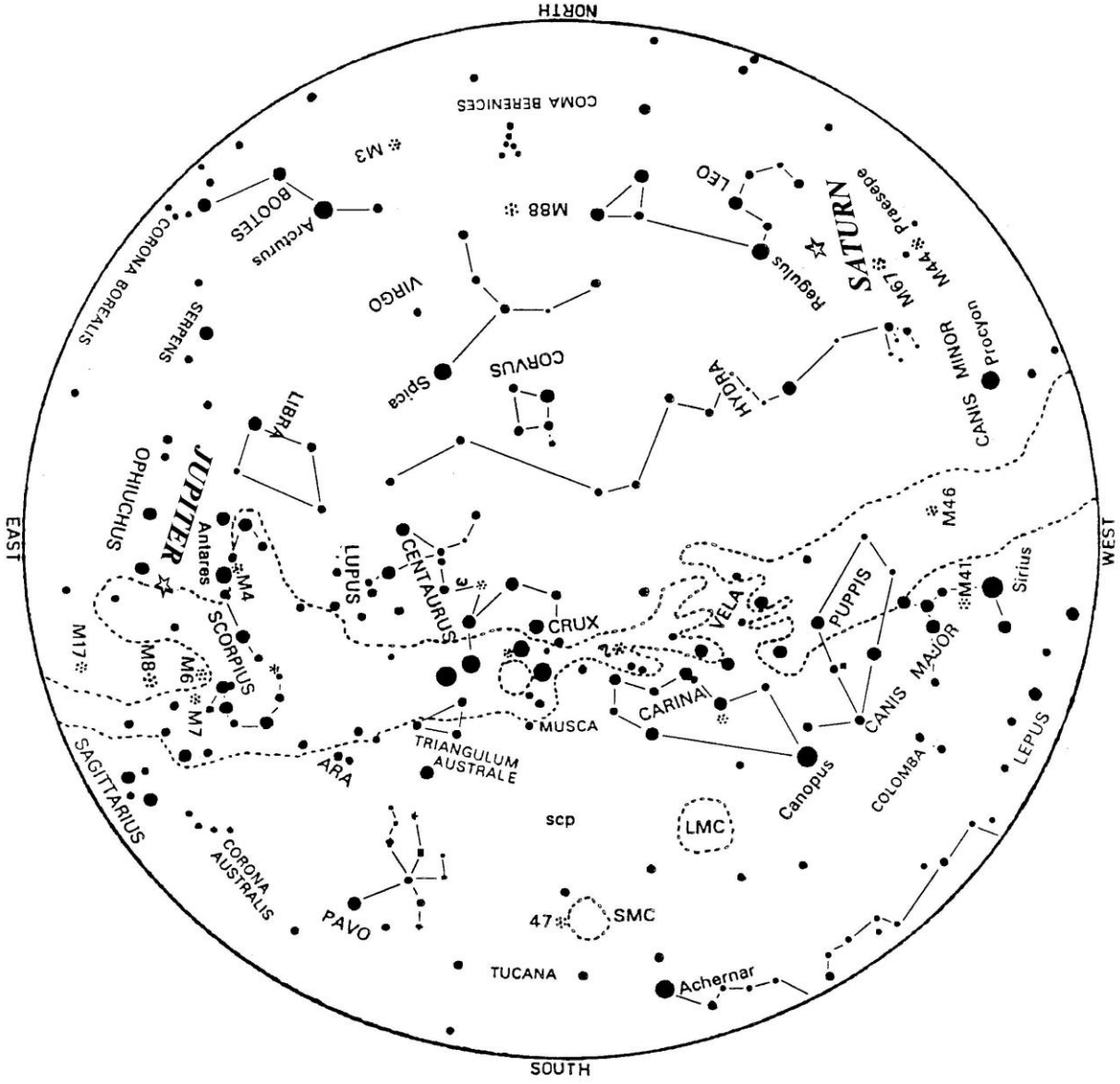
SKY MAP PROVIDED BY CARTER OBSERVATORY

This chart shows the sky as it appears at about 21:00 for ~May 15.



How To Use the Sky Charts

To use the sky chart hold it up to the sky so that the direction in which you are looking is at the lower edge of the map. For example, if you are looking at the western horizon then the map should be held so that the "WEST" label is at the lower edge. The altitude and direction of the stars and planets will then be correctly shown. The centre of the chart will be directly overhead.

The above chart is for 21:00 NZST, but other month's charts, from previous WAS *Newsletters*, can be used at other times of the night. The table below indicates which month's chart, from back copies, can be used at other times during this month.

For this time of the night:	17:00	19:00	23:00	01:00	03:00	05:00	07:00
Use this month's charts:	Mar.	Apr.	Jun.	Jul.	Aug.	Sep.	Oct.

Note that although the stars will be correctly positioned, the planets will not be correct as they move against the background stars from month to month.