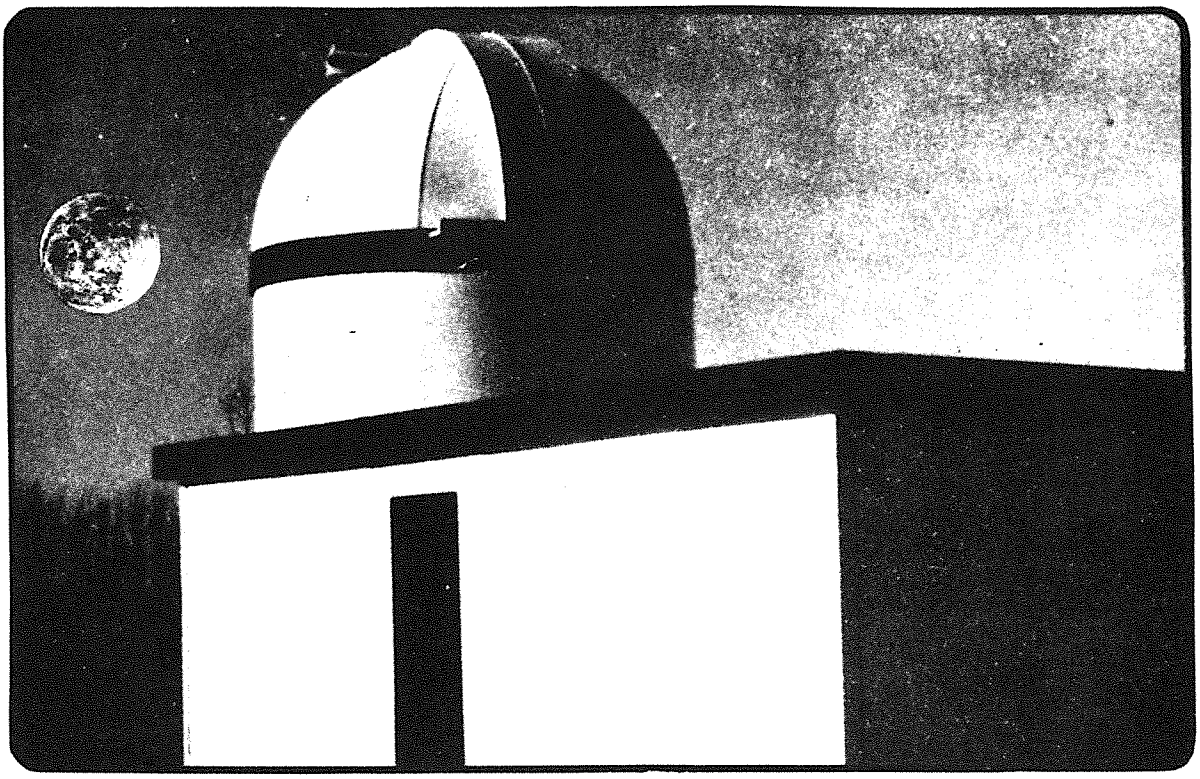

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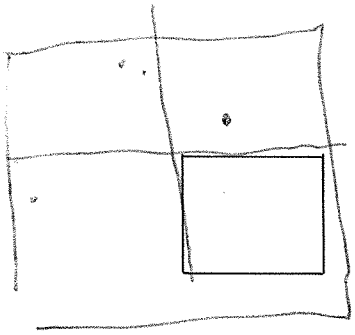

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WINNICENTRICS ELECTION FILLER EDITION

SEPT/OCT 1982

CONGRATULATIONS WINNICENTRICS.....

The Editorial Committee of "Winnicentrics" is proud to announce that the "Winnicentrics" has been chosen as the most improved newsletter in the R.A.S.C. for the year of 1982.

This honor was bestowed upon us by a selection committee at the Saskatoon General Assembly. Many thanks to those people in the Winnipeg Centre who contributed articles and ideas to "Winnicentrics". To those that haven't contributed, your efforts would be appreciated in the future. Remember many heads are better than one.

ooOoo

SEPT & OCT MEETINGS.

SEPTEMBER 10th. FRIDAY..... 8:30pm.

Room 217, Lockhart Hall, University of Winnipeg.

Program: Mr Bill Krosney will be giving the main lecture. Len Gamache and Guy Westcott will show slides and give a brief talk about their trip to Arizona.

oooooooooooooooooo

OCTOBER 15th. FRIDAY..... 8:30pm. PLEASE NOTE THAT THIS IS ON THE THIRD FRIDAY OF THE MONTH.

Room 217, Lockhart Hall, University of Winnipeg.

Program: The Annual General Meeting of the Winnipeg Centre of the R.A.S.C. The agenda will include a short business meeting, in which all election ballots postmarked no later than October 8th. 1982 will be opened and counted, the results of the election will be declared and the new members introduced to the meeting. A discussion as to the aims of the centre for the next year will also be presented. This will be followed by two short movies.

oooooooooooooooooo

PLEASE USE THIS ENVELOPE TO RETURN YOUR MARKED BALLOT FOR ENUMERATION, THANK YOU.

WINNIPEG CENTRE

In accordance with the bye-laws of the Winnipeg Centre, nominations for the open Executive and Council positions were solicited. With the exception of Mr. Stan Runge for secretary, no further nominations were received by the deadline published on page 19 in the July / August issue of WINNICENTRICS.

The following Executive positions, being unchallenged are thereby declared ELECTED BY ACCLAIMATION with effect from October 15, 1982.

President	-	Mr. Guy Westcott.
1st Vice President	-	Mr. Andrew Lawless.
2nd Vice President	-	Mr. Dave Sine.
Treasurer	-	Mr. Bud Fairley.
Secretary	-	Mr. Stan Runge.

Nominations Committee / 1982.

ELECTION

R.A.S.C. WINNIPEG CENTRE BALLOT 1982.

PLEASE MARK AN X BY TWO OF THE FOLLOWING :

- ◯ MISS BRENDA BELKIN.
- ◯ MR WAYNE JAWORSKI.
- ◯ MR LORENCE MLODZINSKI.

CUT ALONG THE DOTTED LINE AND RETURN THE FORM IN THE SUPPLIED ENVELOPE, MUST BE POSTMARKED NO LATER THAN OCTOBER 8, 1982.

THERE ARE TWO COUNCIL POSITIONS OPEN FOR THREE YEAR TERMS OF OFFICE AND ONE POSITION OPEN FOR A TWO YEAR TERM.

CENTRE SCENE.

THE WINNIPEG CENTRE of the R.A.S.C. presents.....

The 2 nd. ANNUAL HALLOWEEN PARTY.

WHEN: Saturday, October 30, 1982.
at 8pm.
WHERE: Cross Common Room
University College, University of Manitoba.
(same place as last year)

Tickets are $5.oo per person and are available at the September and October monthly meetings, or from Brenda Belkin.... 334-4027, Dave Sine.... 261-0431, or Guy Westcott.... 269-1499. There will be costume and door prizes, along with good food, good music and most important good friends to meet. Guests are warmly welcome as always.

- Please have all ticket money handed in to the above mentioned people on or before Sunday October 24, 1982. Thank you -

ooOoo

On Saturday August 28th, the Winnipeg Centre hosted a very publicized public star party at the Glenlea Observatory. Although the weather was uncooperative in the early part of the evening, a few eager stargazers arrived at the observatory before any of our members did (needless to say, this boosted our morale.)

Since no observing could be done, Brenda Belkin, Dave Sine, Andrew Lawless, and Guy Westcott set up the coffee, donuts and cookies in the University of Manitoba's trailer. Our guests could then sit back, relax and enjoy a wide variety of slide shows. First Dave and Brenda delighted everyone with their astrophotography of many deep-sky objects, aurora, planets and moon slides. Guy ran a NASA produced slide show on the first space shuttle launch followed by some of the holiday slides taken in Arizona this summer. By this time most of the public had arrived. There were 5 members and 23 guests, as the sky started to clear at 9:30 pm Dave and Andrew began setting up the C-14, binoculars and Dynamax 6. Guy just finnished showing Kitt Peak Observatory, David Levy et al, as well as some photography of the southern sky by 10 pm. Brenda gathered everyone in the field beyond the compound and gave her tour of the autumn constellations and answered many questions. Everyone then gathered around the telescopes and binoculars to get views of the moon, h & χ Persei, M31, M13 and the "Blue Bomber" double star - Albireo. Some of the guests tried their hand at finding M31 with binoculars. It was very pleasing to see their excitement when they found this object. Hands on astronomy is really appreciated. It reminded us of the way we felt when we had found M31 for the very first time. We closed the observatory and trailer at 1:15 am. just as the Pleides were rising above the horizon. Our special thanks to Dr. Bochonko for letting us use the University's Astronomy Dept. trailer, to all the Centre members that turned out to share their time and astronomy with the public.

(Cookie Monster captured at Glenlea) Brenda Belkin.

ooOoo

WANTED********** Meade 8" Schmidt-Cassegrain model 2080 or the Celestron C-8.
Call Brenda Belkin at 334-4027.

Astronomers on a Hot Tin Roof.

By Brenda Belkin

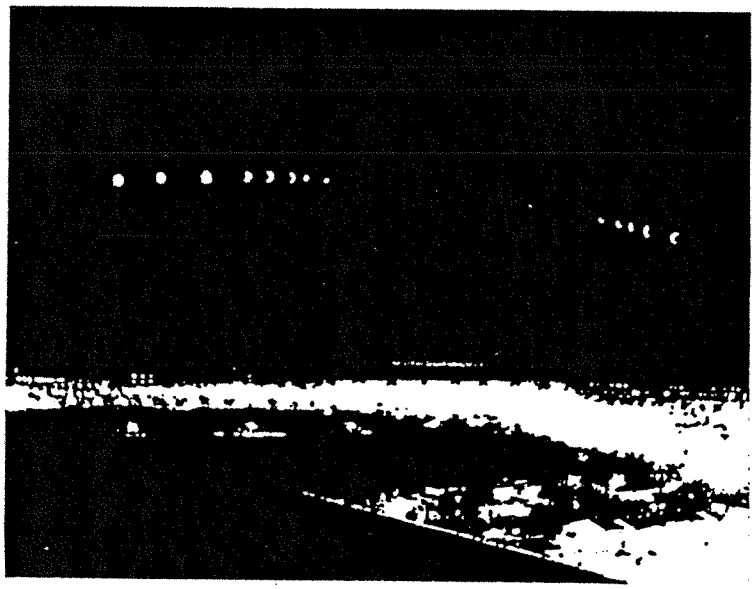
The roof was very hot. Certainly July the 5 th. had proved to be one of the hottest days of the summer. By the time that Guy Westcott, Dave Sine and I got to the roof top of the apartment where Guy and Dave live, we were good and ready to cool off and enjoy what was to be the most spectacular lunar eclipse of recent years. At 11:30 pm we began setting up our modest equipment to capture the event that had instilled fear into our ancestors.

Our "modest" equipment included 4 SLR 35mm cameras, 1 8mm movie camera, 4 telephoto lenses, 2 x2 converters, 2 pairs of binoculars, 1 spotter scope, flashlights, and last but not least, a computer printout of the optimum exposure times for each eclipse event. I guess you could say that we weren't very prepared. We felt like the CBS camera team preparing to film the liftoff of the Columbia!

At first, it didn't look like we were going to see anything. I kept calling the weather office for updates and they didn't seem to be too optomistic. "Looks like rain", one meteorolgist said. By the time he took my eighth call, I asked him about possibilities within a 500 mile radius of the city, this being my first "lunar", I was determined to get a good view. "Nope. Doesn't look promising anywhere in the area", he said.
"How am I going to try out my new 200 mm. lens?" I asked him. He hung up!!

But, we did get clear skies with a few stratos clouds, and I was finally able to try out my new lens. Guy kept his eye on the greying of the eastern limb as the moon entered the umbra. Dave and I clicked away leisurely. Then during totality, we lost Dave! We followed the sound of the snoring and found him huddled up under one of the air conditioning units. "Is it over yet?" was all that he said when we woke him. Actually he had run out of film.

We discussed ordering a pizza as the moon emerged from totality, but we didn't think the pizza order desk would take us to seriously if we told them to deliver it to the roof. Some people just don't understand!

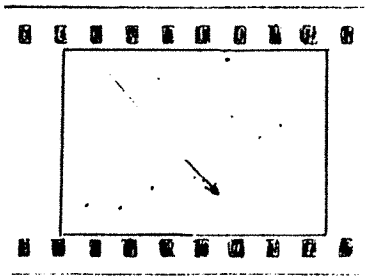


Time lapse photograph. Expose every 10 min with a 28 mm lens using Ilford XP1 film.
Guy Westcott.

COMET HUNT

By Guy Westcott

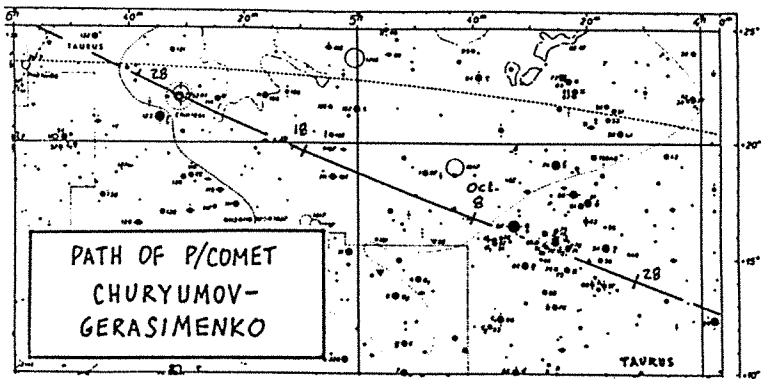
Many of you have by now had the chance to view the new visitor to our skies, Comet Austin 1982g It was discovered in New Zealand by amateur Rodney Austin and has proved to be one of the brightest comets in the past few years.
The comet appears from the city not to have any visual tail, but Len Gamache assures me that from his dark site at Sundown the tail was visable through binoculars.
I took a number of photographs throughout the whole passage of the comet, at closest approach. These will be published at a later time.

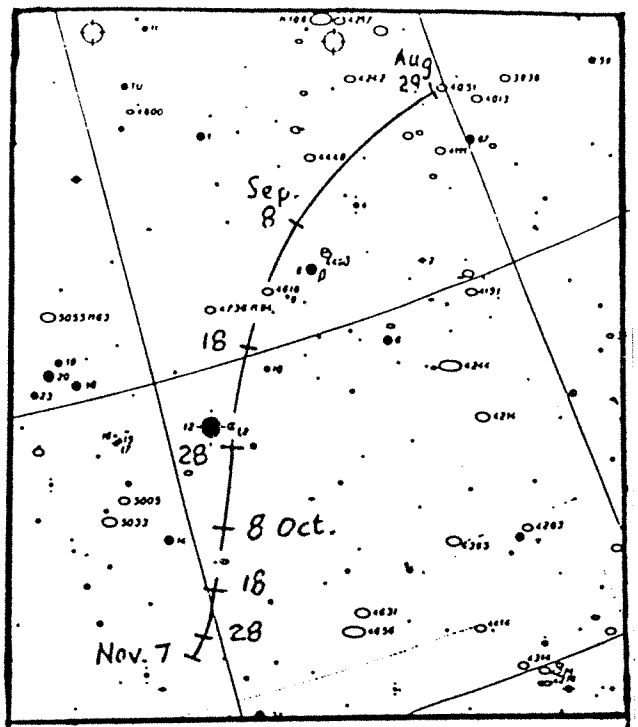


Comet Austin as sketched from a 500mm photo on August 30/31.

Comet Austin Ephemeris

1982 ET		R.A. (1950)	Dec.	Δ	r	E°	P.A.	m_1
Sep	3	12 19.1	44 02	0.863	0.677	41.5	36.6	6.6
	8	12 31.5	42 53	1.003	0.715	41.6	34.2	7.1
	13	12 39.2	41 36	1.135	0.764	41.3	30.3	7.6
	18	12 44.3	40 18	1.256	0.823	40.8	25.6	8.0
	23	12 48.1	39 04	1.366	0.887	40.5	19.9	8.4
	28	12 51.0	37 55	1.465	0.956	40.4	14.0	8.8
Oct	3	12 53.5	36 53	1.552	1.028	40.7	7.9	9.1
	8	12 55.7	35 58	1.630	1.102	41.5	1.7	9.4
	13	12 57.7	35 10	1.697	1.177	42.7	355.6	9.7
	18	12 59.5	34 29	1.755	1.252	44.3	351.5	9.9
	23	13 01.0	33 55	1.804	1.328	46.3	344.3	10.2
	28	13 02.4	33 28	1.844	1.403	48.7	339.1	10.4
Nov	3	13 03.4	33 09	1.876	1.478	51.5	334.3	10.6
	8	13 04.2	32 56	1.901	1.553	54.6	329.8	10.7





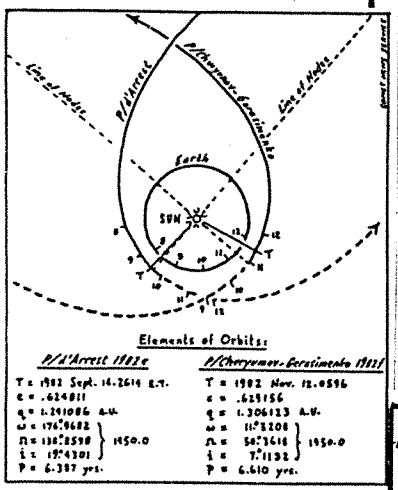
Comet Austin's path through Ursa Major and Canes Venatici for 0^h U.T. on indicated dates, plotted on the SKALNATE PLESO ATLAS OF THE HEAVENS, courtesy Sky Publishing Corporation. α CV (center) is visual magnitude 2.8 (cf. map p. 1. Faintest stars shown are m_v = 7.75.

1982f PERIODIC COMET CHURYUMOV-GERASIMENKO (1969 IV). Recovered May 31 by Gibson with the 1.2-m Palomar Schmidt, this intrinsically faint comet passes but 0.39 AU from earth in late November near the time it reaches perihelion (see orbit diagram) when it will be very favorably placed high in northern skies as the ephemeris below, computed at COMET NEWS SERVICE, shows.

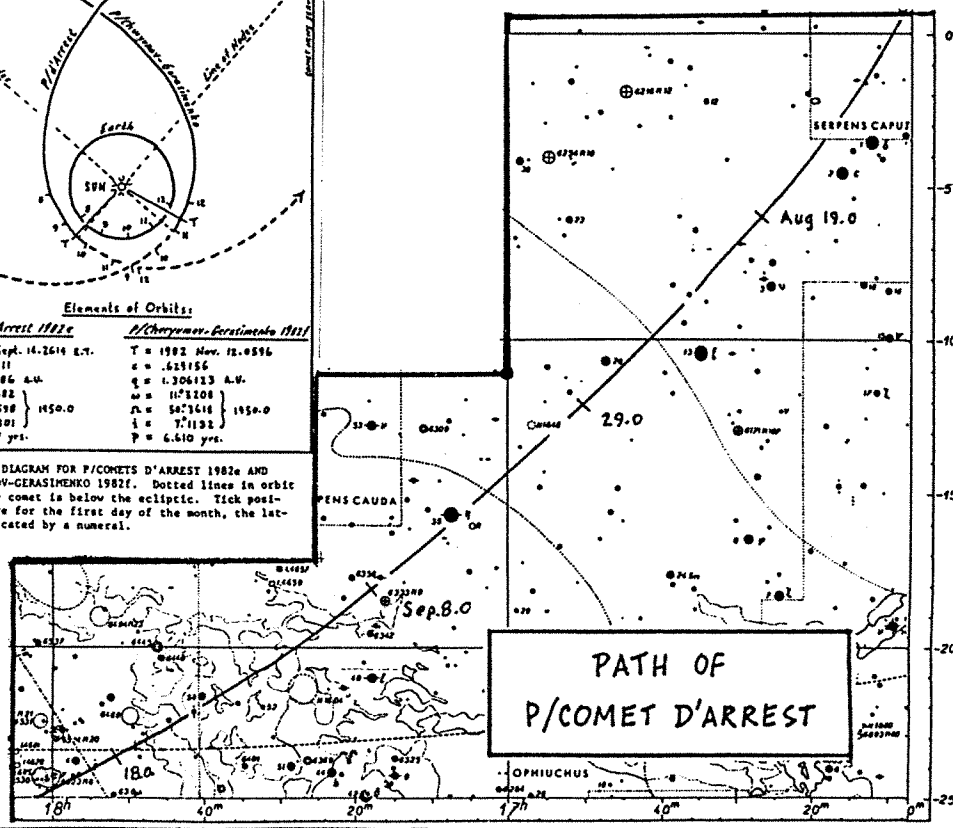
1982 ET		R.A. (1950)	Dec.	Δ	r	m_1
Sep	28	$4^h11^m.6$	+14°06'	0.609	1.411	$11^m.2$
Oct	3	4 25.8	15 24	0.573	1.390	
	8	4 40.2	16 47	0.541	1.371	11.0
	13	4 54.9	18 13	0.512	1.354	
	18	5 09.5	19 43	0.487	1.340	10.7
	23	5 24.1	21 16	0.464	1.328	
	28	5 38.5	22 53	0.445	1.318	10.4
Nov	2	5 52.6	24 31	0.429	1:312	

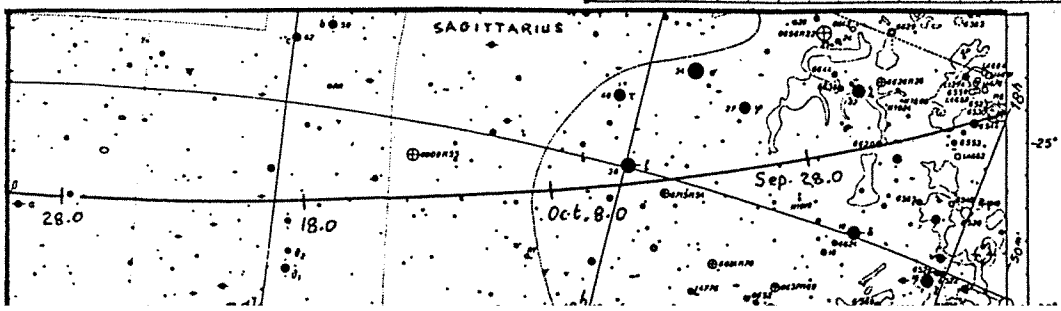
P/d'Arrest may be found in SKY AND TELESCOPE 1976; 52,10 (Maraden and Bortle) and CNS 76-3 (Bortle).

1982 ET		R.A. (1950)	Dec.	Δ	r	m_1
Aug	9	$16^h09^m.3$	- 0°00'	0.700	1.361	
	14	16 17.3	- 2 57	0.699	1.344	$12^m.1$
	19	16 26.7	- 5 58	0.699	1.329	
	24	16 37.5	- 9 02	0.701	1.316	11.2
	29	16 49.7	-12 06	0.706	1.306	
Sep	3	17 03.2	-15 09	0.712	1.298	9.8
	8	17 18.1	-18 05	0.721	1.293	
	13	17 34.2	-20 54	0.733	1.291	9.3
	18	17 51.7	-23 32	0.748	1.292	
	23	18 10.4	-25 55	0.766	1.295	8.9
	28	18 30.2	-28 02	0.787	1.301	
Oct	3	18 50.8	-29 49	0.811	1.310	8.4
	8	19 12.1	-31 17	0.838	1.322	
	13	19 33.8	-32 24	0.869	1.336	8.5
	18	19 55.7	-33 09	0.903	1.352	
	23	20 17.5	-33 34	0.940	1.370	8.7
	28	20 39.0	-33 40	0.981	1.391	
Nov	2	20 59.9	-33 28	1.024	1.414	9.1



ORBIT DIAGRAM FOR P/COMETS D'ARREST 1982e AND CHURYUMOV-GERASIMENKO 1982f. Dotted lines in orbit indicate comet is below the ecliptic. Tick positions are for the first day of the month, the latter indicated by a numeral.





THE DISCOVERER AND THE DISCOVERY

RODNEY RICHARD DACRE AUSTIN was born on 1945 February 4 at Christchurch, New Zealand, and currently resides in New Plymouth, population 45,000, where for the past year he has worked as a process camera operator on the permanent night staff of the Taranaki Newspapers, Ltd. His hours of 6:3 p.m. to 2:30 a.m. enable him to comet hunt on a regular basis, which he does only in moonless morning skies, with a 15-cm f/8 alt-az refractor with a Jaegers lens, at 18x. His roadside observing site, 10 miles south of New Plymouth near Mt. Egmont National Park (174°02'.4 E, 39°12 S, elevation 1300 feet) has a dark, clear view, particularly to the southeast, but not always without interference: for a while in late April, a Japanese squid fleet just off the Taranaki coast sullied the night skies with huge arc lamps, used to attract squid; the total light output of the nearly 100 ships far exceeded that of all of New Plymouth.

Austin has had a lifelong interest in comets, having observed 39 to date (he does not clearly remember the Great Comet of 1947-8, shown to him at age 2 by his mother). He began hunting comets on a sporadic basis with 7 x 50 binoculars in 1968, having clocked 19 hours up to the time he joined the staff of Mount Joun University Observatory in 1971, where he worked in the photoelectric photometry programs of the University of Florida, and the photoelectric and spectroscopic programs of the University of Canterbury and his own design. There he continued his search an additional 55 hours with a 60 mm rifle range telescope when his work duties permitted. Since leaving Mt. John in 1979, Austin accumulated 77 more hours with his present tel-scope, making a grand total of 151 hours before he found his first comet. About the discovery, he writes:

"The night of June 18 was moderately clear, but windy with gusts at times threatening to lift the telescope from the tripod. After about 45 minutes of battling these conditions the sky started to go hazy, and by 3:45 a.m. looked so poor that I decided on just one more scan, up from the horizon through Horologium. At 3:53 a.m., near the top of the scan, I picked out the faintest object I had seen all morning. I checked successively through Norton's Star Atlas, Becvar Atlas Coeli, and Smithsonian Star Atlas: Nothing!

"Changing to a higher magnification, I drew a field chart down to the faintest stars in the field, and settled down to keep an eye on things. Half an hour later, the wind was so strong that I was holding onto the telescope with both hands. I packed up. On my way back into town, I suddenly realized that the object was in an area covered by the Canterbury Sky Atlas, an extension of the Lick Photographic Sky Atlas. The copy at home was of course in a box at the bottom of a large pile of boxes. The area checked out OK, but with no fuzzy blob approaching the estimated magnitude 10.5. I rang Pam Kilmartin at Lake Tekapo (Mt. John) to warn of the possibility of a comet, and to establish some sort of precedence.

"The following morning a quick trip out of town resulted in the confirmation of motion. Back into town at a sedate speed of circa 90 miles an hour, yet another phone call to Mt. John, which dragged June Clark (wife of comet discoverer Mike Clark) out of bed (I hope she has forgiven me). She quickly transferred the call to the dome where Alan Gilmore was working. Then followed the most nerve-wracking two days I can ever remember, until official confirmation was received three days and six hours after discovery.

"Luck played a major role in this discovery; Bill Bradfield wrote from Adelaide that he had cloud for about a week..."

An unreformed total eclipse-chaser, Austin was foiled by clouds in his last attempt to observe the one of 1979 Feb. 26 from Pullman, Washington (although he succeeded in seeing those of 1965 May 31 (New Zealand) and 1976 October 23 (South Australia)). While in this country, he also attended the Jet Propulsion Laboratory Educator's Conference March 4-6 during the Voyager 1 Jupiter flyby, and the University of Arizona Asteroids Conference March 8-10. Austin's non-astronomical interests include photography, amateur radio (callsign ZL2.UGB, currently non-transmitting), computer programming, geology, and LIONS clubs. The discoverer's future plans include a continued quest for comets, redesign of the 6-inch for more convenient use, and construction of a new 30-cm f/8 folded reflector comet seeker. He intends to observe the 1983 total solar eclipse in Java.

Thanks to Comet News Service issue # 82-3.

DATA PROBE

By Brenda Belkin.

Q. How do you photograph a comet so that it may be useful for scientific research and documentation?

A. Whatever your method of observing or photographing comets, you must remember that consistency is the only acceptable criterion for scientific analysis, and in the long run, for yourself as well. To begin, you must determine the comet's path against the background stars by plotting it on an appropriate star chart, the Tirion Sky Atlas 2000.0 is very good. For this you will need the EPHEMERIDES of the comet. This data is usually obtained from astronomical publications, but sometimes the information may not be available to you early enough for preparation of your observing and photographing timetable. However, you can subscribe to the IAU (International Astronomical Union) which announces new discoveries, vital data concerning magnitudes, positions, dates, approach etc. of comets and other occurrences as they happen. You may order your subscription from:

IAU Circular Service.
Smithsonian Astrophysical Observatory
60 Garden Street
Cambridge, MA. 02138

The cost is about $50 per year.

Comet photography is perhaps one of the most rewarding of all types of astrophotography. As in visual studies of comets, no photographic study is of any value if accurate records are not kept. Remember to write down after each photograph:

1. Date and time (U.T.)
2. Visual magnitude of comet.
3. Approximate position.
4. Exposure time, film type and ASA rating.
5. Camera format and f/ ratio of the lens.

If you photograph a history of the development of a comet it is important to stay with one lens that will offer the widest chronological span so that the actual size of the comet remains consistant. The best lenses however are in the 200 and 300 mm. range. Positioning the comet in the viewfinder is also important. Many comet photographers make the mistake of positioning the head of the comet in the center of the frame because the head is the center of the comet. They make this mistake only once. Next time place the middle of the tail in the center of the frame to ensure that you do not chop off a section of the tail. Always use a fast film...Ektachrome 400 is a film of good choice and during the processing it may be pushed to ASA 800 by Kodak. A comet of third magnitude can be suitably recorded with a tripod mounted camera with a 50 mm. lens and a 5 minute exposure. Mounting a telephoto lens piggyback on your telescope will increase the range of contrast, resolution and magnitude of the comet. Exposures should be in the range of 10 minutes or less. be sure to guide on the comet and not on the background stars. Slight star trails are customary and acceptable in detailed comet studies. Keep a record of all your photographs and be sure to take more than one photograph during each observing session. Once your photographic catalog is obtained, you should forward the results to the Smithsonian Astrophysical Observatory at the address given above. I highly recommend reading Chapter four of A COMPLETE MANUAL OF AMATEUR ASTRONOMY by Sherrod, this is available in the Centre's library. The chapter on comets is exceptionally detailed and understandable. Contained in this chapter is information on how to sketch and record comets, photographing, searching for and what to do if you are lucky and find one, this is all accompanied by lots of helpful exposure and magnitude charts.

SKY NOTES

By Brenda Belkin.

Autumn evening are my favorite times to do some serious observing, with the longer nights approaching, and the subsidience of pesty mosquitoes. Galaxies and clusters abound in the fall sky, so haul out the camera and experiment with all those different lenses, exposure times and films. M31 at mag 4.8 is your first stop of the evening, then on to M34, an open cluster in Perseus, at mag 5.5 this should be a piece of cake. Don't forget to check out M13 before you pack up for the evening. As always (UNDERCOVER) astrophotographers please bring your photos and slides to the monthly meeting so that we can all enjoy them and inspire some of us to get out our equipment.

MERCURY:
Oct 1 R.A. 12h 33m, DEC. -6° 29'

Only the ambitious should try to locate Mercury in the domain of the Sun. However the planet should be visible around October 17th. very low in the East at sunrise. On Oct. 29th. Mercury is 4° North of Spica.

VENUS:
Oct 1 R.A. 11h 57m, DEC. +1° 51'

September and October are both unfavourable months to view Venus. It also remains a morning star during this time.

MARS: Sept 15 R.A. 15h 36m, DEC. -20° 36'
Oct 15 17h 05m, -24° 14'

Mars really clips along in its orbit at this time, moving through Virgo to Libra to Ophiochus to Sagittarius by the end of October. Find Mars low in the Southwest at sunset. It is 3° South of Neptune on October 25th.

JUPITER: Sept 15 R.A. 14h 26m, DEC. -13° 27'
Oct 15 14h 49m, -15° 20'

Jupiter can be seen low in the Southwest at sunset until the end of October, when it is too close to the sun to be seen.

SATURN: Sept 15 R.A. 13h 22m, DEC. -6° 08'
Oct 15 13h 35m, -7° 28'

As October proceeds, Saturn gets closer to the Sun. On October 18, Saturn is at conjunction.

LUNAR NOTES:

PHASE	SEPTEMBER	OCTOBER
Full	3	3
Last ¼	10	9
New	17	17
First ¼	25	25

METEORS 'n' THINGS: The Orionids will entertain us this fall with shower max at Oct 21. We're in for a bit of luck if the weather cooperates, as this evening won't sport a moon, so rest assured that skies will be dark albeit clear.

See COMET HUNT for comet news and maps.

Election Edition. WINNICENTRICS 1983
****
Sept/Oct.

WINNICENTRICS is the bi-monthly publication of the Winnipeg Centre, R.A.S.C. It is compiled and printed by members and friends of the Centre. Please send all articles for inclusion in the magazine to the Centre address below. All articles for publication must meet certain standards of veracity, language, and good taste. Any length of article may be submitted, but the staff reserve the right to condense or serialize if necessary. Deadline for articles is the 20th of odd numbered months.

CENTRE ADDRESS: Winnipeg Centre, R.A.S.C.
P.O. Box 215, St. James Post Office,
Winnipeg, Manitoba, R3J 3R4
Canada

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2nd VICE-PRESIDENT: Mr. Dave Sine 261-0431
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Observatory Director: Mr. G. Westcott. All use of the observatory site must be booked and cleared through the Observatory Director, phone: 269-1499

WINNICENTRICS STAFF:

Mr. G. Westcott	
Mr. D. Sine	Miss Brenda Belkin
Mrs. G. Runge	Mrs. B. Westcott

* * *