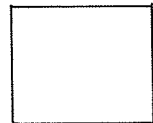


WINNICENTRICS

**P.O. BOX 174
ST. JAMES P.O.
WPG., MAN. R3J 3R4**



EDITORIAL

by Brenda Belkin

I hope everyone has been enjoying the summer so far. This issue of "Winnicentrics" will be dedicated to discussing upcoming events, Centre plans for the future (and there are many) and in general, in-house business.

UPCOMING STAR PARTY IN SEPTEMBER

On Saturday, September 1, 1984 the R.A.S.C. Winnipeg Centre will host a Public Star Night in Assiniboine Park from 9:00 p.m. till 12:30 a.m. Telescopes will be set up in the south end of the Cricket Field of the Park. The Shaftsbury Blvd. entrance will remain open throughout the evening for the public attending the star night. Parking is available in the legal areas of the park as usual.

In the event of poor weather, the star night will be cancelled.

I encourage all members to attend the star night and share their knowledge with the public. I would like to ask those Centre members who own telescopes or binoculars to phone me before August 25th to make any necessary arrangements. Call Brenda at 334-4027 after 5.

This will be our last public star night till Astronomy Day, next year.

Observatory News

Lorence Mlodzinski, our observatory director, has made an assessment of the condition of the observatory. He said that although he thought we could get the observatory functioning by the end of the year, there appears to be more damage than first thought. Some of the problems the observatory is suffering are:

- 1. the exterior masonite covering is wet and badly deteriorated,
- 2. the lower exterior skirting of the dome is rotted away.

Lorence thinks that roughly 100 man-hours are required to make the observatory functional again; this works out to about 1 weekend's worth of work to get the telescope up, plus another few weekends for a good facelift. Since the work should be completed before winter arrives, Lorence suggests that a "task force" be organized for the repair jobs in late August. He'll be calling Centre members shortly.

1984 General Assembly in Hamilton Ontario

Stan Runge and Lorence Mlodzinski represented the Winnipeg Centre at the Hamilton G.A. this July. They very successfully arranged for the 1986 G.A. to be hosted by the Winnipeg Centre. For those members that were not aware of it, 1986 will mark the 75th anniversary of the establishment of the Winnipeg Centre.

1986 General Assembly in Winnipeg

We've got much planning and organizing to do !! The Council has already had a meeting to discuss the general approach to planning and executing a successful G.A. A steering committee has been established to organize a plan of attack, to recommend subsequent task committees, and to establish milestones. All G.A. plans etc. will appear in this section of "Winnicentrics" in future issues.

On behalf of the Winnipeg Centre

I would like to extend my best wishes to Guy and Barbara Westcott and family in their new home. You can still call Guy at 269-1499.

I would like to welcome back to Winnipeg Mr. Andrew Lawless who was in Spain last year. As you know, Andrew is a very active member of the Centre.

General Meetings

September: FRIDAY 14th. 8:30 pm Rm 217 LOCKHART HALL, UNIVERSITY OF WINNIPEG. The lecture for this night will be given by Mr Chris Rutkowski, and will deal with the issue of satellites for war or peace. "STAR WARS 1984"

October: FRIDAY 12th. 8:30 pm Rm 217 LOCKHART HALL, UNIVERSITY OF WINNIPEG. This is our centre's Annual General Meeting. The new members of council and executive will be introduced to the membership. A slide show and run down on the 1984 G.A. in Hamilton will follow from Stan Runge, Lorence Mlodzinski & Paul Delaney.

Remember

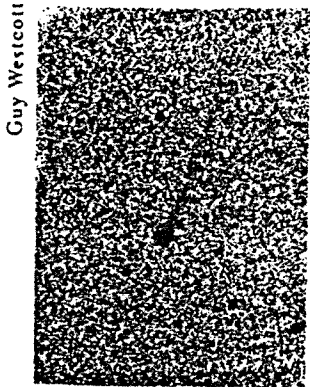
The October Winnipeg Centre General Elections. As no further nominations were received by the closing date given in the last Winnicentrics. The list given herein are elected by acclamation and will be ratified at the October General Meeting.
PRESIDENT...Mr S Runge 1st V. PRESIDENT...Miss B Belkin 2nd V. PRESIDENT...Mr L Gamache
TREASURER...Mr B Fairley SECRETARY...Mr B Land Nat. Rep...Mr G Westcott
COUNCILLORS ELECTED FOR 3yr TERMS...Mr L Mlodzinski Mr E Hlady
HONORARY PRESIDENT 1984-1986. Mr Stanton Freidman

COMET AUSTIN: bright sight for summer

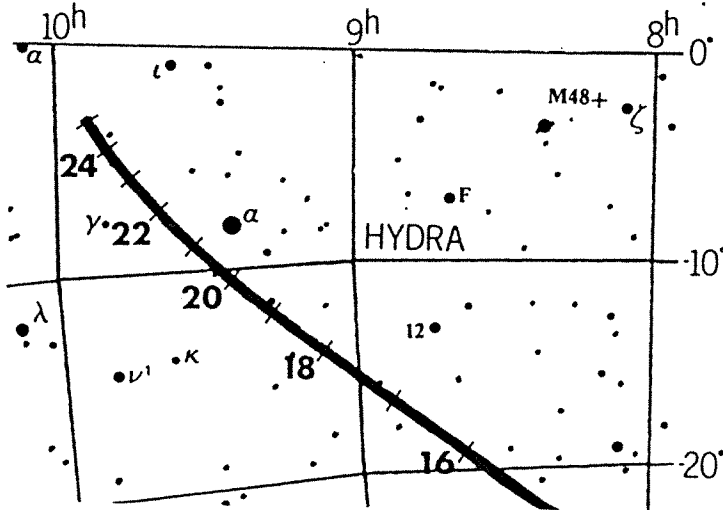
New Zealand amateur Rodney R. D. Austin has made his second comet discovery, and, just like his first one, it's a doozie! Comet Austin (1984i) won't require sunglasses, but it should be easily visible in binoculars and small telescopes.

Discovered on July 8 with a six-inch refractor, the celestial visitor was about 8th magnitude and moving slowly through Columba. It was quickly confirmed by M. Clark at the Mount John Observatory.

Comet Austin is presently in Hydra, shining at magnitude 6.7, and moving northeastward. It was closest to the earth on July 10, when it was 24 million miles distant. Now low in the west after sunset, the comet sets around 9:00 pm, and will be brighter than 7th magnitude all month. But it slowly dips back into the sun's glare, remaining hidden for a while. On August 12, the comet reaches perihelion, only



Above: Austin's first discovery, Comet 1982g. Below: The path of Comet Austin 1984i in July.



0.29 AU (27 million miles) from the sun.

By late August, Comet Austin emerges from the solar glare into the morning sky, visible just before sunup near the sickle of Leo. Though better placed for Northern Hemisphere observers, it will have then faded to 7th or

8th magnitude. But it will be climbing higher into the morning sky, moving northwestward and will be near Castor and Pollux at the end of September. By then, Comet 1984i will have faded to magnitude 10 or 11.

The comet's orbit is retrograde, with an inclination of 164° to the ecliptic plane. It is travelling in a parabolic path.

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SKY CALENDAR SEPTEMBER 1986

Magnitudes of the Planets: Venus -3.9; Jupiter -2.4 to -2.2; Mars 0.0 to +0.3; Saturn +0.7 to +0.6; Mercury Sept 6 +1.6; Sept 13 0.0; Sept 23 -1.1; Sept 29 -1.3; Uranus +5½. **Motions:** The Sun, going 29° east, crosses from Leo into Virgo Sept 14. Mercury, after passing inferior conjunction Aug 28, swings within 1.5° south of Regulus Sept 9, and reaches greatest elongation, 18° W of Sun, on Sept 13. Thereafter Mercury moves rapidly eastward, closing to within 9° W of Sun by Sept 29. Venus increases its elongation from 21° to 29° E of Sun. Venus goes 2.5° N of Spica on Sept 20 (star too low from northern states) and closes to within 8° W of Saturn on Sept 30. Mars goes 19° east, past Scorpius through Ophiuchus into Sagittarius. On Sept 3 Mars is 2.2° N of Antares and 2.4° S of Uranus. On Sept 30 Mars closes to within 8° W of Jupiter. Jupiter goes 1.6° east in Sagittarius, approaching Lambda. Saturn goes 0.7° east in Libra, approaching Alpha. To locate Uranus, first find 4½-magnitude Omega Ophiuchi, 5° N of Antares. Uranus is one magnitude fainter. On Sept 1 Uranus is ½° SSE of Omega; on Sept 30 it is 1° SE of that star.

SKY CALENDAR OCTOBER 1986

Magnitudes: Venus -3.9 to -4.0; Jupiter -2.2 to -2.0; Mars +0.3 to +0.5; Saturn +0.6. **Motions Oct 1 - Nov 1:** The Sun, going eastward 31°, crosses from Virgo into Libra Oct 30. Venus, going 38° east, races through Libra and Scorpius into Ophiuchus. On Oct 1 Venus is 29° E of Sun; by Oct 31 it improves 36° E of Sun. Venus passes Saturn and Alpha Librae on Oct 7, goes through the head of Scorpius on Oct 21, and passes Antares on Oct 27. See diagrams. Saturn on Oct 1 is 7° E (upper left) of Venus. Crawling eastward only 0.1° per day, Saturn passes 3rd-mag Alpha Librae on Oct 5. Two days later both are overtaken by Venus (see diagrams). Around midmonth Saturn drops into the Sun's glare. Mars goes 22° east in Sagittarius, passing 1.9° S of Jupiter and 5° N of 3rd-Mag Lambda (the top of the Teapot) on Oct 13; see diagram. On Oct 21 and 22 Mars is 1.5° N of 2nd-mag Sigma (the brightest star in the Teapot's handle). At beginning of Oct Mars is 7° W of Jupiter; at month's end, 10° E of Jupiter. Jupiter, going 4° east in Sagittarius, passes 2° N of Lambda on Oct 13, the same date both are overtaken by Mars.

WINNIPEG CENTRE LOGO FOR 1986 G.A.



Design by G. Westcott

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SKY CALENDAR SEPTEMBER 1984

Use this scale to measure angular distances between objects on diagrams below.

CURRENT SKY INFORMATION:
Call (517) 332-STAR

An aid to enjoying the changing sky

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<p>PLANETS AT DUSK (¼ hour after sunset): Jupiter is most prominent, in S to SSW. Mars in SSW and fainter Antares nearby are the two reddish "stars" to Jupiter's lower right. Still farther to lower right is yellow Saturn, in SW to WSW. Venus is about to set in W to WSW. DAWN: Mercury very low in E to ENE Sept 6-29. See diagrams.</p>	<p>Evening diagrams on this calendar are for dusk mid-twilight, about ¼ hour after sunset from lat 40°N. Morning diagrams are for dawn mid-twilight, about ¼ hour before sunrise.</p> <p>Monday and Tuesday evenings, * Jupiter Sept 3 & 4.</p>	<p>Saturday evening, Sept 1: Find all 4 planets shown here and watch for their motions this month. Compare this box to Sept 26-30.</p>	<p>Jupiter Mars * Moon, Saturday Sept 1</p> <p>Antares * Alpha. In Libra</p>	<p>Alpha. * Saturn</p>	<p>* Saturn</p>	<p>In September, watch: Venus shift its setting place - Spica disappear into twilight - Venus overtake Spica and approach Saturn - Mars pass Antares and approach Jupiter - Moon pass several stars & planets.</p> <p>* Spica</p>
<p>Mars * Moon</p> <p>Antares</p> <p>Watch Mars pass Antares this week. Sept 2: Moon has passed First Quarter.</p>	<p>Moon Sept 3</p> <p>Antares * Sept 4</p> <p>Moon these two nights is southernmost of month, overhead at lat 26°S. Note how low it is when directly south.</p>	<p>Mars * Antares * Sept 3: Mars 2.2°N of Antares. Next pairing: Feb 18, 1986.</p>	<p>Mars * Antares * Sept 5, evening: Mars has passed Antares.</p>	<p>Thursday morning, Sept 6: Binoculars help you see this pair just emerging from the sun's glare. Mercury is brighter each day. Next week both will be higher & easier.</p>	<p>Friday evening, Sept 7: Alpha. * Saturn</p>	<p>Notice how Venus' setting place has changed since last week.</p> <p>Spica * Venus W</p>
<p>Morning: Mercury & Regulus closest, 1.5° apart.</p>	<p>Tonight Moon rises within 40 minutes after sunset, just south of due east. This week Moon rises only 20 to 30 min later each night (from lat 40°N), each time farther north along the horizon. Read up on the Harvest Moon.</p>	<p>Morning: Regulus * Mercury</p>	<p>Tonight, the Moon rises north of east shortly before the end of evening twilight.</p>	<p>Morning: Mercury at greatest elongation, 18° from Sun.</p>	<p>* Beta Lib</p> <p>Friday evening, Sept 14: Venus will pass 2¼° N of Spica within a week, but star will be lost in twilight.</p>	<p>Morning: Sat Sept 15</p> <p>Regulus * Mercury * Moon</p>
<p>Tonight's Full Moon rises just after sunset.</p>	<p>Mornings: Look high in S to SW.</p> <p>Moon * Monday Sept 17</p> <p>Pleiades * Aldebaran * Moon Sunday Sept 16</p> <p>Hyades</p>	<p>Last Quarter (morning half Moon). Moon is 90° (¼ circle) west of Sun in morning sky. Look again for Moon late this evening, within 5 hours after sunset. Note how far north it rises.</p>	<p>Morning: September's 19 northernmost Moon, passes overhead at lat 26° N (Miami and southernmost Texas).</p> <p>* Castor * Pollux * Moon</p> <p>Note how high Moon is about an hour after sunrise.</p>	<p>Morning: Look high in east.</p> <p>* Castor * Pollux * Moon</p>	<p>Equinox tomorrow. Sun will be directly over equator, and will rise due east and set due west. Autumn begins in Earth's northern hemisphere.</p>	<p>Saturday morning: * Regulus</p> <p>Mercury * E</p>
<p>Evening: * Jupiter</p> <p>Antares * Moon</p> <p>TEA POT</p>	<p>Monday morning: * Regulus</p> <p>Extremely slender crescent Moon rises in twilight. Difficult; use binoculars. 17 hours before New from E Coast, 14 hours before New from West. Possible record setter. Very old Moon.</p>	<p>Moon was New last night at 11:11 pm EDT (8:11 pm PDT) and sets in bright twilight this evening; probably won't be visible. Within first 2 weeks of October, there'll be two planet pairings. Follow those events with October Sky Calendar. Subscription address below.</p>	<p>Evening: * Beta Lib</p> <p>* Saturn * Young Moon * Venus</p>	<p>Thursday evening: * Beta Lib</p> <p>* Saturn * Moon occults Alpha Lib (best from NE U.S.)</p>	<p>* Jupiter</p> <p>* Mars</p> <p>Moon * Sept 29</p> <p>Antares * Moon</p> <p>Sept 28</p> <p>Saturn</p> <p>Alpha Lib</p>	<p>Friday and Saturday evenings: * Beta Lib</p> <p>* Moon</p> <p>Sept 28</p> <p>Saturn</p> <p>Alpha Lib</p>

Diagrams on this calendar show sky in middle of twilight, about ¼ hour after sunset or ¼ hour before sunrise. CURRENT SKY INFORMATION: Call (517) 332-STAR

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SKY CALENDAR OCTOBER 1984

Use this scale to measure angular distances between objects on diagrams below.

CURRENT SKY INFORMATION:
Call (517) 332-STAR

An aid to enjoying the changing sky

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<p>Planets at dusk (about ¼ hour after sunset): Venus is brilliant "star" very low in WSW to SW. Saturn is nearly first half of Oct; see diagrams. Jupiter is very bright in S to SSW. Mars is nearly all month; see diagrams.</p>	<p>Lambda * Jupiter</p> <p>Moon * Mars</p> <p>TEA POT</p> <p>Monday evening Oct 1: Moon at First Quarter, 90° (¼ circle) E of Sun.</p>	<p>Moon rises S of east in late afternoon each day through Oct 8.</p> <p>Full Moon Tue Oct 9 rises just N of east within ¼ hour after sunset. Watch Moon come up in twilight Oct 9-12, farther north each evening.</p>	<p>Evening: * Beta Lib</p> <p>* Saturn * Venus * WSW</p>	<p>From lat 40° N, Moon rises nearly 2 hours before sunset today and will rise only 20-30 min later each day Oct 5-12. Daily delay in moonrise is even smaller from northern border states. Read up on Harvest Moon.</p>	<p>Evening: Saturn 1¼° N of Alpha Librae. Use binoculars to see star.</p> <p>* Beta Lib</p> <p>Alpha Lib * Saturn * WSW</p> <p>Venus</p>	<p>One week from tonight, on Oct 13 at dusk, Mars will overtake Jupiter, and the Moon will be just below the eastern horizon. The three bodies will illustrate the opening lines of a famous song: "When the Moon is in the Seventh House, And Jupiter aligns with Mars..."</p>
<p>Jupiter</p> <p>Mars</p> <p>Antares</p> <p>Next time Venus passes Saturn: Dec 5, 1985</p>	<p>Sunday evening, Oct 7: Venus passes 2.5° S of Saturn. Binoculars may show Alpha Librae between them, 0.7° N of Venus.</p>	<p>Jupiter</p> <p>Mars</p> <p>Antares</p>	<p>Wednesday, Oct 10: Mercury in superior conjunction, on far side of Sun and not visible. All other planets in evening sky; 4 brightest shown here.</p>	<p>Jupiter</p> <p>Mars</p> <p>TEA POT</p> <p>Next time Mars passes Jupiter: Dec 18, 1986.</p>	<p>Antares * Venus * Saturn</p>	<p>Saturday evening, Oct 13: Mars passes 1.9° S of Jupiter. Binoculars show Lambda Sagittarii (top of Teapot) only 5 arc minutes S of Mars. A beautiful gathering!</p>
<p>Mornings: Face WSW to W. Moon Sunday Oct 14</p> <p>Aldebaran * Pleiades * Hyades * Moon * Saturday Oct 13</p>	<p>Sigma * Jupiter</p> <p>Mars</p> <p>TEA POT</p> <p>Watch Mars go 1.5° N of Sigma Sgr Oct 21 and 22.</p>	<p>Tuesday evening, Oct 16: Can you still see Saturn with unaided eye? If not, try with binoculars. On what date will you last see it?</p>	<p>Morning: High in SSE.</p> <p>Castor * Pollux * Moon approaching Last Quarter</p>	<p>Morning: Castor * Pollux * Moon has passed Last Quarter</p>	<p>Morning: High in ESE.</p> <p>* Moon</p> <p>* Regulus</p>	<p>Orionid meteor shower, derived from Halley's Comet, is best about 2 hours before sunrise. Morning: * Regulus</p> <p>Moon * Regulus</p>
<p>Evening: Binoculars show Delta Scorpii (middle star in Scorpio's head) within 1° S of Venus.</p>	<p>Morning: * Moon</p>	<p>Morning: With Moon at perigee north of ecliptic, conditions are ideal for seeing very old crescent 26 hours before New from East Coast, 23 hours before from West.</p> <p>Old Moon</p>	<p>New Moon 8:08 a.m. EDT (5:08 a.m. PDT). This is the only date this month Moon can't be seen.</p>	<p>Evening: Look early for thin crescent moon and Saturn, setting in bright twilight. Binoculars help.</p> <p>Venus * Saturn * Young Moon WSW</p>	<p>Evening: A spectacular conjunction of Venus and the Moon! Venus is occulted by Moon's northern limb seen from southern Mexico.</p> <p>Venus * Moon</p>	<p>Evening: Venus passes 3.2° N of Antares. Binoculars help you see Antares.</p> <p>* Moon</p> <p>* Venus</p>
<p>Mars * Jupiter</p> <p>Moon * Jupiter</p> <p>TEA POT</p>	<p>Mars * Jupiter</p> <p>Moon * Jupiter</p> <p>TEA POT</p>	<p>Moon approaching First Quarter Tuesday evening, Oct 30.</p>	<p>Wed eve 31: Moon just past First Quarter</p>	<p>On November Sky Calendar: *Spectacular pairing of two brightest planets, with Moon joining in on next evening (all on Thanksgiving weekend); *Very close conjunction of Venus with 3rd-mag star; *Saturn emerges into morning.</p> <p>Venus * Antares * SW</p>	<p>Comet Halley is now very faint (Mag 18) and requires a large telescope to see it. On Oct 23 the comet passes ¼° S of Xi in Gemini (Pollux's toe) and is 5½ a.u. from Earth. Sky Calendar will follow this famous comet as it brightens to naked-eye visibility in late 1985.</p>	<p>From now until early February 1986 (when Halley makes its closest approach to the Sun), one or more bright planets will be seen in the evening sky. Sky Calendar keeps you posted on where to look for the planets. A good reason to subscribe! Order from address below.</p>

Robert C. Victor, Jenny L. Pon, Robert D. Miller

Subscription: \$5.00 per year, from Sky Calendar, Abrams Planetarium, Michigan State University, East Lansing, Michigan 48824-1324 ISBN 0733-6314

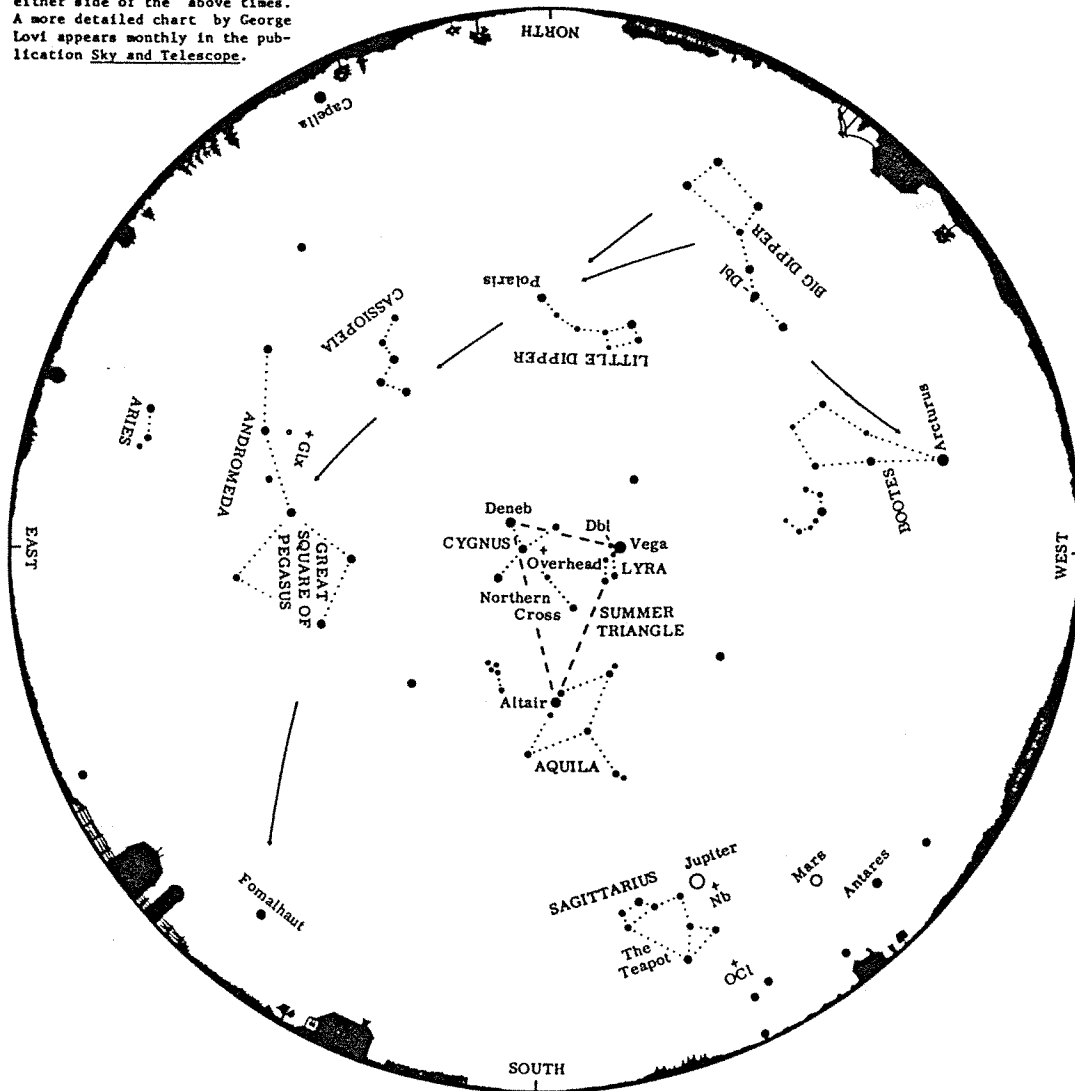
September Evening Skies

This chart is drawn for Latitude 40° north, but should be useful to stargazers throughout the continental United States. It represents the sky at the following local daylight times:

- Late August 11 p.m.
- Early September 10 p.m.
- Late September 9 p.m.

This map is applicable one hour either side of the above times. A more detailed chart by George Lovi appears monthly in the publication Sky and Telescope.

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The planets Jupiter and Mars are plotted for mid-September, 1984. At chart time 9 objects of first magnitude or brighter are visible. In order of brightness they are: Jupiter, Arcturus, Vega, Capella, Mars, Altair, Antares, Fomalhaut, and Deneb. In addition to stars, other objects that should be visible to the unaided eye are labeled on

the map. The double star (Dbl) at the bend of the handle of the Big Dipper is easily detected. Much more difficult is the double star near Vega in Lyra. An open or galactic star cluster (OC1) located below Sagittarius, low in the south-southwest, will challenge the unaided eye. Nearby, marked Nb above the "spout" of

the "Teapot", is the Lagoon Nebula, a cloud of gas and dust out of which stars are forming. The position of an external star system, called the Andromeda Galaxy after the constellation in which it appears, is also indicated (Glx). Try to observe these objects with unaided eye and binoculars.

--D. David Batch

UP COMING FUND RAISING EVENTS FOR THE WINNIPEG CENTRE...

The Winnipeg Centre will be holding a Buffalo Bingo (date to be announced at the September meeting) to raise funds for the 1986 G.A. and the Dome Fund.

Grey Cup tickets will also be available for selling (no not the tickets for the game) these are pool tickets for the East/West score. Funds from these also go to the G.A. and Dome fund. If these two projects go as projected we will be well on the way to meeting our target figure.

A mall display is being contemplated and will operate on a rotary basis ie. St Vital Mall, Polo Park Mall, Kildonan Place Mall. Your assistance is required to make these displays a success and to show the flag to the public. Please help.