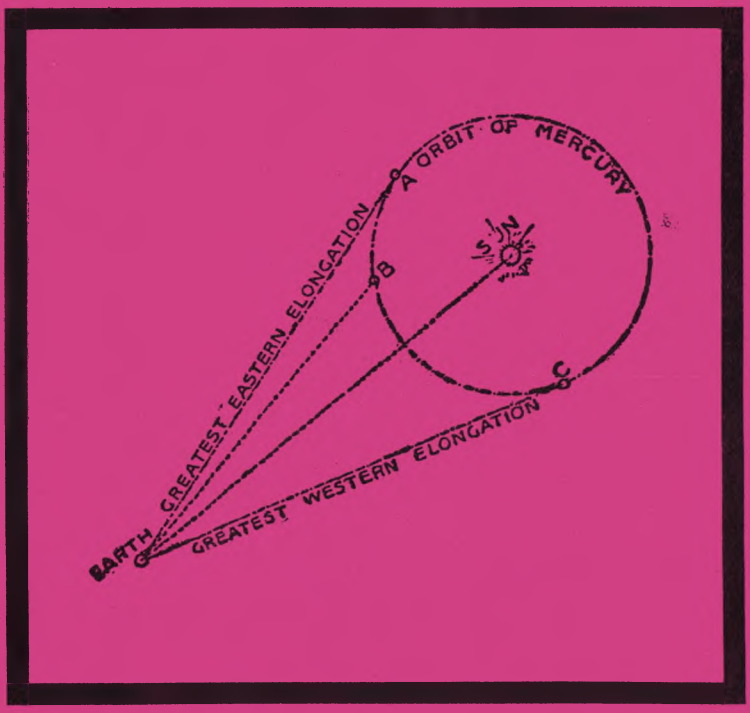
NOVA NOTES



Halifax Centre

May-June 1989
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Number 3

1989 Halifax Centre Executive

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Notice of Meetings

Date: Friday, May **19th**, 1989: cash bar starting at 6:30; meal beginning at 7:00
Place: The Harbour House Dining Room and Lounge, 23 Alderney Drive, Dartmouth, Nova Scotia
Topic: **ANNUAL BANQUET!** . See the end of *Editor's Report* for further details.

Date: Friday, June **16th**, 1989: **7:00 P.M.** early presentation **8:00 P.M.** regular meeting
Place: Nova Scotia Museum. Access from the parking lot and side entrance. Meeting to be held in the lower theatre.
Topic: The early presentation has not been finalized. The regular meeting will be our annual member's night and will feature such old favorites as the trivia quiz.

Date: Friday, June **30th** - Monday July **3rd**
Place: Coast Guard College, Sydney, Nova Scotia
Topic: **1989 R.A.S.C. GENERAL ASSEMBLY!!!**
Start making plans to attend!! For further information write to: Reception Committee, R.A.S.C. '89 G.A., Coast Guard College, P.O. Box 4500, Sydney, Nova Scotia, Canada, B1P 6L1

Halifax Planetarium Public Shows:

April 27th - Galaxies
May 11th - Stars and Planets for May
May 25th - Stellar Evolution
June 8th - Stars and Planets for June
June 22nd - Explosions in Space

The Halifax Planetarium is located in the Dunn Building at Dalhousie University. Shows begin **promptly** at 7:00.

Note: The above list is tentative and subject to change.

About the cover: .This is a sketch explaining the elongations of Mercury from Simon Newcomb's 1902 book **Astronomy for Everybody**. The text mentions the excess amount by which Mercury's perihelion is advancing. As the book was published before Einstein's theory of relativity, Newcomb states that it may be caused by Newton's law of gravity not falling off exactly as the square of the distance.

Editor's Report

Patrick Kelly

As usual, I have a lot of tidbits for this issue's column so let's get started... The following poem was received from a fellow in the valley who had obviously not received his handbook yet due to our backlog of orders.

I sent a check, and now I wait.
I haven't received my book to date.
Sirius twinkles on and on,
February is nearly gone.
The winter skies are best to gaze,
Than shorter nights and longer days.
To find the stars and take a look,
I'd really like to have the book.
Don't get me wrong, I'm patient yet,
I only hope you didn't forget.

I don't think that Paul sent a poem explaining the delay when we mailed out his handbook but you can't do everything!

Now that I am on the topic of mail, one of our members has asked me to warn people about purchasing items by mail order. **Nat Cohen** ordered several books from Northern Sky Telescopes in Minnesota and found, much to his surprise that they were sent to him by airmail. As a result the shipping/handling charge amounted to 24% of the cost of the books! He found this to be a bit steep, especially as he has purchased books from the States before and not had this problem. Letters to the company did not produce any satisfactory results so he thought that other members might be able to learn from his experience. He is not the only person that has had a mail order problem. A member of the Vancouver Centre is out $950.00 Canadian after sending payment for a portable telescope that was advertised in the January issue of **Astronomy** (p. 99). The telescope was a collapsible 10" Newtonian (without a tube) and was sold by a company called Looking Up Optics. He had no luck contacting the company and **Astronomy's** advertising department did not even reply to a letter that he sent to them! Caveat emptor!

How many of you have seen the supernova in M66? Several of us saw it out at Beaverbank a few weeks ago. It was visible with a 10" Odyssey but averted vision was required. Unfortunately, with the weather being what it is, I haven't had a chance to view it lately. While on the topic or recent events, I received a copy of IAU Circular number 4736 over the electronic mail recently. In

addition to the note about the supernova in M66, it also announced the discovery of an optical pulsar at the heart of Supernova 1987A. One of the co-discoverers was Ian Shelton, whom you will recall, discovered the actual supernova itself. Observations were made with a silicon photodiode on the 4 metre telescope at Cerro Tololo. The pulsar's magnitude varies from 18th to 19th and is spinning at about 1970 cycles per second!

I was looking over our membership list the other day and this year has produced another increase in membership. At the end of last year we had 144 members. To date we have 161 members. Since I haven't done it in quite a while, I have included a current membership list as part of this issue. This time, I have sorted it by postal code which should allow greater ease in finding other members who live near you.

A large part of our membership increase is due to the formation of a "satellite" group in Antigonish which has 11 members at present. This group includes members of the physics and chemistry departments at St. F. X. which should provide for a solid base to grow on. They have access to several telescopes including a 10" Celestron which is mounted in a dome at the university. One of their members, **Brian Segal** attended the March meeting and gave a "report" on their activities at the executive meeting. It was also decided that we would give their group a "rebate" on part of their membership fees so that they can organize events and meetings there. We also hope to be able send some executive members to Antigonish for one of their meetings and possibly give some talks to their group. We wish them all of the best in their future endeavors.

You may recall that we have been looking for more participation from members outside of the executive to help in various operations of the centre. One area where that request has not fallen on deaf ears is in the area of articles submitted for NOVA NOTES. This issue features articles by several "new" contributors. I would like to thank **Paul Gray, Ron Hall** and **Brian Segal** who have written articles concerning the best type of telescope systems that they have found. I would also like to thank **David Griffith** who has not also contributed an article on the subject of telescopes, but has also submitted a book review, some thoughts on the recent aurora and the article on solar observing that was in the last issue. In fact, in one of the recent notes that I received from him through the mail he included a few comments which are worth quoting.

"As an out of town member, I find **Nova Notes** to be an important part of my membership package; it gives me an

opportunity to make a direct contribution to the Centre, and keeps me in touch with the activities of the centre."

So don't forget, you too can become ~~rich and~~ famous by writing articles for your newsletter!!

Another member who deserves some thanks is **Roy Bishop** who has donated some interesting material to the centre's library. Included are copies of the daily newspaper from this year's IAU meeting along with a lot of information on both the Hubble Space telescope and the Hipparchus orbiting observatory.

I've digressed a bit from where I meant to be so back on track... All of the "new" contributors were prompted by Doug's original "Thoughts on Telescopes" article and the comments that it drew. In fact, that is the first time that I can recall receiving new articles based on an article from a previous issue. If I let this "discussion" go on any further, I don't think that I would have to write another article until we have to start worrying about the sun's red giant stage!! However, the sheer volume of material that I have recieved has grown to the point where it is taking up almost all of this issue. Thus, I have decided that I will let the matter rest (for a while at least), however I will consider any articles that provide a fresh look at the subject.

You may recall that a few issues ago this column contained some "What they say" versus "What they mean" phrases designed to educate budding astronomers as to the "catch phrases" used in amateur astronomy. Those phrases were geared for observing practices. **Clive Gibbons** of the Hamilton Centre has come up with a set that can be collectively called "Truth in Advertising":

What they say:	What they mean:
Guaranteed 1/16 wave surface accuracy...	Misprint: wave should read inch
Null-figured optics...	We don't test them.
In stock for immediate delivery	Our warehouse is on Mars.
Thousands of satisfied customers...	Most people are too timid to complain.
In business for 62 years...	...and we still don't know how to ship to Canada.
The ultimate eyepieces...	...until we improve them by calling them "Super".
Lightweight and sturdy tripod...	It's great for detecting earth tremors thousands of miles away.
World's largest portable telescope...	World's smallest non-portable telescope.

Jewel-like quality...	Has the same light grasp of a diamond ring for about the same price.
Another Meade innovation...	We stole the idea from Celestron.

I am sure that there must be someone out there who can come up with a similar set of "What they say" versus "What they mean" on another astronomical subject. Why not give it a try.

1989 Annual Banquet Info!

This year our annual Banquet will be held on the night of **Friday, May 19th.** The location is the Harbour House Dining Room and Lounge which is located at 23 Alderney Drive in downtown Dartmouth, just two blocks north of the Ferry Terminal. There is ample parking available in the Ferry Terminal Parking Lot or you can park your car in Halifax and take the ferry across the harbour.

The cost will be $30.00 per person, which includes your choice from one of three appetizers, your choice from one of two (or possibly three) main courses, dessert, beverage, hospital tax and gratuities. There will be a cash bar beginning at **6:30 P.M.** with the meal beginning at **7:00 P.M.**

Following our tradition, we will be having a speaker at the banquet. Members may recall that at a previous banquet, Walter Zukauskas gave us a talk on the events surrounding the recent discovery of Supernova 1987A. At this year's banquet, Walter will be giving a talk called **Supernova 1987A: Two Years Later**.

Now for the fine print!! The $30 will be collected by a member of the executive at the restaurant. Since we don't have the little machines to to run your credit cards through, payment **must** be made in cash, as we will be paying the restaurant on the night of the banquet. Vegetarian diets are available but we must know in advance how many would prefer this option. In addition, we would like to be able to tell the restaurant how many people to expect. Therefore, if you are planning to come to the banquet (and if you wish a vegetarian meal) you **must contact a member of the executive no later than Friday May 5th.**

We expect that this banquet will be as much fun as previous ones and hope to see a lot of you there. Don't forget to call someone as soon as you know that you will be coming so that we can make sure that there will be some food for you!!

Since I only have three lines left before I reach the bottom of this page and I can't think of enough to fill all of the next page, I think it is time to say good-bye until next issue. Ω

Opinions and Evidence

Jim MacGuigan

Being a casual, scientific observer, I observe and have been observing almost every type of object in the sky for many years and most of us do this because all of it IS interesting.

I agree that Naglers and Meade 4000s are two of the best eyepieces ever designed. But as Sky and Telescope pointed out in a recent issue, the cost difference between the Meade 4000s and other Plössls at a lesser price is justified only if one insists on having the best. I have not seen any objective test on Plössls, Königs and Erfles regarding coma or flatness of the field. As a point of interest, my Konig has a wider apparent field than either my Erfle or Plössl (all are 20 to 25 mm).

I do not recall lending Doug a pair of my 50 mm Tento binoculars to compare to the 50 mm (?) Consumer's binoculars, so I'd be interested to find out where and when the test took place and why I was not given the courtesy of the test results. By the way, the Tentos have a genuine leather case and two different pairs of filters are included.

The price I quoted for the Astroscan was directly from Efstonscience's catalog in Toronto ($549.50). The price for the Comet Catcher (without mount) is from the Vancouver Telescope Centre ($1200). Celestron's agent for Canada, 9 Nations of Toronto lists it as $1355 with a dealer cost of $799. I believe that Doug must be talking about the Comet Catcher Jr., not the Comet Catcher. The Comet Catcher Jr. is not the scope that the Comet Catcher is, and as you know, I don't think of the Comet Catcher as a good beginner's scope. The Comet Catcher Jr. lists at $799 Canadian (optical tube only). My comparable beginner's scope lists at $499.90 with an equatorial mount or $299.95 with an altazimuth mount.

Sky and Telescope was my source on the Dobsonian being difficult to use at powers over 150x. Of course, an experience observer can use it at higher powers, but it does take experience manipulating two axes without slow motion controls compared to the single motion of a German equatorial mount. A Dob is steadier than a field German equatorial by virtue of its simple design, but that is like comparing apples and oranges - each has a different function (e.g. the German equatorial is a photographic mount that is capable of tracking at extremely high powers - the Dob can't do this). The Dob on planets can deliver an image as good good as other short focus Newtonians, but it is not excellent compared to a refractor or a long focus Newtonian.

To state that a fully equipped 200 mm Schmidt-Cassegrain is best for photography is only an opinion. For instance, a long focus Newtonian will deliver a crisper image and an f/5 version will equal the Schmidt-Cassegrain at $1000 less.

A small finder is not a bad place to start in astronomy – a novice does not need a larger one (The Lighthearted Astronomer - Fulton).

Besides being the legal proprietor of the Telescopic Shoppe, I also have thirty years of interest in this field, so to state that I say what I say only because I sell astronomical products is selective truth at best. Ω

[Editor's Note: Once again I have been able to get a reply from Doug in time for publication. It appears below.]

Does anybody know how to end something like this? One must differentiate between best buys available anywhere, available here, or theoretically possible. Jim did hand me a pair of 50mm Tento at the site in Beaverbank one night and asked my opinion, but as I failed to note it in my logbook, I do not know the exact date.

I must concede one point. The new Consumer's catalog just out has dropped the "best buy" I have been recommending for over five years. I now know of no place other than Jim's where you can obtain 50mm binoculars without that "zip" focus attachment (which isn't so zippy at -10°C) for $75.

All the prices I quoted were from the December issue of Sky & Telescope. I found the best price available and then took into account exchange and shipping. When was the last time you heard a salesman quote you an accurate best price that a competitor offers? Besides, the "list" price of a Meade 2120/LX6 is given in at least one company's ad as US $6400 and yet they only charge US $2500!! List prices are poor for making comparisons.

I only push in one direction to move my Dobsonian. The fact that two axes move to accomplish this traversal is irrelevant. I like comparing apples and oranges, as I am a great fan of fruit salad. A small finder is a pain in the butt no matter how experienced the user!

I will not reply to any more direct assaults from Jim. I bear no malice to Jim, indeed, I was the first person to wish him success here in Halifax. I believe my exact words were "We need a good retail outfit here in the Maritimes." However, the fact remains that he is in a direct conflict of interest when someone asks him for an opinion about astronomy equipment. He must separate completely his R.A.S.C. activities from his business activities. It's your money, spend it wisely. - D.C.P. Ω

Thoughts[3]

Paul Gray

It was early in July of 1988 when I purchased my 100 mm (4") f/4 refractor. This little scope only gives a light grasp of 200x that of the unaided eye, compared to a 200 mm (8") telescope which has a light grasp of 820. Most people would believe that this would make a good beginner's scope. Well, it is, but despite its small size, I would not get rid of it, even if someone were to offer me a 17" reflector.

So what if the scope does not have a large aperture. A rich-field telescope (RFT) can show you most of the regular "nice" objects, but in addition it can allow you to see things that no other type of telescope can. The best views that I have ever seen of the Pleiades were through my little RFT. With a field of view of three degrees, the entire open cluster fits nicely into view. Also, according to **The Observer's Handbook** this little scope is capable of showing a bit of the nebulosity around some of the stars in that cluster.

This scope can also show you the entire Messier list. I have also found that it gives very pleasing views of brighter galaxies. I have seen dust lanes in M31 many times and can easily see its two satellite galaxies. Also visible is M33 which is very easy to find, along with M101 and NGC 6822 (a member of the Local Group located in Sagittarius).

There are many other things that are visible in one of these little scopes, such as the California Nebula which I've observed once; Barnard's Loop in Orion; Barnard's dark "S" nebula in the summer Milky Way and IC 1396 in Cepheus. Objects like the Veil Nebula and the North America are easily visible, as is the nebulosity around γ Cygni. These and many more objects are visible in these little scopes in a dark sky location (such as Beaverbank) or using a filter.

People might believe that RFT's are expensive. Some of these scopes are costly, but not all. The point that I wish to make is that I would recommend an Astroscan, Comet Catcher or an RFT-6 (made by Telescopics) as a possible beginner's telescope and definitely feel that they make an excellent second telescope. All of these can be purchased for under $500 Canadian. They are all capable of showing objects that some Schmidt-Cassegrains can't and that even light buckets have a hard time finding. With one of these and a filter, a good book and a good atlas, a person can have a very enjoyable time observing and also getting to show other amateurs things that their scopes cannot see!! Ω

Thoughts[4]

Ron Hall

I would like to express my appreciation to Doug Pitcairn for his "Thoughts". I am relatively new to astronomy and I can identify with the difficulty faced by novices in choosing equipment. A perusal of any astronomy magazine shows that there is a lot of commercial equipment available. There are, however, very few telescope showrooms in Canada, so we must often rely upon other amateurs for recommendations and the opportunity to try out equipment. I have found that the choice of equipment is a personal matter based on many factors such as observing interests, finances, observing site, etc. and as such it is difficult to make useful generalizations.

I agree with Doug that binoculars and a star atlas are great first purchases. A first telescope is a more difficult choice, but I feel that the most important consideration is the ease of use. A telescope that is difficult to carry, set up, or use will not get used very often. I have had good experiences with small refractors and catadioptrics, although well made ones tend to be a bit expensive. Small Dobsonians are also very manageable and several companies sell 150 mm (6") f/8 mirrors at reasonable prices for which a Dobsonian mount can be easily made.

I would caution novices not to bite off too much. Impressive observations are being reported by observers with 13" and 17.5" reflectors and I will always remember how impressed I was with the size of a 17.5" telescope the first time that I saw one. I have seen smaller outhouses!!

I dispute those who say that there is a minimum size for an astronomical telescope. Novices usually start out with small telescopes and I think that it is unfair to criticize them arbitrarily for this. I have a Questar 3.5" telescope which I would hate to part with despite its small size. I have also observed with 10x25 binoculars and was very surprised at how much I could see.

Any equipment that is convenient enough to be used and shows what you want to see is probably the right stuff. For some observers this means a 30" reflector, for others, a pair of eyes. I would certainly recommend that a novice avoid the urge to buy until after they have been to a star party, etc. and had a chance to look both at and through a variety of telescopes. I appreciated the opportunity to be able to do this when I joined the R.A.S.C. Our club members have a lot of valuable experience from which we can all benefit, but we should be careful to avoid getting mired in dogma. Ω

Thoughts[5]

David Griffith

There is a saying that goes something like, "Why drink water when you can drink wine?" Applied to our avocation it might be construed to mean, "Why use good equipment when you can get the best?"

An amateur photographer for over ten years, I can recall the ride I took on the "equipment spiral", constantly upgrading equipment as soon as new and better gadgets appeared on the market. Automatic cameras were fine until the programmed ones stole the spotlight. These in turn were dethroned by multi-programmed and autofocus cameras, etc., etc. My f/2 lens was fine until I saw that f/1.2 sitting in the photo store window. Before long, I was spending more time upgrading my equipment than using it!

Because of its highly technical nature, astronomy is another hobby prone to being swallowed up by the equipment spiral. A quick perusal of **Sky & Telescope** or **Astronomy** will attest to this. It seems that the noble orthoscopics and Erfles of yesteryear have become four letter words since the appearance of Wide Fields and Naglers. Setting circles, not to mention star hopping are archaic now - get a CAT!

Don't misunderstand me; I don't mean to challenge manufacturer's claims that these are improved or revolutionary products. Naglers are optical gems and CAT's can take you on quite a tour of the heavens. I do, however, question whether or not the often massive outlays of cash justifies "upgrading" to such accessories. For those of us fortunate enough to be able to afford this habit - all power to you. For the rest of us, however, why mothball our equipment just because we must settle for a little less filed or a little more curvature? For all but the most demanding , these small burdens are bearable. M42 is splendid in my 32 mm König and Mars was great in my 10 mm ortho.

As amateur astronomers, we would do well to spend a little less time riding the equipment spiral and a little more getting the most out of what we already have. Ω

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Joshi	Dr. Y	Physics Dept. St. F.X.U.	Antigonish	N.S.	Can.	B2G 1C0
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Starzomski	Mark	23 Robert Drive	Dartmouth	N.S.	Can.	B2W 2A1
Falls	Dale	6 Kathy Cross Drive	Dartmouth	N.S.	Can.	B2W 2R5
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Brooks	Randall	71 Woodlawn Road	Dartmouth	N.S.	Can.	B2W 2S2
Muzzatti	Leo	44 Ellenvale Avenue	Dartmouth	N.S.	Can.	B2W 2W5
Collins	Gary	65 Bellavista Drive	Dartmouth	N.S.	Can.	B2W 2X4
Norman	Alex C.	59 Spikenard Street	Dartmouth	N.S.	Can.	B2W 3B6
Steffin	Peter	8 Auburn Drive	Dartmouth	N.S.	Can.	B2W 3S6
Griffin	John P.	RR#1 Lake Major	Halifax County	N.S.	Can.	B2W 3X7
Patriquin	Grant	12 Arklow Avenue	Dartmouth	N.S.	Can.	B2W 4B8
Salloum	David	7 Barry Allen Drive	Dartmouth	N.S.	Can.	B2W 5Z9
Jones	Tony	327 Waverly Road	Dartmouth	N.S.	Can.	B2X 2E2
Anstey	Carl	2 McCarthy Street	Dartmouth	N.S.	Can.	B2X 2Y4
MacDonald	David	353 Portland Street Apt. 14	Dartmouth	N.S.	Can.	B2Y 1K7
McLeod	Cathy	48 Old Ferry Road	Dartmouth	N.S.	Can.	B2Y 2E7
Fraser	Ralph	40 Murray Hill Road	Dartmouth	N.S.	Can.	B2Y 3A8
Doyle	Milton	20 Dustin Street	Dartmouth	N.S.	Can.	B2Y 3T6
Kennedy	Phyllis	5 Cayuga Drive Apt. 2	Dartmouth	N.S.	Can.	B3A 1B3
Fraser	Norma	23 Clearview Court	Dartmouth	N.S.	Can.	B3A 2M9
Ellis	Dr. Dale	5 Rockwood Avenue	Dartmouth	N.S.	Can.	B3A 2X9
Chapman	David	8 Lakeview Avenue	Dartmouth	N.S.	Can.	B3A 3S7
Slaunwhite	Harvey S.	21 Mount Pleasant Road	Dartmouth	N.S.	Can.	B3A 3T3
Postlethwaite	Kevin	65 Primrose Street Apt. 318	Dartmouth	N.S.	Can.	B3A 4E1
Pitcairn	Doug	13 Ferguson Road	Dartmouth	N.S.	Can.	B3A 4J8
Smith	Wade	300 Micmac Boulevard Apt. 308	Dartmouth	N.S.	Can.	B3A 4L6

Fennell	Peter	5848 Goresbrook Avenue	Halifax	N.S.	Can.	B3H 1G2
Millar	Graham	6153 Murray Place	Halifax	N.S.	Can.	B3H 1R9
Slaunwhite	Mark	5798 South Street Apt. 3	Halifax	N.S.	Can.	B3H 1S5
Cunningham	Dr. Murray	6299 Payzant Avenue	Halifax	N.S.	Can.	B3H 2B2
Ross	Gordon W.	6331 Cornwall Street	Halifax	N.S.	Can.	B3H 2J2
Ager	Andrew	1030 South Park Street Apt. 904	Halifax	N.S.	Can.	B3H 2W3
Comeau	Michel P.	851 Tower Road	Halifax	N.S.	Can.	B3H 2Y1
Lonc	Father William	Physics Dept. St. Mary's	Halifax	N.S.	Can.	B3H 3C3
Reed	Cameron	Physics Dept. St. Mary's U.	Halifax	N.S.	Can.	B3H 3C3
Turner	Dr. David	Astronomy Dept./ St. Mary's U.	Halifax	N.S.	Can.	B3H 3C3
Welch	Dr. Gary	Astronomy Dept./ St. Mary's U.	Halifax	N.S.	Can.	B3H 3C3
Covert	David	893 Marlborough Avenue	Halifax	N.S.	Can.	B3H 3G7
Tindall	Dr. David	Physics Dept./Dalhousie U.	Halifax	N.S.	Can.	B3H 3J5
Zukauskas	Walter	Physics Dept./Dalhousie U.	Halifax	N.S.	Can.	B3H 3J5
Scott	Kenneth E.	1381 LeMarchant Street	Halifax	N.S.	Can.	B3H 3P8
Hallisey	Alfred J.	1675 Beech Street	Halifax	N.S.	Can.	B3H 4B5
Falk	Dan	1591 Conrose Avenue	Halifax	N.S.	Can.	B3H 4C4
Falk	Michael	1591 Conrose Avenue	Halifax	N.S.	Can.	B3H 4C4
MacLean	Mark	Box 244 Howe Hall, Dalhousie U.	Halifax	N.S.	Can.	B3H 4J5
Mitchel	Shawn	P.O. Box 380 Smith House	Halifax	N.S.	Can.	B3H 4J5
Beer	Ruth	5770 Spring Garden Road Apt. 1203	Halifax	N.S.	Can.	B3H 4J8
Duval	Paul B.	5415 Victoria Road Apt. 509	Halifax	N.S.	Can.	B3H 4K5
Sacamano	Andrew	5270 Harvey Street	Halifax	N.S.	Can.	B3J 1A7
Yurchesyn	Joe	5264 Morris Street Apt. 1104	Halifax	N.S.	Can.	B3J 1B5
Murphy	Gerald	Lord Nelson Room 861 / 1515 South Park St.	Halifax	N.S.	Can.	B3J 2L2
Wing	David	Lord Nelson Room 644 / 1515 South Park St.	Halifax	N.S.	Can.	B3J 2L2
Parker	Larry	1271 Church Street Apt. 908	Halifax	N.S.	Can.	B3J 3L3
Snelgrove-Fleet	Christel	11 Braeside Court	Dartmouth	N.S.	Can.	B3K 3M8
MacLennan	Dan	3631 Acadia Street	Halifax	N.S.	Can.	B3K 3P7
Crosman	Tom G.	3567 Leaman Street	Halifax	N.S.	Can.	B3K 3Z6
Lawrence	David	6258 Allan Street	Halifax	N.S.	Can.	B3L 1G9
LeBlanc	Damien	5604 London Street	Halifax	N.S.	Can.	B3L 1X4
Edwards	Roy	2065 Poplar Street	Halifax	N.S.	Can.	B3L 2Y6
Cleveland	Kevin	3414 Laurie Drive Apt. 5	Halifax	N.S.	Can.	B3L 3S1
MacLeod	Ted	3078 Lloyd Fox Ave.	Halifax	N.S.	Can.	B3L 3V9
Gorveatt	Glane	3140 Hemlock Avenue	Halifax	N.S.	Can.	B3L 4B6
Hall	James	6969 Bayers Road Apt. 102	Halifax	N.S.	Can.	B3L 4P3
Lane	David J.	26 Randall Avenue Apt. 4	Halifax	N.S.	Can.	B3M 1E2
Scrimger	Dr. Norman	12 Lynwood Drive	Halifax	N.S.	Can.	B3M 1Y9
Burrows	Gary	38 Lodge Drive	Halifax	N.S.	Can.	B3M 2G7
Oakley	Kathy	30 Laurentide Drive	Halifax	N.S.	Can.	B3M 2N1
Stewart	David A.	27 Rockwood	Halifax	N.S.	Can.	B3N 1X4
Thompson	Hugh	6 Marine Drive	Halifax	N.S.	Can.	B3P 1A3
Calnen	William	14 Green Acres Road	Halifax	N.S.	Can.	B3R 1C6
Kelly	Patrick M.	2 Arvida Avenue	Halifax	N.S.	Can.	B3R 1K6
MacGuigan	Jim	143 Old Sambro Road Apt. 1	Halifax	N.S.	Can.	B3R 1R4
Roberts	Gregory N.	34 Village Crescent	Halifax	N.S.	Can.	B4A 1J2
Demings	Jeremy	23 Glen Moir Terrace Apt. 307	Bedford	N.S.	Can.	B4A 1J4
Edwards	Michael	8 Sullivan's Hill	Bedford	N.S.	Can.	B4A 1N8
Zurawvski	Richard	6 Riverview Crescent	Bedford	N.S.	Can.	B4A 2X4
Grey	Paul	108 Aspen Crescent	Lower Sackville	N.S.	Can.	B4C 1E1
Clark	Don	54 Raymond Drive	Lower Sackville	N.S.	Can.	B4C 1H2
Coates	Rick	12 Cornwall Street	Lower Sackville	N.S.	Can.	B4C 1J1
Whitehorne	Mary Lou	53 Zinck Ave.	Lower Sackville	N.S.	Can.	B4C 1V9
Edwards	Peter	78 Hillcrest Avenue	Lower Sackville	N.S.	Can.	B4C 1X1
Lively	Glenn A.	Comp. 10, Davis Drive	RR#1 Lower Sackville	N.S.	Can.	B4C 2S6
Adams	Jason	P.O. Box 447	Lower Sackville	N.S.	Can.	B4C 3G4
Oram	Don J.	29 Melrose Avenue	Amherst	N.S.	Can.	B4H 3N4
Carruthers	D.B / P.G.	1 Alicia Boulevard	Kentville	N.S.	Can.	B4N 4S4
Morley	Wilfred	34 Elizabeth Street	Bridgewater	N.S.	Can.	B4V 1M2
MacDonald	Leo	150 Queen Street Apt. #2	Bridgewater	N.S.	Can.	B4V 1P6
Turney	Mike	RR#3 Muloch Road	Bridgewater	N.S.	Can.	B4V 2W2
Parker	Darrin	P.O. Box 249	Bridgewater	N.S.	Can.	B4V 2W9
Selig	Robert C.	66 Alpine Drive	Bridgewater	N.S.	Can.	B4V 3A8
Roberts	Glenn K.	P.O. Box 958	Cornwall	P.E.I.	Can.	C0A 1H0
Burden	William A.	19 Don Wood Drive	Charlottetown	P.E.I.	Can.	C1A 5L1
MacKay	Donald	127 Gamble Avenue	Wilmont	P.E.I.	Can.	C1N 4R3
Flemming	Michael	10 Lakeshore Drive	Middle Sackville	N.B.	Can.	E0A 2E0
Hawkes	Dr. Bob	Physics Dept./Mt. Allison U.	Sackville	N.B.	Can.	E0A 3C0
Cassie	Michael	12 Gallagher Street	Shediac	N.B.	Can.	E0A 3G0
Simard	David	Box 6, Site 5	RR#2 Shippagan	N.B.	Can.	E0B 2P0
Van Dijk	Anthony M.		RR#1 Millerton	N.B.	Can.	E0C 1R0
Wennberg	Erik	P.O. Box 373, 3 Turnbull Court	Rothesay	N.B.	Can.	E0G 2W0
Girouard	Dr. F.	Physics Dept./ Univ. de Moncton	Moncton	N.B.	Can.	E1A 3E9
Larkin	Leonard	356 Main Street	Saint John	N.B.	Can.	E2K 1J2
Scott	Bruce	107 Broad Street	Saint John	N.B.	Can.	E2L 1Y7
Brown	Murray V.	242 Waterloo Street	Saint John	N.B.	Can.	E2L 3R5
Saintonge	Armand	30 Rue Rochester	Fredericton	N.B.	Can.	E3B 4T1
Whiston	Rev. David	Holton Street	Flinton	Ontario	Can.	K0H 1P0
Zhen-Tao	Dr. Xu	Purple Mountain Observatory	Nan Jiang	People's Republic of China		

Thoughts[6]

Brian Segal

I have enjoyed the somewhat cantankerous exchanges between Doug Pitcairn and Jim MacGuigan on the merits (and "demerits") of various observing systems and accessories. It seems fair to say that in astronomical gadgetry and optical systems, there are always tradeoffs. Every configuration has advantages and drawbacks. Just about the only maker of commercial equipment that consistently refuses to acknowledge this is Questar Corporation from whose ads I have concluded offers a telescope that packs twenty inches of light gathering power into a three and a half inch tube which can practically penetrate to the realm of quasars from a wind swept mountain peak during so-so seeing under a full moon!

As a confirmed equipment junkie (as opposed to an owner of junk equipment) I do have some thoughts of my own. My current stable consists of a venerable pair of no longer produced Fisher-Deitz 7x50 binoculars (27 years old and still great), a Bausch & Lomb 4000 Pro with various trimmings (a great small scope as Doug says) and a Meade 2080 LX5 8" cat with a lot of trimmings. Each of these systems serve a particular function well, but I don't try to push them into uncomfortable corners.

One of these days (when I get rich enough) I will probably trade in the B&L on a good refractor (i.e. a 4" Genesis) or maybe a used but well treated Maksutov (perhaps even a Questar). However the current raft of options provides me with enough choices and flexibility.

All of the above provide me with very satisfactory observing. I have toyed with the notion of replacing the 8" cat with a 10 incher, but the weight of the larger tube is a factor - especially on the cold ICY winter evenings where a false step could lead to disaster.

I have a good friend with a Coulter 13" light bucket á la Dobsonian. He lives in town (Antigonish) complete with light pollution, the steam vent from the rink and the neighbour's heated pool. He has compared his light bucket with the LX5 and praises the Meade's quality. The image is perhaps a tad dimmer but it has good resolution and sharper images than many cat critics would make out.

The university here has a wonderful old Celestron 10" cat that is, unfortunately, wallowing in a sea of light pollution. My friend's Coulter kills the Celestron bearing out the old maxim that there is no substitute for aperture. However, out here in Rural

Bliss, the 8" cat can rival either of the others as long as they stay in town.

The point of this ramble is that so much depends on where you are. my 4" B&L shows me things out here in rural wonderland that the 10" in town really has to reach for and the Coulter sees, but not at optimum contrast (unless, of course, the town has a power failure!).

Telescope buyers should really aim for the best system they can afford which deals with the site that they plan to use it at. Believe me, dragging a 13 inch telescope out to the country for a peek is a big enterprise requiring at least two people and possibly recollimation. Having such a behemoth permanently located under dark skies sounds attractive. For my money, an 8" cat is about as easily portable as telescopes come. The nice thing about the B&L is that it fits anywhere (including under an airplane seat) and is a great traveling companion - assuming, of course, that your human traveling companions will put up with the competition!

Ideally, try the scope out at the site where you will be using it most often; in fact try out a variety of scopes if you can and consider image quality, portability, user friendliness and add-on capability. It's nice to own a basic system that can grow with your needs and skill development.

Eyepieces! If there is anywhere that spending money is easily worth it, this is it! The recent upgrade on the university's Celestron was an easy effort after I let the "powers that be" compare the view through a Meade Series 4000 Super Plössl compared to an older Celestron orthoscopic. I completely agree with Doug that you get what you pay for. The big considerations are field angle and contrast. I own a variety of makes and types and I have to say that the Super Plössls and Wide Angles are superior to orthos and Erfles (not that orthos and Erfles aren't quite acceptable). A decent telescope can be transformed through the use of top grade oculars! Add to them a good quality telecompressor, a top grade Barlow and a premium nebula filter (i.e. Lumicon's UHC premium) and you have flexibility in terms of true field, magnification, emission sensitivity, brightness and contrast. You can really compensate for aperture, to a degree, if you arm the eyepiece end of your telescope with quality stuff.

Regarding mountings, my friend with the Dobsonian has a salient observation. He's a sketcher and really appreciates the tracking of an equatorial system. Also, it is easier to star hop through an atlas when your scope moves along the same axes as the chart. *[Editor's Note: I have avoided this problem by observing near the meridian where equatorial and altazimuth co-ordinates*

coincide and only one axis must be adjusted to keep an object centered.] You can plan your finding strategy in harmony with the progression of , say, the Uranometria layout. Needless to say, for photography, the equatorial mount is a must.

Which brings us to photography. I have to take issue with Jim's estimate on the cost of a NEW 8" cat. Yes, maybe you can get the basic scope for $1900. However, that in itself involves some tradeoffs. In addition, you need a drive corrector (not standard on the stripped down 8" bargains), various attachments including adapters, extenders, off-axis guiders, illuminated reticles and so on. My current estimate of the best price for a comprehensive photo accessory package based on magazine ads and shopping around is in the range of $500 Canadian. Then, of course, you need a camera! I agree that you are looking at around 3000 clams for a decent rig.

A last word on Tascos (let's hope it's the last!). A friend of mine was given one for Christmas a couple of years ago. He used it twice. This refractor has a breeze (or is it sneeze) sensitive mount, a next to useless finder and worst of all, a 4 mm eyepiece that is only useful if you are determined to die of frustration. He got turned off of astronomy. Upgrades aside, that is bad marketing and leads one to wonder if Tasco is at all interested in repeat business!

I wish you all clear and steady skies. Ω

Astro Ads

FOR SALE : Focusser & Telescope

Meade 1.25" rack and pinion focusser .....$50.00 or trade
Meade 60 mm photo guidescope, mounting brackets
brand new, newer used. Purchased for $US 170.....make an offer

Call David Lane — 443-5989

FOR SALE: Celestron C5 (1250 mm f/10)

C5 with fork and wedge plus case, two Kellner eyepieces 12 and 26 mm
asking $800.00

Call David Meers — 826-2723 (St. Margaret's Bay)

FOR SALE: Hybrid 90° Diagonal

allows use of 1.25" eyepieces in 0.965" scopes $50.00

Call Doug Pitcairn — 463-7196

Book Review: The Universe From Your Backyard by David Eicher

David Griffith

With all of the sky atlases available to the backyard astronomer, why, you might ask, do we need yet another?

David Eicher's new book is not unique in what content it offers. Within its covers are the usual maps, sketches and astrophotos encountered in numerous other books. Also included are the customary technical tidbits of data such as right ascension and declination co-ordinates, magnitudes, etc.

What makes this book different from many others is the way in which it presents the night sky - one or two constellations at a time. Many seasoned observers are quite comfortable with a atlas that goes all the way down to eighth magnitude but beginners and less experienced observers often get lost under that great starry dome. "What should I look for?, they ask, and two hours later they are still slewing their scopes wildly in its mount hoping to find something. I know the feeling - I've been there myself.

If there is one thing Eicher's book encourages, it is discipline. The format of the book suggests a more planned approach to observing. The reader is encouraged to study the individual constellation and note what and where the deep sky objects are. The maps can be used outside to find the objects and the text used later on to verify or review what has been located during your observing session.

The book's format is straightforward and easy to follow. Constellations are listed alphabetically, and each entry includes a map, sketches, a few photographs, a page or two of nontechnical text and a table of observing data. Eicher's style is one that will appeal more to the general observer than the astrophysicist; throughout the book there are numerous observing tips and eyepiece impressions.

The Universe from Your Backyard, a compilation of **Astronomy** magazine's popular "Backyard Astronomer" articles divides the night sky into manageable sections, a real plus for less experienced observers. More seasoned amateur astronomers will enjoy comparing notes with Eicher. All in all this observing guide offers something to observers of all levels, though I think the less experienced gazers stand to benefit more. Ω

[Editor's note: The librarian is in the process of purchasing this book for the Centre library.]

Amateur Astronomy and The Hot Line

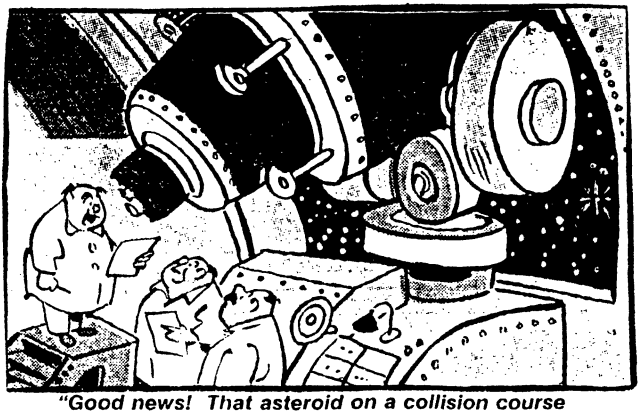
David Griffith

As I marvelled at the recent auroral fireworks of March 13th, (one of this centuries best, I understand) I did so with s sense of smugness not normally felt while beholding the heavens. (My usual emotions during these ventures ranges from wonderment to humility.)

It all started several days previous, when I decided to check out the sun for sunspot activity. Having properly filtered my 200 mm (8") SCT, I trained it on the sun and was rewarded with what can only be described as a "mega-sunspot". Actually, it was a huge sunspot group surrounding one particularly large and oblong spot.

Knowing that such large spots, especially those of an oblong or extended shape, often give rise to solar flare activity, I noted in my journal that maybe, just maybe, we would be treated to an aurora quite soon. I mentioned my prediction to my wife, but she only responded with something about having a hot-line to God.

A teacher by profession, I couldn't resist sharing my prediction with students and colleagues. "Keep an eye open", I said, "and you might catch a northern lights display in the next few nights". The rest, of course, is history. While I won't deny feeling just a bit pleased with myself for this bit of predictive astronomy, my true satisfaction was knowing that my prediction prompted a few more people to brave the night air and catch what might well be the aurora of the century. Ω



"Good news! That asteroid on a collision course with Earth disappeared when the maid dusted the telescope!"

Notes From the Chair

Doug Pitcairn

Well, it may be cold, but enthusiasm has not been damped out. The brave and foolhardy continue to show up at the Beaverbank site just about every half-decent night (see the March 8th entry in the Gawkers Report).

As Observing Chairman, I thought it might be appropriate to add a few words, as this seems to be the custom among other centres' newsletters.

The night of February 26th was one of those rare nights when we actually set out with two specific tasks and accomplished them both. A quick search for the supernova in M66 was rewarded with success. The star image was about magnitude 12.5 and about halfway from the nucleus to the northern edge of the galaxy's image in the Odyssey. I have a sketch if anybody is interested. The second task was to determine the scope's limiting magnitude by examining the chart of M67 on page 333 of February's Sky & Telescope. The faintest star both Joe and I could find was "J", at 13.96. This is about what we expected, considering the average conditions and the fast (f/4.5) optics. On a separate night, Pat tried this test with his recently collimated Odyssey, and achieved the same result. Has anybody else tried this test? Send in a gawker's note and we'll compare. That Nagler of Joe's sure produces fine star images in the ol' bucket. I wonder how I'm going to afford..., oh forget it. My wife would divorce me.

The Wednesday, Mar. 8th. auroral display was as beautiful as Mary Lou relates, but was outdone by one the following Monday. Joe and I watched from Mt. Thom, on the Trans Canada Highway as the heavens shimmered and danced. (Have you ever stood gawking as 18 wheelers roared past at 130 km/h, six feet away?). Pat says that even from Halifax, this display drowned out Orion, in the south! Several members pointed out that this display was almost certainly connected to a large sunspot group which was visible on the sun at this time. *[Editor's Note: see the article by David Griffith related to this subject!]*

March 10th was the best night of the winter so far. I feasted on a score of galaxies above Leo's rear end. The most notable were NGC 3245, 3344, and 3486. NGC 3486 is quite bright, and should be visible in very small scopes. Its a classic "How did Messier miss it?" The trio of 3608, 3607 and 3605 are all visible in the same field of view. I searched in vain for the elusive Leo II. Has anybody in the centre seen this local group member?

Oh, and thanks for the compliment Mary Lou!!Ω

Gawker's Report
compiled by Pat Kelly

Time: Sunday, February 26th, 1989
Place: Beaverbank Observing Site
Observer(s): Pat Kelly, Dave Lane, Doug Pitcairn, Mary Lou Whitehorne, Joe Yurchesyn
Equipment: 2 10" Odysseys, 10x70 and 7x50 binoculars
MVM: 5.5
Weather conditions: cold and calm
Seeing: good to excellent as the haze cleared
Comments: Supernova 1989B in M66 – an obvious bright spot in the galaxy that jumps out at you with averted vision! - M.L.W.

Objects Observed:

Planets: Jupiter and Mars
Nebulae: M42 andM43 Wow! With Joe's big Nagler! Incredible detail and an impressive 3-D quality - M.L.W.

Open Clusters: Beehive, Pleiades, Hyades, h & χ Persei, M34, M35, M36, M37, M38, M41, M44, M46, M47, M48, M67, NGC 663, NGC 1513, NGC 1857, NGC 2244, NGC 2360
Galaxies: M31, M65, M66, M81, M82

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Time: Wednesday, March 8th, 1989
Place: Beaverbank Observing Site
Observer(s): Phyllis Kennedy, David Lane, Doug Pitcairn, Hugh Thompson, Mary Lou Whitehorne , Joe Yurchesyn
Equipment: N/R
MVM: 4 - 5
Weather conditions: Cold (-10°), calm,damp,variable haziness
Seeing: terrible
Comments: Well, we tried to observe a couple of galaxies but conditions were very poor - seeing was terrible and it was impossible to focus down to point-like star images. BUT we were treated to the most fantastic auroral display!! It began with a huge green arc 90° around the northern horizon. This split into a double and then a triple arc, undulated for a few minutes; then two spots became extremely. Suddenly, brilliant blood red sheets and rays extended upwards to near the zenith. They extended further to the east and west as well as upwards, overlaying Ursa Major and Auriga but leaving Cassiopia clear. We spent about thirty minutes gaping at this display that even cast shadows; ooohing and aaahing and deeply regretting that our cameras were all at home. Eventually, the aurora faded into a complex knotty

pattern and then back to the green arc. At its maximum the display extended 140° around the horizon. A never-to-be-forgotten treat! - M.L.W.

Objects Observed:

Planets: Jupiter, Mars
Nebulae: M1, M42, M43
Galaxies: M51, M63, NGC 5198
Moon: Very new; a couple of us tried to photograph the new crescent (20.5 hours old) earlier from Halifax and Dartmouth.

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Time: Friday, March 10th, 1989
Place: Beaverbank Observing Site
Observer(s): Phyllis Kennedy, Doug Pitcairn, Mary Lou Whitehorne, Joe Yurchesyn
Equipment: 7x50 and 8x40 binoculars, 60 mm refractor, 10" Odyssey
MVM: 6.0
Weather conditions: Cold (-10°), calm and damp (bone chilling!)
Seeing: very good
Comments: SURPRISE: The Rosette Nebula is visible in binoculars! We were also treated to Jupiter, Mars and the Pleiades all lines up in a row. Doug was busily picking off galaxies with his superior quality optics - you'll have to ask him for the specifics. - M.L.W.

Objects Observed:

Nebulae: M42, M43
Open Clusters: OPEN CLUSTER NIGHT WITH BINOCULARS! M34, M35, M36, M37, M38, M41, M46, M47, M48, M50, M93, NGC 957, NGC 1246, NGC 1513, NGC 1528, NGC 1647, NGC 1807, NGC 1817, NGC 1907, NGC 2215, NGC 2244, NGC 2301, NGC 2354, NGC 2360, NGC 2423, NGC 2482, h&χ Persei, H1, Stock 23
Galaxies: M31, M81, M82

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The dates of the best observing periods can be obtained from the "Calendar of Events" inside the back cover. Any clear night in this period is likely to find people at Beaverbank. If you wish to double check to see if anyone is going out, please call the Observing Chairman or the Second Vice President .Members are invited to submit their observations to the Editor for inclusion in "Gawker's Report". In order to make the compiler's job easier, please list all information in a format similar to that used for the column. Thanks and clear skies. Ω

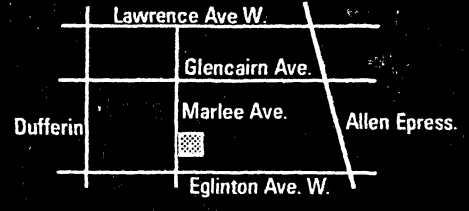
SCOPE CITY

Astronomical Telescopes & Accessories

All Major Brands:

Carton Adlerblick
Celestron
Daystar
Jason
Jim's Mobile ("Motofocus")
Kowa SP Scopes
Leitz
Lumicon
Manfrotto
Meade
Pentax
Sky Publishing
Steiner
Telrad
TeleVue
Thousand Oaks
University Optics
Vernonscope
Zeiss

and many, many others.



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NOVA NOTES INDEX

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HALIFAX CENTRE - R. A. S. C.
1989 CALENDAR OF EVENTS

May 1989

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June 1989

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

July 1989

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

August 1989

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Key to calendar:

Regular Meetings: **shadowed and outlined**
Special days: **bold**
Possible observing sessions: underlined

Special Days:

May 3/4 - Eta Aquarid Meteors
May 22 - Venus 0.8° N of Jupiter
June 24 - Saturn 0.3° S of Neptune
June 30 - July 3 - **General Assembly - Sydney**
July 2 - Mercury 0.6° S of Jupiter
July 12 - Venus 0.5° N of Mars
July 28/29 - South Delta Aquarid Meteors
August 12 - Perseid Meteors
August 16 - TOTAL LUNAR ECLIPSE!
August 25/28 - **NOVA EAST '89**

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