# RASC Sudbury Astronomy Club - Origins and Early Years Including, but not limited to, events from 1981 - 1987 by Steve Dodson, founding member

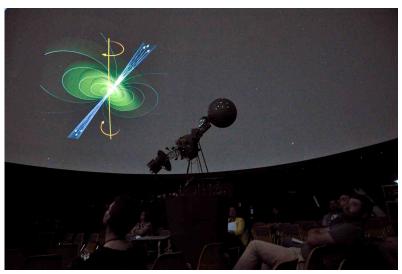
The roots of Astronomy in Sudbury are deep! In November 2021 we Celebrated our 400th Meeting.

Does that mean the History of Astronomy in Sudbury goes back 40 years?

Or did Astronomy in Sudbury get its start with the founding of the first, short-lived, version of the Club in October 1971?

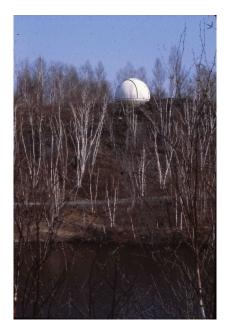
Maybe the real start was the installation of the permanent planetarium with the help of the Doran Family in 1969...

Maybe it was the year before, when Paul Emile Legault became the first staff member of the Laurentian University Institute of Astronomy!



1 - Spitz A-4 Projector in the Doran Planetarium

Or, maybe we should go back to 1966, when Fr. Roger Leclair launched the geodesy project (Satellite Tracking) in the NASA Dome under contract with the Space Agency. NASA provided the dome and astrograph/mount, and Laurentian University installed them at the Lake Laurentian Conservation Area. (Left Photo: 2 - 1809: NASA Dome)





Twenty years before Fr. Leclair's NASA partnership, telescopemaking in Sudbury got underway with self-guided projects by a very adept and industrious INCO employee, Ken Odaisky.

In 1946 a Catalog of telescope making supplies inspired him to send away for glass blanks, grits, and polishing compounds from as far away as England.

He mastered optical techniques on his own and produced a steady stream of refractors and reflecting telescopes in his home shop.

4 - Ken and son Richard Odaisky with one of Ken's refracting telescopes in 1958.



But we are not at the beginning of Sudbury's astronomical connection yet! In fact Ken could trace the reason for his presence here in Sudbury to an event that occured Two BILLION years ago!

The mineral wealth that enabled INCO to assemble a vast team of technically gifted skilled workers including Ken resulted from the impact of a kilometer-class Asteroid that produced the Sudbury Basin!

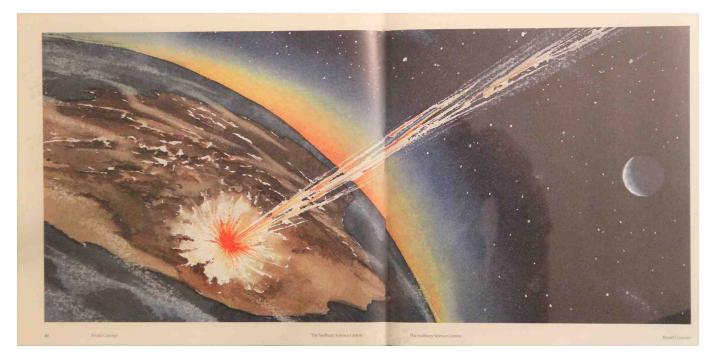


Illustration 5 (Previous Page) Artist's Conception of Sudbury Basin Impact Event from the Report of the "Sudbury Science Centre" Study Team.



Ken was very influential in stirring up interest in Astronomy and passing on his knowledge and skills for 45 years! (1946 - 1990). Many projects in the Club's first decade would not have succeeded without Ken!

6 - 807 Ken with some of the Club members who he guided in hand - crafting custom optics for the Solar Observatory Project - from the left: Ken Odaisky, Gerry Bourque, Alan Ward, Carl Hoeg, Tin Chee Wu.

In October 1971 the local press carried an invitation by Fr. Roger Leclair to come to a meeting about Astronomy at Laurentian University. Thirty-five enthusiasts turned out, and Fr. Leclair was so encouraged by the gathering that he launched the first version of the Sudbury Astronomy Club.



Among the attendees were Greg Beach, Carl Hoeg, and Denis Desmeules. Club activities were limited, consisting mostly of discussions in a university classroom, and excursions to the small dome between Parking Lots 2 and 3. The dome was equipped with an 8-inch Celestron Scope (C-8), which was used extensively by Denis Desmeules.

The first Club was a distant memory by the time the 1980s arrived, but Greg, Carl, and Denis would eventually help to re-ignite interest in a new Astronomy Club! This time many community connections supportive of astronomical activity were falling into place. The first two years of the new decade were a seminal time for Astronomy in Sudbury.

The middle two amateur astronomers in this photo from the Summer of 1983 are Greg Beach (centre left) and Carl Hoeg, who were active in the 1971 Astronomy Club, and in the new Club. Steve Dodson is on the left and Fred Boyer, the founding president of the new club, is on the right.

To the right,

Ilustration 8 - 679



A sequence of four fortunate events occurred in the first two years of the 1980s that lead to the founding of the new Sudbury Astronomy Club: 1) In the Spring of 1980, the Sudbury Department of Recreation held a day-long conference entitled "Play 80". I put Astronomy on the Schedule with a session entitled "Playing With Stars", and I invited the newly-chosen director of the "Sudbury Science Centre Study Team" to attend. Dr. David Pearson did attend, and this launched my plan to have astronomical activity included in the Science Centre which would become Science North!

2) At that time, I was a High School Science teacher in North Bay, and later in 1980 I was working on a large telescope in an unused Classroom (photos 9,10), and in my Backyard (photo 11).

9 - 537 - (right) The writer considering the next step for the inside job





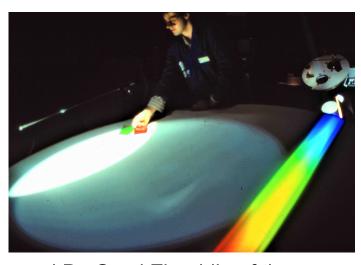


10 - 539 and (Right) 11 - 531

I also commuted from North Bay to Sudbury to work with the architects and the StudyTeam on the inclusion of Astronomy in Science North. I explained that Astronomy was well-suited to involve the Centre's visitors - it was Science that could be done in anyone's backyard. Since most visitors would attend in daylight hours, the Sun should receive major attention.

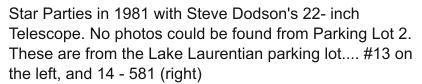
3) Within months I was proposing a Solar Observatory as a centerpiece of astronomical activity for the soon-to-be-built Science Centre.

Right: 12 - 1209 March 1987 Photo of Alan Ward pointing out features on the Sun's surface and demonstating the solar spectrum to a seated audience



4) In October 1981 Dr. David Turner and Dr. Syed Ziauddin of the Laurentian Physics Department convened a Star Party in Laurentian's Parking Lot #2, and invited me to come from North Bay with the 22-inch Telescope. An enthusiastic crowd came out to look through the C-8, my 22-inch, and several other Telescopes. I met Greg and Fred, and the course of Alan Ward's life was forever changed when he met Ken Odaisky.







Alan already had a spark of interest in Telescope Making, but had been detered by the need to send a newly-made telescope mirror away to be aluminized. Ken had made a large array of telescopes

entirely in his own shop in Sudbury. Ken was impressed with how Alan had ingeniously improved the mount of his tiny Tasco refractor. With Alan's bicycle loaded into Ken's car, Ken drove Alan to his compact but highly productive shop, and convinced Alan to go ahead with his own Telescope dreams!

# FOUNDING MEETING OF THE SUDBURY ASTRONOMY CLUB Friday November 13/1981

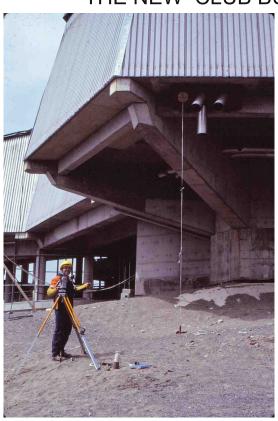
Drs. Turner and Ziauddin were encouraged by the success of the October 1981 Star Party and called a meeting for the next month. Regular monthly meetings of the new Sudbury Astronomy Club have continued ever since, except for the Summer months. Dr. Dave Turner chaired the first few monthly meetings. In June 1982 Dr. Turner proposed a star party for viewing the Perseid meteors in August. He called for volunteers to organize the Perseid Meteor Star Party, and Fred Boyer agreed to take on that assignment. Tha lead to Fred becoming President of the Sudbury Astronomy Club, and he chaired all meetings until 1995.

Greg Beach was Vice-President and Denis Desmeules was Treasurer. People of all ages interested in discussion of astronomical topics were welcome to attend monthly meetings.

15 - 729, (Saturday Dec. 10/1983) Creating the centrebore in the Solar Observatory Optical Flat. Dr. Dave Turner is cooling the boring tool with snow in the Lively Secondary School Machine shop



### THE NEW CLUB BUILDS A SOLAR OBSERVATORY!



Astronomy now had homes at both ends of Ramsey Lake Road. I continued to promote Astronomy for the Science Centre, stayin involved with the Study Team by commute and by courrier.

But the Solar Observatory Project had a big hurdle to overcome! Bringing the Sun into indoor spaces through multiple channels for daytime observation and activity would have been **prohibitively expensive** except for two **Enabling Factors**: 1 - By starting before the concrete was poured and the building skin went on, the Geometry of the proposed building could co-evolve with the plan for the optical routing, beaming, and focusing of sunlight for greatest effect.

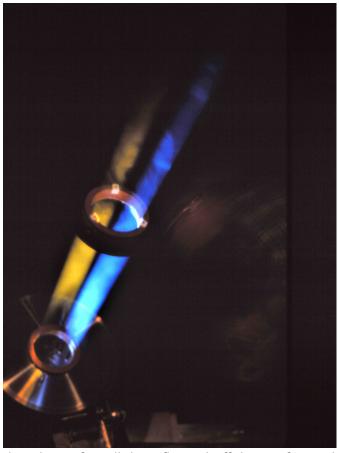
(16-1218 Steve Surveying under bare floor slab)

17 - 1217 Before the concrete floor was poured, the writer specified a rectangular SLOT in the architectural plans to allow beams of sunlight to enter. (June 1983 Photo)

Before the SKIN went on the building he designed a steel box and Beam Tubes to go under the floor slot for the entry of focussed sunlight.







18 - 896 (left): The Beam Tubes are hidden in the glare of sunlight reflected off the perforated Flat Mirror downwards to the imaging mirror in the white tube. (right) 19 - 897: The result is focussed beams of sunlight inside the Observatory. (Both photos from March 1985)

**#2 Enabling Factor:** A deep pool of knowledge, energy, and dedication was coming together in the New Club, and seeking expression in worthwhile community involvement. The potential was clear for a unique cooperation between the new Sudbury Astronomy Club and the new Science Centre making a powerful observatory possible for a fraction of what it would otherwise cost.



20 - 1455 A Complete View of the Sun! To the left of the 8-foot Screen with the large solar image and live Spectrum of Sunlight, volunteer Ted Tuori is looking down into the eyepiece of the 10-foot-long Hydrogen-Alpha Telescope. A crowd of students gather around the screen. This photo was published in Sky and Telescope Magazine (Sept. '89 Issue)

The collaboration between the Sudbury Astronomy Club and the Science Centre that became Science North resulted in a major observatory facility that would have required an investment of easily half a million dollars without the early-start collaborative strategy. At least 3000 hours of skilled volunteer work were contributed by club members collectively to make the Solar Observatory a reality. I know of no other collaborative project that compares, between a science centre and an astronomy club. The Solar Observatory will be the subject of the next chapter of the Club's story.

#### STAR PARTIES IN AND AROUND SUDBURY

While helping build the Solar Observatory the Club also strengthened ties with the Community by presenting Public Star Parties at a number of locations in and around Sudbury, including Science North and the Lake Laurentian Conservation Area. In fact we presented Star Parties in every season between October 1981 and the start of 2020! This community involvement contributed greatly to the momentum, cohesiveness, and longevity of the Sudbury Astronomy Club.



21 - 1623: Daytime simulation of a Sudbury Astronomy Star Party at Science North



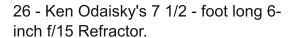
22 - 1503: Star Party on the Patio at Science North. Ken Odaisky (right), Alan Ward (behind large scope at centre), and Bob Curich (left)



STAR PARTIES AT SCIENCE NORTH November 1984 (Above) 23 - 798 Steve Dodson aiming the 22- inch Scope.

(Top Right) 24 - 792 Waiting to Look

(Mid- Right) 25 - 794 Looking at the Moon



When setting up star parties in the 1980s we were always excited to see what new Telescope Ken would bring! He finished new designs and apertures so quickly that we never knew what he would come up next! After a while we gave him a nick-name: Telescope- a-Week Odaisky! This may have been only slightly an exaggeration!









Photo, 22-inch Scope in front of Snowflake Bldg

(Top Right) 28 - 906:May 1985 Photo, Ken Odaisky Carrying 6-inch f/12 Refractor

(above) 29 - 909, 6-inch f/12 Scope on Pedastel made in INCO Shops (Donated), Gerry Bourque (near), Gerhard Schinko (behind), Alan Ward (closest to eyepiece) and Ken Odaisky (beyond scope)



30 - 802 Big Dipper over Science North, 22 inch Scope. NOTE: This is a natural Slide Film Photo - No Photo Shop Trick! (January 1985 Photo) Lori Horner, Lifestyle Editor, 674-5271, Ext. 39



31 - One of many notices in the Local Community Press of the Sudbury Astronomy Club bringing the Sky to area residents! Alan has renovated this 4-inch Refractor several times, and it still provides superb views at local Star Parties! Alan showed the Planet Venus in broad daylight to 200 participants at the 1985 Walden Winter Carnaval!

32 - Sudbury Star Article, June 1985, An exceptionall Star Party came together with the visit of a very famous Astronomer. John Dobson invented of the prolific Dobsonian Telescope!

# Famous astronomer to visit star party

In Sudbury, an enthusiastic group of amateur astronomy buffs have decided that astronomy is also for the public. They are making their sophisticated homemade telescopes available to the public at monthly star parties, held outside of Science North, even on the coldest nights of winter.

Steve Dodson, Physics Program Planner at Science North, is a member of the group. "Because we hold our parties so



Sudbury Astronomy Club members attend monthly star parties at Science North

Photo: Robert Ragsdale

close to Science North," he says, "it's difficult to look at many stars because of light pollution, but we certainly get a good view of the craggy surface of the moon."

Inspiration and a role model for the amateur astronomers here and around the world is a revolutionary astronomy club set up in California about 1970. The San Francisco Sidewalk Astronomers were the first to bring homemade telescopes to the public out of their members own love of the stars. At their helm is John Dobson,

"undaunted, John moved to San Francisco and became a full-time astronomer."

Science North's next star party will be held on Monday June 24 at dusk outside the centre. Special guest will



33 - 941 The Sudbury Astronomy Club set up a bunch of Telescopes on the grassy hill beside the Science North patio, and a crowd of 150 - 200 Sudburians came out to hear John Dobson's Twilight Talk.



34 - 942: The attendees sitting on the grass were spell-bound by John Dobson's unique energy and presentation style.

In the Winter of 1988 Film-Maker David Lickley produced "Canada's Stargazers", about Canadian Astronomers, Historic, Amateur, and Professional. Part of the Film was about how we conducted Star Parties in Northern Ontario.



35 - 1309: Setting up our Telescopes on the frozen surface of Lake Laurentian for a scene in <u>Canada's Stargazers</u>, March 1988. An Alternate mount for the 6-inch f/12 Refractor is near the centre, and Fred and Greg's 17 1/2 - inch scope can be seen on the right. Notice Venus above the plume of the Superstack.

### ANOTHER MODE OF PUBLIC OUTREACH - MALL EXHIBITS



36 - Demonstrating Mirror-Grinding at an exhibit in the New Sudbury Mall



37 - Mid-Ground: Alan Ward ... Foreground: Bob O'Daiskey with one of his Telescopes

The items included in our Mall Displays ranged all the way from books, photographs. charts and small scopes up to the 22-inch Trailer- mounted monster scope. Special permission was obtained for the 1983 Astronomy Day Mall Exhibigt (May 6,7) to unlock the extra wide-opening of a mall door to wheel the Scope in.



38 (Above) - Members in Deep Discussion at a Mall Exhibit. We celebrated Astronomy Days in 1983, and in two other years in the 1980s with such exhibits.





Page 4, Northern Lifestyle, Wednesday, July 20, 1983

## Astronomy club membership is increasing

By Karen Martin

Although the Sudbury Astronomy Club has been operating in the area for only a year-andahalf, the club already has 38 members, and Fred Boyer, club president, says they expect to have at least 50 by year's end.

Boyer stresses that it is a club for a mateur astronomers and that anyone is welcome to join. "Al large part of our membership is brand new to astronomy. They've always had the interest, but they've read our witees."

He adds, "And one they first hear about the club and believe they don't know end wistor, gives an update on visor, gives and star clusters.

Carl Hog distance A lot of time is also distor, expertise on things as building telescopes.

The club's car

until they've read our nétices."

The meetings usually follow a standard format. The club's co-ordinators astrology. There's a big difference."

He says that a lot of people are intimidated format astronomer at people are intimidated format. The four co-ordinators of each have different areas of expertise. Norm Price to standard format. The club's co-ordinators of each have different areas of expertise. Norm Price formation and the solar co-ordinators which covers anything within the solar system. Steve Dodson is the deep-sky co-ordinator.

and vice-president, accept and a treasurer, and Turner as professional advisor.

Except for Turner, few of the members have had the

of the members have had any formal training in selves. Membership fees astronomy. The only are \$15 per year for



Sudbury Astronomy Club vice-president, Greg Beach, left, and president Fred Boyer, sport their club t-shirts

experience the others have in astronomy is "a very avid interest."

The club is funded by the members themselves. Membership fees are \$15 per year for \$August, Boyer and Greg Beach, vice-president of the club, will travel to Vermont to attend a very students under 16. Says Boyer, "We are completed. They are students under 16. Says Bo

the club, will travel to Vermont to attend a Telescope Makers' Convention.

The club is also making a large set of optics for a solar telescope at Science North. The club is doing this work. optics for a solar telescope at Science North. The club is doing this work on a volunteer

basis.

Boyer and Beach are also building a 17 1/2 inch telescope, which will be the largest ever built in Sudbury when

range goals is to educate the public about astron-omy.

Anyone interested in finding out more about the Sudbury Astronomy Club can contact Boyer at 560-3265.

40 - Northern Life Article Describing the Sudbury Astronomy Club in July 20, 1983 (Summary on next page) Issue.

# (Condensed version of the Northern Live Article) "Astronomy Club Membership is Increasing"

The article describes the operation of the Club and is illustrated with a photo of Fred Boyer (Presdent) and Greg Beach (VP) ... Meetings are held on the 2nd Friday of each month except for July and August, and are open to all interested people. In September, interested people desiring membership pay dues, which are \$15.00 for Adults and \$10.00 for Students, age 16 years or less.

- There are no other requirements for Membership

"More experienced members teach Beginners, guide Telescope Making, and suggest appropriate reading". A slate of " Coordinators" steer activities and report at meetings.

Solar Coordinator - Norm Price; [Treasurer: Denis Desmeules]

Deep Sky - Steve Dodson [Secretary - Jamie Scott, later Rose Carpino,

Instrumentation - Carl Hoeg; Marg Scothorne]

Stellar - [Darcy Ortiz]. [ Publicity Dir. - Roger Mckerral]

In the first week of August, Fred Boyer and Greg Beach will travel to Vermont to attend a Telescope Maker's Convention. The Club is also making a large set of Optics for a Solar Teles-cope at Science North... (on a volunteer basis)

Boyer and Beach are also building a 17 1/2-inch Telescope. Club Members are also helping redesign a 22-inch telescope mounted on the Roof of the Doran Planetarium.

As a long term project the club is planning to build an observatory. They have already begun searching for an appropriate site. Another long term goal is to educate the public about Astronomy.

Part of the Club's educational process is advanced through a Newsletter, AstroNorth. The first issue was edited by Jeff Beach for February 1983. (See last page, Illustration - 54)

41 - Fred and Greg made this 17 1/2 - inch Telescope refered to in the Northern Life Article.

Like the 22-inch Trailer-mounted Telescope, this Scope travelled to many different locations, including Southern Ontario. Later on they re-built this reflecting scope in a radically different form (See "Introducing Chameleon" Five Pages further on, and illustrations 50, 51, and 52)



### HAVE TELESCOPE, WILL TRAVEL

Starfest and Stellafane



42 - 716 22 - inch Scope at the Observatory of Rick Kelsch near Schomberg Ont. Rick and Patrick are seen with the Scope



43 - Steve and Patrick with the 22-inch Telescope at Starfest 1983

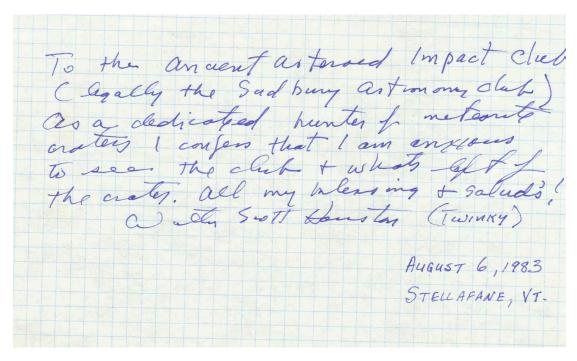


#### STELLAFANE CONVENTION

As Mentioned in the Northern Life Article, Fred and Greg went to the Stellafane Telescope Maker's Convention in Vermont in August 1983. What the article did not mention was Fred towed the 16-foot-long trailer with the 22- inch Telescope 1000 kilometers to the Convention! This was the third time Steve arrived at Stellafane with the Big Scope (and the third time it was the biggest scope there!), but this time Steve did not have to drive.

Going South on I-89 in the left lane at 65 mph a car pulled up beside Fred's van and the driver rolled his window down to yell "What is it?". We yelled back "It's a Telescope". The car sped up to 70 mph and left us behind. A few minutes later the same car slowed down so that we were along side it again, and the driver yelled "No! It's NOT a Telescope!" We yelled our assurances that it was, and the driver sped away.

One of the high points for Fred and Greg was getting to know my friend Walter Scott (Scotty) Houston, a very famous astronomical writer (Sky & Telescope etc). Scotty sent the following note to Fred and Greg.



45 - (Note to Greg & Fred from Walter Scott Houston)
To the Ancient Asteroid Impact Club (Legally the Sudbury Astronomy CLub)
As a dedicated hunter of meterorite craters I confess that I am anxious to see the Club & what's left of the crater. All my blessings & Salud's!
Walter Scott Houston (Twinky)

August 6, 1983

Stellafane, VT

In 1988 Future Club President Harold Healy visited Stellafane. Harold met the only man in over 200 years to discover a Planet orbiting our Sun! Even though this Planet (Pluto) is now considered to be a "Minor Planet", this "brush with History" created a wonderful memory!

(RIGHT): Clyde Tombaught signed this Poster to Alan Ward at Harold's request. See better view on the last page (# 53)



### STARFEST 1984 - Fred and Greg's 17 1/2 - inch Telescope



46 - 774 Greg (behind Scope) and Fred (Standing on Trailer) finish assembling the 17 1/2-inch Telescope while Alan (Blue Shirt) looks on.

47 - 775 17 1/2 - inch Scope at Starfest '84 ... Fred, Greg, and Alan Pause and Patrick is walking by.



#### STARFEST 1986 and PRE-INTERNET CONFERENCING

By the mid-'80s Greg Beach was at the forefront of Computer Communication with his TRS-80 machine equiped with an old-fashioned "dial-up" modem. There would be no recognizable (Graphic Interface) internet for another 8 years, but you could connect with a "Bulletin Board", keyboard a message or question in, and come back later to see if there was a reply. The Compuserve Information Service provided a Bulletin Board for Astronomy called the "Astronomy Forum".

There were also Compuserve "Online Conferences" to "discuss" specified astronomical topics with a "moderator" assuring the participants didn't all type in their comments at the same time!(a VERY SLOW text only predecessor of Zoom!)

Greg came to Starfest 1986 prepared to connect Starfest to a distant Star Party in "two site" online conference! (See next page) Starfest is organized by the North York Astronomical Assoc. and is held near Mount Forest, ON. Our Club is represented every Summer.



48 - On-line Conference at Starfest '86 in the Upper Room Greg Beach is on the left and renowned author Terrence Dickinson is near the keyboard. Steve is behind Terrence. Club secretary Marg Scothorne is near the doorway

Greg and others seen in the photo above, taken in a meeting room, established a connection with a similar gathering in eastern USA, and received news of a new comet! In the ensuing exchange of keyboarded text messages, the position of the comet became clear. That information was relayed to the Starfest Telescope Field, where the comet was seen through a number of available scopes!

BELOW: 49 - Sudbury Astronomy Club Group Photo at Starfest 1986



#### INTRODUCING "CHAMELEON" - THE EVOLUTION OF THE 17 1/2 -INCH SCOPE

Fred and Greg's 17 1/2 - inch Optics have "lived" in two radically different tube structures, on three different mounts under the Sky, and in two different Domes! With all the combinations of these circumstances, our builders decided to name their Scope Chameleon after the animal that could change its appearance to blend in with different surroundings.

The explanation behind one of the Mounts and one of the Domes dates back to the mid-1960s, when Fr. Roger Leclaire joined Laurentian University. He brought with him a heavy 20 inch Mirror, which originated in Montreal, but had acquired the name "Vatican Mirror".

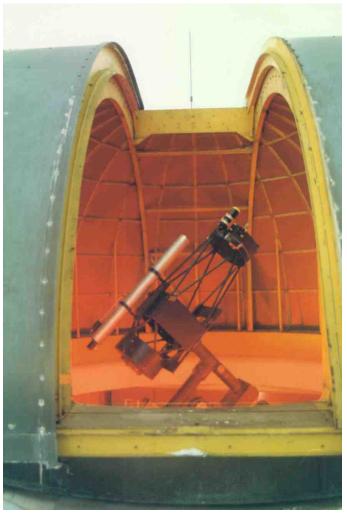
With a considerable focal length, the 20 - inch Scope required a 20 foot Dome, which was specfied. But the University contracted for a 16 - foot Dome!

... This cost-cutting lead to a chain of consequences which ultimately rendered the Telescope <u>unusable!</u> Circumstances placed too great a load on the equatorial mount, and the declination shaft was permanently bent!

In 1986 - 87 Fred and Greg built the Truss-Tube version of their Scope, seen on the previous page and they learned that the 20-inch Scope was no longer on its mount in the 16 - foot Dome. They obtained permission to mount Chameleon in the Dome, on the mount vacated by the 20 - inch Scope. You can see the result in the photographs below. Greg wrote an article about this project that appeared in Sky and Telescope Magazine for May 1987.



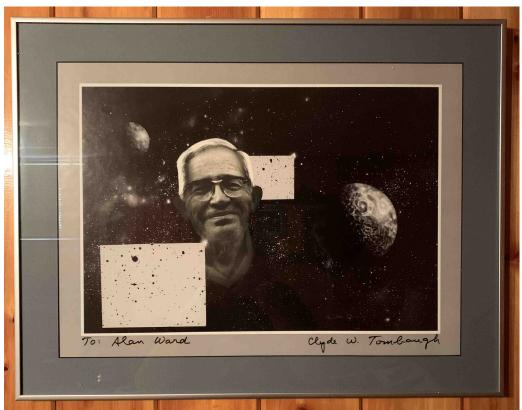
50 - 1840: Chameleon on the NASA Mount



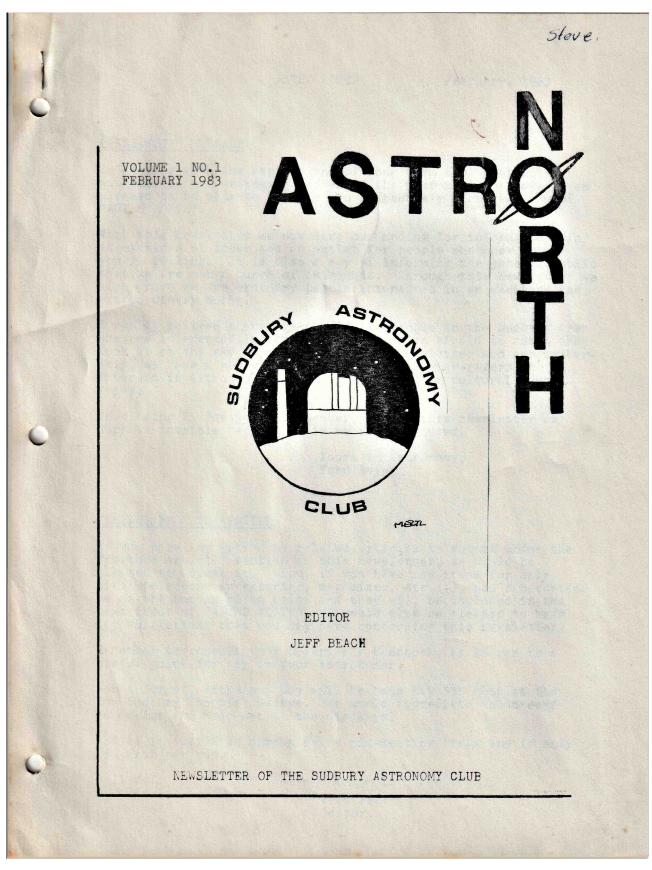


51 -1621 Looking through the open slit of the 16 - foot Dome on top of the Fraser Science Building at Laurentian University to see the 17 1/2- inch Telescope.

52 - 1620 (Photograph published in Sky & Telescope, May 1987) Close- up of Greg and the mounted 17 1/2 - inch Telescope.



53 - Harold Healy met Pluto discoverer Clyde Tombaugh at Stellafane in August 1988 and brought back to Alan Ward this poster autographed by the famous astronomer!



54 - AstroNorth, the Newsletter of the Sudbury Astronomy Club, Vol 1, No.1, February 1983 This excellent newsletter the experiiences of members pursuing club activities, and provided a wealth of astronomical information. Editors in the 1980s were Jeff Beach, Greg Beach, and Alan Ward. (The Logo and Cover Design were by Chris Mertl)

NOTE: All illustrations are numbered sequentially 1 - 54. Illustrations with a hyphenated number, eg. 2 - 1809, are from my slide archive. Source information for un-hyphenated illustrations is given in the individual captions wherever possible.