



THE ^{DAVID} DUNLAP DOINGS

Vol. 22, No. 6 December 1, 1989

25 Year Service Award

The University of Toronto recognizes
with appreciation the contribution of

Joan Tryggve

for significant service and loyalty
to the University



G. E. Connell

George E. Connell, President

John B. Aird

The Honourable John B. Aird, Chancellor

Robert J. McGavin

Robert J. McGavin, Chairman, Governing Council

OCTOBER 20, 1989

EDITORIAL

Our front cover this month illustrates a citation awarded Joan Tryggve for her long service to U of T. The University recently formed the Twenty-five Year Club, in this first instance honoring all those who have been on staff at least twenty-five years. Joan, who has been with us for 27 years, was among five from the Department so honored. The others were Frank Hawker (38 years), Dave Earlam (34), Albert Hartviksen (29), and myself (28).

Nearly four hundred people jammed into the Great Hall of Hart House on a rainy October afternoon to receive not only their citations but a gold pin (with diamond) as well. An abundance of food and wine and a minimum of speeches made for a happy time, the most memorable speech coming from an engineering professor who has been at the University some 47 years. I was surprised at how vigorous his voice was, but on reflection that's probably the way to survive 47 years here.

The good news was that we were all invited back next year to welcome the upcoming batch of recruits to the club. Soon we'll have a variant of that old faculty saying, "The recruits get younger every year."

Don Fernie

U of T Day 1989
Dieter Brueckner

The Department again participated actively in this year's U of T Day (Saturday, 21 October). Christine Clement and Shauna Sallmen represented us over at Hart House, answering questions about our programme, and directing visitors to the other half of our contribution, a departmental open house hosted by a solid contingent of staff and students. After being welcomed by Mark Neeser and Ian Short on the 14th floor, visitors were directed to follow the arrows through a circular tour that included stops at Lynx (image processing demo by Ian Walker and Barry Sloan), the 15th floor landing (posters by Dongping Tang and Mike Fieldus, hosted by Ian Short, Aaron Sigut, and Omar Lopez-Cruz), AIPS (more image processing by Edwin Zukowski), the domes (solar observing, Voyager tape, spectrograph and photometry demonstrations looked after in turn by Gang Li, Yin Zhan, Aaron Sigut, Sang-hee Kim, Omar Lopez-Cruz, Matthew Lister, Chris Brooks, Mark Neeser, and David Clingingsmith), the darkroom (blink microscope, photographic processing, and beautiful images hosted by Ian Shelton and Patricio Ortiz), and 1422 (the Travelling Telescope, shown off in all its glory by James Di Francesco and Brian Beattie). Dieter Brueckner acted as the open house's overall co-ordinator.

The visitor turnout of about 215 people, a bit less than half of last year's total, was somewhat disappointing considering the amount of effort that went into preparing the the various displays. The morning was especially lean - by noon or so, only about 20 people had shown up, and we were beginning to feel somewhat apprehensive. The stream of visitors did pick up considerably in the afternoon, however, and re-vitalised our flagging spirits. To our surprise, the telescopes turned out to be the major draw this year (a subjective impression), and replaced image processing as our #1 attraction (another subjective impression). The fact of the bad weather helped to enhance this feeling as many people waited eagerly and demandingly for even the slightest hint of clearing sky. At about 3 in the afternoon, the sun finally did break through long enough to be projected onto the 8-inch's screen, and so at least some of our guests left with a smile on their face.

We think the relatively low turnout was due to the combination of bad weather and the fact that we were not explicitly listed in the U of T Day Programme. We are not quite sure why we fell between the cracks - the same thing happened to Physics - but we are now wiser, and will make sure in future to confirm that we have full and proper billing. The enthusiasm of those who did visit suggests strongly that it would be wrong not to do so.

Departmental Computer Update
Stefan Mochnacki

The Department's new central computer is called "vela.astro.utoronto.ca". It is a Sun 3/160 running SunOS 3.5. Internet mail can be sent to members of the Department on that machine. A full list of e-mail addresses for the Department and associated people is available as an alias file from stefan@centaur.astro.utoronto.ca, on request.

COMINGS AND GOINGS

Tom Bolton attended the NATO Advanced Research Workshop on Angular Momentum and Mass Loss from Stars in Ames, Iowa October 23-27. He presented two contributed papers, "Absorption Line Profile Variations in the Spectra of O-Stars" by A. Fullerton, C. T. Bolton, and D. Gies and "An Investigation of the Correlation Between Pulsation Amplitude and Shell Activity in the Be Star Lambda Eridani", by C. T. Bolton and S. Stefl.

Bob Garrison has returned from Chile following a two-week observing run in mid-November with the UTSO 60-cm telescope. He reports that the skies were clear and the seeing excellent.

Louis Noreau was observing clusters of galaxies with the NRAO 12-meter telescope on Kitt Peak from October, 15 to 20. He met there Toronto Ph. D. graduate Doug Gies, who was observing with the coudé feed at the 84-inch telescope.

Louis will be participating at the I. A. U. Colloquium no. 124: *Paired and Interacting Galaxies*, from December, 4 to 7, in Tuscaloosa, AL.

John Percy attended a joint meeting in Ottawa October 18 to 21 of the International Council of Associations of Science Educators, and the Science Teachers' Association of Ontario, of which he is Honorary President. He gave a presentation on "A World's-Eye View of Astronomy", and participated in various discussions of how different scientific and educational organizations in Canada could join forces to promote and improve science education, both in schools and among the general public.

John gave workshops for schoolteachers in the Region of York (November 6) and Dufferin-Peel (November 21) on implementing the astronomy sections of the school science curriculum, and gave a seminar on "The Problem of the Be Stars" on November 17 at the Space Astronomy Lab, Institute for Space and Terrestrial Studies, York University.

A recent visitor to the department and the observatory was Dr. Indrek Kolka (Tartu Observatory, Estonia). His field of research is spectroscopy of P Cygni and related stars.

Ron Lyons is back from Hawaii on an extended visit to DDO. Apparently DDD overlooked his departure last December after fourteen years as PDS operator and (later) tour guide. We apologize and wish him well in new ventures.

We must apologize to Ron's replacement, Mike Jewison, for not noting his arrival last January. Mike has a master's degree from the University of Western Ontario, and had spells at Space Telescope Science Institute and elsewhere in industry before joining us. As readers of DDD know, he is already a frequent contributor to DDD itself.

It is with much regret that the Department has received a letter from Barry Madore resigning his professorship. Barry will be continuing with the position in California he has held during his current leave-of-absence. Fortunately, however, the University is allowing us a replacement and advertisements for a new faculty member should appear shortly.

We welcome 'Marc' Krogulec from Poland, who will be working as a PDF with Ernie Seaquist.

LIBRARY NEWS

Marlene Cummins

We are very near the end of a major rearrangement of the library collection. Considerable space was recaptured as a result of compressing the observatory publications and moving them into room 1309. Virtually every item in the library (except the Abstracts) has been shifted a little or a lot to take advantage of this space. Maps showing the new arrangement are available in the library.

So we have a short reprieve in the space crisis. It is very short though, and we will have to deal with this issue within the next year.

I am in the process of ordering new computers for the library. The arrival of these computers will mark the next phase in the automation of the catalogue and other library functions. The primary change that you will notice is that you will now be able to search for new books in a computer database. The ability to search via keywords is one of the main advantages to you of such a system. This same public terminal will provide access to the recently acquired catalogues on CD-ROM and to FELIX.

Saturday Night Tour Wrapup

by Mike Jewison

September 30 saw the last of the Saturday night public tours for 1989. Almost 2500 people visited the Observatory this year over our 22 tour nights.

This was the first summer where we experimented with using real telescope operators for the telescope half of the tours. In previous years, trained students were responsible for demonstrating the telescope and its operation to the visitors. Generally the response to this was positive, and the only mishap to befall the telescope was that one of our real telescope operators failed to turn off the clock drive at the conclusion of the tour. Fortunately, the only damage was the subsequent emotional trauma suffered by the aforementioned anonymous telescope operator.

This year's tour by the RASC Toronto Center was attended by only 60 people, down somewhat from previous years due to torrential rains (the picnic was cancelled, needless to say). Some of the tour's highlights included a demonstration of the new PDS Microdensitometer setup and a guided tour of the coal bin. Refreshments were served following the tour.

There was an added flurry of activity during August due to the number of events taking place. The Perseid meteor shower, total lunar eclipse, and Voyager flyby of Neptune all occurred within a two week time span, inundating us with calls (and visits) from both the media and the public. I find it very suspicious that both Bln and rG "happened" to take their vacations at this time, leaving no one (except moi) who would respond to the flood of calls.

I would like to thank all the people who assisted with the tours and made my first year as tour coordinator moderately painless: Brian Beattie, Dan Blanchard, Dieter Brueckner, John Dubinski, Mike Fieldus, John Harper, Peter Ip, Theresa Kroeker, Gang Li, Ron Lyons, Patricio Ortiz, Archie Ridder, Dimitar Sasselov, Ian Short, Aaron Sigut, Barry Sloan, Jim Thomson, and Andrew Yee. Thanks also go out to Florence Unwin and Joan Tryggve for handling the reservations and to those members of the RASC who helped by bringing out their own telescopes.

POTPOURRI

John Percy has recently retired as Vice-President (Program) of the RASC Toronto Centre; Rachel Webster has taken his place. Members of CITA can now look forward to having their arms twisted to give presentations to this very worthwhile audience.

David E. Hogg, who in 1962 received the first PhD awarded by U of T in radio astronomy, has been appointed Deputy Project Manager for the Green Bank Telescope Project (the replacement for the 300-foot). The Project Manager is David Heeschen.

Frank and Mary McDonald have sold their condominium in Richmond Hill and moved north to Stroud near Dave and Margaret Blyth. Mary is recovering well from a minor stroke she suffered a couple of months ago.

The Blyths have bought a flat in Scotland as refuge from Canadian winters. They have just left for their first four month visit there.

It is with much pleasure that we note the 1990 edition of the RASC's Observer's Handbook. As the RASC prepares to celebrate its hundredth anniversary, its Handbook contains an article by Helen Hogg about the early days of the RASC, which, of course, were closely connected with our department. Emphasizing the connection is the fine old aerial picture of the early DDO across the covers of the Handbook. A salute to the RASC on this momentous occasion!

CONGRATULATIONS

John Percy was elected president of the American Association of Variable Star Observers (AAVSO) at its 1989 Fall Meeting in Cambridge October 26 to 29. The AAVSO is the largest organization of variable star observers worldwide, with members in 42 countries. Its purpose is to coordinate variable star observations made largely by amateur astronomers, evaluate, compile, process and publish them, and make them available to professional astronomers. The AAVSO presently receives about 250,000 observations annually, and provides data to over 150 astronomers worldwide each year. It is engaged in several major collaborative projects, including the preparation of the input catalogue for ESA's Hipparcos satellite. For several years, John has been involved in setting up a photoelectric observing program for the AAVSO, and this is now running very successfully.

GASA Gossip

Mike Fieldus

You know, there is something really annoying about this department. Now, right away most of you will agree, and say that it is me, but that's not what I am talking about this time. It is just that nothing seems to phase anyone anymore. When I first started writing this column, everything was easy and people got upset at the tiniest comments. I remember being told that Laura was going to kill me for saying she and Bob were "living in sin", and I recall a big stink over a simple little typo where I spelt tidbits as titbits (a glance at a dictionary will assure you both are acceptable). Those were the good old days, when folks really got mad about things. Now it seems they have seen it all. For example, the big news this month deals with Ed, who has

started sending ads to the personal columns of NOW magazine under the title of "Astronomer seeks companion". So I tell you this, but no one is surprised. Ed doesn't get upset, he just laughs a little and assures me these ads really do work. No one else is scandalized, quite the contrary as several people have asked for the address so they can get in on Ed's good thing. So I ask you, how am I supposed to shock you, surprise you, make you mad, sad, angry or even entertain you? Well, I have one ace up my sleeve that is guaranteed to at least make you stop and ponder the future of society in general, if nothing else: Jim Thomson is going to be a father.

Okay, on to the more mundane activities of the department. We said goodbye, sort of, to a few students over the last month or so. Both Rob Straker and Mike Richer have left for, they hope, greener pastures (and don't think for a minute that it is a coincidence that Marshall McCall's only two students wasted no time in fleeing the department). Dale Frail left to travel the world with Ruth before taking up a Post-Doc at the VLA. I understand that this is not the usual way these things work, but if you can get away with it, why not.

I have some conflicting news about an old grad student of ours, Peter Leonard. It seems that while Peter was getting set up in UBC, where he has a Post-Doc, he was staying with Jaymie Matthews for several weeks. While Peter writes that the time was "quiet and productive, with nothing much to report on", Jaymie says "Thank god it is finally over. The constant parade of women, partying, excessive drinking and complete disregard for personal well being was extracting an expensive toll on someone as docile and mild-mannered as I am". Someone here is not telling the whole truth.

We have an interesting infestation in the lounge these days. It began back in early September, with Louis asking around for any extra desk space we students may have available (sure Louis, extra desk space. Sure.) Later on, we discovered he had promised desks for each of the 10 undergraduates in the fourth year research course. Sure Louis, we have 10 extra desks sitting around. Well, Louis' problem was solved by installing tables in the north end of the lounge which are now occupied day and night by these fourth year students. It is the general opinion of the rest of the department that Maurice is not giving them hard enough problem sets in the theoretical astrophysics course, since they seem to have a lot of free time on their hands. It sure is hard to do any serious coffee drinking with a room full of students arguing about which pub to crash this week. Although no major problems have developed yet, a major confrontation between the ping-pong players and the undergraduates is expected in the next few weeks. I'll keep you posted.

Before I finish off this month, I have one kind deed to perform. We have a on specific new graduate student, Omar Lopez (affectionately know as Omar the Lobster, since one other new grad student, Francine Marleau, assures us, amidst fits of giggles, that Omar (l'homard) is french for lobster), who is from Mexico and has never experienced anything remotely resembling Winter. Needless to say, the cold hardened among us have been having a field day with poor Omar, telling tales of month long blizzards and -40° temperatures. Well Omar, I'll tell you the truth. Yes, it does get cold. No, your hands do not usually freeze to the doorknob as you try to get inside. No, you do not need goggles to keep the liquid in your eyes from freezing, and no, people do not usually get lost and freeze to death on their way to the corner store in a blizzard. And yes, everyone is hockey mad, and yes, Omar, it does get colder than this.

Oh, and congratulations to Jim and MJ.

PAPERS SUBMITTED

PREPRINTS BY FACULTY AND STUDENTS RECEIVED IN THE ASTRONOMY LIBRARY

September 25 1989 to November 22 1989

- Bagnuolo, W.G.; Kamper, K.W. Passive interspectroscopy. DDO/U of T. 89-0966. 23 Oct 89
- Carlstrom, J.E.; Kronberg, Philipp P. HII regions in M82: high resolution millimeter continuum observations. DDO/U of T. 89-0908. 11-Oct-1989
- Clement, Christine. A search for double-mode RR Lyrae stars in the globular cluster M68. DDO/U of T. 89-0907. 10-Oct-1989
- Fernie, J.D. Is HR 6754 a delta Scuti star after all? DDO/U of T. 89-0877. 27 Sep 89
- Fieldus, Michael S.; Lester, John B. A program for spherically extended line blanketed model atmospheres. DDO/U of T. 89-0994. 31 Oct 89
- Johnstone, Doug; Rucinski, S.M. Statistical properties of planar zero-angular-momentum equal-mass triple systems. DDO/U of T. 89-0987. 26 Oct 89
- Lahav, Ofer; Kaiser, Nick; Hoffman, Yehuda. Local gravity and peculiar velocity: probes of cosmological models. Inst. Adv. Study/CITA. 89-0929. 17-Oct-1989
- Pudritz, Ralph E.; Carlberg, R.G. Formation of structure in magnetized molecular clouds. McMaster. 89-0887. 28 Sep 89
- Sasselov, Dimitar D.; Fieldus, Michael S.; Lester, John B.; Venn, Kim G.; Raga, Alex. Multi-wavelength spectroscopy of cepheids. DDO/U of T. 89-0996. 31 Oct 89
- Sasselov, Dimitar D.; Lester, John B. Accurate effective temperatures for cool stars: CI at one micron. DDO/U of T. 89-0995. 31 Oct 89
- Seaquist, E.R. Applications of the proposed DRAO radio Schmidt telescope to stellar radio astronomy. DDO/U of T. 89-0891. 2 Oct 89
- Wilson, Christine D.; Freedman, Wendy L.; Madore, Barry F. Stellar content of nearby galaxies III. The local group spiral galaxy M33. IRAS. 89-0981. 24 Oct 89
- Yee, H.K.C. The evolution of galaxies and galaxy clusters associated with quasars. DDO/U of T. 89-0927. 12-Oct-1989

From Our Far-Flung Graduates

We hear that the news that Peter Wizinowich has completed his PhD (at Arizona) and has accepted a position at Steward Observatory. In his words, "I have been offered an opportunity to develop an adaptive optics program at Steward Observatory and have decided to accept." Peter graduated with a BSc in our program in 1978, and then took a Master's degree in Aerospace Studies. He was our resident observer in Chile in 1980/81, and after that, he spent some time working at CFHT before enrolling in graduate school in Arizona.

Recent graduate Jayanne English, now languishing in Australia, sends the following:

Greetings DA inhabitants! Greetings from the land where R2D2 could get mistaken for a public payphone as it is wheeled out from a store onto the sidewalk where you can, and most probably will, trip right over it. Greetings from the place where from its sky some swooping bird screams ah-uh-ooohhh as if to say “watch your drink, you are going to spill your drink, ooohhh too bad you spilled your drink”. And if you want a drink, you and the bartender volley back and forth the phrases “I want a dark ale” and “What?” until he finally says “Oh, you want a dog aisle” and out of desperation for a drink you agree. But he says “You’re stiff, we stopped serving Toohey’s Old last week” (If you don’t tip him he won’t know the insult because they don’t tip here). The director of the observatories may also call you “stiff” but if you say, in a suitably shocked voice, “Pardon me?” he’ll say “out of luck”. On the other hand if he had said you were “stuffed up” he wouldn’t have meant your belly or nose was full but rather that you were [something else. – ed] But of course he wouldn’t say such to a lady so no need to get confused. But speaking of full, perhaps you are hungry? Could you eat a horse? Well, greetings from the land of oz where they could, when in the same state, “eat the crotch out of a low flying duck”

humbly, and from a belly holding position on
the ground, your friendly amateur linguist,

Jayanne

LETTERS

Dear Christine,

Thanks for your kind wishes re my recovery from the August accident. Your message was well timed for I had been making good progress on all counts save my index finger which persisted in immobility. Suddenly, on Monday during physical therapy as I strained to curl the finger, there was a tearing sound and the finger bent down an extra 20 (now 30) degrees. Rather startling but very welcome, and it looks as if I’m on track to getting full movement back for the finger.

Thanks too for a potted account of the many things happening at U of T. It is always good to have up to date news of staff changes, and I suspect that there is some relief that Bob and Barry’s leaving is clarified, despite the loss of the faculty position.

Good news from here is that the road up the final stretch of Mt. Graham has been “pioneered” as from last week (I was up there to see it), and so progress looks encouraging for VATT construction to begin next spring and to be complete by September or so.

Best wishes indeed,

Chris (Corbally)

Dear Don,

I am Bitnetting for a couple of reasons. The first is to tell you that I hope (but dare not promise) to submit some little tidbit to the DDD for the Xmas 1989 issue. This is in response to your appeal in the latest editorial, and also in reprisal for your mentioning that it is now twenty years since I (inter alia) first enrolled in the Astronomy program at U of T. A lot of blood has flowed under the bridge since then (to quote Harold Pinter, I believe)...

Dave Hanes

[Sorry, Dave, no Xmas issue. As first editor of the DD Droppings you should know how things go in December. — ed.]

Roy Bishop of Acadia University enjoyed Brian Beattie's article on WHMIS in our last issue. It reminded him of a letter he wrote to his dean earlier this year on the same subject. He has given us permission to reproduce it below:

ACADIA UNIVERSITY

WOLFVILLE, N.S.
CANADA
B0P 1X0

DEPARTMENT OF PHYSICS

April 5, 1989

Dr. David Stiles
Dean of Pure and Applied Science
Acadia University

Dear David,

Today I received some Material Safety Data Sheets (MSDS) in connection with the federal "Workplace Hazardous Materials Information Systems" (WHMIS) regulations.

I was interested to read on the six-page document MSDS #E-4560-C concerning air that this gas is manufactured by Union Carbide Canada Limited at their Linde Division in Toronto, and that it consists of two "hazardous ingredients", oxygen and nitrogen. Furthermore, I was greatly relieved to read that this gas is not flammable, that the Physics Department does not have to provide respiratory protection from air for its employees, and that no effect is expected if one should inadvertently be subjected to a "single (acute) or repeated (chronic) overexposure" to air. Also, I note that in the event we should ever have to dispose of some air, we will be "in full compliance with Federal, Provincial and local regulations", if we take our waste air and "slowly release into atmosphere".

As required, I shall keep this information on permanent file so that we are in compliance with government regulations.

Sincerely,



Roy L. Bishop
Professor and Head

cc: D. McLeod
Chairman, JHSC

FROM THE DOINGS OF TWENTY YEARS AGO:

The National Research Council has just awarded the Department a generous grant towards the acquisition of a 24-inch telescope to be erected in Chile. The remainder of the funds have already been made available ... from the Chant Fund. To those who ask when, Dr MacRae replies "at the end of the summer", but he doesn't say which summer or which hemisphere's summer. In any case, design features are already under discussion.

– DDD, March, 1969.

FROM THE DOINGS OF TEN YEARS AGO:

Newcomers are invariably puzzled by the name "COUNTDOWN" which is often used for our weekly colloquia, particularly those of the in-house variety (colloquia of the out-house variety are called Christmas Countdown). [Well,] many years ago when we first started the practice of having a mixed bag of items on our Wednesday afternoons (sometimes as many as ten) the Sputniks and Vanguard's were a novelty and there were many jokes about the countdown (e.g. the little son of a frustrated Vanguard technician who was asked if he could count to ten. "Sure! 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 – Hell!") So, Dr MacRae suggested that we should count down from the number of items and when we reached 1 the show was over, hence "countdown".

– DDD, April 1979.

YUKON HO!

THE ADVENTURES OF MIKE AND DIM IN THE GREAT WHITE NORTH

Chapter Two: The days after the first one,
i.e. the second and the third, and perhaps the fourth day.

Dimitar Sasselov

Remember what happened on the first day? Mike and I already don't, but you should, dearest reader. (Dearest here is used as a marketing trick. We are honest, aren't we! Who cares about the Big White North at the end of November, in a snow-almost-covered Toronto.)

Yes, during the first day, Mike and I saw the pictures from Neptune as they were coming straight from space (accompanied by Andrew's digitized image) in a pan-universe hub known as Sudbury. ...hence we could have claimed our travel expenses to Inuvik as thesis observations, but instead we moved along. Yes, we could do that ...surprise, surprise - the Steamer III was still rolling its wheels, even all four of them.

Well here I really want to skip the amazingly beautiful part of our journey along the shore of Lake Superior, all the way past Thunder Bay. It is not northern enough and everybody knows it, and whoever does not - too bad. I would instead tell you about the Grand Prairie - The big prairie is really very big indeed. Driving through it is delibitatingly boring...

That is how you come to the gates of the prairie the first time. Until you realize that it can be, and it is indeed, a stunningly pretty and weird place... until a traffic patrol stops you for careless or carefree or caffeinefree (I always mix up legal terminology) operation of the personal motor vehicle. Not that it matters for your further journey to the Yukon, where the only similar officials can be found on old yellowish photographs from the 20's, but it gives you one more side of the subtle delicacy of life in the prairie. Every pleasure has its price, as an old free-market Bulgarian proverb says - for an update drop by my desk.

You know when the prairie is over, how? - by seeing the snow-capped Rockies on the western horizon? - No, way! This is a Calgary-based legend, spread around by Rob. You know that you've come to the end of the prairie by looking at any local newspaper (not that you can find any non-local ones) - If Wayne Gretzky is on first, second, fifth, and seventh page, and all over the sport's section - that's it! And then you arrive in Edmonton. Well, it took us three days to do that, but it was worth it - we had newspaper for building fires for the rest of the journey.