



DAVID DUNLAP DOINGS

VOL. 10, NO. 8

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SEASON'S GREETINGS

Since, as usual, there will be no issue of the Doings in December, those of us involved in its production take this opportunity of wishing all our readers a Happy Christmas and Prosperous New Year.

- Don, Linda, Joan

NEW ACADEMIC APPOINTMENTS

It is with much pleasure that the Department welcomes back Dr. Barry Madore and his wife Katherine. Barry has accepted an appointment as Assistant Professor for the period January 1, 1978 to June 30, 1979. Both Madores, of course, are former students of ours, Kathy having obtained an M.Sc. from us in 1971, and Barry his Ph.D. in 1974. Barry is expected to take up his duties during the first week of January, and Kathy will follow a little later when their affairs in Cambridge have been settled.

The Dean's Search Committee for a new Observatory Director and Departmental Chairman has concluded its deliberations, and the Dean has recommended that Don Fernie be appointed to those positions as of July 1, 1978 for a term of five years. This appointment remains unofficial until ratification by the University President and Governing Council. Meanwhile the editor of DDD takes this opportunity of fervently wishing the new appointee the best of luck in his forthcoming post.

JOB OPPORTUNITY

Position: Editor, David Dunlap Doings.

Starting Date: July 1, 1978 or sooner.

Chief Qualifications: Ability to squeeze newsitems from stone. Cheerful smile in face of passing deadlines. Must be able to convince Chairman that DDD circulation deserves funding.

Remuneration: Anacin, Pepto-Besmol, and sympathy.

COMINGS AND GOINGS

John Percy was in Nova Scotia November 21-24 as Shapley Lecturer at Acadia University. While in the Maritimes he also gave colloquia at St. Mary's University and to the RASC Halifax Centre. On November 2 John spoke on A Cosmic Perspective at the 20th Anniversary Open House of Lorne Park Secondary School, Mississauga.

Lyn Miller resigned as typist at the Observatory, effective November 17, in order to again take up the position of secretary to the Dean of Music. Replacing Lyn is Paulette LeBlanc, to whom we extend a cordial welcome.

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Bob Garrison attended IAU Symposium No. 80, "The HR Diagram", held in Washington, D.C. on November 2-5, and gave a paper The Main Sequence of NGC 6231 and the Absolute Magnitude Calibration.

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Sidney van den Bergh also attended the HR Diagram symposium before going to an AURA Visiting Committee meeting in Tucson on November 10-12. (He has recently accepted a three-year term on this committee). Sidney was at the DAO November 14-15, attended the IAU National Committee meeting in Montreal November 18, and a CTIO TAC committee meeting in Tucson on November 30.

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Helen Hogg was also at the Washington symposium, and on November 19 addressed the Richmond Hill Horticultural Society's annual banquet on Cultivating An Enjoyment of the Heavens. She was introduced by Gerry Longworth.

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Don Fernie has joined the National Organizing Committee for the 1979 IAU, and was in Montreal for a meeting on November 17. The following day he and Don MacRae attended meetings of the IAU National Committee and the NRC Associate Committee at the University of Montreal. Items of interest to come out of these meetings included the fact that the CFHT primary mirror is now complete and undergoing acceptance tests, although the telescope itself has suffered a delay of some months. Rene Racine's new Megantic Observatory telescope has arrived in Montreal and will be erected as soon as feasible in the spring.

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Don Fernie gave a colloquium, Cepheid Variables Yesterday and Today, to the physics department of McMaster University on November 9.

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THE JOHN F. HEARD MEMORIAL FUND

Those of our readers who for so many years enjoyed Jack Heard's editorials in this journal will be pleased to learn that as a memorial to Jack the RASC has established a fund to publish a collection of those editorials. The editing and collation of these will be done by John Percy and Don Fernie next summer, and tentative plans are for publication in several installments in the Journal of the RASC. Reprints will be bound together for further distribution.

Readers wishing to contribute to the fund should send cheques, payable to the Royal Astronomical Society of Canada, marked "J.F. Heard Fund", to:

The National Treasurer
Royal Astronomical Society of Canada
124 Merton Street
Toronto, Ontario
M4S 2Z2

LETTERS

Bob Garrison has passed on the following excerpts from a letter by Rick Crowe, our man on Las Campanas:

I had what I consider to be a great run with the IT spectrograph. Got at least 3 spectra (2 in the blue and 1 in the red) for each of 7 Miras. RX Mic needed a 5 hr. exposure, but I got the right star, which was very satisfying. The band structure and emission in some of them are fabulous! ... Precessed all coordinates to 1977 by linear interpolation, and they were dead on every time! This is a tribute to Tony's solution of the mirror flexure problem, since the standards and Miras were distributed in all parts of the sky. ... I used the spectrograph between the 10th and 18th - a total of 74 out of 76 clear hours. Decided to take a rest on the 19th - had nothing left to observe anyway.

I have fallen in love with the dome tape collection. ... Thank Bob Gauthier for sending the GASA tapes - had a lot of fun listening to them .

We have been using slabs of dry ice borrowed from the 40". I think this is the answer to the problems. They are terrific - they are easy to chop and load, and they last 2 days in the styrofoam container. Contrary to the time that Darlene English was here, the dark count has been stable all night at 10 counts/sec

Take care and give my regards to everybody at the DDO. In the meantime, I am,

Su seguro servidor.

The Editor

David Dunlap Doings

Dear Sir:

It came as quite a surprise to me to discover that I am now gainfully employed as a computer programmer at the Canada Centre for Remote Sensing (David Dunlap Doings, September 27, 1977). In actual fact, I am still a non-employee (unencumbered by staff benefits and the like) holding a Visiting Postdoctoral Fellowship in Government Laboratories. My current research activities are in the areas of sun-angle and atmospheric corrections for Landsat data, as well as residential thermography using airborne thermal IR sensors in the 8-14 μ region.

The Canada Centre for Remote Sensing incorporates three divisions: Data-Acquisition, Data-Processing, and Applications. I am associated with the Methodology Section of the Applications Division. Our section carries out research and development in methods of pattern recognition, statistical interpretation, reflectance spectroscopy, atmospheric corrections, etc., related to satellite and aircraft data from the visible to the microwave. This work is facilitated by three PDP-10 computers and four PDP-11 computers (well, yes, I am doing some computer programming) with a wide array of special purpose hardware for image analysis and evaluation. Included are two microdensitometers: a drum scanning microdensitometer (Optronics Photomation) and a three-colour, read/write microdensitometer (PDS). The computers are a joy to use because of time-sharing systems and interactive terminals with CRT displays. Computer cards are never used and relatively little paper is required. Even literature surveys are computer-assisted thanks to RESORS (the Remote Sensing On-Line Retrieval System), run by Technical Information Services. In short, the Canada Centre for Remote Sensing is a first-class organization, fully equipped to tackle the multidisciplinary and vital work of remote sensing. And as a postdoctoral fellow at the Canada Centre for Remote Sensing, I am very much a research scientist, thriving on new projects and learning experiences.

Sincerely,

Philippe Teillet

P.S. Having said my piece, I would like to add that I remain a devoted reader of the David Dunlap Doings and that I look forward to future issues all the more now that I have left Toronto.

P O T P O U R R I

We congratulate Frank Hawker on receiving a Sesquicentennial Long-Service Honour Award in recognition of his twenty-six years' service to the Observatory. The presentation of the citation will take place at Hart House on December 4.

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Congratulations also to Helen Hogg on her receiving the Queen's Silver Jubilee Medal of Canada.

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A description of the Observatory and its facilities, written by Mary Lane and Dennis Crabtree, appeared in the November issue of *Astronomy*. Mary reports with regret that they were unable to get any picture of the Observatory published.

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Bob Garrison has been invited to be a member of the Scientific Organizing Committee and a Principal Invited Speaker at the IAU Symposium 'Spectral Classification of the Future', to be held at the Vatican July 11-15, 1978.

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John Percy has received a grant from the University's Education Development Committee to present a one-day workshop on teaching strategies in introductory astronomy courses. It will be held in mid-May, and John urges all faculty and teaching assistants to participate.

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A letter from Barry Madore brings news that Dave Hanes' position at Cambridge is likely to be extended for another couple of years. Meanwhile Ros is now working at the Institute as a draftsman and photographer.

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Chris Smith writes that he will be leaving ESO next July to return to Canada, possibly to study electronics at U. of T. He wonders if anyone will need a part-time research assistant.

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SEMINARS

- December 6 Dr. E. Glass, University of Windsor
 "Solar Neutrinos Are Tired"
- December 13 Christmas Countdown

REVISIONIST'S CORNER

You all remember good old Andy of Ask Andy fame? Of course. Well, here he is, fresh from his astronomical triumphs, to set us straight on lasers:

Laser light differs from ordinary light in terms of its frequency. The number of vibrations of a light wave per second is much higher with a laser. Ordinary light travels in all directions, while laser beams are narrow and highly directional.

PAPERS SUBMITTED

- Sidney van den Bergh* *The HR Diagram of Metal-Poor Disk Stars*
- Observations of the Optical Remnant of SN 1181 = 3C58*
- R.F. Garrison* *The Main Sequence of NGC 6231 and the Calibration of Absolute Magnitudes*
- P.P. Kronberg,
S. van den Bergh & S. Button* *Radio and Optical Structure of Cygnus A*
- C.T. Bolton and
G. Lars Rogers* *The Binary Frequency of the OBN and OBC Stars*
- R. Wielebinski,
C.G.T. Haslam, J.R. Baker and
P.P. Kronberg* *Radio Sources in the Cluster of Galaxies Abell 2634*

F I N A L I T E M

The Origins of the DDO. III.

Augustus Chant's memoirs, on which much of this series is based, are curiously reticent on the subject of David Dunlap himself. But coincidentally there has recently appeared an article on the man by Donald Jones in *The Toronto Star*, and Jack Heard wrote an editorial on Dunlap in our May, 1969 issue. There are some minor discrepancies between the two versions, but what follows is based on these accounts.

David Alexander Dunlap was born in Pembroke, Ontario, in 1862, and was thus only a few years older than Chant. He studied law in Toronto, and after his marriage to Jessie Donald Bell, became the town lawyer in the northern community of Matawa, Ontario. Law, it seems, was only a minor passion for Dunlap, and much of his time was given over to prospecting, hunting, or fishing.

There seems general accord that his road to wealth started accidentally with a labourer named Fred LaRose, either in the year 1903 or 1906. LaRose was a worker involved in the construction of the Ontario Northern Railway, and Heard has him idly kicking at a shiny rock that had just fallen from a dynamited cut. The rock was so heavy that it almost broke LaRose's foot, which induced him to take the rock to the local storekeepers, the brothers Timmins, who recognised it to be very high grade silver ore.

Jones' account is more colourful: LaRose was startled one night by what he thought was a pair of fox eyes in the dark and threw his hammer at them, only to find that he had struck gleaming metal. The provincial geologist, Willet Miller, heard of this discovery, and invited his friend Dunlap to join him in a visit to the site. After a hectic journey through the bush, building rafts to cross lakes, they reached LaRose's stake, and Miller was very much impressed with the find. Since LaRose was willing to sell half his stake, Dunlap hiked back posthaste to Matawa to induce the Timmins brothers to raise enough money to buy the half-stake. This they did, and since the ore assayed at 95% silver - so high it was sent directly to the refinery - the buyers were soon wealthy. LaRose, though, almost lost out when his remaining claims were jumped by intruders, and had it not been for Dunlap's legal expertise LaRose would have lost everything. (He in any case died penniless.)

Wealth breeds wealth, and in Dunlap's case, gratitude brought him even greater wealth. In 1909 the Timmins heard of a prospector named Benny Hollinger who, some 130 miles north of Sudbury, had stripped moss from a mound of earth to reveal a rock veined with gold. The two Timmins opted to buy into this venture, and invited Dunlap to join them. He declined, saying he was already wealthy enough, but Noah Timmins simply included Dunlap's name on the documents without his knowledge, saying that without him they "would never have made a cent out of the Cobalt [silver] mine". The Hollinger mine, at what is now the town of Timmins, would prove to be of a richness second only to the Witwatersrand gold mines of South Africa.

Wealthy beyond dreams, David and Jessie Dunlap elected to give up the rough life of northern Ontario, and shortly before World War I moved to the more genteel environs of Toronto. Here, on their 600 acre farm outside the city, the Dunlaps settled into a quiet life of breeding prizewinning cattle and enjoyed the pleasures of donating money to worthy causes, usually anonymously. There is the Dunlap Wing of the Toronto General Hospital, and many a school and church benefited by them. The University, of course, remembers them quite apart from the Observatory: the vast, gracious Dunlap house in Rosedale is now the home of the University's presidents.

This, then, was the man who on that summer's evening of 1921 came up to Dr. Chant after his public lecture and announced an interest in Chant's proposal for an observatory in Toronto. Presumably Chant recognised Dunlap as one of the city's wealthiest men, but in that era's gentlemanly conduct of affairs there was to be no unseemly rush to pry money from the man. Quite probably Chant would within a few years regret his delay, but had he been more hasty it is almost certain there would never have been "the finest astronomical observatory in the British Commonwealth" at Richmond Hill; instead we would now have a 20-inch refractor on Bathurst Street above St. Clair Avenue, for this was still in 1921 Chant's ambition.

But matters proceeded slowly and sedately. Chant followed up Dunlap's expression of interest with an invitation to join the RASC, and "Mr. Dunlap expressed pleasure in accepting my invitation". After that more than a year went by without any written exchange, although for six months of 1922 Chant was away on an eclipse expedition in Western Australia. But even by the middle of 1923 there had been no more than two or three letters between them, and those mainly concerned with Dunlap's request to Chant for a reading list of popular books on astronomy. Their association, in fact, had almost run its course, for as Chant baldly puts it, "I learned with great regret that Mr. Dunlap's health was not good. A trip to the Mediterranean did not restore it, and he died October 29, 1924." The professor, it seemed, had missed his chance.

In any case, Chant's ambitions were beginning to change: "As the years passed, astronomical research was being more devoted to problems connected with the stars, and the demand was for reflectors or mirror-telescopes. A large mirror is less expensive than a large lens. Thus in 1922 we favoured a 60-inch mirror-telescope."

And 1924, if it saw the death of David Dunlap, brought its own solace:

The most notable event of 1924, as far as I was concerned, was the coming of Dr. R.K. Young to the Department of Astronomy of the University of Toronto. He had been with me in Australia, and on the way home, just before we reached Victoria, near which is located the great Dominion Astrophysical Observatory, I asked him if he would accept an appointment to the staff of the University. He was willing to do so, and his appointment was effective in the autumn of 1924.

Young had attended the Hamilton Collegiate Institute and the University of Toronto, graduating B.A. in 1909. Then he was a graduate student at the Lick Observatory, and after that held positions in Ottawa and Victoria observatories. He was the most capable and loyal of men, and in the years just to follow was almost indispensable to me.

In the autumn of 1925 Dr. Young proposed that we make at the University a mirror of considerable size; and if successful, we might also construct the mounting for it. He suggested a mirror of 24 inches, to grind and polish which would certainly test his skill.

I wrote to the Corning Glass Works. They were willing to supply a 24-inch disc, but it would be some months before it would be ready. The price would be \$500. But the firm had on hand a disc which was rather rough in appearance but which would make a 19-inch mirror. The price was, I believe, \$20.

We asked them to ship it to us, and it was received in March 1926.

J.D.F.

