

DAVID DUNLAP DOINGS

Vol. 1, No. 1.

January 31, 1968

EDITORIAL

With this issue of the Dunlap Doings we begin what is hoped to be a continuing monthly news letter of what is going on in the Department of Astronomy. When the Department was small we all knew what was going on, both at the professional and personal levels, but we have grown now to number about fifty. With everyone's cooperation this letter series could help us keep in touch and, what is perhaps more important, will serve in years to come as a record of who was here when and what he was doing.

Will everyone please jot down items of interest and leave in my box by the 20th of each month.

J. F. H.

STRICTLY PROFESSIONAL

The 74-inch.

Frank Hawker has recently completed the control console with CCTV displays of the R.A. and dec. readings. There have been some unserviceabilities which are probably due to the extreme cold, but Frank hopes soon to have a spare camera and monitor for immediate replacement in case of break-down. One thing to remember is to keep an eye on the red light which signals an occasional failure of the R.A. clutch; if this happens give the R.A. setting wheel a couple of jerks till the light goes off. Another warning is not to get so engrossed with the TV monitors as to let the telescope hit the pier or the bridge! \*\*\*\*  
David Hickock and Chalmers Hardenbergh on Jan. 8-9 equalled the previous record for low temperature observing ( $-15^{\circ}\text{F}$ ) \*\*\*\*  
Walter Gorza who is in his last year of the General Science course has a part-time job helping with the week-end observing.

The 24-inch.

During last summer large, erratic drifts in the drive rate spoiled a number of observing nights. Consultation with the designer indicated that the fault probably lay with certain transistors in the frequency-divider network becoming overheated in the high ambient summer temperatures of the dome. The appropriate panel of electronics was returned by air to the makers on Dec. 12 for replacement of the transistors with more durable ones. As of the present date, however, the unit has not been returned, and the telescope remains out of commission for the time being.

A Hilger Spectrum Comparator has been delivered and is now set up in the plate-storage room at the north end of the upstairs corridor. This device projects two spectrograms side by side, and will be used by the Hubes and others for MK classification.

Radio Astronomy

The long-baseline experiment (reported by Prof. Yen at a joint Physics-Astronomy Colloquium on January 18) continues with reduction of data accumulated in the fall. So far 11 radio sources have been found to be either unresolved or only partially resolved at a spacing of  $4.6 \times 10^6$  wavelengths. \*\*\*\* Lorne Braun is scheduled to observe with the Algonquin 150-foot telescope at 8 mm. wavelength, using a receiver designed by himself. His plans are to continue his program of observations of extended galactic-plane sources and

objects with positive spectral indices \*\*\*\* Results are being reduced of about 40 halo galaxies observed by Dr. Sequist and David DuFuy at 9.4 cm. with the Algonquin 150-foot dish.

Papers in Press.

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|---|--|
| J.D. Fernie<br>(Ap. J.)                       | Observational Evidence for Overtone Pulsations in Classical Cepheids   |
| SvdBergh and<br>J.V. Hindman<br>(Ap.J.)       | The Reddening of Globular Clusters                                     |
| S.v.dBergh<br>Roy. Soc. Can.                  | The Chemical Evolution of the Galaxy                                   |
| S.v.dBergh<br>(Ap. J.)                        | An Evol. Interpretation of Of Stars                                    |
| S.v.dBergh<br>(Ap. J.)                        | Classification of Interstellar Absorbing Clouds                        |
| S.v.d.Bergh                                   | A Remarkable Cluster B327  |
| S.P.S. Anand<br>Can. Jr. Phy.                 | Pair Formation in Supermassive Stars I                                 |
| S.P.S. Anand<br>(Ap.J.)                       | Equilibrium Structure of Rapidly Rotating Polytropes                   |
| S.P.S. Anand<br>G.G. Fahlman<br>(Icarus)      | Solar Rotation and the Perihelion Advance of Mercury                   |
| S.P.S. Anand<br>G.G. Fahlman<br>(Ap. Letters) | On the Angular Momenta of Stars, Planets and Asteroids                 |
| A.F.J. Moffat<br>(A.J.)                       | New Variables in the Direction of M31                                  |
| R. Racine<br>(A.J.)                           | Stars in Reflection Nebulae  |
| T.G. Barnes<br>(Ap. Letters)                  | A Search for Optical Variability in Seyfert Galaxies                   |
| G. Bakos<br>(A.J.)                            | Photoelectric Photometry of Selected A.G. Stars in the 25° to 30° Zone |

Papers in Press cont'd..

R.C. Roeder                      On the Absorption Spectra of Quasi-  
R.Verreault                      Stellar Objects  
(Ap.J. Letters)

Seminars and Colloquia in January

January 10 -      Dr. Roberts: "Variable Sources Meeting"  
"Countdown"      at Ann Arbor, Nov. 15-16, 1967.  
                    Dr. Fernie: "Highlights of the A.A.S.  
                    meeting at Philadelphia, Dec. 5-7, 1967.  
                    Dr. MacRae: "HII Regions Symposium" at  
                    Green Bank, Dec. 8-11, 1967.

January 17      Chalmers Hardenbergh: "Possibility of  
"Countdown"      Interception by Intervening Galaxies of the  
                    Light from Quasars".  
                    Mark Naylor: "The Evolution of Population II  
                    Stars".

January 18      Dr. Yen: "Long Base-Line Interferometer  
Physics and      Observations of Quasars".  
Astronomy

January 24      Dr. Clement: "Differential Rotation in Stars"  
"Countdown"      Fred Hickok: "New Effective Temperature and  
                    Bolometric Corrections of Early-Type Stars".

January 31      Dr. G.A. Bakos: U. of Waterloo; "Statistical  
"Countdown"      Studies of Visual Binaries".

February Seminars and Colloquia

February 7      John Percy: "On the Nature of the Beta Cephei Stars".  
"Countdown"

February 14      Dr. K.A. Innanen - York University: "On the  
"Special      Illumination of High-Latitude Reflection Nebulae  
Countdown"      by the Integrated Light of the Galaxy".

February 21      Dr. Icko Iben, Jr. M.I.T.: "The Age and Initial  
"Special      Helium Abundance of the Oldest Stars".  
Countdown"

February 28      Dr. Pierre Demarque, Univ. of Chicago  
"Special  
Countdown"

### VISITORS

Miss Roserio Peniche, an Astronomy graduate student of the University of Mexico visited the Observatory on January 17/68.

Mr. Ernest Eggmann, a member of the Engineering firm of Dillworth Secord and Meagher, visited the Observatory on January 29 to inspect the construction of our 74-inch dome with a view to suggesting means of sealing it and also with the design of the Queen Elizabeth II dome in mind.

### APPOINTMENTS

John Schmitt who has completed his doctorate program at the University of Michigan arrived at the Observatory on January 15 to commence tenure of a Postdoctorate Fellowship. Dr. Schmitt will continue research in spectral classification and will assist with course A470. Dr. and Mrs. Schmitt will be living in Richmond Hill.

Tom Clarke has accepted an appointment to the staff of the McLaughlin Planetarium as of January 1, 1968.

### COMING AND GOINGS

Dr. van den Bergh has been on a two-week visit to Cerro Tololo to observe with the 36-inch telescope.

Peter and Gretchen Hagen are leaving on January 30 for a four-week visit to Kitt Peak where Peter has been allotted 17 nights with the No. 4 16-inch telescope (which has automatic data retrieval) to continue his Ph.D. research project.

### MISCELLANEOUS

The P.O.G. student stipend has been raised by \$250 for the summer supplement (to \$750). It is understood that there will be at least a corresponding (and possibly greater) increase in the "total take" (now \$6000).

Bob McClure was scheduled to start using our seven-colour system at Kitt Peak in January.

A Scientific Session is to be held along with a meeting of the National Committee for the I.A.U. at the University of Waterloo on April 8-9. All will be welcome, and papers are invited. Titles and brief abstracts should be submitted to Dr. Heard soon. He and Dr. Pim FitzGerald constitute the papers committee.

Dr. Roeder who is now Vice President of the Toronto Centre of the R.A.S.C. urges better attendance at the meetings. On Friday Feb. 16th the speakers will be James Kemp on "Comets, Their Nature and History", and Archie Ostrander on "Mars, the Red(?) Planet". Meetings are at 8 p.m. in Room 1035, Wallberg Building.

#### ON THE PERSONAL SIDE

Dr. Hogg, Miss Northcott and Dr. Heard have been awarded Canadian Centennial Medals.

Dr. Hogg has been nominated (along with Mme. Vanier) for election to the Board of Directors of the Bell Telephone Co. of Canada, their election to take place on March 21.

Dr. Fernie's family are leaving soon for a two-month holiday with Mrs. Fernie's mother and Dr. Fernie's mother in South Africa. Dr. Fernie will continue to cope bravely with the northern winter.

"Ferry's Probe" on Channel 9 recently featured Dr. Roeder, Tom Clarke and Gerry Longworth on separate programs, followed, it is to be noted with regret, by an astrological personage!

Peter and Gretchen Hagen are moving (as of January 30) to 50 Benson St., Apt. 205.

Anson Moorhouse is recovering slowly from injuries suffered in a car accident in December.

Chris Aikman has a new Volkswagen and Mary has a new horse!