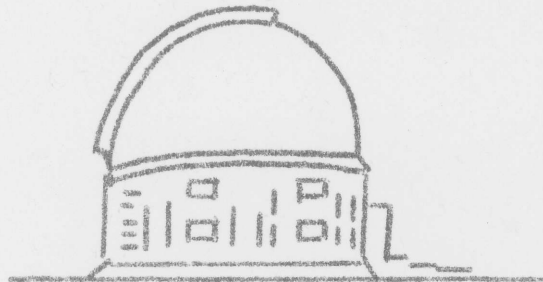


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May 30, 1972

EDITORIAL

Some Questions of Chronology

Last January an employee of the C.B.C., named - if I remember correctly - McTavish, phoned to report that a desk calendar which had been issued to him was misusing the term Julian. At the bottom of the page for January 1, 1972 was the designation:

"Julian 2001 Julienne"

For successive days they were 2002, 2003, etc. up to 2366 for December 31.

Mr. McTavish had expended considerable effort trying to discover what the 2 was for in this successive numbering of the days of the year, and why this was referred to as Julian. After many referrals and callings - back he was told by Brownline, the publishers of the calendar, that the 2 referred to 1972; by implication the Julian designations for 1973 will be 3001, 3002, etc! As for why it was called Julian, they didn't know.

A few weeks ago I had a similar call from Mr. Chris Cornwall who lives in Richmond Hill and works for OISE. He too had phoned Brownline with similar questions, found them very defensive about the whole thing and was finally put off with a statement that "someone in the government" had given them the "Julian" numbers.

In the course of his delving, Mr. Cornwall had become interested in the real Julian Day system and had tried to reconcile the Julian Day number for Jan. 1/72 with the definition of the system. He also wondered what was the significance of the entry entitled "Julian Period (year of)" which appears in the American Ephemeris and Nautical Almanac each year. (It is 6685 for 1972).

I think I was able to answer his first question, though not without about three failures, having fallen into this and that little pitfall. Want to try it yourself? (Julian Day starts with number 0 on Jan. 1, 4713 B.C., Julian proleptic Calendar. - And there's a new word for you!)

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As for his second question, the answer looks obvious inasmuch as $4713 + 1972 = 6685$; but after you've recovered from one of the pitfalls of question 1 you may not be so sure!

J.F.R.

OBSERVING

The Supernova in NGC 5253

When we first heard of this supernova at dec. $-31^{\circ} 31'$, some of us were inclined to dismiss it as far as Dunlap observations were concerned. However, the 74-inch will go to that dec. with a slight vignetting. Bln and Tn failed to find the supernova on May 18, probably because of haze, but on the next night Hd and Tn observed its spectrum for two hours at 43 A/mm. and got a weakish spectrogram showing about three extremely wide emission bands which defy identification. We understand that Rick Salmon at Las Campanas got at least one spectrogram at about the same time. Further DDO spectrograms were obtained on May 23 and 25.

COMINGS AND GOINGS

Drs. Heard, Hogg, Kronberg and MacRae attended the NRC Associate Committee on Astronomy at the University of Montreal on May 11 and 13: they and the following attended the C.A.S. meeting on the same dates:

Staff - Drs. Bolton, Garrison, Percy, Racine, Walborn;
Students - Bruce Campbell, Martin Duncan, Claude Faubert,
Gretchen Hagen, Dave Hanes, Bill Herbst, Barry and
Kathy Madore, Serge Pineault, John Roger, Roslyn
Shemilt, Jacques Vallée.

Dr. van den Bergh gave talks on "The Stellar Population in the Nuclear Bulge of the Galaxy" at Meudon and at Padua in April and at Northwestern University on May 25. He and Dr. Racine presented a joint paper on "A Southern Survey of Reflection Nebulae" on May 28 to the I.A.U. Symposium on "Interstellar Dust and Related Topics" at Albany, N. Y.

Nolan Walborn returned on April 29 from a Latin American odyssey which included observing runs at Cerro Tololo and Las Campanas Observatories in Chile; a visit to give a colloquium at the Institute

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of Astronomy and Space Physics in Buenos Aires, Argentina (Dr. Sahade sends greetings to his friends at DDO); and a vacation in San Juan, Puerto Rico. Both observing runs were very successful, with seven nights scheduled and seven utilized at each observatory. On Cerro Tololo 80 cassegrain spectrograms of OB and Wolf-Rayet stars were obtained at the 36-inch. At Las Campanas, 70 spectrograms and 6 direct photographs were obtained with the efficient assistance of Rick Salmon at our 24-inch. The interior panelling and the kitchen counters & cupboards in the Canadian House on Las Campanas have been very attractively finished, so that the House is now essentially completed.

Dr. Garrison observed at Las Campanas April 17 to May 7. On April 5 he had talked to the Hamilton Centre of the R.A.S.C. on "The Planning, Construction, Operation and Uses of a Small Observatory".

Christine Coutts was at Las Campanas from May 5 to May 24. On her way there she visited Panama and on the way back she was to visit Brazil.

SEMINARS

May as announced .

June

The only Seminars arranged for June are those which comprise the June Institute for 1972. This is scheduled for June 13 to 16 inclusive. The speakers (and number of lectures) are Dr. S. van den Bergh (2), Dr. C. T. Bolton (2), Dr. Herbert Gursky, Cambridge, Mass. (2), Dr. G. H. Herbig, Lick (4), Dr. Martin Rees, Cambridge, Eng. (4), Dr. W. H. Tucker, Cambridge, Mass. (2). On Tuesday evening there will be a visit to the Observatory, on Wednesday evening a party on campus, on Thursday evening a dinner.

Other Events of the Summer

York's CRESS is holding a Third Annual Symposium on Experimental Space Science on June 6-8. Details are available in the Departmental Office and at the Observatory.

We are holding an I.A.U. Colloquium here on "Variable Stars in Globular Clusters and in Related Systems" in honour of Dr. Helen Hogg's life-long work in this field. Those wishing to participate fully should see Dr. Fernie; those proposing merely to audit the scientific sessions are welcome to do so.

The Department of Physics at the University of Calgary will be the host of an International Solar Terrestrial Relations Conference Aug. 28 - Sept. 1. For details write to Mrs. V. Matwick, Conference Secretary.

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The Dominion Astrophysical Observatory will be host to I.A.U. Symposium No. 51 on "Extended Atmospheres and Circumstellar Matter in Spectroscopic Binary Systems" (Struve Memorial) in Parksville, Vancouver Island, Sept. 6-12.

PAPERS SUBMITTED IN MAY

R. G. Conway, J. A. Gilbert, P. P. Kronberg and R. G. Strom,
"Polarization of Radio Sources at λ 49 CM and λ 73 CM.

S. van den Bergh, "A New Method for Estimating the Hubble Constant".

R. Racine and S. van den Bergh, "A Southern Hemisphere Survey of
"Reflection Nebulae".

J. Percy, "A Photometric Study of 21 Comae" .

LETTERS TO THE EDITOR

W. F. King

Three letters have been received relating to the piece about Dr. W. F. King in the last issue.

Dr. R. K. Young recalls:

"He was the Director when I first came to Ottawa in 1913 . When we used to be observing with the 15-inch telescope we could see Dr. King's study. The blinds were always up and we could see Dr. King pouring over something, night after night till 2 and 3 o'clock in the morning. We wondered what kept him up so late. Finally, I think it was Cannon who took a pair of opera glasses and 'spied' on him. What was he doing? - Playing Solitaire. We thought it was a great joke, but the joke was on us.

"Years later, in his reminiscences on student life, Dr. W. F. Loudon spoke of W. F. King. Loudon and King had become interested on the probabilities of having the game of solitaire come out. I don't know just what form of the game they played, for there are many. Loudon writes that King thought he had come to a mathematical solution. And Loudon gives many samples of the games King had played to test his formula.

"That is what King had been Doing! After 11 years the mystery was solved! "

Dr. C. S. Beals has written that he regards Dr. King as one of the greatest scientists that Canada has produced. He would like to see a plaque commemorating King placed on the front of the Dominion Observatory Building opposite one which commemorates Sir Sandford Fleming of Standard Time fame.

Dr. J. E. Kennedy wonders if the involvement of William Brydone Jack in the checking of surveyor's compasses and chains in the early 1870's was stimulated by King at the time of the latter's appointment to the Land Survey in 1872.

SKY BRIGHTNESS

Sir,

Some six years ago I took advantage of spare time on a moonless night to make a series of photoelectric sky brightness measurements with the DDO 24-inch. I recently repeated these, and thought your readers might be interested in knowing quantitatively just how conditions have deteriorated at Richmond Hill.

The measurements were made along the meridian as a function of declination. A summary is contained in the following table, in which the sky brightness is expressed in blue magnitudes per square second of arc:

Dec.	Sept. 1966	May 1972
+80°	20.8	19.3
+60°	21.0	19.5
+40°	21.0	19.5
+20°	20.8	19.3
0°	20.5	18.8
-20°	19.6	17.8

This means that the sky is now four times as bright as it was six years ago; the factor rising to more than five in the low southern sky. If anything, this increase may be an underestimate, since the visual extinction coefficient was 0.17 on the 1972 date and 0.25 on the 1966 date.

A figure of 22.5 mag/sq sec has been quoted for the Palomar sky, and as low as 23.0 for a site in Hawaii. Our present sky is thus 25 times brighter in the zenith (120 times at dec -20° !) than that of a really dark site.

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Although these figures are appalling from the standpoint of say direct photography, I might emphasize that they still do not represent any major impediment to doing photoelectric photometry to at least as faint as 12th or 13th magnitude.

J.D. Fernie

Observatory House

Relating back to February's Editorial on "The Marsh Family and Observatory House", Mrs. Dudgeon of Ottawa writes:

"My mother, who now lives in Agincourt was very interested in the article and she said the house was exactly as you described it. She was extremely fond of her mother-in-law so spent a lot of her time at the old house in Richmond Hill. From what she has told me, the land there belonged to Alex Marsh originally - not his father. Alex had 2 sons, one of whom was called William Goodfellow. During his marriage there were six children born -- one of whom was my father - James Gordon Marsh. So this makes Alex my great grandfather - William my grandfather and the 70 year old lady you met in 1958 would have been Alex' grand-daughter - likely my Aunt Irene (Mrs. M. M. Gibson) who is still living at 4161 Sheppard Ave. E. in Agincourt. Another aunt who is still living is Ella Todd. She is well into her 90's now and she and her husband Frank celebrated their 60th wedding anniversary about 5 years ago. Their address is Frank Todd - 3000 Yonge St., Apt. 1005, Toronto 12. I am sure they would love to hear from you if you want to know more of the history of the places. I wish I could tell you more myself. Your article has made me anxious to know more.

A sincere thank you -

545 Bathurst Ave., Ottawa.

Mary Dudgeon"

MISCELLANEOUS

Born

To Dr. and Mrs. William H. Clarke on May 8, in Toronto, a son, Andrew Timothy.

Elected

Dr. Fernie was elected Fellow of the Royal Society of Canada in April.

Dr. van den Bergh was elected to a three-year term as Director of the Astronomical Society of the Pacific.

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Honoured

Dr. Heard received the degree of D. Sc., honoris causa, from the University of Waterloo, May 26.

Passed

Bill Harris passed his qualifying Ph.D. general examination May 19.

Bereaved

Our sympathy is extended to Mr. and Mrs. Frank Hawker, on the sudden death of Mrs. Hawker's mother this morning.

Visitors

Dr. Doug Hube (Ph.D. 1967) has been observing B-type binaries here since the Montreal meetings. Wife Joan and daughters Sharon and Suzanne are also spending three weeks in Ontario.

Correction

An item in our April number regarding Jeff Crelinsten ended with the sentence: "His intellectual horizons have expanded since he left us," leaving one to wonder either about Jeff's earlier horizons or our lack of stimulation. Actually it should have read: ".... - his courses (at Sir George Williams) are astronomy, cosmology, social history of science and science technology and society".