



DAVID DUNLAP DOINGS

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M E R R Y C H R I S T M A S

CHRISTMAS GREETINGS AND YEAR-END REVIEWS

From the Director

When they look back on 1973 Canadian astronomers may well regard it as being a year of major historical significance. Our long-sought large optical telescope was at last approved and the project is rapidly gathering momentum. Our national professional society is finding its identity. Radio astronomers across the country are meeting together and seeking common goals.

Here at DDO our work in instrumentation is being revitalized so that we can take advantage of opportunities just over the horizon - or above the atmosphere.

On behalf of everyone at the David Dunlap Observatory I send all our readers the compliments of the season and warm wishes for a happy 1974.

MR

1973 at Las Campanas by Bob Garrison and Tony Esteve

There was not enough time to ask Chris Smith, our resident observer on Las Campanas, for a Christmas message before press time, so we decided to offer a review of the year from up here.

The year 1973 has been an eventful year in Chile. Bob Garrison and his family spent four months there from April to August during the period of increasing tensions and shortages. Chris Smith replaced Rick Salmon who moved on to bigger and better things at Cerro Tololo (with our blessings and our appreciation of a good job well done). Chris was in La Serena at the time of the coup on 11 September, but retreated to the safety of the mountain as soon as possible. In October, Canada House on Las Campanas was visited by the Chargé d'Affaires of the Canadian Embassy in Santiago, Mark Dolgen, with his family.

Due to an accumulation of special circumstances, our observing station in Chile will be officially "out of service" over Christmas. Chris has been on the mountain almost continuously since the time of the military coup in September. In addition, we hear that his mother has not been well, so he asked if he could be home for the week of Christmas. Fortunately, the comet will be too close to the Sun anyway and he plans to be back on Las Campanas to catch it as it comes into view (assuming it will make it!).

This is the first time in three years of operation that the telescope will be idle for any reason other than generator failure or electronic problems. In the past it has even been used on Christmas and New Years. Nolan Walborn was on the mountain last year. Two years ago Bob and Ada Garrison observed all night on both 24 and 25 December. That was back in the rough old days when there was no tape recorder for music. In fact, it was during that run that Ada composed her now famous poetic appeal for a tape recorder (see D³ for January 1972) which so moved our Director that he consented to send one down.

The first good spectrum of the Christmas comet was taken by Chris Smith on the night of 18/19 November. It is likely that our station in Chile will give us the best results because of reliable weather, good conditions and good equipment. Observing a bright Christmas comet is an excellent way to begin the New Year on Las Campanas.

Since this is from the Southern Hemisphere where it is now midsummer and the beach is very inviting, our greeting should read something like:

MERRY CHRISSMITH TO ALL AND TO ALL A GOOD SWIM!

From DDD

Production staff Joan Topley and Jennie Fabian, circulation manager Linda Twitchin, columnist Don Fernie and editor Jack Heard extend our best Christmas greetings and wishes for the New Year and promise to try even harder to entertain and inform in 1974.

OBSERVING

Comet Kohoutek

A number of satisfactory spectrograms have been taken at the Las Campanas 24-inch at low dispersion with the use of the image tube.

An unsuccessful attempt was made on Dec. 2 to obtain a

12 A/mm spectrogram at the 74-inch. The 30-minute exposure, although achieving a reasonable count on the exposure meter, showed little beyond the ubiquitous mercury lines.

Philipp Kronberg, during his recent observing session at NRAO with the radio interferometer, tried a one-hour integration on the comet with no detectable result. He reports that Lorne Avery and Bryan Andrew of ARO also have a program of comet observation by radio.

Bob Garrison's sharp-eyed son, Lee, seems to have been one of the first of us to pick up the comet by naked eye - in mid Toronto late in November.

The McLaughlin Planetarium has an excellent show, "The Comet Connection" which, after a first run, has now been replaced by their Christmas Star show, and will be resumed on Jan. 3. They also have a dial-the-comet phone number, 928-5399, which plays an excellent up-to-date tape by curatorial assistant Robert Ballantyne.

COMINGS AND GOINGS

Attending the AAS meeting in Tucson Dec. 3-6 and presenting papers were Sidney van den Bergh, John Percy, Gretchen Hagen and Bob Deupree.

Following the AAS meeting John Percy remained for a week in Arizona to observe at Kitt Peak.

Don and Betty MacRae officially represented the University of Toronto at the Royal Society of Canada Symposium on Copernicus in Ottawa Nov. 28. He was there again on Dec. 11 to meet with Canadian colleagues and Dr. Delhaye of France in connection with the Canada-France-Hawaii Telescope Project.

The third "Kingston Meeting" of Radio Astronomers took place at Queen's on Dec. 13-15, Ernie Seaquist, Philipp Kronberg, Allen Yen and Don MacRae planning to attend. This important meeting was to hear talks by Ed. Fomalout, Hugh Aller and Jack Locke and to engage in thorough discussion of the possible entry of Canada into a partnership with Australia to build and operate a large "millimetre" radio telescope.

Dr. van den Bergh gave a talk on "Recent Observations of Supernova Remnants" at the University of Michigan, Ann Arbor, Nov. 30 and at the Los Alamos Science Lab on Dec. 7.

SEMINARS

DECEMBER As announced in DDD 6,11.

JANUARY

Tues. 8th Douglas Paul, Board of Education, North York,
DDO 4 p.m. "Astronomy in Schools".

Tues. 15th Jack Winzer, "Light Variations in Peculiar A Stars".
DDO 4 p.m.

Tues. 22nd Dr. David Dunlop, Erindale College,
DDO 4 p.m. *Topic to be announced*.

Thurs. 24th Dr. J. Bardeen, Department of Physics, Yale University,
McLennan "Black Holes".
4 p.m.
(Joint with Physics)

PAPERS SUBMITTED IN DECEMBER

R. G. Deupree On the Beat Phenomenon in β Cephei Stars

LETTER TO THE EDITOR

Sir:

I always look forward to receiving at the end of each month the DDD and to reading about the activities of my friends at DDO and the Department.

However, in the October 30th issue, Vol. 6, no. 10, I was a little disappointed not to have seen mentioned the successful Ph.D. oral examination in early October of our friend, Dr. Jacques P. Vallée, who has departed for Leiden Observatory in Holland to do post-doctoral research.

I also wish to extend to you all, warm greetings and best wishes for Christmas and the New Year.

Your neighbour from the Faculty of Pharmacy,

Alice Kato

Our apologies to Jacques and thanks to former secretary Alice. - Ed.

P O T P O U R R I

Omission

Bob Garrison also attended the Working Group meeting re the International Ultraviolet Explorer Satellite. (see DDD 6,11,4).

Visitor

Prof. S.I.H. Naqvi of the University of Saskatchewan at Regina spent Dec. 7th visiting the Department, the Observatory and York University regarding plans to set up a 24-inch telescope at U. of S. at R.

Congratulations, J.P!

The 1974 Observer's Handbook (the 66th) of the R.A.S.C., edited by John Percy, has just appeared. Our thanks are owing to Dr. Percy (as they were to C.A. Chant and Ruth Northcott) for the continued labour and efforts to improve this valuable publication which has a press run of 16,500 and is in use all over the continent.

FINAL ITEM

Year's End Miscellany

In the course of digging around for material for these columns I have come on a good many minor items and quotations that are interesting or amusing, but which are insufficient in themselves for an entire column. I thought, though, that you might enjoy a short selection of them, so here is a column of bits and pieces.

As a comfort to those who have just received a referee's report, this is what the 30 year-old Isaac Newton had to say on the subject in the midst of an attack on his work by a certain Mr. Lucas, professor of mathematics at Liege: "If I get free of Mr. Lucas' business, I will resolutely bid adieu to research eternally, excepting what I do for my private satisfaction, or leave to come out after me; for I see a man must either resolve to put out nothing new, or to become a slave to defend it."

On reading what authoritative astronomers had to say on the

subject of space travel not very long before it became a fact, one is reminded of Arthur Clarke's remark that when a senior scientist says that something is impossible he is almost always wrong. Here is Sir Harold Spencer Jones, then Astronomer Royal, writing in 1946:

"Man quite likely will never reach the moon and even if he did, the chances of his returning would be so small as to be negligible. For assuming that the difficulties of launching a lunar liner could be overcome, the landing on a jagged surface such as the moon would almost certainly involve disaster, and if the landing were successful there would be no launching platform for the return trip."

As for sending spacecraft to other planets, F.R. Moulton, one of the world's leading celestial mechanics, had this to say in 1935:

"It must be stated that there is not the slightest possibility of such a journey. There is not in sight any source of energy that would be a fair start toward that which would be necessary to get us beyond the gravitative control of the earth. There is no theory that would guide us through interplanetary space to another world even if we could control our departure from the earth ... and there is no known way of easing our ether ship down on the surface of another world, if we could get there."

Brute facts, such as space travel, have a way of forcing acceptance, but theories are something else. Max Planck, struggling for acceptance of the quantum theory, was moved to remark that one never succeeds in overcoming opposition to a revolutionary scientific theory merely by trying to convince people with rational arguments. Revolutionary theories only gain general acceptance when their initial opponents eventually die and are replaced by a younger generation who can accept the theory by virtue of having grown up with it. We are, as Nietzsche said, slaves to our own convictions.

But then Planck might have taken comfort in the fact that history has at least not brought him to the conclusion of Alexander von Humboldt's dictum: "There are three stages in the popular attitude toward a great discovery: first, men doubt its existence; next they deny its importance; and finally they give the credit to someone else."

All of which reminds one of Einstein's rather bitter remark concerning the popular attitude towards new theories and nationalistic pride, written, incidentally, at a time when he was an American citizen:

"If my theory [of Relativity] should prove correct, the Germans will call me a German, and the French will hail me as a citizen of the world. But if the theory should prove wrong, the French will call me a German, and the Germans will call me a Jew."

Even facts sometimes have difficulty in gaining acceptance. Consider President Thomas Jefferson's remark on being told that two professors from Yale (the same two, if I recall correctly, who went to New York to check the Great Moon Hoax story) had recovered a meteorite: "It is easier to believe that two Yankee professors would lie than that stones would fall from Heaven." He was in good company. No less august a body than the French Academy had in 1790 refused to accept a report that a meteorite had fallen in the province of Gascogne, in order not to encourage a 'superstition unworthy of these enlightened times'.

Had trouble recently trying to find something in the literature? Take comfort that the situation was hardly any better in Lord Rayleigh's day: "In science, by a fiction as remarkable as any to be found in law, what has once been published, even though it be in the Russian language, is spoken of as known, and it is too often forgotten that the rediscovery in the library may be a more difficult and uncertain process than the first discovery in the laboratory."

Which brings me to my New Year's message of good wishes: my ongoing statistics of the Astrophysical Journal reveal that we can all look forward to enjoying about 9000 pages of that journal in 1974. That is more than all the work published in the Ap. J. during the first seven years of the 1950's. But then, of course, Sidney van den Bergh only got his degree in 1956....

J.D.F.