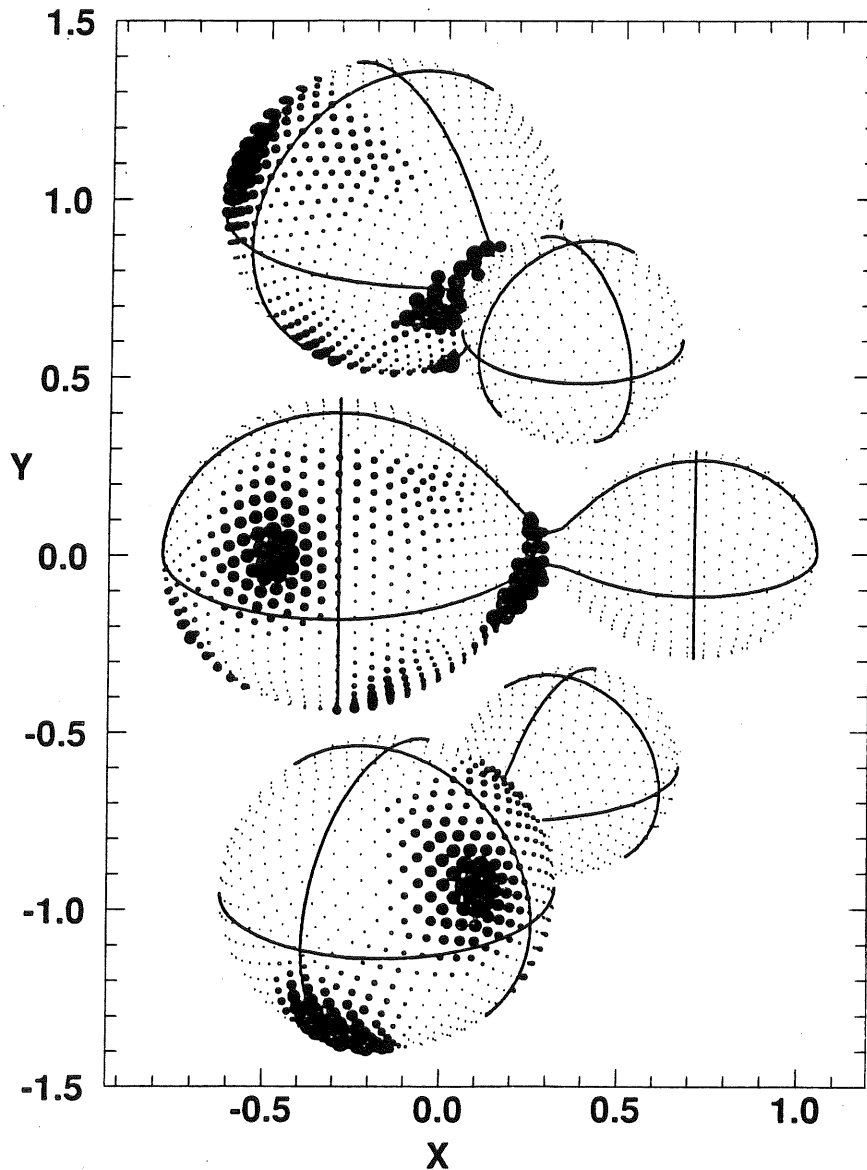


THE DAVID DUNLAP DOINGS

Vol. 23, No. 5 November 30, 1990



Surface Characteristics of VW Cep

FROM THE EDITOR

You know you're getting old when ... your former graduate students write letters about their grandchildren. I recently received an Australian newspaper cutting which showed a balding, white-haired Colin Keay [MSc 1965] in his University of Newcastle study declaiming the solution to a 200 year-old scientific mystery he's been working on for many years, to wit, how can it be that some people claim to actually hear the sound of a bolide while seeing it pass overhead? (Answer: the bolide generates very low frequency radio waves that can be converted to audible sound by suitable surroundings.) Since Helen Hogg knew of Dr Chant's long-standing interest in this and the allied case of sounds produced by aurorae, she wrote to inform Colin of that old work. Too late, as it turned out; Colin has a paper reviewing Chant's work coming out in the December JRASC. However, in his reply, Colin reports that he and wife Myra are doing well. Their elder daughter, Wendy, herself has a three-year-old daughter, Ilyan, while middle daughter, Lindsay, 28, is in charge of facilities at the Government Tax Office in Newcastle, and the younger daughter, Sue, 21, has just won one of the two most lucrative undergraduate scholarships in Australia and is specializing in geomorphology.

Just to clarify the chronology a bit: when Colin did his MSc here he was already a professor of physics in New Zealand. He was due to teach some astronomy, however, and gave up a sabbatical year to come here and learn the subject first. (Decent chap, Colin.) Anyway, see – I'm not *that* old!

Don Fernie

OUR COVER

Preliminary starspot distributions on the surface of VW Cephei using Maximum-Entropy Imaging with VRI photometry taken with the DDO twin photometers by Paul Hendry. Larger circles represent darker regions on the photosphere. Paul is completing his MSc under the supervision of Stefan Mochnacki.

COMINGS AND GOINGS

We welcome our newest faculty member, Simon Lilly, who arrived in early November from Hawaii to take up his new position.

CONGRATULATIONS

To readers of the DDD:

We would like to announce the birth of our second daughter, Jasmine Miranda.

Born at Hilo Hospital at 17:08 on October 26, 1990, weighing in at 10 pounds, 8.5 ounces (4.8 kilograms), 20.5 inches long (52 centimeters), after. Arrival date was 1 week late. Mother and daughter are fine and are coming home from the hospital today (10/28).

Best regards to everyone!

Cheers,

Rick (Crowe)

POTPOURRI

The department's proposed major revision of the graduate curriculum has been accepted by the Executive Committee of SGS. There are other hurdles to go, but with this one safely negotiated it's unlikely they will prove difficult. With luck, the new curriculum should be in place for next September.

Mid-October found workmen searching the roof of the DDO Administration Building for leaks. They were surprised to find a huge crack in one of the white domes, running from top to bottom, and were triumphantly preparing to rivet a large copper strip over it when discovered by Dave Earlam. Bad enough we have clouds and light pollution without having the shutters riveted together as well.

The temperature of Heaven can be rather accurately computed. Our authority is Isaiah 30:26, "Moreover, the light of the Moon shall be as the light of the Sun and the light of the Sun shall be sevenfold, as the light of seven days." Thus Heaven receives from the Moon as much radiation as we do from the Sun, and in addition 7×7 (49) times as much as the Earth does from the Sun, or 50 times in all. The light we receive from the Moon is one 1/10,000 of the light we receive from the Sun, so we can ignore that ... The radiation falling on Heaven will heat it to the point where the heat lost by radiation is just equal to the heat received by radiation, i.e., Heaven loses 50 times as much heat as the Earth by radiation. Using the Stefan-Boltzmann law for radiation, $(H/E)^4 = 50$, where E is the absolute temperature of the earth (300K), gives H as 798K (525C). The exact temperature of Hell cannot be computed ... [However] Revelations 21:8 says "But the fearful, and unbelieving ... shall have their part in the lake which burneth with fire and brimstone." A lake of molten brimstone means that its temperature must be at or below the boiling point, 444.6C. We have, then, that Heaven, at 525C is hotter than Hell at 445C.

– From "Applied Optics" vol. 11, A14, 1972 (Contributed by a friend of Bob Garrison.)

From Helen Hogg

Helen Hogg held a memorable Hogg family reunion on November 3 to welcome back from service in Saudi Arabia her grandson 1st Lt. Doug Hogg of the U.S. Marines. Doug, younger son of David and Carol Hogg of Charlottesville, Va., was flown over to Saudi Arabia August 14 from the Marine base at Camp Pendleton, near San Diego, California, via Germany, and back September 11 via Guam and Hawaii. While there he had the privilege of demonstrating his sophisticated desert vehicle to Astronaut/Senator John Glenn.

Attending the reunion were all three of Helen's children, all seven of her grandchildren, and spouses, and two of her great-grandchildren. Also present were the younger brother of the late Dr. Frank Hogg, physician Dr. John Hogg and his wife Ada of Arthur, Ont., and her niece Christine Mosser. Long distance attendee was grandson Graham MacDonald of Coquitlam, B.C.

GASA Gossip

Mike Fieldus

I seem to be receiving the benefits of a strange atmospheric phenomenon this winter, one that is specific to observing at DDO. I will call this phenomenon the "breaking in a new night assistant" effect. It is best described as the tendency for the first several winter runs of a new night assistant to be very clear, and very long. We have a new assistant at DDO, Mario Pedreros, who is returning to Toronto (where he did his Ph.D.) after a number of years in Chile and Halifax. As you have surmised by now, the weather this November turned uncharacteristically nice, as it will always do for the first observing runs of a new assistant, and poor Mario has had several back to back all nighters. As we are under a month away from the Winter Solstice, this makes for lots of work and with very little sleep in between. I say I have been a beneficiary from this effect, since I asked for my usual November observing time corrected for the typical Toronto winter weather (number of nights you need times 15), and surprise surprise I have actually been able to observe. In my joy, however, I still hear Mario mumbling in the background "I can't believe the nights will still be this long two months from now!".

Last month I was fortunate enough to travel to Munich in order to attend the ESO Workshop on Rapid Variability in OB Stars. This trip was very educational for me in several areas, not the least of which was the subtleties of the German language as used by Munich cab drivers. One evening after consuming several excellent German beers, the group I was touring the city with (Stepheson Yang, Ted Kennelly and Mike Wiggs) decided that it would be fun to visit a German nightclub, dance a bit, talk to some *fräuleins*, and try to do what the natives do (as opposed to the tourists). Stepheson explained our wishes to a local taxi driver, who got very excited and told us he knew exactly what we wanted. Fifteen minutes later, we ended up in a shady suburb on the doorstep of a brothel. Wow, I thought, we got it first time! And Jaymie Mathews wasn't even along to guide us! Well, our taxi driver was terribly disappointed in us when we finally managed to explain what we wanted, and for the rest of the trip Stepheson was most upset that we did not even go in. But just how do you expense that to the Reinhardt fund?

Happy Birthday to Omar. Omar is just trying to finish off his thesis, and is in the panic phase where what little sleep he allows himself is spoilt by worrying that his isn't working (actually, we have several students in this phase at the moment, and one who should be but isn't, right Barry?). Last night about 2:00am as I dropped by the main building for a refill of coffee during a long exposure, I found Omar asleep on his terminal. I must have accidentally awakened him (hee hee hee), because he suddenly looked at me and said "It is my birthday". So it must be true. There is a party for him on Friday, which I will tell you all about next issue.

Last Friday I received the most amazing news I have ever heard. As you know, Dimitar has sort of left us to take up a position at CfA in Boston. I say sort of, since he has not actually graduated yet and is spending the next few months commuting between Boston and Toronto. Yes, he is driving the steamer. That is the old car he bought the summer before last from Don Fernie for our trip to the Yukon. Since he bought it, the steamer has been to Inuvik, and back, Myrtle Beach, and back, Montreal several times, Washington, and Boston and back and back and back. So what is the amazing news? Dimitar took it into the Customs and Immigration folks in Boston last week, and it PASSED! He is now allowed to register it in the USA. It even passed the emission control regulations (although this was more due to Dimitar's pleading than the quality of the car). I can now rest easy knowing our transportation to Mexico for next summer's eclipse is secure.

Hey everybody, it is almost Christmas time. That means the countdown is coming up quickly. If you stop reading this newsletter right away, and rush out and prepare your submissions for the Droppings NOW, you can probably still get them in, even though the editors usually prepare the issue well in advance of publication. Send anything and everything to our President, Ian Short, who will pass it on to a friend of his who has agreed to be editor. We will have a contest for the best submission this year, with first prize being a bottle of my home made beer (and second prize is two bottles....)

LETTERS

Dear Chris,

...[Bill and I] seem to be permanently here in Germany, so we have sold our flat in Edinburgh and bought a house in a small town not far from Bonn. We moved in in July and are slowly recovering from the trauma of moving house. If you're ever in the area do let us know and come and see us.

Please pass on our greetings and best wishes to ... everyone downtown and at DDO.

Sincerely,

Vicki Sherwood
Am Rosenpfad 46
5350 Euskirchen-Kuchenheim

[You know Vicki (MSc 1967) has been gone a while when she addresses Christine as Chris. - ed.]

Don,

I have just read the latest issue of The DDO Doings.

A reliable memory is not one of my strong points, so I may be wrong about the following. I believe that it was John L. Schmitt who, as a postdoc at the DDO in 1968, identified BL Lac with the peculiar radio source, and not Francis Ahern. My apologies to Ahern if I am wrong.

Reading further into the latest issue of The DDO Doings, I came across Dave Turner's reference to a marital jinx at DDO. It seemed appropriate to send a counter example to encourage those of your students and staff who feel strong attractions to one-another: Joan and I are celebrating our 25th anniversary today.

Joan, who completed a B.Sc. in computing science here about 6 years ago – and received credit for courses taken at U. of T. 25+ years ago – now holds two half-time positions. She is a computer analyst in geophysics, working on problems in fluid dynamics and the recovery of oil from the oilsands; she is also a consultant with the Computing Sciences Department. Both of our daughters are in the first year of two-year college programs, the one in Business, the other in Graphic Arts.

Doug Hube

[Doug is quite right; my apologies to all concerned. The following appeared in the Doings of April 24, 1968: John Schmitt, through the kind of accident that, in the words of Newton, "has the habit of happening to great men", has been able to identify a known radio source with a known faint variable star. Details have been sent in a letter to Nature. John has left for Kitt Peak where he has arranged to use an hour or so of David DuPuy's assigned telescope time to investigate spectrographically the nature of the "star." - ed.]

Dear Don,

Good news from red squirrel land. One of the Appeal Court judges unexpectedly changed his decision and made it two-to-one in favour of lifting a temporary injunction against construction of the first two telescopes on Mt. Graham. That happened in late September, so the past two months have seen tree felling and site preparation for the 10-m Sub-Millimeter Telescope and for the Vatican Telescope (VATT). These preparations are almost complete now, thanks to record high temperatures, even for Arizona, during October and November. By the end of November the 14 foot deep foundation holes will be filled in with light material, not the original rocks, and the whole area "winterized" for the 10 feet (average) of snow expected. (Canadians would feel right at home on Mt. Graham.) Yes, the protesters against telescopes on Mt. Graham gave some annoyance in the early stages of the site clearing, but the media's interest in them rapidly waned while the recent freezing temperatures on the mountain have deterred them from camping. Even the red squirrels have been cooperating with the construction for the autumn midden count indicated between 250 and 300 squirrels, quite a change from the 150 or so counted last spring. We shall soon be exporting red squirrels to Canada.

Best wishes to everyone,

Chris Corbally

Dear Don,

I was delighted to receive the latest issue of Cassiopeia, sent directly to my new address here at the Institute for Astronomy. Our family relocated to Honolulu from the Big Island at the end of July, and I officially took up my position as Associate Director, Mauna Kea Division on August 8. The principal duties of the new job are management responsibility for University of Hawaii activities on Mauna Kea, including liaison with existing and proposed new facilities as well as infrastructure and long-range planning. My plate is full! There are a half dozen new projects at various stages plus many infrastructure items to attend to. I am off to Padova next week with Don Hall to discuss the Galileo project with Profs Barbieri, Setti and other Italian astronomers.

Our house in Waikoloa is listed for sale but not yet sold, so we are renting a house in Honolulu near Punahou school and about a mile from the Institute. Catherine, our oldest girl (16) wanted to complete high school on the Big Island, so she is continuing at Hawaii Preparatory Academy in Waimea as a boarder. Janet (13) and Linda (10) are in school in Honolulu. Marion has completed the Executive MBA program at UH over the past two years and is looking for a job where she can apply her newly-acquired business and financial skills.

I would be grateful if you would pass this update on to the editor of the Doings and let him/her know that I would like to continue on the mailing list at the new address:

Robert McLaren
Institute for Astronomy
2680 Woodlawn Drive
Honolulu HI 96822
U.S.A.

Aloha
Bob McLaren
October 8, 1990

[I'll make sure the editor hears of this, Bob. -Don]

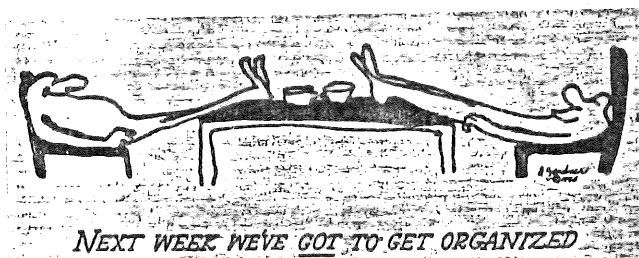
* * *

Don MacRae has noted the unusual signature of the University's new president. It reminds him, says Don, of a once-popular illustration about getting organized. Fortunately, there seems no connection; Rob Prichard certainly shows no signs of slothfulness!

Warm regards,



J. Robert S. Prichard



FROM THE DOINGS OF TWENTY YEARS AGO:

The GASA Gassers unite in one team some of the hottest hockey prospects of our era. Leading the forward charge is the feared front line of Fort, Dodd, and Captain Dubas, while leading the retreat is the indestructible defense of Hardenbergh, Hickok, and Ross. Two new novae have appeared in the lovely yet lethal form of Raymonde Verreault and in the powerful personage of Chris Aikman. In league competition so far the Gassers have scored two impressive victories without a setback. Since the squad is continually expanding its roster and since the opposition consists of whoever's on the ice when they get there, the Gassers should go all the way this season.

FROM THE DOINGS OF TEN YEARS AGO:

Bill Harris and I were the first Canadian observers who were given an opportunity to use the CFH telescope for their research... Even though the mirror support system still needs to be 'tweaked up' ... exposures produced 0.9 arcsec images, and the CFH telescope clearly showed itself to be a good sturdy telescope with excellent optics. Our only major complaint was that the prime focus cage turned out to be exceedingly uncomfortable. As a result, exposures of more than about two hours appear beyond the limit of human endurance....

Sidney van den Bergh

PAPERS SUBMITTED

PREPRINTS BY FACULTY AND STUDENTS RECEIVED IN THE ASTRONOMY LIBRARY

September 21 to November 21, 1990

Clement, C.M.; Kinman, T.D.; Suntzeff, N.B. Two double-mode RR Lyrae stars in the field. 6-Nov-1990. Preprint 90-1213

Clement, C.M.; Walker, I.R. A search for double-mode RR Lyrae stars in the globular clusters M80, M9, and NGC 2298. 6-Nov-1990. Preprint 90-1214

Ellingson, E.; Yee, H.K.C.; Green, R.F. Quasars and AGN in rich environments II. The evolution of radio-loud quasars. 19-Nov-1990. Preprint 90-1251

Fich, M.; Tremaine, S. The mass of the galaxy. 30-Oct-1990. Preprint 90-1185

Kaiser, N.; Peacock, J.A. Power spectrum analysis of one dimensional redshift surveys. 5-Oct-1990. Preprint 90-1113

Rouleau, F.; Martin, P.G. Shape and clustering effects on the optical properties of amorphous carbon. 12-Nov-1990. Preprint 90-1235