

# THE BANGS

Vol. 25, No. 2 March 31, 1992



AIPS: Then and Now recent photo: Sandra Scott

### COVER STORY

Ten years ago this spring the department acquired what Phil Kronberg described in the Doings as "the first fully equipped VLA post-processing terminal outside the U.S." Cabinet upon cabinet of the system occupied space on the eighth floor, where it was hooked into the VAX computers. There was an array processor, an International Imaging Systems (I2S) image computer, and "the biggest disk you can find" – a 675 Mb affair. It all cost over \$180,000 and was Phil's pride and joy.

Today, as our pictures show, the system is still Phil's pride and joy, but totally changed. All of the above have been replaced with a single Sun workstation on the 16th floor and the system could be accommodated on one desktop if necessary. Even so, we hear that it is in dire need of improvement ("... we've only got a paltry 2 Gb disk..."). To replace it all with something up to date may cost as much as \$30,000.

### COMINGS AND GOINGS

Bob Garrison presented colloquia at the University of Illinois and the University of Wisconsin on 3 and 5 March. The title was "Denizens of the Halo."

During the week of 16 March as part of the Shapley Lecture Series, sponsored by the AAS, Bob Garrison was guest lecturer at Augustana College, Camrose Alberta and Okanagan College, Kelowna/Penticton B.C., where he gave a series of about 10 lectures on various astronomical subjects. The idea of the Shapley series is to provide some contact with astronomers for small colleges with no astronomer on staff. The college contributes, but the AAS bears the brunt of the travel expenses.

Marlene Cummins attended the Ontario College and University Library Association winter conference, February 20-21. One of the hot topics at this conference was "Retrenchment in academic libraries". She also attended the Faculty of Information and Library Science Research Forum, February 28 where she discovered lots of fun new ways to spend money.

### CONGRATULATIONS

Douglas Gies and Rebecca Bays are pleased to announce the birth of their daughter Emma Claire Gies, in Atlanta on January 31, 1992. After an initial fling with a night observer's schedule, she's now sleeping through the night, and her parents are delighted.

Cheers, Gis (Doug Gies: gies@chara.gsu.edu)

Nancy Evans has been appointed associate director of the Institute for Space and Terrestrial Science's Space Astrophysics Laboratory at York University.

### **POTPOURRI**

The tea-lounge having been publicly (DDD 25, No. 1, p. 5) pronounced a major success, on Thursday Mar. 12 university plumbers installed a necessary sink and running water along the south wall of Room 1422. On Friday the thirteenth right at 5:30 PM - and don't things go wrong, if they are going to, always on the weekend? - water began to cascade to the floor in the rooms below. Waste-baskets and the cleaners' mop bucket were put in place.

Coffee and tea can now be obtained at cut-rate bargain- basement prices in Rooms 1318 and 1301 from local entrepreneurs while supplies last. (Adv't)

Phil Kronberg, along with co-authors Judith Perry and Ed Zukowski, have had some of their research work reported in the March 14 issue of Science News. They have, says the Cambridge press release, "for the first time measured the strength and structure of the magnetic field in a remote spiral galaxy. Unexpectedly, the field is very similar to that in our own Milky Way, posing new questions about how fields in galaxies come into being in the first place."

### REVISIONIST'S CORNER

### AST100 Follies

Contributors: AST100 students

Factoid: The Earth moves eastward in its rotation, and thus during the day, the stars appear to move from the east to the west while, at night, they move from the west to the east.

Q.: Discuss, with reference to specific planets, the differences between the terrestrial and the jovian planets.

A.(in its entirety): Terrestrial planets are planets with actual "land space" on them, i.e. there is ground on which to tread (e.g. Mars). Jovian planets are planets on which no land mass is present; the entire planet is consisted (sic) of bodies of gases (e.g. Saturn, Neptune, Uranus).

Q.: Stars in star clusters share three properties which make the study of clusters very important in astronomy. State these properties.

A.: Stars in star clusters: (i) can be treated like a single star, (ii) are great at parties!!! (iii) can drink a lot of beer!!!

Q.: Why do we infer that a star is a giant from its place on the HR diagram?

A.: We infer that a star is a giant from its place on the HR diagram because the typical giants are categorized to fit in that part of the graph.

A.: You would infer that a star is a giant from its place on the HR diagram by its location.

Q.: (We're not sure.)

A.: The Dopler (sic) effect, since it is blue, means that the star is small and therefore it must have a high temperature, while a red spectrum indicates the star is far away and that it therefore must be very big to be visible since its temperature is not very high.

## Paul Hendry's List of Observing Targets (Otherwise Known as 'Funny Stars') Contributor: Paul Hendry

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VW Car folksvagan
HO Tel
                                             RV Crv I just saw an article, "R.V. curve of
MO Tel
                                             RV Crv"
TV Cet (T.V. Set)
                                             PY Per
EZ Sex
                                             RY Per
NO Sex
                                             HI Mon
TV Sex
                                             LO And
S And
                                             OX Crt
W And
                                             WZ And or WZ Ind
GL And
                                             MU Cas (yech!)
ST And
                                             CN Nor (CNN or what?)
U Lac (You don't have something)
                                             LU Cas (star of the home planet of the Ewoks)
HI Ser (Hi, sir.)
                                             S Lac
NO Ser
                                             S Ara
W Ind
                                             ST Ara
BL Ind
                                             DR Leo
IM Oph (I'm leaving.)
                                             CC Cep (silent e)
U Boo B (companion to U Boo) You booby.
                                             TU Dor
IM Sex C (Sextans has a lot of this kind of
                                             FU Ori
star)
V666 Pyx (just sounds a bit strange)
                                             FU Oph
                                             CU Oph
OO Boo (also sounds a bit strange, looks
                                             CU And ER UMi DO Col See you and, er,
strange too)
                                             umm, I do call.
GM Car (lemon)
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#### **LETTERS**

Dear Don,

In the last issue of the Doings Ian Halliday mentions Bob Baglow and Bill Hossack. It was Bill, the scientific instrumentalist, who helped put together the equipment that Bob used in his pioneering photoelectric observations at DDO. He used the 19-inch telescope in the south dome on the roof of the Administration Building.

Unfortunately details of the circuits are lacking, but the techniques of the day were rather primitive. In some respects, according to legend, they differed very markedly from those used in present day practice. The high voltage supply was not in the 19-inch dome but sat on a shelf down in the Ladies Wash Room, permanently turned on. Presumably this was for greater thermal stability; the high voltage was fed to the dome via a conduit. Moreover, it seems, the series of regulator tubes which were employed in the circuit resulted in that chassis floating at a potential of nearly 1000 volts negative in relation to nearby objects.

One always had to be rather careful in the vicinity.

Don MacRae, with help from Frank Hawker

Mike Fieldus passes on this (edited) e-mail from Mark Neeser:

Yesterday I signed the lease on my new apartment. It is located on the western side of a hill with a balcony view over the city of Heidelberg. I am holding a "moving-in, thank God I haven't killed anyone yet" party, and of course you and the entire department are invited. It's BYOAT – bring your own airline ticket.

I went to the Dekanat (sort of an SGS registrar/councillor, advisor/lucky-I-didn't-just-up-and-kill-'em kinda guy) this morning to find out all the requisites I need in order to get a PhD. I will probably have to take a few courses, give some talks, and complete a thesis. As far as a General Exam is concerned, yes, I have to do one of those as well. It occurs at the very end ... makes screwing it up all that more interesting ... and must include five faculty members. One of this happy collection of examiners must be from an outside department. He/she will then be responsible for asking me questions on entirely unrelated topics. Ohhhhhh ... Ahhhh!

I think I'm going to do the heroic thing now and go and have supper....

GASA Gossip

Mike Fieldus

First, this week's lounge update. Renovations to the new faculty/student lounge (Room 1422) are well underway. A new cabinet and counter were put in over the last two weeks (with most of the work taking place on Wednesday afternoons, during the colloquium coffee/tea. Dave Earlam has discovered we have donuts, I guess).

Today, March 16th, marks the beginning of the annual office floor waxing in the department; a festival that can last for several days. I do not know how far this event goes back in the history of the department, but in recent years it has gained a certain notoriety from its rather random appearance and strange happenings. If you recall from a previous issue of the Doings, last year the gentlemen performing the work unplugged Vela in order to plug in their waxing machines (if that happens this year, you won't be able to read this column since I will miss the deadline). This year started off in the usual manner. Since the event is not held at exactly the same time each year, nobody is sure when it will arrive. Today, I was chatting with several people in my office when Ian Short came in to tell me that our office would be done tomorrow. How did he know,

I asked. Oh, came the reply, they have started upstairs already. Suddenly all the denizens of the 14th floor with whom I was talking flew upstairs, to discover all their worldly possessions being wheeled into the hall. Had they been minutes later, the waxing would have started and all access to the offices lost for the night, including overcoats and boots. You see, we have two groups at work here. Somewhere deep in the administration of the university is the body which decides when these things should be scheduled, and to whom the people who do the work are responsible. Lets call them group A. On the other hand, we have us, the people who are actually affected by the work. We will be group B. I know nothing about group A, but from the habits of those who perform the tasks they set, I can guess at some of their characteristics. Namely, they work civil servant hours. That is to say, 9:00am till 5:00 pm (okay, 4:30). And, they believe that this is normal. So, if they have a task that requires an empty office, they simply set it for after 5:00, fully expecting the building to be completely empty by that time. Now, we know a lot about group B. It is made up of the department; faculty, students, administration, post docs, and all those whom we are not too sure what they do (you may choose the most appropriate subdivision for yourself). Amongst the student subdivision, there is nothing special about the 5:00 hour (there might be something special about the 9:00 am hour, nobody has attempted to find out). In fact, we have some students who don't even show up until after that. Faculty have been seen here at all hours, and even Joan has been know to work past 8:00pm on many occasions. The net result of this situation is a lot of friction between those who would perform the work and those who are directly affected by it, friction to the point that physical violence has even been threatened (apparently someone was unhappy with Mark Neeser just walking over his waxed floor. At least, that's Mark's story). So this year, given a whole day warning (due to the fact the work is starting on a different floor), I am avoiding all problems by going to a movie. Do they have 5 o'clock showings?

This week is special for two other reasons. We had our first "International Lunch" today. This is a lunch where whoever wants to participate brings in some food from their country of origin, and we all share. Today was a great success, except nobody was exactly sure how much food to bring in so everyone brought enough for a complete meal for the whole group. Now none of us need to eat again until the next lunch, sometime next month! Of course, in keeping with the new trend of lounge work, it was painted today and we had to meet in the old 15th floor lounge!

The other event of note is the re-establishment of the G2001 course. The first meeting of the new section was held last Wednesday, and was a great success with over 10 participants. The department had realized years ago how dangerous it is for the students to participate in this course, and effectively stopped it by purchasing our dinner every Wednesday evening instead. Finally we have overcome this hurdle by agreeing to meet after dinner. Please note that this course is not restricted to students, but faculty, post docs, administrators, and those whom we are not sure what they do are welcome to attend. The final mark in the course is based entirely on attendance. Classes are generally held in the GSU pub, and can go on all night given the chance.

### LIBRARY NEWS

### Serials Database Project Explained

If you have used the public computer in the library recently, you will have noticed that we have a new database in our family which already includes the preprints, the catalogue, book reviews and items-on-order.

The building of this database was (as were all the others) an exciting project which employed as much of our thoughts and efforts as we could spare from our "everyday work" for several months.

The data structure was custom designed to accommodate the special circumstances of our library such as our three locations, various sources of funding and our excellent, distinctive, collection of observatory publications. The data structure also allows for payment tracking.

To use this raw data effectively, I designed several report formats for use as a printout at DDO, on the "public" library computer, etc.

Unlike for some of our other database conversion projects, the serials were available in a machine readable file. This fairly dirty and incomplete file was massaged to enable batch loading into INMAGIC, our database system. I also designed a simple report to "self-test" various aspects of the database. For example, every record must have holdings information, so I designed a report which printed out only the ID number and the holdings. Those IDs which had no holdings (or even some other data, e.g. the location) in the holdings field were manually checked. This proved a very effective method of "proofreading" the data-uncovering errors in other parts of the record (and in other records) too- i.e. a mushroom effect.

Using the capabilities of the software combined with my data structure I can produce lists such as journals that are at DDO but not at DA, journals that are paid for by the department vs. UTL, journals that are only at DDO AND paid for by the department etc.

Of course, the obvious advantage of searching for a title key word rather than the first word in the title is one of the primary advantages of the database. But a very valuable benefit that we have derived already is the ability to produce a list of missing items/gaps against which we can check duplicates lists sent to us by other libraries. We have already filled in many missing issues, especially at DDO.

### PAPERS SUBMITTED

### PREPRINTS BY FACULTY AND STUDENTS RECEIVED IN THE ASTRONOMY LIBRARY

### January 29 to March 23 1992

- Clement, C.M.; Jankulak, M.; Simon, N.R., An RR Lyrae period shift in terms of the fourier parameter phi 31 David Dunlap Observatory, University of Toronto, 92-0395 4-Mar-1992.
- Hendry, P.D.; Mochnacki, S.W.; Cameron, A.C., Photometric imaging of VW Cephei David Dunlap Observatory, University of Toronto, 92-0411 9-Mar-1992.
- Ivans, I.; Percy, J.R.; Zorgdrager, I., Astronomy and astrophysics in your classroom David Dunlap Observatory, University of Toronto, 92-0479 19-Mar-1992.
- Kamper, K.W., Photographic measures of double stars from Lick Observatory plates David Dunlap Observatory, University of Toronto, 92-0251 7-Feb-1992.
- Percy, J.R., Supergiant variables: recent observational results David Dunlap Observatory, University of Toronto, 92-0408 6-Mar-1992.
- Percy, J.R.; Mattei, J.A., The AAVSO database of variable star observations David Dunlap Observatory, University of Toronto, 92-0464 12-Mar-1992.
- Percy, J.R.; Zsoldos, E., Photometry of yellow semiregular variables: HR 8752 (=V509 Cassiopeiae) David Dunlap Observatory, University of Toronto, 92-0290 19-Feb-1992.
- Perry, J.J.; Watson, A.M.; Kronberg, P.P., Magnetic field strengths in high redshift galaxies: is the galactic dynamo dead? David Dunlap Observatory, University of Toronto, 92-0321 25-Feb-1992.