

Volume 44 Number 5

Friday, July 31, 1987

math NEWS



MathSoc presents an **END of TERM BLOWOUT!**
with

today!

THE PURSUIT OF HAPPINESS

at Fed Hall, July 31, 8:00pm
— performance begins at 9:00pm —

\$6.00 — Feds

\$8.00 — Non-Feds

and special guest

Total Stranger

—Hymie—

LookAhead

Fed Flicks	
July 31-Aug 2	Lethal Weapon
MathSoc	
July 31	End of Term Pub, Club 750
mathNEWS	
Aug 14	dwarf writes his last exam

Endlines

The term is over, and my time at Waterloo is over. I'll take this edition of Edlines to say farewell, and not bother trying to comment on anything else.

Thanks to all who helped me out in their various and unknown (to them) ways. Your patience, support and understanding is much appreciated. To those whom I have had fun with, inside and outside of various campus organisations, you have made Waterloo worthwhile. It is the people I've been associated with at Waterloo that I will remember most.

For the University, I thank you for being something to love and to hate at the same time. I don't like the direction you seem to be going in. Pursuing excellence in one small area is costing you the excellence you have had in several other areas. Don't cut off the things that you offer to let us learn to be fully human individuals, not calculating clones. I did like the opportunity you provided me to discover who I was, and don't want that taken away from those that follow me here.

To my faithful staff and colleagues at mathNEWS I give thanks again for their patience and understanding. Your articles and ideas have made this paper. Thanks for letting me be a co-ordinator for them all. Five years ago I could list all of the people to thank; this year I cannot. You know who you are. Hold to the standards that you have set in the past three months and push them even higher in the future. Keep making mathNEWS the best student publication on campus.

Now as I prepare to leave Waterloo with my degree (grades permitting), I must say farewell on behalf of all of my alter egos. Dwarf, CASEY, one-quarter of MGM/UA, J. Chris, Weird Jim Jordankovic and one of the many Chucklers all say good-bye. I hope that you have enjoyed us. I wish you all much success in what you do.

W. Jim Jordan
Out-Going Editor

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Editor: W. Jim Jordan

Prez Sez

Since this is my last term on campus (other than a few night courses in 4B) I thought I'd pass on some reflections, wisdoms and opinions.

My Frustrations: The quality of a BMath is deteriorating. With poor funding and now no computer fee our faculty is finding it tough to cut "fat" from an already "lean" operation. The latest example came in my mailbox last week: 17% of the mathematics serials subscribed to by the EMS Library have to be cut. Our once excellent library has gone from a net lender in inter-university library loan to a net borrower in the last year. Ironically, the Fourth Decade Plan for Waterloo just passed by the Senate states "...that the quality of academic programs depends very much on the quality of the Library...".

My most glaring example of poor quality are CS 330, CS 432, and CS 438. You would think that upon reaching your third and fourth year your classes would get smaller and you would get some personal attention from your professors. Unfortunately the professors in these courses are still faced with Math 130A size lectures. To make matters worse, all three of these courses have overlap in their material, major overlap! As a university student I find it frustrating being taught the same thing three times, especially when all three courses are basically required for me to graduate (two are required, one is on a short list of options).

My Hopes: The deterioration of a BMath is arrested through one of the following options (or combination thereof):

- 1) Increased government funding. Transfer payments from the Federal Government to Ontario for Universities have never been fully passed on to our institutions.
- 2) Increase tuition levels set by the provincial government.
- 3) Since the computer fee is illegal introduce a voluntary "Quality of Education" fee like the one that EngSoc is considering.

Make sure students' schedules allow time for proper meals. Eating properly is very important; having classes from 10:30 to 2:30 or 3:30 to 8:30 like I had this term screws up your bodily functions and does not lend itself to good health.

On a more positive rational note, I am very proud of the BMath I will (hopefully) receive next spring. My almost 5 years at this university have been very rewarding. The once-shy computer geek of high school has learned many things, the most important being that most people don't bite if you smile a lot.

MathSoc. What can I say guys but thank-you. My job this summer was made easy by the excellent people that devote many hours to the cause. You know who you are, so pat yourself on the back. To violate the rule of never listing names of people to thank, I will list one: Paul Obeda.

continued on page 3

V-Prez Sezz

Well folks, it's the last day of classes and in 15 days (or less), we'll all be finished another term. And boy, what a term!

I think we broke a record with T-Shirt sales—over 500 served! (Almost as good as McDonald's!) That's 36% of all Mathies on campus. What support! Watch out for a new shirt next winter.

And this one's for John... End of term pub with Pursuit of Happiness and Total Stranger is taking place tonight at Club 750 (Fed Hall). And just in case you don't know, the Bombshelter will be closed as of 6:00 today, so come out and enjoy yourself at the *last* pub of the term. Where else can you enjoy two great bands for the price of one? So let's see the same spirit (or more) that we saw with the T-shirts!

It's been a great term being VP. John and Sue have done a great job keeping the summer busy; Brian's been occupying himself being SAC representative, speaker (and boy, he "speaks" a lot), and many other various things; Paul's been running around keeping all our finances straight; and Bill's been, well... being the Bill we all know and love. (A Bay Street boy!)

Good luck on exams, *but* before you all go into study mode ... we'll see you at the pub tonight!

Lisa

P.S. Thanx to my roomies Suzanne and John... Suzanne who did typing for me and John for lending me his car almost every day of the term. Oh yes, and thanx to W.B. for just being there.

continued from page 2

Between his work on SAC, mathNEWS, Treasurer of Math-Soc, etc. I only hope his schoolwork has not suffered terribly. Paul, your energy and commitment is a rare commodity that I have never seen equalled.

To close, best of luck on your exams, I hope I can survive mine. I'll see you all at the the EOT at Fed Hall with Pursuit of Happiness.

Bye, Waterloo, even now I don't think I realize how much I'll miss you.

Bill Tilford

P.S. Germ says: "Relax, we did it!"

Another issue, another masthead. At least this week we knew we wouldn't have access to the Imagen laser printer, and so could prepare ourselves to use much larger photo-reduced Printronix output. Unfortunately, the demand for the Printronix is a lot heavier than it is for the DCS Imagen... in the time it takes to preview and edit a file, twenty other files get sent to the Printronix before us. Oh, well. I don't care anymore; this is my last issue ever if I pass my CS courses.

Thanks to tonight's production crew and contributors: Andrew Tron, Bill Tilford, Brett Martin, Rob Harnden, Frank Letniowski, Brian Capstick, Lisa Falco, Rico Mariani, Stephan Mueller, Edwin Hoogerbeets, John Herbert, Paul Obeda, Camille Goudeseune, SteVe Rapaport, Debbie Knight, Stuart Hodgins and me. Major players this term were Frank, Paul, Andrew, Camille, Rob, John, Brian, Bill, Brett, Rico, Stephen Smith and me. The nice people at Graphic Services always managed to find a spot to fit us in to their busy schedules, and DCS, well, much as we like to complain, they *do* provide our Unix system, so we owe them thanks, too.

Get your subscriptions. Even though I'm graduating, I've got one. Kerry, I never did get a backrub from you this term. Come to think of it, I haven't gotten a backrub from *anyone* this term. Maybe I'll have more success in Ottawa...

Best wishes on your exams, and have a wonderful break before the work term. I'll miss you all, but I can't say just how much. -wjj

Summer Social Says

As the sun sets, we bid adieu to another wonderful summer term at UW. In trying to make this term something to remember, we, your humble social directors, organised two roadtrips (to a Jays game and to Grand Bend), as well as another Infamous Toga Wine+Cheese. The final events that we have to offer for your entertainment are the End of Term Pub and Oktoberfest. The EOT Pub will be at Fed Hall *tonight*. That's right, tonight. Since the Bombshelter will be closing at 6:00 pm today for the rest of the term, Fed Hall will be *the* place to be. Tickets will (hopefully) still be available for those of you who are still procrastinating. By the way, in case you have been able to block out the advertisements, the pub will have *Total Stranger* opening at 9:00 pm for *The Pursuit of Happiness*, who will go on about 11:30 pm. Tickets are \$6.00 for Feds, \$8.00 for others, and are available at MathSoc, the Fed Office, and at Fed Hall.

Now, what's this about Oktoberfest? Well, since most of us will be working next term, anyone who plans to return to K-W for Oktoberfest will be able to purchase tickets to Bingeman Park's Oktoberfestivities on Thursday, October 15. We are considering booking a bus if there seems to be a demand, so tell your friendly MathSoc office worker if you would like to see one.

And now, as the curtain falls, we say goodnight, and hope everyone was able to get the most out of their summer. And if not, you will still have a chance to make up for lost time tonight at Fed Hall. See you there.

Sue & John
Summer Social Directors

In the SAC

This term has been a busy one in the SAC. Apart from our continued efforts to streamline our operations and improve visibility on campus we have taken the time to improve communications between SAC and the department. In addition we also took the time to rewrite our terms of reference.

Things that are still on the books include the computerisation of services and the co-op student handbook. All students will be receiving the handbook either in September or January. If you lose it or prefer to give it away then it'll cost you to get another. And at bookstore prices! The handbook is a collection of all publications co-op has and a little bit more.

Well, that about does it for a term. How about some comments from the rest of the crowd? John: "Come to my pub at Fed Hall, Pursuit of Happiness *and* Total Stranger." Jim: "Look closely at what goes on around you and change it if you don't like it." Paul: "Just give me a wake-up call at 10:30." Brian: "And you wonder why I do the writing for this thing?" Have a good work term, folks.

Brian, Jim, John and Paul
Your SAC Representatives

“Prof”

One more time, the Original Waterloo Prof Quotes.
Brewed & bottled in Canada under licence from... a poet.
(Think about it.)

“I never have to remember that formula; I don't have to write the final exam.”

Peter Hoffman, MATH 234b

“I never thought I'd get this far in this course. I just ignored you and kept on going.”

Mike A. McKiernan, AM 362

“I noticed I was quoted in your mathematics newspaper... if the person who submitted that would step forward, I will give you your 'F' right now.”

J. McCutcheon, BUS 121

“Recursion is like looping, only wimpier.”

F.D. Boswell, CS 240

“... now what was I lying about?”

Prof. Rogers, Math 230B

“And then insert the element into my S.”

Michel Devine, CS 340

“This is not a democracy. Where have you been all term? I'm the supreme commander! Okay, it can be due Monday.”

John Baker, MATH 234a

“This is what the wave looks like. High there! High there! High there! High there! ...”

John Vanderkooy, PHYS 122

“These strike fear into even the worst students... uh,... uh, the best, I mean.”

John Vanderkooy, PHYS 122

“So you stop and you take a fix.”

John Baker, PMATH 351a

“Read the fine print. Shake well before using.”

George E. Cross, PMATH 352

“... and then I'll make the blackboard disappear.”

George E. Cross, PMATH 352

“This is true by Cantor's second diagonal argument in D major.”

Peter Hoffman, MATH 234b

“You go to the party, you buy a drink, meet v_0 , meet v_1 , ... eventually you meet v_n and maybe you get lucky.”

Michel Devine, CS 340

“You have a large number of assignments due now? Six? Six is finite.”

B.I. Henry, PHYS 263

Book Review

In Conquest Born

C.S. Friedman

At last, an author who delivers what Frank Herbert only promised (and promised, and promised...). For those who were always looking for all the involved subplots that Dune hinted were coming, here they are in C.S. Friedman's first book, *In Conquest Born*.

The plot begins simply, with two empires that have warred since time immemorial, one a Sparta-like warrior society, the other a group of innocent pacifists (who fight only by necessity, of course). Two protagonists emerge, one from each empire, each with a deadly (and well-justified) personal grudge against the other.

But life never turns out that simple. This book has no “good guys”. As we learn more of the two societies, both begin to look equally good, and equally repulsive. The main characters are both somewhat despicable, yet we cheer for both of them throughout.

The protagonists fight their way to positions of military power in their respective empires, and eventually their personal war overshadows the political war. Their net of intrigue draws in people, societies, and eventually planets, warping or destroying all it touches. The book builds to a climactic confrontation with an unexpected ending.

Things to quote on the cover of the next edition: Friedman has... created an impressively rich universe, and a well-paced, original [story]. Highly recommended.

A few insider's notes: The publisher, Donald A. Wollheim, was so impressed with this book that he mailed a complimentary copy to all the Nebula award judges and sprang for a dual Michael Whelan wraparound cover. Whelan himself, the hottest paperback cover artist in existence, was unable to stop reading the book after his usual first few chapters, and found himself finishing it. The author has promised (again, seemingly to show up Frank Herbert) that there will be no sequel. These things are true: I know the author.

Hamlet's Father's Ghost

CSC Flash!

Hear Ye, Hear Ye oh friends of the CSC. This term's exec wishes to thank you one and all for your time and company. I think we set a record for office time and consulting this term. Let's hope we can keep it up. At least we're in the black!

Good luck on exams...

-Rico (that CS/EEE guy)

New MFCF Policy

From: Lyn Williams,
Executive Assistant,
Faculty of Mathematics

July 9, 1987

In implementing the policies outlined below the Faculty has kept as its paramount consideration the need to protect undergraduate student access to up-to-date computing facilities. However, the cancellation of the computer enhancement fee has had a negative impact on this Faculty's budget for computing and some limits must be imposed in order to ameliorate the detrimental effects.

The procedures outlined below have been approved by the Student/Faculty Liaison Committee which includes representation from the Math Society Executive. With regard to item 5, the Faculty has determined to assist students in the retention of needed files by donating a reconditioned IBM PC to the Math Society so that individual arrangements for information retrieval and data storage can be made through a file copying service to be offered by the Math Society.

1. A limit will be placed on CPU time for each course account. This limit is set in such a way that all students will have more than enough CPU resource to complete their assignments. Any requests for additional CPU time must be submitted by the instructor.
2. Course accounts on Unix (Vax, microVax or Sun) will no longer be allocated 50 free pages of laser printer output. Students may purchase laser printer output at the standard University-established rate. As usual, any such purchase must be pre-paid.
3. Users of course accounts will not be permitted to send electronic mail messages to locations outside the university or post news items to non-local news-groups.
4. No tape jobs will be performed for course accounts.
5. Requests for restoration of files after a course account has been deleted (e.g., at end of term) will normally not be granted.
6. On Saturdays, operators will only be available from noon to 10:00 PM (currently the hours are from 8 AM to midnight). Note: The new hours will be implemented in Spring 1987.

In addition, the Mathematics Faculty will not provide free floppy disks.

New MFCF Policy: A review of possible effects

Elsewhere in this issue is a release of the new MFCF policies which endeavour to save the faculty computing dollars. The keynote in all of these changes was to try to be as frugal as possible with our resources while not affecting the students' ability to do their assignments. In some sense the Committee has been successful, in that the changes should not impede a student from doing their assignments but taking a more liberal view they are not. Students do not use MFCF resources strictly for the intended course work. Rather, the local computing facilities are used as a tool which can be applied and used effectively in many of their courses and in extra-curricular work. What follows is a "blow by blow" list of the cut that was made and the effect on the environment.

1. Imposing of a CPU limit—This is no doubt the most serious of all the cutbacks because it essentially forbids doing any work that the course instructor didn't see as part of the assignments and therefore didn't allocate any CPU time for. What does this mean to you? Well, what if you want to use your account to enter that English essay? You're probably out of luck because after doing your assignment you don't have enough \$\$ left. Or maybe after having had Maple forced upon you for 2 years you finally see a good use for it in C&O or Applied Math but... you can't afford the dollars and it's "not required for the course". Want to enter the CSC Othello tournament? I hope you have your own computer... I shudder to think how many CPU hours I spent running Othello programs last term.

Now having said that, let's see how this is going to save MFCF money. Well, we all know that computers don't really cost more to run if they're in use rather than idle so it seems that their overhead would remain rather constant. Further, by its nature "non-course" work happens when there is no course work being done (e.g., nobody tries to type in an essay when they know that the system is being used by a zillion CS 354 students, unless they are very foolish). This means that non-course work doesn't really use resources that could be being used by some student doing "real work".

If you then consider that MFCF is going to have to spend money to get this sort of accounting in place, it seems to me that the dollar saving would be pretty minimal.

2. No free 50 laser printer pages—Well, I doubt if more than half the students actually use these freebies but assuming that they did, it would only cost around \$1000 to print them all off. The laser printers have to exist and be maintained independent of whether or not MFCF gives free pages so cutting the pages wouldn't help those costs very much. Furthermore the 50 free pages are just a drop in the bucket when considered against the articles, theses, and manuals that the faculty and grad students use the printers for.

Is it worthwhile? Well maybe so. It will still be possible to buy laser pages for 15 cents a page (like always) so this really won't be much of an inconvenience but then it won't save much money either.

continued from page 5

3. No electronic mail to outside sites, no posting news to outside sites—This one is painful. The technical newsgroups that are available contain some of the most up to date information available anywhere and are invaluable for exchange of information/ideas. You'll notice that the restriction is only to "posting" news but you'll also notice that I said "exchange" of ideas. If everyone stops posting then we won't get much information going into these forums.

Cost is a real issue in this category especially. Getting news into our site costs MFCF real money, *lots* of real money (many people are blissfully ignorant of this), so we might think this would be a place to make cuts but then consider this. How much money do we save if we don't allow students to post? Answer: not much. Waterloo relays about 1 megabyte of data daily! We relay the combined output of all of the other thousand or so sites that are part of USENET. In comparison to this the local students create very little output so our communication costs wouldn't be affected much either way. But there are other costs involved as well (which I don't fully understand); software maintenance no doubt figures heavily in the equations so are we really going to save much money by eliminating this? Well... maybe. Maybe not.

Electronic mail is the other issue under this point, and it is much harder to defend. The cost of sending a "hello" message from here to some other site (potentially in Europe or Australia) can be ridiculous. Further, the service provided is often abused by people who request large files to be transmitted by file servers across the continent. But nevertheless the facility is used responsibly by more than just a few people. Removing the service entirely is not the right answer. Electronic mail should be billed on an "amount used" basis (like laser pages) as this is essentially how the outside world bills MFCF. Unfortunately doing such billing is a non-trivial problem. At least this one can be backed up by dollars and cents.

4. No tape jobs for course accounts—I dare say that hardly any students use this facility so the dollar savings would be pretty slim. But nonetheless, tape jobs mean operator time and that costs money. So if you want a special tape job performed it would be reasonable to pay for it. This makes a lot more sense than prohibiting them altogether. You never know when you might need to do a tape job for some reason.

5. Request for file restoration from deleted accounts normally not granted—MFCF has never been particularly polite about the way accounts are deleted but this is usually not a problem. Basically the same arguments as #4 apply here. I don't see this happening very much.

6. Change of production hours on Saturdays—This has already been done and it doesn't seem to have caused any problems so if it's saving money, great!

This article is already far too long but I will add this before I finish. The above procedures were approved near the end of *last* term by the Student/Faculty Liaison Committee. I only heard about the proposal two weeks ago. Furthermore, only one student attended that meeting; there are apparently seats for six students and five faculty. What happened?

Disclaimer: The above article was generated by an artificially intelligent VT240 impersonating the CSC President. No claim about the accuracy of any of the statements is made at this time as the author feels that there are still "lotsa bugs".

Rico Mariani
President, Computer Science Club

The All-New Microcomputer Information Centre

One fine Tuesday afternoon, after a gruelling day in the Maple lab, I took it upon me to visit the small room on the second floor labeled (you guessed it) Microcomputer Information Center. It is located directly adjacent to the printer room for the CMS terminals, for easy access to the average user. The room was small, maybe a bit crowded, but it was filled with all manner of computers from various sources and that delighted this mathie to no end. A closer look revealed price tags on each. An even greater delight overcame me when I saw them. Drastic reductions on all computers abounded! The Mac II's had four digit discounts! I was suitably impressed—until I saw the net price.

Unfortunately, these machines were out of reach of the average first year student and would take at least three work terms to collect the necessary capital to buy. This was no fault of the center that these machines are so expensive, but the lower end machines were still over \$2000. But, if you have the money (read: you are in third year or higher), this would be a veritable haven.

On display were Apple Mac's with their impressive colour graphics, their windowing operating systems and the mice. Also available were Olivettis, Zeniths and IBM's new machine, the PS/2. The PS/2 had speed. And I mean *speed*. Speed enough to blow an old style PC or clone. The Olivettis and Zeniths were these old style clone AT's, still running DOS 3.x and costing a pretty penny. Unfortunately, I have the feeling that the new IBM boxes are only slightly obsolete as opposing to whoppingly so, but will still become the new standard small business machine. The older PC's are already starting to drop in price, as can be seen at the computer shop in the mall by Reuben & Wong's. What I did notice is that there was a serious lack of competition for the Apples, notably the Amiga and the Atari ST. The Amiga would easily fit in the price range of the other computers and would be of the new breed of 68000 based machines which mean greater speed and power. Also, there were no small sized micro-micros, or dippy micros, as Kelly Booth would put it, which would be available for quick and dirty jobs. My roommate still uses his Commodore 64 for cheap word processing as well as games.

If you do have the money, however, I would recommend taking a look at what they are selling. The relative price is certainly enticing enough. The room (MC 2015) is open from 11:30 to 15:00 on weekdays, and is open to anyone.

Depthot

But Seriously, Folks

Re: Beauty Contests, Striptease Dancers, etc.

Whereas beauty contests, campus queen contests, female slave auctions, strip tease dancers, topless go-go dancers and the like are degrading to women; and whereas such spectacles perpetuate the oppression of women;

Therefore the Federation of Students shall never sponsor directly, or indirectly through any group obtaining funds or recognition through the Federation, any and all such activities.

This does not indicate, however, any desire on the part of the Federation to restrict the dress or undress of anyone while at the university as a student, staff member or faculty, guest or entertainer.

Students' Council, November 24, 1969
(rescinded by referendum, November 4, 1971)

Trez Sez

Well, your other elected executive both wrote something this week, so I guess I will, too (besides, they said I should).

It has been a busy term. And there's a whole bunch in the works for your future, too. For example, there will be a Career Fair in January, perhaps in the brand-new Davis Centre.

With regard to the Co-op fee, the government has asked the Ontario Council on University Affairs to conduct a study on certain costs associated with offering co-operative education programs. The report is due on December 31, and very well might lead to restrictions on the amounts that the University can charge for co-op.

Back in MathSoc, it has been a somewhat successful summer. Although rather few students have been taking advantage of what we have to offer for social events, those that have come out have enjoyed themselves thoroughly. Remember that these events are generally geared to break-even, but if too few people show up, the losses have to be paid for by your society fees.

Other things your fees go for (if you don't know already) include the MathSoc office supplies, merchandise, the telephone, mathNEWS, various clubs, Orientation, The Photocopiers, and so much more. (No, we don't make a profit on the photocopiers after the maintenance contract, equipment lease, paper, and supplies are all paid for.)

As we prepare to leave for another term, most of us must also look to return again. When we do, we can keep in mind to help the new Frosh, and perhaps to consider running for one of the MathSoc positions up for election. Or to fill one of the many (and necessary) non-elected positions that will be available. Ask at the MathSoc office for further details.

Have a good what's-left-of-summer, everyone.

Paul

Doug Lawson Leaving UW

Dr. Doug Lawson, computer science professor at UW since 1959, leaves August 1 to become president of Algoma University College in Sault Ste. Marie, Ontario.

Algoma, affiliated with Laurentian University of Sudbury, is a liberal arts college with a few hundred students.

Lawson was one of about 30 candidates to succeed Dr. Patrick Wesley, who ended his term as president with unexpected suddenness.

Born in Meaford, Lawson received his bachelor's degree in engineering physics (aeronautics) from the University of Toronto and received his Ph.D degree from Waterloo. He was one of UW's first faculty members in computer science, and has served as chairman of the department. He was also a member of the board of governors and senate and was elected president of the University Club.

Math Soc, Eng Soc A & B, and
The Federation of Students present:

WATPUBS

FALL, 1987

TORONTO

591-1650 - Wednesdays

Sept. 2: THE COPA
Yonge & Yorkville
No Cover Free Buffet

Sept. 9: RPM
132 Queens Quay E.
No Cover Free Buffet
Beer & other specials
Shuttle bus at Union Stn.
Every 15 min. ALL NITE

MONTREAL

849-0728 - Wednesdays

Sept. 2: THE ANNEX
1445 Bishop St. above
St. Catherines

Sept. 9: CHEERS
1260 Mackay just below
St. Catherines

OTTAWA

230-7775 - Thursdays

Sept. 3: STONEY MONDAY'S
62 York St.

Sept. 10: PETE'S PANTRY
1394 Richmond Rd.

CALGARY

Call Director - Thursdays

Sept. 3: THE BEACH (Club Hawaii)
718 8th Ave., SW.

Sept. 10: COCONUT JOES
11th Ave. between 5th & 6th

Anyone interested in running any of the
above WATPUBS should contact:

BRETT MARTIN
(X 2324)

INFO ABOUT FURTHER WATPUBS IS AVAILABLE AT
FIRST WATPUBS OR AT THE PHONE NUMBERS LISTED
ABOVE



Strange Fed Bellows

Good News: Photo ID cards will be kept.

Bad News: Photo ID card replacement fee is now \$20 (\$10 plus a \$10 computer fee). ID replacement loans are available from a Mr. D. Wright, c/o Students Just Get In The Way Anyway Inc., Waterloo, Ont.

The jury is out on the Orser case (more than five unrelated people (i.e., students) in a house (i.e., an 8-bedroom, 4-bathroom townhouse)). We'll let you know how it goes.

Canada Day went well, as did The Box and so will Pursuit of Happiness (tonight's big event). Look for the *How To Get Involved* pamphlet. You would be surprised at what the Feds have to offer, but if you're not, there are paper airplane folding instructions on the back.

Upcoming events include a renovated Fed Hall kitchen, a computerised Fed office, and a talk by Dith Pran (*The Killing Fields*) on Monday, October 19. Tickets are available from D. Wright (see address above).

I hope you had a good term, got involved and passed most of your courses (I probably will).

Your Fed Reps
Brett and Craig Martin

Things To Do On a Fall Work Term

When you go away to one of the various cities in Canada (or abroad) for your work term, you'll find a little more time for leisure activities.

First of all, you can find a game store and purchase the *Paranoia* role-playing game. It's guaranteed to be fun and exciting for everyone. It's great at parties, but be warned: trust no one!

Then, you could be off to a Watpub, where you'll find out who else from Waterloo is in town. Get the Watpub number from MathSoc, or watch the usual campus media for details before you finish exams.

You could also read some books after work, too. You could brush up on computer topics; anything on Unix can be handy, especially once you realise that the CICS system will destroy your brain if you're exposed too long. Or you can pick up Geoffrey Lalonde's *Four Minutes to the Job You Want*. It's especially useful if you would like to get a new job for the next work term, or for those grad interviews. Check the UW bookstore for this stuff and more before the end of term.

But hey!... when it comes right down to it, the best thing you can do on a Fall work term is subscribe to mathNEWS. It only costs \$5 to have all of Fall term's issues mailed to your work term address. Give MathSoc your cash and Fall address and tell them you want to get mathNEWS for the fall term. See what new and amazingly bad puns the other stream can inject into Watman! Watch how they struggle without Hymie as a cover artist! Agonise as Frank twists your mind with another cryptic Gridword! Get your mathNEWS subscription now. Only \$5.00, while they last. (Slightly higher outside domestic subsets of 3-space.)

MGC Official Traditional End-of-Term Sentimental Thank-You Crap

Actually, this is important. Special thanks go to Sue Wepra-whatever, without whose help we might as well not have had a committee; Ian and Michelle for an excellent job on the thankless task of publicity; Duane, Mike (the cripple) and Donna for running countless food days, etc.; and Debbie for a tremendous job of treasuring and many other things.

Thanks also to Greg (note how I'm not taking advantage of this opportunity to make large water-oriented mammal jokes), Ron, Joyce, Terry, Deanne, Maggie, Men-Ching and our 3A rep, Greg Mushumanski. To any directors I missed and all the committee members who put in hour after hour here and there, thanks. Without you we couldn't have raised more money while offering better value, a better grad photo turnout, a better grad comment completion rate, designed a better button and started a better, bigger, cheaper yearbook.

We raised well over \$2000 from Pizza Days, Hot Dog Days, Car Washes, sales and whatever the raffle brings in.

Thanks for putting up with me. Enjoy your summer, wear your button and we'll have a great time at the ball.

See you at the BBQ.

Brett Martin

MGC 88 Stream 8 Director

MGC BBQ

For those of you who don't know—WAKE UP! The Fooey I'm Glad It's Almost Over BBQ is today at 12:30 at the barbeque pits near Columbia Lake (to the left of and behind the soccer field). All fourth year students and anyone else who can convince the hamburger cook that they're over the hill is welcome. Hamburgers and pop (but no good stuff) provided at or near cost.

MGC (especially Liz)

Car Rally Results

MathSoc's bi-termial Car Rally was run last Saturday. Only six teams entered this year, but all managed to finish, some of them a little worse for wear. The fight for top spot was close with three teams within seven points of each other. This year's trophy engravees are driver Rob Herst and navigatrix Cindy Fromm (hard to believe, eh?). In second place were John Herbert and Daryl Erwin, with Richard Fedrowicz and Fabrice Jaubert placing third (after stopping for ten minutes for a beer, at a rate of one point per minute).

The biggest box was a mammoth 167 centimetres tall, while the smallest leaf was about 2/3 of a pinhead. All the anglophone entrants seemed to have a good time.

The next rally is planned for Winter 1988.

Brett Martin

THE CONTINUOUS ADVENTURES OF

WATMAN



Submitted for your approval: mathNEWS' superhero, projected into the future, into this year's mathNEWS Frosh Issue... (Fade out Rod Serling voice, fade in Watman narrator.)

This is the city. Watham City. The vast, sprawling metropolis that is a microcosm of the world, home to triumph and fear, hope and despair, good and evil, beauty and the William G. Davis Centre. Standing by, ever ready to charge to the defense of Watham City and its inhabitants are the dynamic duo, Watman and Duck.

Watman and Duck are, in their secret identities, undergraduate mathies. In time of need (or to air them out) they don their superhero costumes and become Watham's foremost fighting force—even outdoing Campus Security.

As we look in on them, it is near the end of Frosh Week, and the Dean has summoned the dynamic duo to his sixth floor chambers.

"I'm worried, Watman. Something strange is going on. By my count, exactly seventy-five Frosh are missing! And," he added pointedly, "they all came back from the MMT."

Watman looked pensive. "It's not that strange. Maybe they were scared away. Remember the first time that you saw a Stat-er-Combinatorics textbook?" The Dean frowned. "No, that's not it, Watman, we still have their tuition money." He read the question in Duck's eyes. "Yes, we want them back anyway. They represent the future of the faculty: future graduates, future researchers, future award winners, future revenues..." The Dean's eyes began to gleam. The dynamic duo snuck out the door as the Dean's voice continued "...future stats text purchasers, future..."

Watman and Duck retreated to the third floor and relaxed in the comfortable student lounges at the south end of the building. "Now, Duck," said Watman, "where might a math Frosh go that he or she could disappear without the others noticing?" Duck thought of the intensity of the players in the Campus Centre games room, where he had recently been feeding quarters to the Robotron machine. "Why, Holy Revolving Rasters, Watman, the electronic nerve centre of campus!"

"That's right, Duck, the terminal rooms here in MC. Probably on the second floor, since the Frosh will be using those machines. Let's go." Duck followed as Watman raced out into the corridor, regretfully putting a quarter back into his Watutility belt.

"We'll check MC2018C first," said Watman "as it's the best choice for nefarious plots. There's an excellent printer there, and it's the most secluded room on the entire floor! I'll check out the room with my Watsensor, while you question any suspects. And by the way, your participle is dangling."

Inside the terminal room was a lone Froshette. Duck moved instantly to talk with her while Watman calibrated his instrument. After a few minutes, Watman called to Duck. "I've found something." "Holy Heartthrob, Watman!" exclaimed Duck. "I got her name, Village room number, and phone number!" Watman looked at Duck quizzically. "In case we need to question her some more. She says she was to meet two friends here half an hour ago, but she couldn't find them."

"Suspicious." murmured Watman. "Especially so, since I'm getting peculiar readings from the floor right..." He pointed directly beneath them "...here."

Suddenly, the massive red tiles tilted, and the dynamic duo were sucked into an opening beneath the floor. From inside the tunnel came ominous echoes "...and by applying the generating function here as in example 4.3.1, we..."

The dynamic duo landed with a jolt. Watman drank it, and shook his head. "Hah, it'll take more than that to subdue us! We've already taken *that* course. Right, Duck? Duck?" Watman shook Duck awake. "...sorry, sir, what was the question? The answer is Ronald Reagan." said Duck lamely.

"Wow, Watman, we're in a tube of some sort. But where?"

"Look around, Duck. A picture of happy students eagerly paying their fees. A Michelin map showing the Village One cafeteria with three stars. This place couldn't possibly exist in the real world. That opening propelled us into a mental plane."

"Cartesian, Watman!"

"No, Duck, I'm serious. And from the campus maps strewn about, I'd say the Frosh came this way. But look closer! Hundreds of tiny purple rayon threads, and some pipe tobacco. Profs have been this way. Last, but not least, it leads south."

"Holy cerebral conduits, Watman, it's a—"

"Brain Drain, Duck, exactly. This must be the work of the base villain Stan Ford and his monied cronies in the Excited States of Hysteria. They have our professors, and now they want our Frosh."

Suddenly, a vast wind came up, louder and more powerful than the forces in the New York sewer system at Superbowl halftime. Watman and Duck were drawn inexorably southward.

Will Watman save the exactly seventy-seven missing Frosh? Will Duck phone the attractive Froshette for some deeper investigation? Will Duck ever find a use for his dangling participle? Will the dynamic duo take research posts at MIT? Stay tuned in September for the continuous adventures of...

Na-na-na-na na-na-na-na na-na-na-na na-na-na-na...WATMAN!

The Chuckler



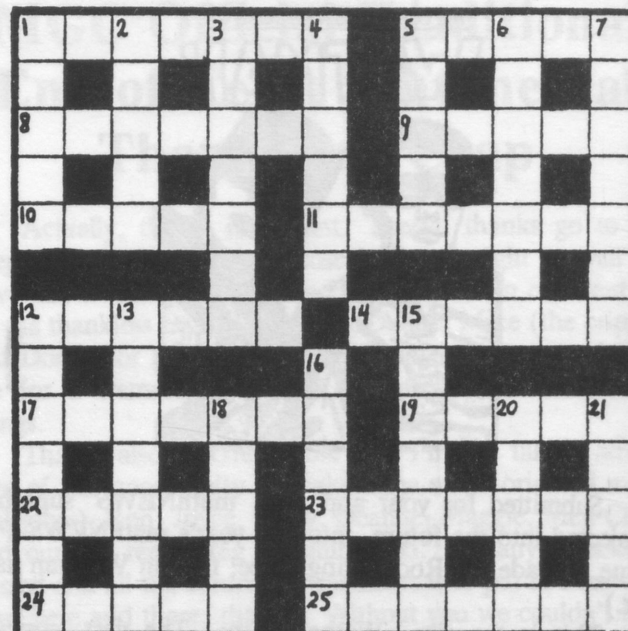
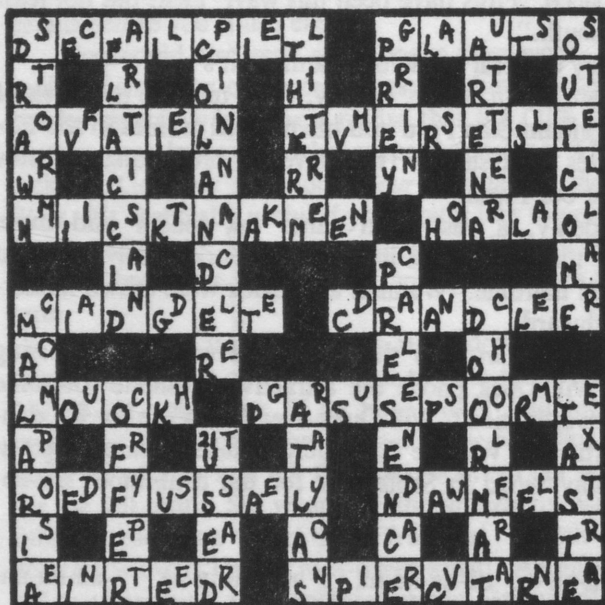
Cryptic

Across

1. The southern states write much to hang (7)
5. Mark the second from last saint (5)
8. A specimen out of many (7)
9. A tacit decomposition upstairs (5)
10. The cellar vault contains a young insect (5)
11. Basic substance of 3 consecutive written letters totally begun (7)
12. The sea inn arrangement is crazy (6)
14. The Spanish and German soldier, that is a famous animal (6)
17. Back about reception of neither French number (7)
19. Many are literate but express terror (5)
22. Promotion of a number of years of the saying (5)
23. Black is back at the elongated fish of a relative (7)
24. An occurrence the night before, by part of the Bible (5)
25. Inspect radically the bent light of stars (7)

Down

1. Great! A direct place to get water from (5)
2. A sound fixed look for the step (8)
3. Elucidate the Toronto fair on level land (7)
4. Expire the small man up for fuel (6)
5. Actor's romp from the bachelor party directly (5)
6. Currently lock the player (7)
7. Kiss for the same score as a male garment (4-3)
12. Ape that I am the thing consumed (7)
13. The position I took the Greek letter up to gorge (7)
15. A foreign car with French wheat can be heard (7)
16. Raise the metric title of Centigrade to the turning point (6)
18. A fantastic high note to tear apart (5)
20. Proclamation cited around (5)
21. Doctrine of the animal mother? (5)



The GridWord solutions from the issue of last have made my typing simple this issue. Only 18 solutions were submitted—16 cryptic (1 incorrect) and a measly 2 conventional with only 1 correct! (of course the conventional solvers have an excuse with the incorrect clue 12d which should have been DATE-KEEPER) Since the only correct conventional entry was submitted by a previous winner, the prize is being awarded to the solver with one incorrect word—~~The Band~~. The cryptic winner is ~~Roger Schacht~~ (a first-timer). Prizes may be picked up via the MathSoc office MC3038 before they close.

You may notice that there is only a Cryptic puzzle this week—I'm trying to get some of you who only normally try the Conventional to give the Cryptic a try. Come on... try it out with a friend. As this is the last issue of term, no prizes will be awarded for this GridWord. The solution will be posted in a few days outside the mathNEWS office MC3036.

Now for the complete list of Knowledgeable Readers—Mike Lunney, Burke Pond, Gregsy & Melny (Sorry, you didn't make it again), Kerry, David & Anne (hyphen-less) Marie, Zig (with Wazo Speedy Tomato), Alison, Lu & Jak, R.N. Davis & D.W. Siegmund, Ron & Paula, Jackpot!, Peter Found, Smurf, and Randy Richard. The other incomplete entry comes from Georgetown and was submitted by The Dragoon.

Favourite Favourite: licorice anything, Casper's Friend, Favourite Favourite, Cryptic Clues!, Chocolate chip cookies, Body massages, 1:1 rye/vermouth (sweet), Article on lattice north to tailless ordinal gives puzzle, Chocolate Chinese, Favourite what?, I hate everything.

Comments: Woe to you, oh Waterloo! The Dragoon is coming for his hunting grounds are expanding, When does the ballgame start?, Can you OD doing GridWord?, I'll drink Manhattan!, We are not writing anything under "Comment" this week, Why can't PMATH assignments be as much fun as GridWord?, Sorry comment lost in mail.

Hey, it's been a term! Good luck on your exams and holidays and workterm. I'll hear from ya in the winter (if not the fall)!