

Do calculators threaten basic engineering skills?

It has been amazing the way that pocket calculators have revolutionized engineering. For just a few precious dollars one can add, subtract, multiply, divide, find tangents, sines, cosines, reciprocals, exponentials, logarithms, standard deviation etc. etc. It's even got to the point now where many of the calculators are programmable, just like computers. The result is much simpler calculating for the student.

And cheap! Really, it's astounding the way the prices keep coming down; pretty soon they'll be giving them away in cereal - 'Buy Corn Flakes and get a calculator'. K-Tel will probably make one that doubles as a kitchen magician. The possibilities are endless! I bought one calculator 3 years ago for \$125.00. Now it sells for about \$25.00; all it

does is the basic 4 functions plus reciprocals and squares. The availability of cheap calculators has been one spinoff from the space program that has brought obvious benefits.

However the presence of the calculators in Head Hall has cut two ways. Many profs are worried that these calculators might do too much for the students leaving them deficient in many basic areas of engineering. For example many students have calculators which are programmed to find the mean, variance, and standard deviation of a set of numbers. Some calculators even will perform linear regression. All of these analyses are basic statistical functions, which should be basic to engineers. However, the profs ask, do the students really know this statistical theory or are they

blindly punching in numbers? There have been many cases on assignments where students have only written answers - correct answers - without the supporting formulas and calculators.

On the other hand, the advent of calculators has broadened the possible range of course coverage. No longer do students have to spend hours with a slipstick sliderule or pen and paper trying to do calculations. This means that profs can cover subjects in greater depth and detail, and, give more comprehensive assignments; in short a better education is possible.

Like any new teaching aid working with calculators has caused problems and adjustments will have to be made, but overall

they are a definite plus. No one would like to return to the good old days, the days without the calculators.

Getting away from the books: Alex Ross has another fine pub coming up for this weekend on Friday, October 22, at 9:00 p.m. This pub in the SUB will feature "High Octane", which sounds like a gas. Tickets will be available at the lobby for \$2.50 and \$2.00. If anyone remembers the last pub with "Festival" you'll be more than anxious to make this pub and give "High Octane" a listen.

Another event coming up is a CSCE meeting on Wednesday October 27 at 7:30 p.m. The topic, a really interesting one, is 'solar energy' and get this: there will be

refreshments served after the meeting. Everyone is invited to attend.

We'll now break the big news: Civil 4 Bears won their first game last Tuesday, in Typical fashion, by default. Other victories were posted by Civils and Civil 3, who both look very strong, Business 3, Forestry 4, and Phys. Ed. 4. Those teams could well be the cream of the crop.

Oh yes congratulations to the surveyors as they continue to play their way to the soccer playoffs. The Chemicals and Mechanicals are also in the league and playing well.

Finally, don't forget to get your application in for the Great Canadian Coaster Derby to be held on November 5th at 11:30.

Forestry Week is coming

A corn boil in the Lady Dunn Hall parking lot officially kicks off Forestry Week 1976 this Sunday at 2:00 p.m. An orientation course and a three-legged race will also be held.

Monday night will feature a debate between S. Wittshire, vice president of St. Anne Nackawic Pulp and Paper Company, and K. Brown, a well known CBC film maker. The topic will be "Corporate Management of Crown

Lands Versus Public Management of Crown Lands." This will be in the main auditorium of MacLaggan Hall, starting at 8:00 p.m.

On Tuesday night a feature on owl rehabilitation will be presented by Mrs. Kay McKeever of the Owl Rehabilitation and Research Foundation. The presentation, which features a highly acclaimed slide-tape show, starts at 7:45 p.m. in Carleton Hall, room 106.

The first pub of Forestry Week will be held on Wednesday night. It is a combination of the Queen's Social and Forester's-Nurse's pub and will start at 9:00 p.m. in the SUB Ballroom.

Faculty night will be held on Thursday night at Buchanan Field. Events such as swede sawing, cross-cut sawing, axe throwing, axe chopping and pulpwood throwing will be held. All judging will be done by faculty.

The only formal event of the week, the Bushman's Ball, will be held Friday. It will run from 9:00 to 1:00 a.m. in the SUB Ballroom and will feature the Thomists. Tickets are \$6.00 for Forestry Association members and \$7.00 for non-members.

Saturday, Sept. 30, will feature two events closing Forestry Week 1976. The Woodsmen's competition will start at 9:00 a.m. at Chapman Field. Twenty-five teams from Canada and the United States will compete in 13 different events.

The grand finale of Forestry Week, Hammerfest, will be held during the evening at the UNB woodlot with transportation provided by a shuttle-bus service. One bus will leave the front of the Forestry building from 8:00 p.m. to 1:00 a.m. Beer tickets at 50 cents apiece will be available beforehand.

Foresters schedule debate

by HAMISH KERR

The Forestry Association is sponsoring a debate, Monday, Oct. 25, at 8:00 p.m. in MacLaggan Hall. The topic is "Corporate vs Public Management of Crown Lands."

What's so exciting and controversial about that you ask? This province is today in the middle of an experiment to prove that public management of crown lands is more effective in improving the forest quality and amount of wood produced, than corporate management has, or can. I speak of the Bathurst Pilot Project where the province has taken over management of Consolidated Bathurst Pulp and Paper Companies Crown Lease.

Why this sudden interest in forest management? The province of New Brunswick has reached a critical stage in the development of its forests. There is overcutting of softwoods taking place, this means the province is running out of softwood!! The quality wood has been deteriorating since the province was discovered. The high value products have been removed. Such things as ship masts in

the old days, sawlogs, veneer logs and furniture stock have been taken out so all that is left now is pulpwood, a low value product.

How long will pulpwood last when we are already overcutting in softwoods. The forest economy which is the mainstay of the province could wither away as it runs out of wood of sufficient quality. A well managed forest could provide New Brunswickers with a decent standard of living as it does in Finland and Sweden. At the moment the forests of the province are in sad shape, but is public management the answer?

Mr. Steve Wiltshire, Executive Vice President of St. Anne Nackawic Pulp and Paper, Prince Albert Pulp (Sask.) and Meadow Lake Sawmills has agreed to present argument in favour of public management, Mr. Kingsley Brown, a noted CBC documentary film maker has agreed to appear. These two people are both familiar with forestry problems and should provide some interesting points to consider about the topic.

There will be a question period following the debate.

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