

C.R.E.S.S. - up, up, and away

YORK RESEARCH AIMS AT THE STARS

by J. F. Sonley

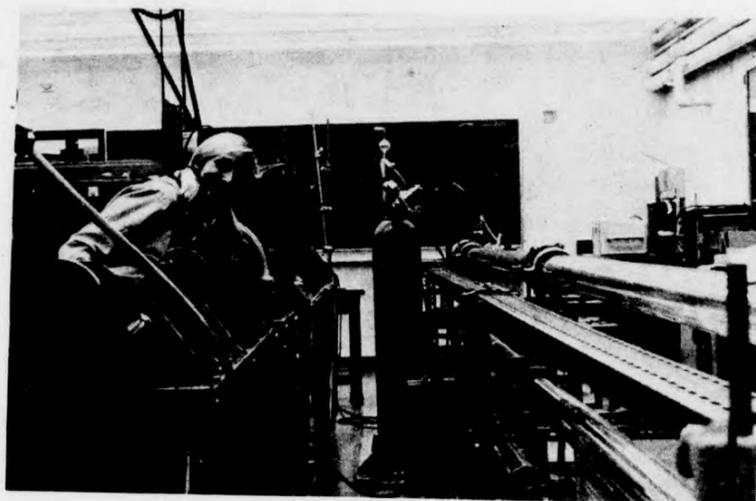
With the creation of the Centre for Research in Experimental Space Science, York University is in the vanguard of a new interdisciplinary research in laboratory space science.

The project is the result of the amalgamation of a group from the University of Western Ontario, headed by Dr. R.W. Nicholls, presently director of C.R.E.S.S. and chairman of the physics department; and the former University of McGill chemistry department, headed by Dr. H.I. Schiff.

The basis for the combination of these departments in a unique research program, is the idea that science can no longer be divided into the traditional departmental structures, chemistry, physics, and biology.

Some sixty people have been attracted to York by the opportunity to institute a radically new interdisciplinary program of research into the fields of Laboratory Aeronomy and Laboratory Astrophysics. These areas of study are admirably suited to the interests of both the chemistry and physics departments. Here they hope to be free from biases and prejudices rampant in more traditionally structured universities.

The implementation of an advanced graduate program, is seen as absolute necessity, since in the opinion of Dr. Nicholls research and education go hand in hand. They are 'co-equal and inseparable' for an adequate un-



Here is some of the fabulous equipment which attracted profs from all over to the C.R.E.S.S. program at York.

dergraduate program cannot exist, without a large number of graduate and post-doctoral fellows. In this respect the pro-

gramme will produce York's first Ph.D.'s, three of which have been granted this year.

Both Prof. Schiff and Dr. Nicholls were fortunate in being able to bring substantial amounts of equipment from their respective universities. In Dr. Nicholl's case this donation amounted to about \$200,000. However, although the machinery legally belonged to the university, it is more the product of the individuals' own fund-raising, and is of little use to those not involved in this particular research.

The programme is designed to supply data concerning basic constants (wave lengths and energy levels, transition probabilities, reaction rates) of the atomic and molecular species which play an important role in the study of

planetary atmospheres, particularly earth's.

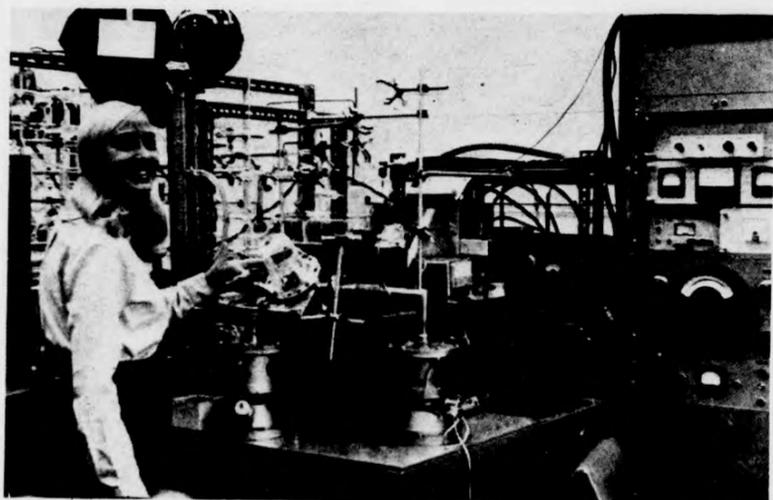
To these ends, a complex system of projects has been and is in the process of being established. Such projects include Laser excitation of powdered solids, analysis of molecular spectra, a study of the reactions of metastable atoms, and gas phase studies using monoenergetic electron beams, along with some eighteen additional projects, including a rocket programme.

By 1968, York hopes to begin a series of rocket flights from Fort Churchill. The cost of these firings would be about \$250,000, if the undertaking were to take place in the United States, but because the rocket will carry a multi-passenger load, it will run about \$50,000, all of which will be subsidized by the Federal government.

The first flight will be a photometer experiment to study the height profile of infra-red emissions from O₂.

C.R.E.S.S. is the first of such amalgamated programs. Officials hope that soon other problems will be organized into interdisciplinary programs. Similar centres could be implemented in the life sciences, and possibly in computer science. The next program will probably combine the facilities and interests of the physics and biology departments.

The York Science departments have created a new and vital programme which has attracted staff from such distinguished institutions as M.I.T., Harvard, Rice, Imperial College (London), Manchester, and Jerusalem. In addition they are implementing a new system in education which U. of T. is beginning to follow and which McMaster and Western are considering.



Magnetic mass speedrometer manual, anyone?

The Memoirs of Brandon Hood

My name is Brandon Hood but my mother still calls me Sonny. I am five feet two and 230 pounds of human dynamite in action, and in August 1967 I was hired by York University as their Number One investigator and trouble-shooter.

There are 4000 people in the Green-Board Jungle. These are their stories. The names have been changed because I have a lousy memory and can't remember the correct names.

My first case at York I call:

MY FIRST CASE AT YORK

I received a phone call from headquarters. D.P. wanted to see me immediately. I jumped into my 1947 Dodge (a York Security Car) and headed for the Outer Limits of the city. In two hours I had arrived at H.Q. from my Forest Hill basement apartment.

I kissed Judy good morning as she buzzed D.P., announcing my arrival. One of these days I'll have to give that girl a buzz myself.

I entered D.P.'s office and was instantly struck by his trophy collection. D.P. fancied himself a great white hunter and the room was filled with stuffed heads mounted on mahogany backboards.

But his prize trophy was gone--

the head of the virgin freshman had disappeared.

D.P. loved that little boy. He was everything D.P. wanted to see in life. A baby-faced, short-haired kid, with pleading eyes and a smile of pure innocence. He had been untouched by the corruption and immorality of intellectual life on campus.

D.P. had bagged him on registration day when the boy had asked where the S.C.U.M. (Student Council for Unified Militancy) offices were. S.C.U.M. is the most hated underground movement on campus. Their methods are notoriously cruel. They even managed to obtain a duplicate key to the Executive Washrooms.

D.P. rose from his red (that's the York color) patent leather reclining, vibrating, armchair (with the built-in cigarette lighter) and in an uncontrolled cry of emotion pointed to me and said:

'You find my boy, Hood. Just you find my boy.'

After asking D.P. a few questions I started immediately for the Computer Data & Information Processing Centre. I fed the computer all the relevant data and in thirteen seconds the computer would inform me as to my first move. By the time I had munched half of my chocolate bar the computer had done its job. It was worth every penny of the \$27,000,000 we had spent on it. So what if our building project was now eight years behind schedule. At least the computer had a nice penthouse view.

The card read: 'Place an ad in EXCALIBUR and get results.' Twenty-seven million dollars and it told me to place an ad in a newspaper--and a radical student newspaper at that.

What was to be my next step? But the computer had failed me before and I was not without experience in handling difficult cases. After all, wasn't I a graduate of Jarvis Public School, and wasn't our motto... ah... ah. Well I forget our motto--but I'm sure we had one.

I decided to ask one of my

informants. I must admit that not all the college kids in this world are rotten to the core. There are still a few exceptions who are willing to inform on their friends to make an honest dollar. But my informant told me that D.P.'s trophy was not in the hands of anybody in the student body.

Could it be? Could one of our own people have stolen D.P.'s head. No, it was too crushing to think about!

I decided to begin a room by room search of the campus. But to no avail. The trophy could not be found.

As a last and dying effort I decided to search Glendon as well, and there in the last room in the College, the Senate-Board room, there it was in a chair appropriately marked: Student Body Rep.

I called D.P. and told him of my discovery. I tell you he cried like a proud poppa in the knowledge that his boy was performing a valuable service.

As, D.P. so aptly put it: 'This goes to show, Brandon, that in the struggle for student representation on Senate-Board meetings York is way ahead.'