Satellite usage increases

By Seth Stein

"Current and Future Applications of Satellite Meteorology" talk and earth resources satellite program were discussed by Seth Stein, Research Technologist, Inc. of Earth Resources, at MIT's Meteorology Department at a seminar held by the Boston branch of the American Meteorological Society on Wednesday, February 23.

The weather satellite program began ten years ago with the Nimbus satellite, and includes the TIROS and HR series. NASA plans to launch the Earth Resources Satellite (ERTS-A) in May to map various land resources such as fresh water, mineral deposits, and vegetation.

ERTS-A will carry the first advanced camera system used for scientific earth studies, with resolution down to two hundred feet. The Department of Defense has refused to release the superior camera - now used in "spy" satellites - for earth orbit use, though it has allowed better cameras to be used on laser missions. The ERTS program has gained notoriety recently when NASA announced that it was studying the use of infrared photography to find marijuana fields from orbit. There will be specially trained people to operate it. In the future, we are plans to install high resolution multispectral cameras, infrared spectrometers and other sensing devices on Skylab I.

David Speigel spoke on the potential of weather satellites for weather forecasting, focusing on November 1969 storm off the west coast. The orbital photographs made it possible to build a cloud system which could not have been possible before. Such material provides better data than replaces standard meteorological data. The chief advantage of changing weather is that it can track much more from photographs spaced at long time intervals. This problem does not exist in recent synchronized satellites which remain permanently above one area.

One major advantage of satellites is that it is possible to obtain data - for example, temperature and humidity profiles - in large areas such as the southern hemisphere and oceans which are inadequately covered by radiosonde information. Temperatures can be implied from measured concentrations of liquid water and water vapor in the atmosphere. At present infrared methods are used, but it will be possible to perform weather studies better and increase resolution 90-90.

Similarly sea conditions and wind speeds can be studied. The last topic discussed was the applications of satellites to polar studies. James Barnes said the audience that "the observational barriers are crumbling under the impact of satellite observations." It is now possible to distinguish newly formed ice from multiyear ice by its color in microwave photographs. This may be of importance in the future of its subsurface texture and salt concentration. Such information is valuable to shipping in areas like Norway and Baffin Bay. In the Antarctic, Nimbus satellites have tracked large icebergs for months. One problem is the long polar nights - but this is easily solved by using infrared cameras. These might or might not be feasible in the US, for studying snow concentrations. Snow can be considered as a valuable resource rather than a nuisance - for example, most of the snowfall in Southern California's water supply comes from melting snows in the Rocky Mountains. It is possible to map the amounts of snow that have fallen and use the information both to predict water supplies and to prevent serious spring floods.

1789 and Counting

or - another in the series of great stories about how the Cambridge Trust Company has been serving banking needs there way back when.

During the French Revolution, a count was about to be guillotined unless he would tell his would-be executioners where a sum of money was hidden. He adamantly refused to talk, but consented to discuss his immediate future with Bill Nagi, manager of the Kendall Square branch of the Cambridge Trust, who, disguised as a guillotine inspector, had - as is the Cambridge Trust custom - gone to great lengths to solve a money problem.

As he had left Kendall Square, Nagi had said he would be off checking a count (get it?) Little did he know he would wind up saving a count!

Anyway, as the executioners were ready to do in our young count, our man Bill Nagi persuaded them to apply for Executive Credit - a wise idea whether or not your work involves executing.

Moving right along, Nagi used the five minutes it took to fill out the applications to convince the count to say where the money was and save his neck. "Master, charge your purchases until you have more money." (Hence the origin of Master Charge, one of Cambridge Trust's many services.) "And in the meantime, we'll give you a cash advance."

Finally, the count said, "OK, I'll talk. Besides, I'm afraid to die anyway."

So he told them where the money was; they let him go; and Cambridge Trust had solved another banking problem.

The moral of the story? Don't hatchet your counts before they chicken.

But do come to Cambridge Trust for all your banking needs. Bill Nagi will help you, too.

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