# Letters

## ERS: Can the Cost Be Measured?

Carter summarized very well Representative Karth's report to the House Committee on Science and Astronautics on the earth resources satellite (ERS), but he omitted comment on the discussion of cost effectiveness (21 Feb., p. 796). Although I agree with Karth that unmanned satellites in polar orbit are preferable to manned satellites, I disagree strongly with his conclusion that cost effectiveness evaluations are not possible. He contends that a cost-benefit analysis is not crucial because NASA has not applied it to past programs. These past programs were designed to provide benefits which are largely intangible. Conversely, the ERS program, as stated by Karth, is "to achieve tangible economic returns from the substantial investment already made by the American taxpayer."

It is asserted that these economic benefits cannot be calculated without data actually collected from spacecraft. If this were true, we would have no right to launch a satellite until we knew what results we could reasonably expect. This attitude may be attributable to wishful thinking on the near-future potential ascribed to the ERS. For example, there is a consensus among my co-workers in remote sensing that the multi-spectral approach to analyzing terrestrial resources (where much data of limited application and value have been cited from a variety of studies) has been greatly oversold to the ERS planners. Eventually we will have automated techniques sophisticated and fast enough to utilize this data, but at present the multi-spectral approach is becoming a fad.

Two fields—cartography and oceanography—immediately lend themselves to cost-benefit analysis of data collected from a satellite. Of course, much of the data collected over land areas from a combination cartographic-oceanographic satellite will provide a basis for employing advanced techniques and equipment for the extremely complex analysis of terrestrial resources. NASA's aircraft program is also necessary, but it appears that this program could be administered more efficiently, judging by the annual increase in costs per missions flown which may be calculated from the table in Karth's report (*1*).

Karth's rather offhand dismissal of cost effectiveness is one result, I fear, of the ballyhoo about the potential of a remote sensing satellite which may eventually discredit our more reasonable expectations of the program.

JOHN E. LUKENS
*1221 Old Boalsburg Road,*
*State College, Pennsylvania 16801*

### Reference

1. *Earth Resources Satellite System*, House Committee on Science and Astronautics (Government Printing Office, Washington, D.C., 1968), p. 12.

## Economics of Reprints

Van Potter (Letters, 7 Mar.) deplores the fact that many people are requesting his reprints without having read his article, having seen the citation in *Current Contents*. Not all scientists are blessed with the marvelous library facilities which Potter has available to him at Madison, Wisconsin. At an isolated station or college, *Current Contents* is a great help and makes it possible for one to keep up at least to some extent on the literature through reprints. I have just returned from a number of months of field research. Without *Current Contents* and the reprints I received as a result of it, I would be woefully behind in the current literature. I hope Potter's attitude does not spread.

THOMAS D. BROCK
*Department of Microbiology,*
*Indiana University, Bloomington 47401*

Reprints are invaluable in research, in preparing manuscripts, and in writing monographs. For nearly 50 years, I have exchanged reprints with colleagues and have accumulated boxfuls of reprints, many of which are still in active use. It is a pity that the privilege of obtaining reprints is misused. . . . However, a small charge would discourage indiscriminate requests.

ARMAND J. QUICK
*Marquette School of Medicine,*
*Milwaukee, Wisconsin 53233*

The continuing static on reprints is fascinating, and the problem is not all that difficult to solve. Reprints cost money; reprints have value. Make a charge, gentlemen, and the dilemma will dissipate. Reprint requests are flattering, but now that our egos are all nicely boosted, a little salvation for our flattened exchequers would seem to be in order.

WALLACE C. ELLERBROEK
*1021 Linden Avenue,*
*Long Beach, California 90813*

. . . In a recent paper of mine in *Nature,* the title as printed in the table of contents was worded quite differently from that on the article itself. The score on requests for reprints to date: from the table of contents, 181; from the article itself, 86; requests accompanied by no title, 67. . . . The major effort and expense in sending reprints is generally not the actual cost of the document itself, but the envelopes, postage, secretarial time, and so forth. Why couldn't we copy the compromise adopted by many drug companies in which the request must be accompanied by a self-addressed stamped envelope? This involves a commitment by the requester, and a minimal effort for the sender. Charging for reprints or eliminating them entirely, as suggested by some, seem to be retrogressive steps, and ones which would hurt the junior investigator.

JOHN B. LITTLE
*Department of Physiology,*
*Harvard University School of Public Health, Boston, Massachusetts 02115*

## Chicago: R.I.P.

Edsall's letter (7 Mar.) "Chicago boycott defended" clearly overstates the case. Of course, scientific societies cannot avoid politics in all circumstances, but they should not go out and deliber-