1985 global total ozone decreased  $-0.20 \pm 0.13\%$  per year as a result of variations in solar output and  $-0.35 \pm 0.28\%$ per year due to other (possibly natural) processes. My analysis did not attempt to separate changes caused by solar flux variations from other causes.

Naturally, I am pleased that the calibration of the satellite instruments is being reevaluated, since the issues involved are important. I hope that the trends panel's work will improve the calibration of the satellite instruments and lead to more accurate estimates of recent ozone fluctuations and a better understanding of the processes involved.

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# **Breast Cancer Study**

The article "Debate rages over breast cancer study" by Marjorie Sun (News & Comment, 2 Jan., p. 17) describes the unfortunate status of an important clinical trial. Most of the human studies relating diet and breast cancer are nonexperimental (1). Many are case-control studies of diet and breast cancer. Unfortunately, the criticism about the lack of relation between fat in diet and breast cancer in homogenous populations is similar to the controversy regarding diet and heart disease. A paper published in the New England Journal of Medicine in 1977, "Dietheart: End of an era," was based on the analysis of the dietary data from the Framingham Study and reported that dietary fat and cholesterol were not related to atherosclerotic heart disease (2). Fortunately, investigators realized the problems with the nonexperimental nutrition studies (3) and the difficulties of evaluating nutrition in a homogenous population and moved forward with successful clinical trials that demonstrated a decrease in heart disease morbidity and mortality associated with reduction of dietary intake of saturated fat and cholesterol and a reduction of blood cholesterol levels. These findings resulted in the important National Cholesterol Education Program (4). Are we about to repeat the errors of the 1970s with regard to prevention of breast cancer?

Most of the traditional methods of breast cancer etiology and prevention research have clearly been unsuccessful. The best results to date have come from the clinical

trials of surgery, chemotherapy, and early detection. Certainly, the trial cannot do any worse. We might even learn something useful and reduce the breast cancer death rates.

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## A Larger Question?

Although some scientists may continue to bewail Science's publication policy, and many will question whether science has a right to be regarded as a profession in the same sense as, say, medicine, law, and the ministry, none will quarrel with Daniel E.

Koshland, Jr.'s, description of it as lowpaying (Editorial, 15 Jan., p. 241). If, as he suggests, we scientists ("who are a fairly intelligent group") put up with this largely for altruistic reasons, that is just as well, for at present we are in no position to improve our status by initiatives we might take on our own behalf.

Abundant annual production of fresh scientific talent, and absence of any professional organization to defend the interests of veteran scientific workers in the marketplace, will ensure that scientific employment not only remains low paid, but also continues to carry substantial risk of frustration, stagnation, and early loss of occupation-all at the whim of nonscientist patrons on whom we can exert no influence whatever. It seems true for scientists, just as for Thurber's fly (I), that being fairly intelligent is no guarantee of survival. Beside this somber fact, arguments over proper allocation of journal space among competing scientific specialties appear almost frivolous.

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1. J. Thurber, Fables for Our Time (Harper, New York, 1940), p. 13.

Erratum: In the report "Spacelab-2 plasma depletion experiments for ionospheric and radio astronomical studies" by M. Mendillo et al. (27 Nov., p. 1260), figure 5Å (p. 1263) was misplaced with respect to figure 5B so that the scale of figure 5A was incorrectly represented. A correct figure 5 is printed below.

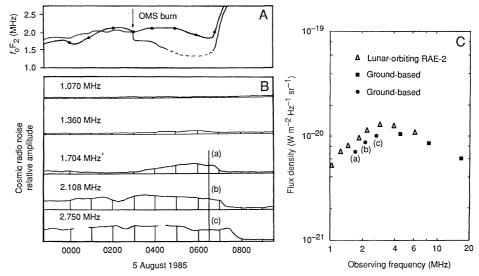


Fig. 5. (A) The behavior of the ionospheric penetration frequency  $(f_oF_2)$  recorded by an ionosonde in Hobart (solid and dashed line) and a control curve of hourly foF2 values (filled circles) recorded in Melbourne (more than 500 km from the Hobart site). The dashed portion of the Hobart  $f_oF_2$  curve from 0500 to 0700 UT expresses uncertainties in the very low  $f_oF_2$  values. (**B**) Cosmic radio noise levels at various frequencies observed on the night of 5 August 1985 at the University of Tasmania Radio Observatory in Hobart. Times are in local time (LT), corresponding to UT plus 10 hours. (C) Galactic radio spectrum on a log frequency scale observed at 0630 LT (filled circles) by means of the observations at (a) 1.704 MHz, (b) 2.108 MHz, and (c) 2.750 MHz from (B). Additional groundbased observations (filled squares) at 4.7, 8.3, and 16.5 MHz are also shown (19). For comparison, the low-resolution spectrum observed by the lunar-orbiting spacecraft RAE-2 for the south galactic pole region is also shown (open triangles) (18).

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