

international news

THE absence of an official statement from the World Meteorological Organisation (WMO) after the recent meeting of its working group on stratospheric and mesospheric problems is being interpreted as an indication that WMO sees no danger of imminent disaster caused by the depletion of the Earth's protective ozone layer. This is in spite of calculations presented to the group to the effect that long term depletion of stratospheric ozone by the continued release of freons at 1972 levels could amount to more than 10%, and that ultraviolet radiation reaching the ground could increase by 2% for every 1% decrease in ozone. The group apparently wrote into its deliberations that it was working on a "factor of uncertainty" of about 2, which, at worst, would indicate a 20% depletion of stratospheric ozone, with a corresponding increase of 40% in radiation levels. This would be serious by any estimate.

The working group on stratospheric and mesospheric problems was set up under WMO's Commission for Atmospheric Sciences, and included many of the world's leading experts in this field: physicists, stratosphere chemists, experts on ozone, on the physical and chemical behaviour of the stratosphere,

WMO silent on ozone depletion

from Peter Collins, Geneva

and those concerned with evolving models for the study of what goes on in the stratosphere. The group was concentrating principally on the chlorofluoromethanes (freons) resulting from the use of certain aerosols and certain types of refrigerator, and which have recently been the subject of alarm, especially in the US. It is the first time that these substances have been considered by WMO at this level and it is indicative of the increasing attention being paid there to the broader environmental aspects of air pollution.

As summed up by a participant, the meeting concluded that calculations on an average, world-wide basis, ignoring latitude and the longitude and using one-dimensional models, indicate that the present anthropogenic contribution to the depletion of ozone by freon 11 (CFCl₃) and freon 12 (CF₂Cl₂) already in the stratosphere is 0.5 to 1.00% of the total amount of ozone. The long-term steady state effects of continued release of these substances at 1972

world rates would result in about a 10% depletion with an average factor of uncertainty of about 2. The effects of this 10% on the thermal regime of the stratosphere might be noticeable but are still not clear; the consequences of any such changes on tropospheric weather systems are likewise uncertain. It has also been estimated that a 1% decrease in the total ozone amount would permit a 2% increase in ultraviolet radiation at ground level, always assuming clear weather.

The group also discussed other pollutants such as bromine and nitric oxides, but it has been pointed out that the freons arising from human activities at the Earth's surface are very much more serious than anything that could happen from the use of aircraft, including nitric oxide emissions which are of such concern to the anti Concorde lobby. No official report of the meeting is likely to be forthcoming for some months, and even then it is likely to express the conclusions with great caution. One reason for this is that we still know very little about what goes on, chemically and physically, in the stratosphere. Here, the group did express itself clearly in agreeing on the need for more data from observation. □

NOT quite two years after the publication of its third and final report recommending major changes in the formulation and implementation of science policy in Canada, the Senate's special committee on science policy is preparing for an investigation of how effectively those changes have been carried out.

Senator Maurice Lamontagne, the committee's chairman, says letters went out in September to the Ministry of State for Science and Technology (which was created in part as a result of the committee's recommendation) and the Science Council of Canada, asking them to prepare briefs for a new set of hearings to begin in November.

Since the publication of the last volume of its report in the autumn of 1973, the committee has been concerned with planning a major conference on future research for decision makers at various levels of national life to attend. That involved preparing background papers for an area of interest largely neglected by other institutions in Canada. The committee also proposed establishment of two

institutions: a Canadian Centre for Future Studies and a commission called Futures Canada.

Much to its obvious chagrin, the federal government decided last summer to accept the thrust of the Senate committee's recommendations, but to

Lamontagne revisited

from David Spurgeon, Ottawa

take the matter out of its hands and entrust it to the recently formed Institute for Research on Public Policy.

This left the committee without a job.

Senator Lamontagne's response was to propose a return to its former mandate, "not to start a new inquiry but to uncover the areas where our demand for change and improvement has been met with minimum compliance, or simply with autocratic and bureaucratic rejection."

Even before the new hearings begin,

the Senator is less than pleased about governmental response to his recommendations. He sees MOSST (the science ministry) as possessed of "suicidal" tendencies (some 30 senior employees were let go recently), and he finds no technological strategy developed by the Department of Industry. "Government support for science, technology and innovation," he told the Senate, "continues to be inadequate, uncoordinated and wasteful."

The Science Council of Canada may welcome the committee's new activity, because it seems to have been eclipsed more and more as a result of the creation of MOSST. But it is difficult to believe either the government or MOSST will be exactly overjoyed. The ministry seems to have been slipping slowly into oblivion in recent months, and just as the new part-time minister, C. M. Drury (who also held the portfolio of public works) had begun to counteract this drift with a public definition of its role, he found himself appointed interim finance minister as a result of the resignation of the former minister, John Turner.