Atmospheric science

UK initiatives for change

THE problems of acidity and ozone in the lower atmosphere have thrown into relief urgent questions that need to be answered by atmospheric chemists. At a meeting in Oxford last week, convened on the initiative of the Natural Environment Research Council (NERC), the UK atmospheric chemical community gathered to survey some of the fundamental aspects of their discipline that require investigation, in the framework of which the more politically charged problem of pollution can be tackled.

The meeting represented the first public result of a decision by NERC about a year ago to designate atmospheric chemistry a "special topic". The Coordinating Committee for Research into Atmospheric Chemistry (CCRAC) was formed and £250,000 was set aside for a three-year programme to stimulate research in an area in which UK expertise was somewhat fragmentary.

That the UK community is still fragmentary cannot be denied — although, as one overseas visitor commented, many of the fragments are of a sufficiently high calibre for fruitful international collaborations, collaborations that are particularly necessary in a field where global monitoring of species' behaviour, for example, is a basic requisite for effective research. But the organizers of the meeting were encouraged by the large attendance, including some for whom either the atmosphere or chemistry, but not both, had previously figured in their grant proposals. CCRAC's hope is that such people will be encouraged further into the field, partly by the availability of specially directed grants.

International interest in this field is sharpened by the imminent publication by the US National Academy of Sciences of a detailed survey of global tropospheric chemistry. If a large US programme eventually results from this report, then the UK and other European research communities might benefit. If the UK position looks bleak, on the other hand, researchers may be tempted to emigrate.

CCRAC includes representatives of institutions such as the Science and Engineering Research Council, the UK Atomic Energy Authority and the Meteorological Office. An interesting example of the interplay of chemistry with other atmospheric phenomena was provided by Dr A. Tuck of the Meteorological Office, who demonstrated the mixing of tropospheric and stratospheric air — with corresponding effects on the ozone distribution — apparently confined by a low-pressure system off south-west England, the mixing region coinciding with the low-pressure centre. Philip Campbell

UK higher education

Student demand increased

THE UK Committee of Vice-Chancellors and Principals has moved swiftly to take advantage of the British Government's revision of its estimates of future demand, published on 12 July. In a statement issued last week, the committee sharply argues that since the demand for higher education will not fall, for demographic reasons, below the present number of full-time students, final calculations of the provision of student places should be postponed until later in the decade — and that budget cuts now threatened should be abandoned.

The affair is bound to be an embarrassment for the Department of Education and Science, which has during the past four years sought to justify the budget cut of 8.5 per cent announced at the end of 1980 on calculations of reduced demand for places in higher education, itself a consequence of the reduced birth-rate in the late 1960s.

The paper published a year ago by the Royal Society seems to have been especially influential in causing the revised estimate, chiefly because of its explicit use of data on social mobility, and the educational attainments of women students. The vice-chancellors said last week, however, that even the more recent government projections did not take full account of upward mobility, pointing out that the rapidly increasing proportion of parents who are graduates may be more relevant than social classes as conventionally defined.

The vice-chancellors also complain that the new projections do not make sufficiently generous allowance for the expected increase of demand from mature students (over 26) or for the expected attainment of women school-leavers.

The statement says that financial provision for higher education in the next three years is now "considerably out of line" with the government's new estimate of demand and, ominously, promises further study of the issue.

Other developments in the past week include:

- Moves supported by the Foreign Commonwealth Office to abate the cost of fees for overseas students in British univercities
- A bid by the Science and Engineering Research Council for funds to collaborate in the European Synchrotron Project (disclosed to a House of Commons select committee)
- A lobby of last week's meeting of the Medical Research Council by members of the Association of University Teachers (and other groups).
- A mounting sense of despair among research council heads, one of whom said this week that it "would not be time to take to the streets" until November.

New Polish university proposed

THE Polish Government has placed a bill before the Sejm (Parliament) authorizing the establishment of a university in Szczecin, a surprising development at a time of severe economic restraint and cutbacks in education (about 50 university-level courses have disappeared during the past three years). According to Warsaw radio, however, the university is needed for "state and social reasons", including the "traditions of Polish culture" in the northwest of the country and the "requirements of the state's maritime policy".

Although Szczecin is one of the few major Polish cities to lack a university, it does have a number of higher educational institutions, including a polytechnic, a teachers' training college, an agricultural academy, a medical academy and a higher maritime school. The agricultural academy includes a flourishing department of marine fisheries and food technology, with institutes of aquaculture, fisheries' economics, ichthyology, oceanography and conservation, and sea-food technology, which, together with the higher maritime school (which specializes in shipbuilding and engineering) would at first glance seem sufficient to satisfy the country's requirements. (Indeed, since the agricultural academy also runs diploma and PhD courses for foreigners in fisheriesrelated subjects, it might be argued that the academy has, in fact, a teaching capacity in excess of those requirements.)

The "traditions of Polish culture" in the area may constitute a more cogent argument. Before 1945, Szczecin had been under German rule for three centuries, as part of the Electorate of Brandenburg. The frontier changes after the Second World War meant that the German population of the territories reacquired by Poland migrated westwards, mostly to the Federal Republic of Germany. Of recent years, some of these elderly exiles have been sending letters to the Polish inhabitants of what they still consider to be their homes, warning them not to put down roots, since sooner or later the Germans will be back.

The West German Government is embarrassed by the whole affair and has disclaimed any responsibility for what it stresses are the individual views of only a tiny minority of its citizens. The Polish authorities fear, however, that such a campaign could not be launched without the tacit approval of some person or persons high in government office. Any proposal that will reinforce the Polish claim on the "western territories", such as the proposed university in Szczecin, is a strong candidate for funds even in the current economic difficulties. Vera Rich