

OLD WORLD

COUNTRYSIDE COMMISSION

How to Run the Parks

THE appointment of a permanent director of the Countryside Commission and the administration of national parks within the proposed new structure for local government are singled out for special comment in the commission's report for 1970-71 (HMSO, £0.68). The decision to build up a management team under a director, Mr R. J. S. Hookway, is regarded by the commission as a positive step forward because it gives the commission its first badly needed permanent senior staff.

During the year, the commission successfully suggested to the Department of the Environment that "progress in accomplishing the purposes of national parks" should be reviewed and plans drawn up for the future. A review body under Lord Sandford was duly set up in July this year and, after visits to all the national parks and several public hearings, it is expected to report by the end of 1972. The commission was, however, also acutely aware that its views about the administration of national parks needed to be aired in the discussion that surrounded the proposals for local government reform published in February this year. Although the commission considers that all national parks should ideally be run by an executive body with full planning powers and an appropriate staff (as is the case at present for the Peak Park and to a more limited extent the Lake District), agreement was eventually reached with the County Councils Association on a joint submission to the Department of the Environment.



Fig. 1 The Mawddach estuary and Cader Idris, Snowdonia, where exploratory drilling for minerals is taking place.

The proposal is that each national park—except the Peak Park and the Lake District—should be administered by an executive committee of the local authority in whose catchment area the largest part of the park falls and that the committee should have both independent representatives and members from the other local authorities concerned. The two bodies also suggest that each park should be assigned a park administrator, 75 per cent of whose salary would be paid by central government.

The commission is also empowered by the 1968 Countryside Act to make grants to local authorities for the provision of country parks and picnic areas but the report has stern words for the seventeen of the fifty-eight administrative counties in England and Wales who have so far not submitted any suitable schemes.

The report clearly expresses the commission's concern at the preliminary explorations for minerals that are taking place in the Lake District and Snowdonia. At the public enquiry about an application by Rio Tinto Finance and Exploration Ltd to explore for gold and copper in Snowdonia, for example, the commission stated unequivocally that it was "entirely opposed . . . to all stages envisaged by the developers, for the reason that the developments to which they are intended to lead are wholly inconsistent with the purposes for which the national park was established".

MARS

Continuing Progress

from our Soviet Correspondent

ALTHOUGH the current Soviet investigations of Mars have had a number of setbacks (notably the short effective life of the descent capsule) preliminary readings from telemetry data from the orbiting Mars-2 and Mars-3 stations have provided several interesting results.

The programme was originally designed as a three-prong attack—the descent capsule to transmit surface data and the two orbiting stations to take readings from essentially different orbits (Mars-2 from a highly elliptical 18 h orbit, with apocentre 25,000 km and pericentre 1,380 km and Mars-3 from an approximately 11 h orbit of pericentre 1,500 km) while the descent stage would provide readings of atmospheric temperature and pressure, wind velocity, chemical composition of the atmosphere and soil and also television pictures. Unfortunately, transmission from the surface, it is now revealed, ceased entirely after 20 s, so that it was impossible even to ascertain whether the experiments of the descent stage

had begun to function satisfactorily; the telemetry from Mars-2, however, and the orbital section of Mars-3 are apparently providing satisfactory data.

The experiments aboard these craft include an infrared radiometer in the 8-40 μm range, to map the temperature distribution of the Martian surface; a device for studying the surface relief by measuring the amount of carbon dioxide along the line of sight, the amount of carbon dioxide being determined from the intensity of the 2.06 μm band by an infrared photometer; a device for measuring the reflective capacity of the surface and atmosphere in the visible range from 0.3 μm to 0.6 μm ; a unit for measuring the radio brightness temperature of the surface in the 3-4 cm band, and of determining the dielectric permeability and temperature of the surface layer at a depth of 30-50 cm; a device for determining the density of the upper atmosphere and the content of oxygen, hydrogen and argon, using an ultraviolet photometer; two television cameras of different focal lengths, permitting both wide-range and high resolution photographs of the surface to be taken.

Initial telemetry readings have already provided a number of interesting results. The surface temperature, measured from the orbital pericentres by infrared radiometer, did not exceed -15°C . A point was observed on the night side of the planet where the temperature was some 20-25 $^{\circ}\text{C}$ higher than the surrounding area. No explanation for this anomaly has so far been advanced.

Sharp differences in the brightness of the planet observed through different colour filters in the visible range have been noted, giving far fuller information about the colour differences of the regions of Mars than is obtainable from investigations from the Earth.

The water-vapour content of the atmosphere is, as expected, extremely low (at the points of observation it did not exceed 5 μm of precipitated water). Ultraviolet observations have shown the presence of monatomic hydrogen and oxygen in the upper layers of the atmosphere. As observations continue, it is hoped to obtain the variation of these components with height. Preliminary calculations indicate that monatomic oxygen is observed in the 400-1,000 km region and monatomic hydrogen at heights of 10,000-20,000 km.

Other observations have studied the intensity of thermal radiation in the radio range and the nature of its polarization along the planet's disk, enabling the effective temperature of the subsurface layer to be established and its dielectric permeability and mean density to be estimated.