

Abstracts

Weather and Climate : from sciences of nature to planetary engineering

A. VILLEVIEILLE

What is climate ? The integral of weather conditions over a long period of time.

Our knowledge on weather and climate is basically derived from observation. Then follows a more sophisticated stage, with aerodynamics modeling, on a global scale (requiring the most advanced computers).

The impact of weather and climate on human activities, including socio-political aspects, is highly emphasized in the late part of the paper.

Climates of the past

M. BOULANGER

Paleoclimatology is a new science which uses different methods of investigation (isotopic analysis, paleontology, palynology, geology, etc.). The gross characteristics of the past climates are described according to our present knowledge. The principal hypothesis about the causes of climate changes are developed (Solar activity, Milankovitch theory, geomagnetic activity, volcanic phenomena, autovariation of the climate).

Dinosaure : a new tool for meteorological observation

A. VILLEVIEILLE

The DINOSAURE vehicle has been designed by EERM for two major purposes : pollution monitoring and in situ cloud studies. DINOSAURE is a small dirigible, with some features of an aircraft, among which the « catamaran wing » is the most striking. Some innovations, such as a new type of light skull and an air-cushion landing device, are to be noted. The faisability studies were completed recently (late 1976).

An Information Centre on Social Innovation

F. BLOCH-LAINÉ

An Information Centre on social innovation was created in Paris in September 1976. M. Bloch-Lainé, President of the Centre, analyses the various problems connected with the centralization of social innovations. Its objectives are to identify, collect and analyze all experiments in progress in the social and cultural fields, both in France and abroad. Today the data about social innovation are scattered and little known. This means that, in their present state, they are of little use to social innovators. The aim of the Centre is to publicize the most interesting experiments, so that they can be judged as soon and as thoroughly as possible, in a field where the ideas are stimulated by existing examples. The Centre does not intend to propose « models », but rather to offer some kind of basis to people willing to set up new social experiments. There is an important obstacle : it appears to be complicated to classify information which is mainly uncertain and changeable, without distorting it.

Meteorological satellites : a new tool for meteorology

R. LASBLEIZ

Meteorological satellites : a new tool for meteorology. These satellites are designed like two human sensors : the eye and the ear. An eye for remote sensing (i.e. radiometry), with high capabilities in various spectral ranges, from UV to Infra-Red and Micro-Waves.

An ear, that is a radio-receiver and transmitter, to collect (and dispatch) data transmitted by in situ platforms (such as buoys).

Meteorological satellites provide operationally a wide range of applications (storms detection, sea surface temperature mapping for fishermen, etc.).

Is it possible to modify the weather in a beneficial way ?

H. AUGUSTIN

In the atmosphere layers which are accessible to us, two mechanisms can be interfered with : condensation of atmospheric water vapour and radiative balance. These two phenomena have natural variability and may be already unadvertently affected by human activities. Several attempts, too often made without sufficient scientific objectivity, have led to limited results. The future of these activities is questionable.

Project « Interfutures »

J. LESOURNE

The research project called « Interfutures » was established in January 1976 by the OECD Council in response to the increasing awareness on the part of Member Governments of the need to re-examine their policy approaches in the face of rapid changes and the growing complexities of the world economy.

It is intended to take a new look at the fundamental problems and prospects of industrialised societies, seen in their international context.

In assessing longer-term developments both within the industrialised world and between advanced industrial societies and developing countries, the research programme will attempt to take into account the consequences of socio-cultural trends, potential problems and opportunities related to energy, raw materials, environment and the future evolution of international structures and systems.

It should therefore provide a valuable contribution to the analysis of some of the problems to be tackled in the Dialogue between industrialised and developing countries.

The Interfutures project will not generally do original basic research : the team is far too small for a significant contribution along those lines. Rather, the intention is to use existing research to develop a set of frameworks for studying longer-run problems, and to analyse the lines of potential policy reaction to them.