tion biology and evolutional studies. Passive atmospheric transfer is of recognized importance in the case of certain pollens and insects. More perfect understanding of this transfer will contribute significantly to the efforts of biologists studying the evolution of populations, geographic barriers and races, physiologic barriers and races, species composition, etc.

*Transfer of gases of biological significance*

Plant and animal damage is often the result of gases, particularly the by-products of combustion. The diffusion phenomena involved in long-range transfer of such materials form a discrete area of inquiry quite different from the above. Information on levels of gaseous pollants and their effects (acute and chronic) on organisms, large and small, is needed especially for the major urban and agricultural areas of the world.

*Advisory committee on meteorology*

The generation, transport, and eventual effects on the environment of biologically significant materials are dependent on a hierarchy of atmospheric variables. It is therefore necessary to determine the relevant meteorological measurements which influence the environmental impact and to insure that these are included in all evaluations. There are areas where the behavior of the atmosphere which affects biologically significant materials is not well understood, e.g., a quantitative understanding of ultraviolet attenuation in polluted atmospheres or the ability to precisely determine the path, dilution and natural removal of spores or pollens over long ($>$1000 km) distances.

In view of the preceding, the Advisory subcommittee of meteorology will: 1) provide guidelines on the scope of meteorological influences on the generation transport, removal and effects of materials. These guidelines should be developed in terms of space or time scales such as $<$1 km, $<$1 hour, $\lesssim$ 1 km, $\lesssim$ 1 hour (micrometeorology), 1–100 km, 1–12 hours (mesometeorology), 100–3000 km, 1–7 days (synoptic meteorology) and $>$3000 km and $>$7 days (global meteorology and climatology); 2) Provide guidelines for non-meteorologists on methods of measurement and sources of data relevant to documenting atmospheric variability; 3) Provide a referral service to establish communication between meteorological groups, biologists and other scientists; and 4) Review the present status of meteorological ability to contribute to IBP and Task Force objectives and identify areas where meteorological research is required. To accomplish these four tasks the subcommittee will convene working groups to prepare problem reviews for submission to the Task Force. Maximum use will be made of existing national and international organizations and their activities to further the international goals of the IBP. The World Meteorological Organization, with its several Commissions and their Working Groups will be an especially important resource for competence and information interchange.

*Cooperation*

Elements of the proposed research, including some international effort, are already in existence. One guideline to be observed will be the complementation and extension, not the duplication, of extent efforts. Wherever possible, national and international expertise, facilities, manpower and resources will be called into play, such as exist in the FAO, WMO, WHO, UNESCO, etc.

SUMMARY BUDGET

| | Fiscal year | | | | |
|---|---|---|---|---|---|
| | 1968 | 1969 | 1970 | 1971 | 1972 |
| Task force | 4,600 | 4,600 | 7,000 | 4,600 | 7,000 |
| Subcommittee | 9,600 | 9,600 | 2,400 | 2,400 | |
| Symposium | 5,000 | 10,000 | | 5,000 | 10,000 |
| Secretariat | [1] 20,000 | 30,000 | 30,000 | 30,000 | 30,000 |
| Total | 39,200 | 54,200 | 39,400 | 42,000 | 47,000 |

[1] Partial year support to allow for recruitment.