The Capricious Administration of Science and Technology

In the United States, as well as many developed countries, science and technology, is often poorly administered. As we have seen in weather modification, administration of many programs is fragmented among a number of basic and mission-oriented agencies, all of which compete for funding at national and state levels. This competition amongst the agencies often leads to the greatly exaggerated claims that many of the scientific and technological issues will be solved in the next five to ten years.

In addition, because many of these agencies are mission-oriented, their job is to examine the impacts of human-induced changes on weather and climate on energy, air quality, water resources, or agriculture. Their job is not to advance the fundamental scientific issues regarding the behavior of the earth system, but to get on with the business of evaluating the impacts of anthropogenic activity on their programs. As a result, they are often looking for shortcuts to bottom line answers that can probably only be obtained through meticulous, often time consuming scientific research.

Moreover, national governing bodies (legislatures, presidents, etc.) all work on time scales of two, four, or six years, and want to be able to identify impacts of their programs on time scales of their tenure. If significant progress is not made on those time scales, then often funding in those programs is reduced, if not curtailed, and new, competing programs are brought to the forefront. This results in shortsighted funding in science and technology in which programs are begun and before they reach maturity they are curtailed, then the rush is on to get on the bandwagon with the latest fad. The scientific and technological problems associated with the investigation of human impacts on weather and climate are so complicated and multifaceted that many of the issues will not be resolved on time scales of decades or possibly centuries. Thus, programs associated with the investigation of human impacts on weather and climate require sustained, stable national funding at a high level. A view supporting this idea has been recommended in the Policy Statement of the American Meteorological Society on Global Climate Change (1991) and in the report, Global Climate Change: A New Vision for the 1990s (Michaels, 1990), which was produced by a group of climate scientists in the fall of 1990 who questioned the overselling and shortsighted perspective of current climate change government policy.