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Title: Making Global Change Data From Satellites Available For  
Policy Decision Making

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Abstract: As environmental pollution increases, as worldwide economic development coupled with population growth increases, political leaders will find themselves increasingly in a state of conflict with each other and with their citizens over whether to or how to moderate global change. In addition to the usual difficulty in dealing with multi-nationally generated environmental damages, will be the many equity issues among nations. These issues are due to differences in: the historic contribution to the problem; the current state of economic development and wealth; the amounts and types of future energy reserves; social values; the high potential magnitude of the costs to reduce climatic change and even in the perception of what is seen as a problem and what is a solution. The decision process will be further complicated by the large time displacements of when you pay the mitigation strategy costs (up-front) and when you receive the expected benefits (50 to 200 years later).

The planned launches of European, Japanese and American satellites for monitoring the earth will provide many terabits of data which can be used to help answer numerous environmental questions. So far an enormous effort has been made so that this information can be used for specific scientific objectives such as providing data for the generation of global circulation models. At the same time, very little effort has been spent in understanding how this information is made available to and used by political and policy decision makers. An important purpose of the Mission to Planet Earth is to directly aid the difficult decisions on what to do about human activated global change. This paper discusses the likely requirements that may be placed on the end-to-end information system so that it might actually be used as the basis for policy and political decision making. A Decision Support Center (DSC) is proposed and associated mechanisms that meet the requirements for linkage of the scientific and political.