**Introduction**

The primary goal of the U.S. GLOBEC programs is to enable researchers to share data and resources, thereby facilitating the exchange of information and the advancement of scientific understanding. In order to meet this goal, a well-designed data management strategy is essential. The U.S. Joint Global Ocean Flux Study (JGOFS) data management strategy is designed to be flexible, extensible, and capable of supporting a distributed environment, addressing the needs of scientists worldwide. This strategy includes the establishment of data management protocols and systems support, which are critical for the successful implementation of large multi-disciplinary oceanographic programs such as U.S. GLOBEC. They are essential elements for effective program administration, data analysis, and project development and data dissemination.

**Data Management**

Data management in large, multi-disciplinary oceanographic programs is complex and requires careful planning and execution. The following features are essential for effective data management:

1. **Data Curation:** This involves the selection of data to be collected and maintained. It is a critical step in ensuring the quality and relevance of the data generated.
2. **Data Storage:** Data must be stored in a secure and accessible manner. This requires the development of appropriate software and hardware systems.
3. **Data Retrieval:** Researchers must be able to access the data they need to conduct their work. This requires the development of user-friendly software and hardware systems.
4. **Data Sharing:** Data must be shared among researchers to foster collaboration and innovation. This requires the development of appropriate software and hardware systems.
5. **Data Preservation:** Data must be preserved for future use. This requires the development of appropriate software and hardware systems.

**Data Curation**

Data curation is the process of selecting data to be collected and maintained. It is a critical step in ensuring the quality and relevance of the data generated. The following procedures are essential for effective data curation:

1. **Data Collection:** Data must be collected in a disciplined and systematic manner. This requires the development of appropriate software and hardware systems.
2. **Data Entry:** Data must be entered into the system in a consistent and accurate manner. This requires the development of appropriate software and hardware systems.
3. **Data Storage:** Data must be stored in a secure and accessible manner. This requires the development of appropriate software and hardware systems.
4. **Data Retrieval:** Researchers must be able to access the data they need to conduct their work. This requires the development of user-friendly software and hardware systems.
5. **Data Sharing:** Data must be shared among researchers to foster collaboration and innovation. This requires the development of appropriate software and hardware systems.
6. **Data Preservation:** Data must be preserved for future use. This requires the development of appropriate software and hardware systems.

**References**


**Acknowledgements**

This work is supported by the NSF Ocean Science Division through the U.S. Global Ocean Program.