# General recommendations to the NCAR Data Stewardship Engineering Team

## The HDF Group

The results of the metadata analysis are presented in the attached reports along with specific guidance on improving metadata collections with respect to the DataCite and ISO 19115-1 recommendations. Beyond the specific recommendations for metadata improvement provided in the reports, we provide some general recommendations to guide the DSET in meeting their documentation goals for the NCAR collections.

There are currently some NCAR collections that do not have structured metadata in a format that can be shared i.e. machine-readable formats. These labs (collections) may require further guidance and training to familiarize them with the process and tools available for creating metadata that serves the needs of their user community, and also allows them to share their metadata and information with other users.

At this time, the DataCite dialect is the only one in use at NCAR that has the capability to completely meet the mandatory DataCite recommendation level. In order to achieve the goal of meeting the mandatory recommendation, other metadata dialects in use at NCAR will need to be amended or changed.

The ISO 19115-1 dialect is more comprehensive than the DataCite dialect as is shown in the graph on page 6 of the ISO 19115-1 report. While the DataCite dialect meets specific requirements for unique identifiers, it is limited in its ability to include other important concepts. In addition, there is currently an extension to the ISO 19115-1 dialect being proposed that would include the capacity to provide unique identifiers for people and organizations. This should be considered when making decisions about choosing dialects.

There are many existing metadata creation tools that may be useful to the NCAR communities, and more specifically to meet the DSET goals. These should be explored since there may not be a single tool that suits the needs for all of the collections.

This preliminary analysis has highlighted many opportunities for the NCAR collections to increase the impact and usability of NCAR data. Further exploration can identify efficient approaches to metadata improvement and identify community requirements for data access, use and understanding.