

Advisory Committee
NSF OpenTopography Project
Findings and Recommendations
April 22, 2011

The Advisory Committee (AC) for the NSF OpenTopography (OT) project met with the project team on Friday April 22, 2011. This was the second meeting of the advisory committee, comprising of: David Tarboton, Nancy Glenn, David Sandwell, David Phillips, Jason Stoker, and Steve DeLong.

Overall we are impressed with the progress made by this project since the last AC meeting in June 2010. The following are points where we perceive the project to be especially strong:

- Community oriented
- Tiered data access
- Link to scientific inquiry
- Simplicity and elegance of the web design
- Diversity of team strengths
- Leveraging of resources at SDSC
- Responsiveness to community inquiries
- Following the original proposal
- Workshops, tutorials, and online help documentation
- Providing metrics and trends for contributed data and data processing

Furthermore we continue to be impressed by the CI development that supports OT and feel that OT stands at the forefront of CI for the earth sciences.

We would like to acknowledge that the following recommendations from the AC in June 2010 were completed:

- Developed/clarified mission
- Improved the attribution of sources of original data
- Key and opportunistic datasets (e.g. Haiti, Tahoe, Oregon, Baja Earthquake) have been acquired
- Promote open data and software through data and tool registry with feedback mechanism
- Continued to increase and improve community outreach through short courses, web resources, and social media

Based on our discussions and interaction with the OT team, we recommend the team focus on the following items:

- Complete the MOU with NCALM (see note below)
- Develop an MOU with USGS to formalize data exchange, tool development, and plans for a long-term archive
- Continue to be strategic about acquiring scientifically valuable data
- Continue to broaden and diversify the user base to be consistent with the mission while leveraging future funding opportunities
- Provide the earth science community with support for preparing data management plans as now required for all NSF proposals. Offer and publicize the OT capability for data management
- Forge partnerships prior to data collection to serve as the LiDAR data distributor

- The AC feels that there is an opportunity for intermediate-term archive and distribution of Terrestrial LiDAR Scanning (TLS) data that have been collected by the scientific community. We encourage a development of a plan to distribute TLS data perhaps in collaboration with UNAVCO.
- Continue to publicize OT capabilities (e.g. EOS article)
- Identify the best procedure for funding renewal by interacting with program managers and preparing for a balanced proposal for broad science goals and CI contributions (present this at next AC meeting; see note below)
- Evaluate the possibility of collecting fees for agency-based data hosting outside the NSF community while ensuring data access is always free
- Pursue a long-term strategic plan for a business model

NCALM NOTE - The AC recognizes that NCALM and OT perform independent and complimentary functions and thus they should collaborate and promote each other with no sense of competition. For example the NCALM web site links to OT data and we encourage more of this. In turn, OT has made significant efforts to encourage users to properly attribute both the data source and data distributor. We recommend that OT make the NCALM contributions even more prominent on the OT web site in an effort to further foster collaboration between the two organizations. The AC will contact the NCALM leadership to facilitate the MOU development.

2012 Proposal NOTE - The AC encourages early planning for the next OT proposal opportunity in February of 2012. We recommend that the OT provide an outline of this proposal 6 months prior to submission as well as a draft proposal 1 month prior to submission. The AC will provide critical review and feedback on both of these documents. A key consideration will be the balance between enhancing the LiDAR data distribution capabilities and the development of state-of-the-art computer science methods. This should reflect the partitioning of the funding request between NSF Earth Sciences and Cyber Infrastructure.