

## IceCube Project Monthly Report October 2004

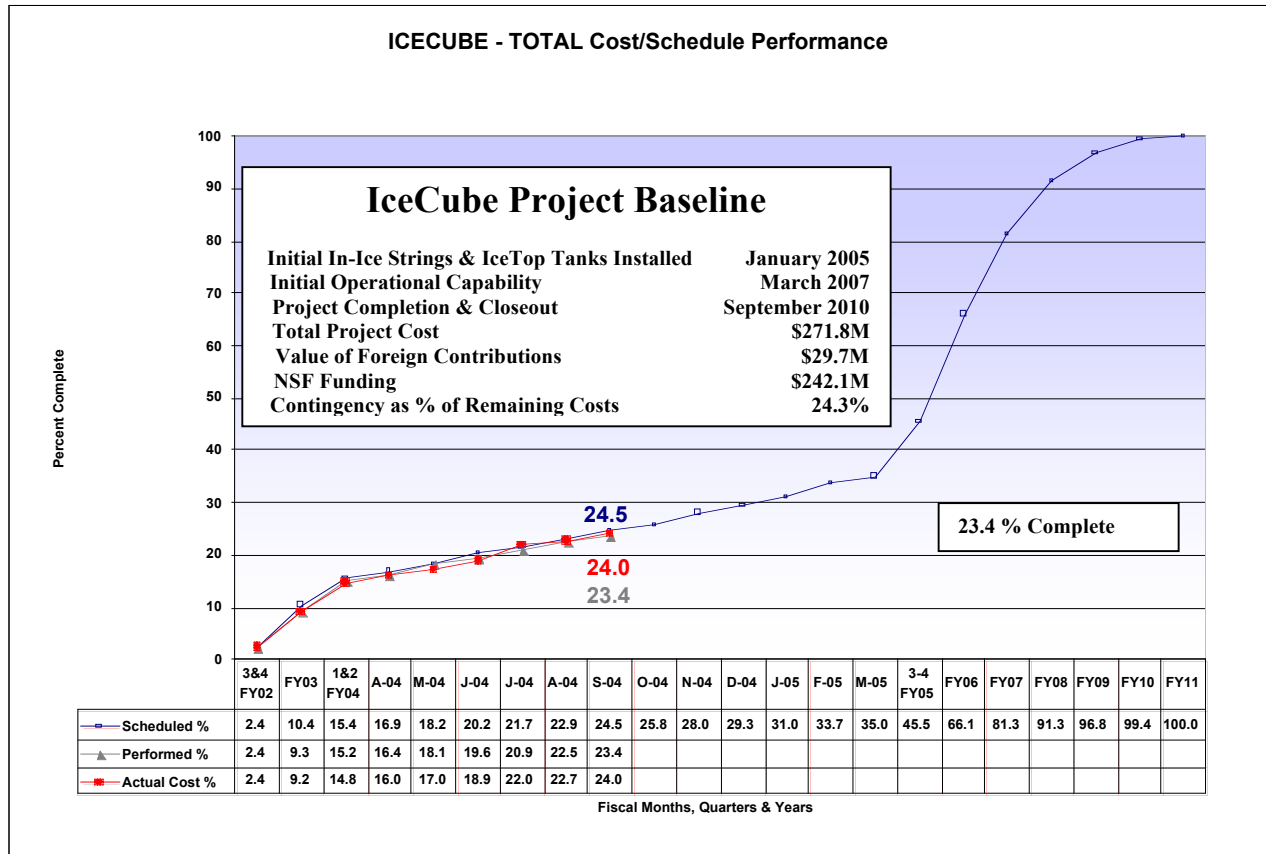
### Accomplishments

The production of Digital Optical Modules (DOMs) required for the first season is nearing completion at the three worldwide production sites. The equivalent number of DOMs needed for two IceCube strings are in transit to the South Pole. The production quantities and success rates from testing are expected to yield more than the total number of DOMs required for four strings and eight surface tanks.

The NSF conducted a three-day review of the IceCube project with emphasis on the project cost estimates. The NSF Cost Review panel included ten panelists and commended the IceCube collaboration on the progress in generating the necessary contingency on the estimated cost to complete the construction of the IceCube detector. The Panel also congratulated IceCube on achieving the milestones necessary to have all the necessary material available for installation of 4 strings at South Pole during the coming Austral season.

The IceCube Safety Plan has been updated in coordination with RPSC to include on-ice activities and safety communication. Operations and safety training for drillers and the deployment workers is complete.

IceCube senior managers participated in the first meeting of the International Oversight and Finance Group.



**Cost and Schedule Performance** – The total cumulative schedule and cost variances at the end of September were roughly one percent. An adjustment was made to the performance variances in the area of Detector Commissioning and Verification. This element includes significant labor contributions from outside the U.S. and the earned value performance was overstated in previous reports. The current measurement is more accurate and results from stronger management involvement in the assessment and representation of non-US effort and progress.

**Drill Construction and Operation** – IceCube staff are now traveling to the South Pole and will begin construction of the drill camp and setup of the equipment beginning in November.

**Digital Optical Module Production & Testing** – The project is on track to produce 400 DOMs by the end of November and to ship 285 DOMs (enough for four strings plus spares) to the South Pole for this deployment season. Production status through October is summarized in the table below:

DOM Main Circuit Boards	360
DOMs Produced	328
DOMs Accepted for Shipment	161
DOMs Shipped	136
DOMs Currently in Testing	129
Surface-to-DOM Main Cables Shipped	4
Surface Cables Shipped	4
Surface-to-DOM Cable at PSL for System Testing	1
Surface-to-DOM Cable Ready for Next Year (vessel)	1

**Data Systems** – The data handling system for the instrumentation that will be installed this season was shipped from UW to Port Hueneme, California on Oct 25, 2004.

**Detector Verification and Commissioning** – The planning documentation is complete and simulation of the first four IceCube strings plus AMANDA is underway.

**Project Documentation, Safety and Quality Assurance** – There is ongoing effort to formally approve a number of documents currently in final draft form and to complete other documents subject to formal control. The status of this documentation will be reviewed each month.

**Future Meetings and Events**

Monthly Status Meeting	November 17
DOM Production Readiness Review for 2 <sup>nd</sup> Season Procurements (Part I)	November 17-18
DOM Production Readiness Review for 2 <sup>nd</sup> Season Procurements (Part II)	December 1
Monthly Status Meeting	December 15
Quarterly Status Meeting @ UW (NSF participation)	January 19, 2005
DOM Final Production Readiness Review for 2 <sup>nd</sup> Season Production	March 7-8, 2005
Project Advisory Panel/ Science Advisory Committee Meetings	March 9-10, 2005
IceCube Collaboration Meeting	March 19-23, 2005
International Oversight and Finance Group Meeting	March 24, 2005