

**From:** Geary Eppley <eppley@physics.rice.edu>  
**Subject:** revised TOF construction schedule  
**Date:** June 16, 2005 2:08:24 AM CDT  
**To:** "Ralph L. Brown" <rlbrown@bnl.gov>, <padrazo@bnl.gov>, Vahe <vahe@physics.ucla.edu>, "W.J. Llope" <llope@physics.rice.edu>, Jo Schambach <jschamba@physics.utexas.edu>, Jerry Hoffmann <hoffmann@physics.utexas.edu>

---

Hi,

From working on the project schedule and thinking about the remaining R&D issues ( HV, LV, cross talk, TINO,...) I think we should allow a little more space in the schedule.

I propose some new milestones below for comment. The basic change is that the module and tray production milestones are all slipped by 2 months.

-Geary

Milestones:	FY06 Q1 Project funding approved	11-01-05
	FY06 Q1 Project accounts open	12-15-05
	FY06 Q2 Module production begins	3-15-06
	FY06 Q2 Order HPTDC chips	4-15-06
	FY06 Q2 Order NINO chips	5-01-06
	FY06 Q3 TINO, TDIG R&D complete, to build	5-15-06
	FY06 Q3 Tray assembly begins	6-30-06
	FY06 Q4 TCPU, THUB R&D complete, to build	7-15-06
	...	

To review expectations about how the MRPC production, electronics production, and tray assembly and test would integrate:

Modules are produced in China at Tsinghua and USTC, tested with cosmics so there is a timing measurement for each cell, and shipped to UT, monthly. The China groups are currently proposing to test only 20% of the modules for timing so this is an open issue.

Current milestones call for:

128 modules tested and shipped	in the first 3 months	6-15-06
640	in the next 6 months	12-15-06
768	in the next 6 months	6-15-07
960	in the next 6 months	12-15-07
1344	in the next 6 months	6-15-08

This is enough modules for 120 trays and 5% spares.

Tray assembly basically lags behind module production by ~90 days.

Trays are assembled with TINO, TDIG, and TCPU at UT and tested with cosmics to get a timing measurement in each channel. Shipped to BNL as a complete detector unit including integrated electronics.

Current milestones call for:

4	trays completed and ready for shipping	in first 3 months	9-30-06
20		in next 6 months	3-30-07
24		in next 6 months	9-30-07
30		in next 6 months	3-30-08
42		in next 6 months	9-30-08
6		in last 3 months	12-30-08

To meet this production schedule, we would order electronics as follows:

Order 100	TINO/TDIG,	12	TCPU,	~5/25/2006
200		24		~9/15/2006
400		48		~5/15/2007
420		60		~2/25/2008

The infrastructure work could begin in the first year. You will have to pick a date and length for the shutdown when the work can be performed. The work should be completed in the second summer shutdown, calendar 2007.

This gives us a third summer shutdown calendar 2008 for schedule contingency.

-Geary