ATLAS PIXEL SYSTEM
MODULE SCHEDULE

M. Gilchriese
Lawrence Berkeley National Laboratory

March 12, 1999

Module Prototypes

- 1st Prototypes
  - No optical connections
  - Flex v1.0 and v1.x
  - Rad-soft and 1st rad-hard chips
  - Modules mounted on PC boards for power/signal routing
  - Multiple bump bonding technologies
  - Handcrafted assembly/manual wire bonding
- 2nd Prototypes
  - Optical connection possible
  - Flex v2.0 and 2.x
  - Mostly rad-hard chips(rad-soft possible)
  - Power connection via "pigtail" possible
  - Mounted on PC boards for testing
  - Multiple bump bonding technologies allowed(may be one)
  - Prototype assembly tooling/manual bonding, maybe automated
- 3rd Prototypes
  - Optical connections
  - Flex v3.0(hopefully preproduction)
  - Power connection via "pigtail"
  - Selected bump bonding technology
  - Preproduction assembly tooling/automated wire bonding
  - Full QA program implemented
  - Look in all respects like production modules

Baseline Milestones vs Current

Milestone	Baseline	Current
Complete 1st prototype design	Oct-29-98	Complete
1st prototype design review	Feb-18-99	Feb-20-99
Complete tests of 1st prototypes	Mar-18-99	Sep-17-99
Select module type	Mar-18-99	Feb-22-99
2nd prototype design review	Sep-17-99	Sep-10-99
Complete 2nd prototype design	Oct-14-99	Oct-14-99
Complete tests of 2nd prototypes	Apr-3-00	Sep-15-00
Select module production vendor(s)	Apr-3-00	Apr-3-00
3rd prototype design review	Oct-2-00	Oct-2-00
Complete 3rd prototype design	Oct-27-00	Oct-27-00
Complete tests of 3rd prototypes	Sep-28-01	Sep-28-01

Explanations of Changes

- Complete tests of 1st prototypes
  - Tests of modules with hybrids v1.0 and with v1.x will continue through test beam period in 1999. Did not anticipate using v1.x hybrids in baseline schedule.
- Complete tests of 2nd prototypes
  - Second prototypes will also continue to be tested through 2000 test beam period.
  - Believe we can select production vendors for bump deposition and flip chip and related items before completing beam tests, but this may slip. Need some months lead time to complete procurements after selection.
- Selection of module type last month will allow us to develop a more detailed schedule in time for next internal review.