D0SMT Schedule

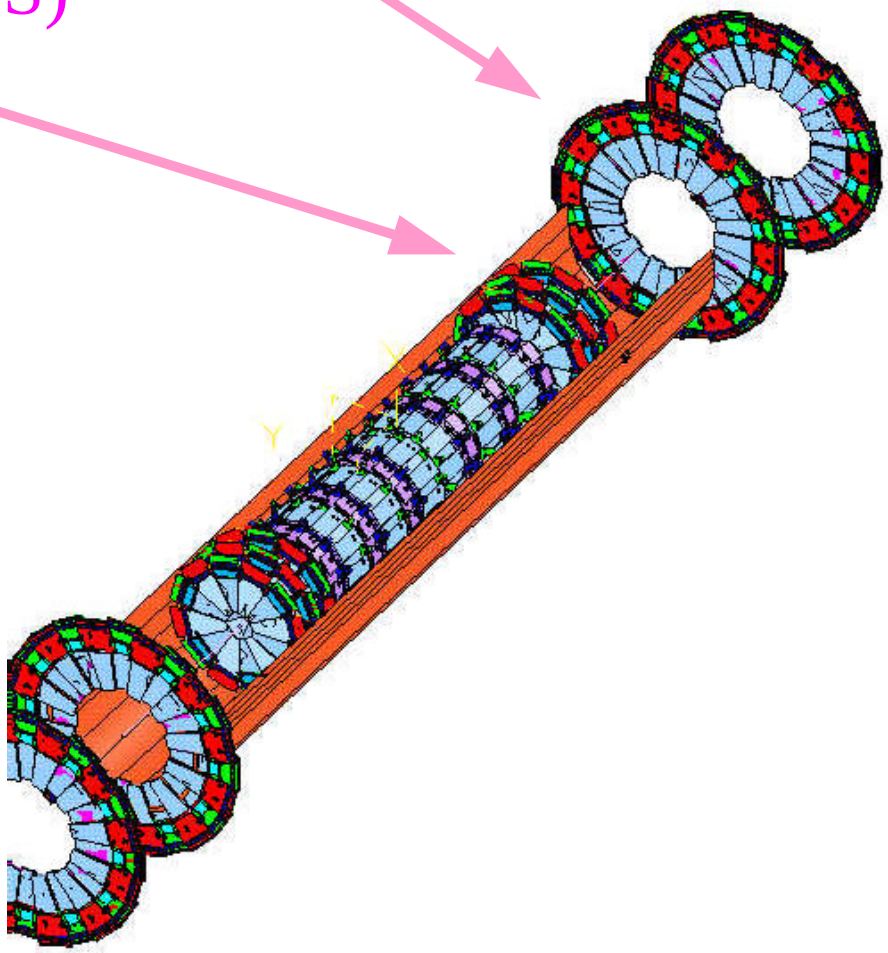
- New schedule generated by task leaders
  - 3,6, 9 chip ladders
  - F Disk
  - H Disk
  - Module assembly and installation
  - 10% test
- Detailed evaluation of production rates determined by:
  - Availability of tested HDIs
  - Availability of fixtures
  - Gluing times
  - Wirebonding times
- Schedule is NOT limited by delivery of Micron detectors
- The schedule assumes enough technicians and physicists to do the work

- Bottom line - Central silicon to DAB 9/13/99

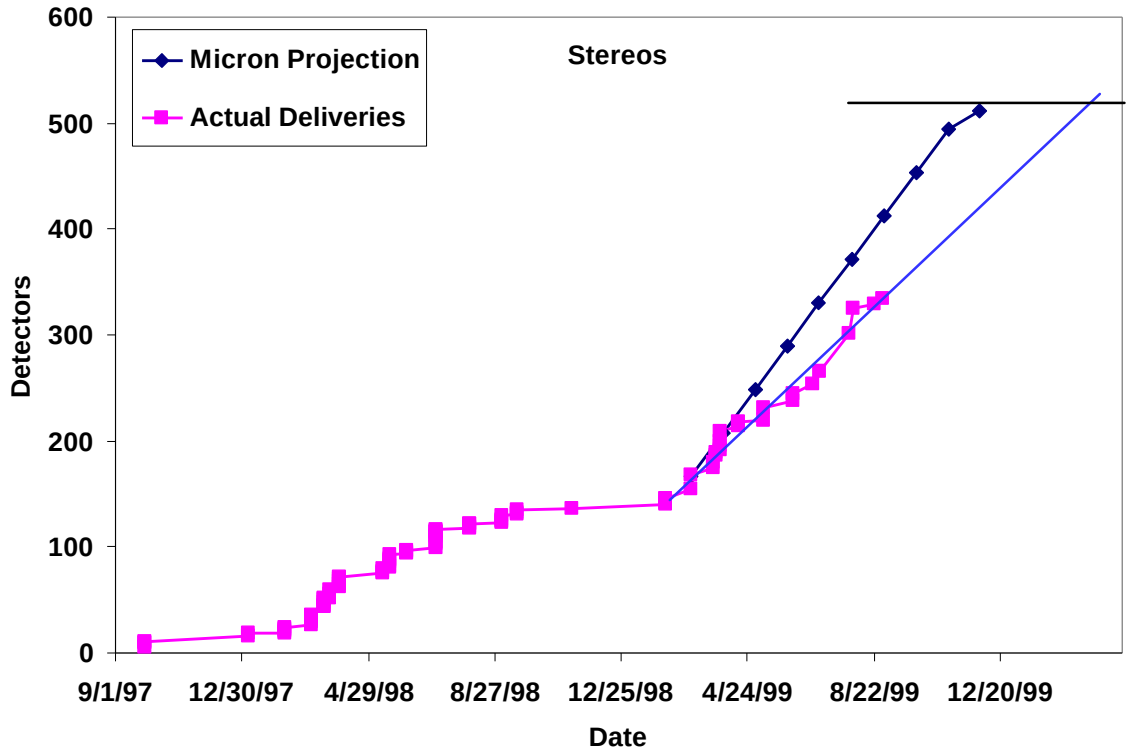
D0SMT Components

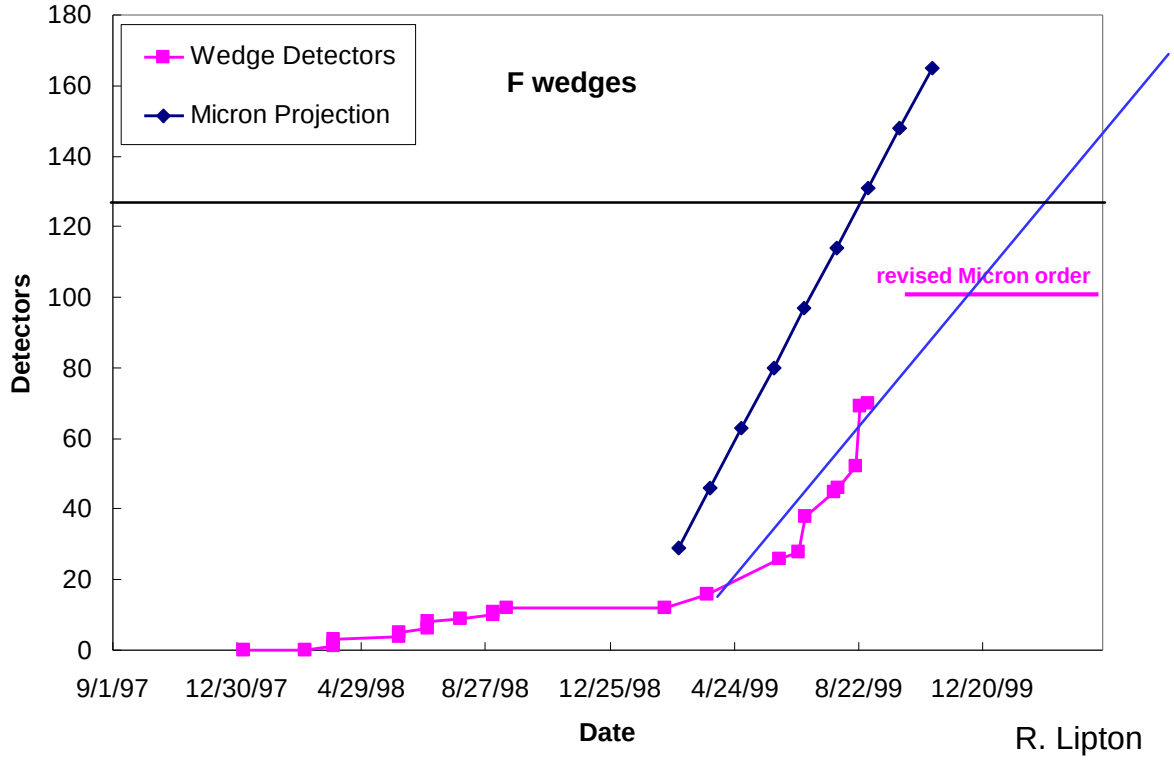
Major SMT Subsystems

- Single Sided Ladder (3 chip)
- Double Sided 2° Ladder (9 chip)
- Double Sided 90° Ladder (6 chip)
- H Disk (SS back-to-back)
- F Disk (DS)



Micron Sensor Delivery





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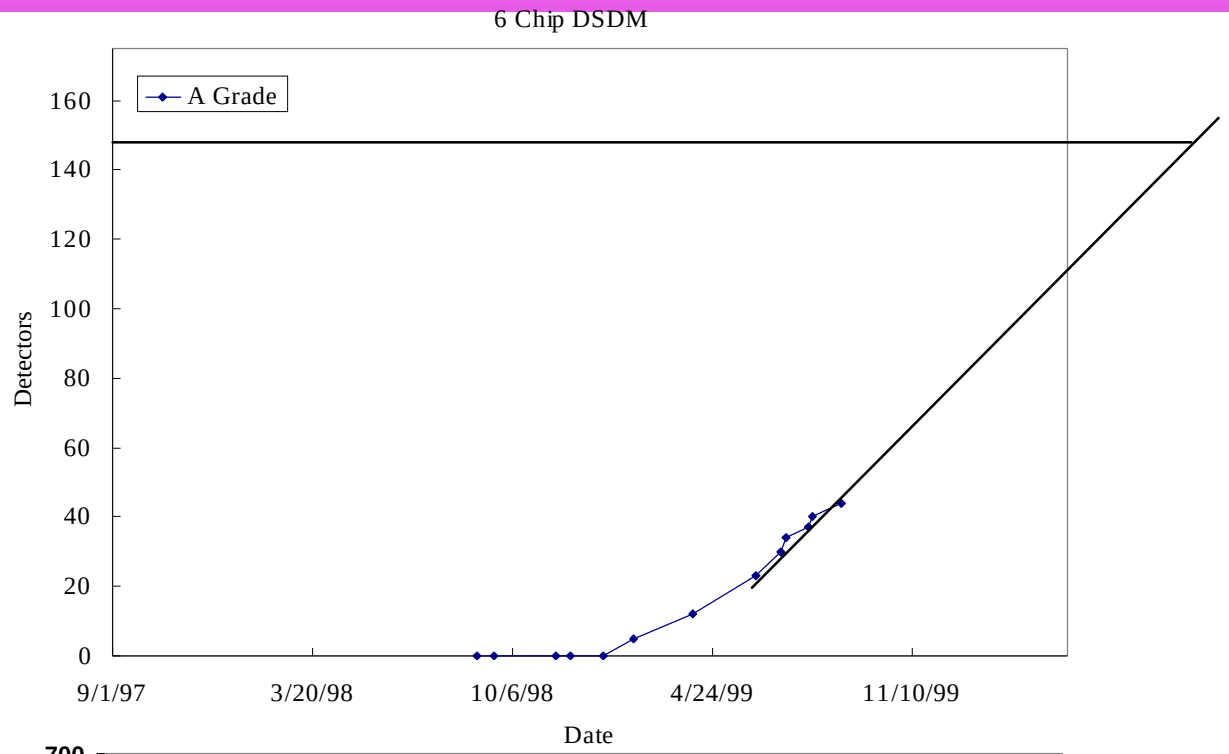
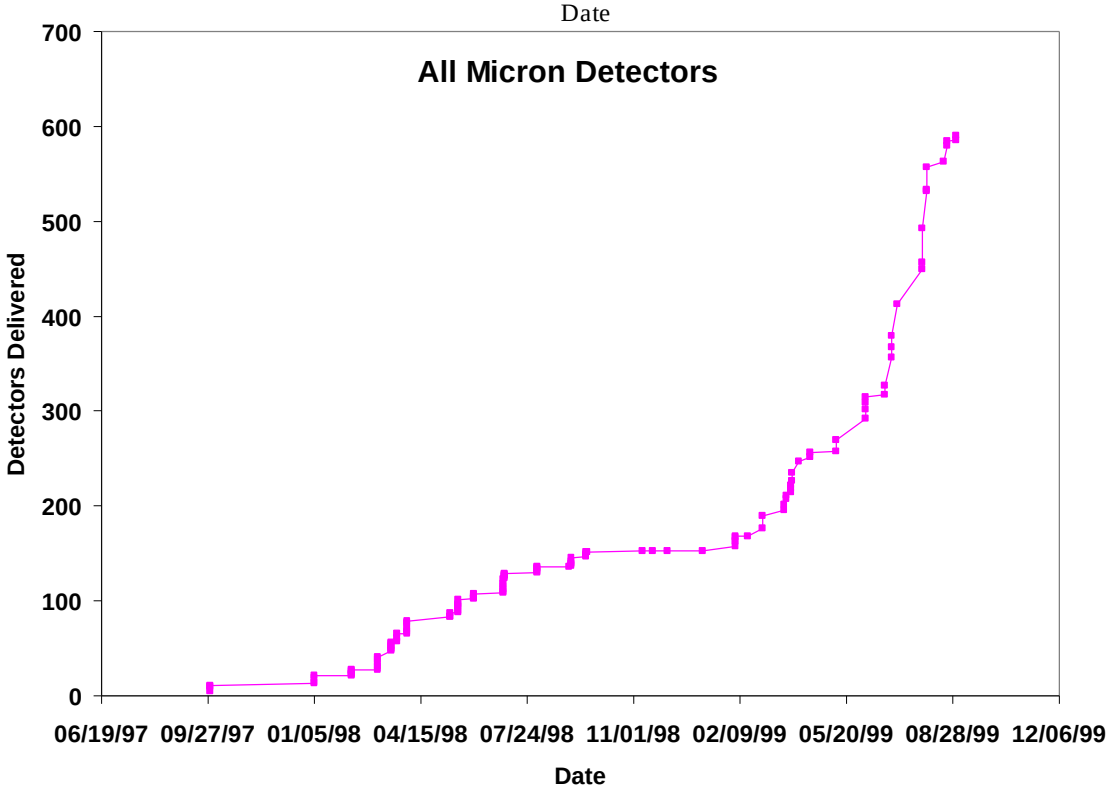
D0SMT Status

Micron Sensors II





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D0SMT Status

Assembly Production Rate

Type	# Needed*	# Produced	Current Rate/wk	Peak Rate/wk	Issues
3 Chip	72	37	5	8	
6 Chip	144	0	0	6	1,4,6
9 Chip	216	34	2	6	1,4,6
F Disk	144	3	0	5	1,2,5,6
H Disk	192	16	3	10	1,2
*Without Spares, schedule includes 20% spares					

Technical Issues

1) HDI Assembly
2) HDI Delamination
3) HDI wirebonding
4) Fixture qualification
5) Jumper production and bonding
6) Microdischarges

Ladder/Wedge Production

Week	9 Chip	3 chip	H Wedge	F Wedge	per wk	Total
		14			0	14
4/26/99	2				2	16
5/3/99	2				2	18
5/10/99	2				2	20
5/17/99	2	1			3	23
5/24/99	2	3	1		6	29
5/31/99	2	4	1		7	36
6/7/99	2	3	2	1	8	44
6/14/99	2	5			7	51
6/21/99		5			5	56
6/28/99					0	56
7/5/99					0	56
7/12/99	2				2	58
7/19/99	2				2	60
7/26/99	2		4		6	66
8/2/99	2				2	68
8/9/99	2			1	3	71
8/16/99	2		5	1	8	79
8/23/99	2				2	81
8/30/99	2		3		5	86
9/6/99	2	2			4	90
	34	37	16	3	of	768

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D0SMT Status

D0SMT - Production Issues

- Resources
  - Need ~ 6 additional techs and ~5 physicists to meet the current schedule
    - 2 (D0) tech requisitions in process for SiDet. Additional pull testing, lamination, second shift.
    - Physicists - necessary for ladder debugging, repair, fixture qualification, barrel assembly and testing.
- Testing systems in Lab C-D crossover
  - Working well - a real success. Need to commission more burn-in systems.
  - Debugging is difficult, needs physicists
- New 8090 wirebonder looks like it will be a real help
  - Reduce F disk bonding from 1 shift to 2-3 hours

D0SMT Schedule

- Subsystems ready
  - 3 chip 11/1/99
  - 6 chip 5/1/00
  - 9 chip 6/20/00
  - F Disk 7/20/00
  - H Disk 6/15/00
- End disk module assembly - 8/10/00
- Beam pipe installation, final tests
- Move to DAB 9/13/00

- Press to finish F disks sooner

- Understand final assembly times more carefully.

- Ramp up production *now* on all detector types
  - Get resources & people
  - Solve technical and vendor holdups