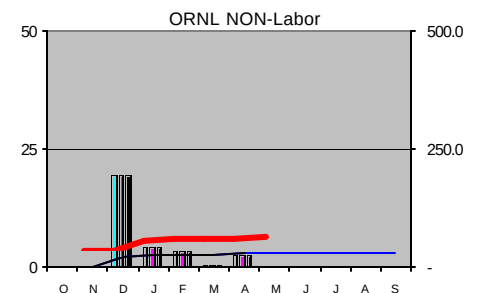
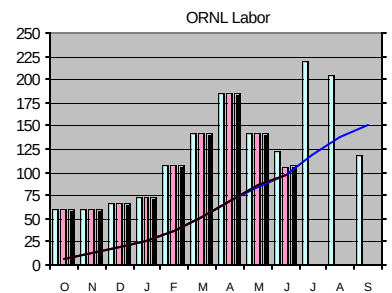
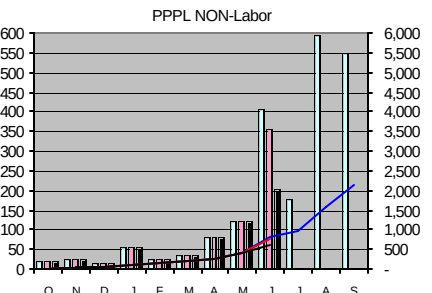
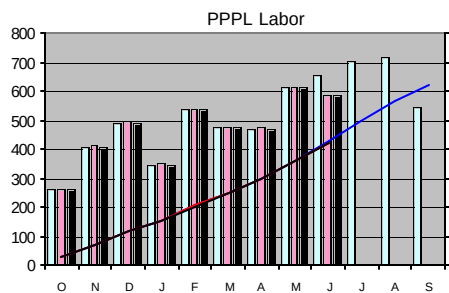
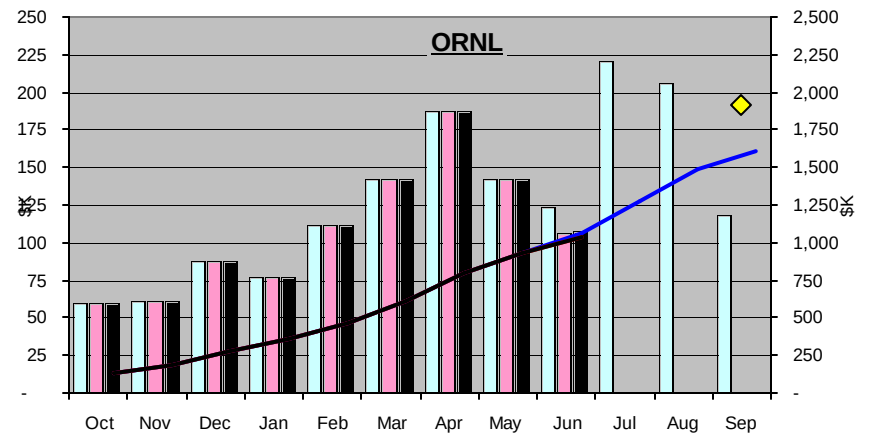
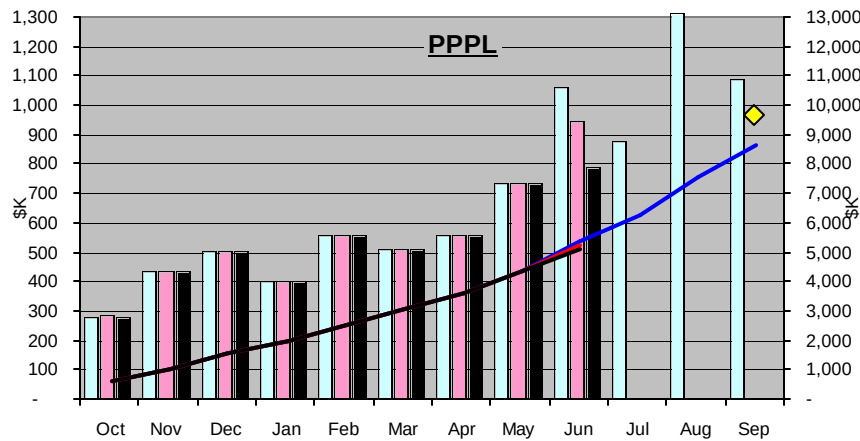
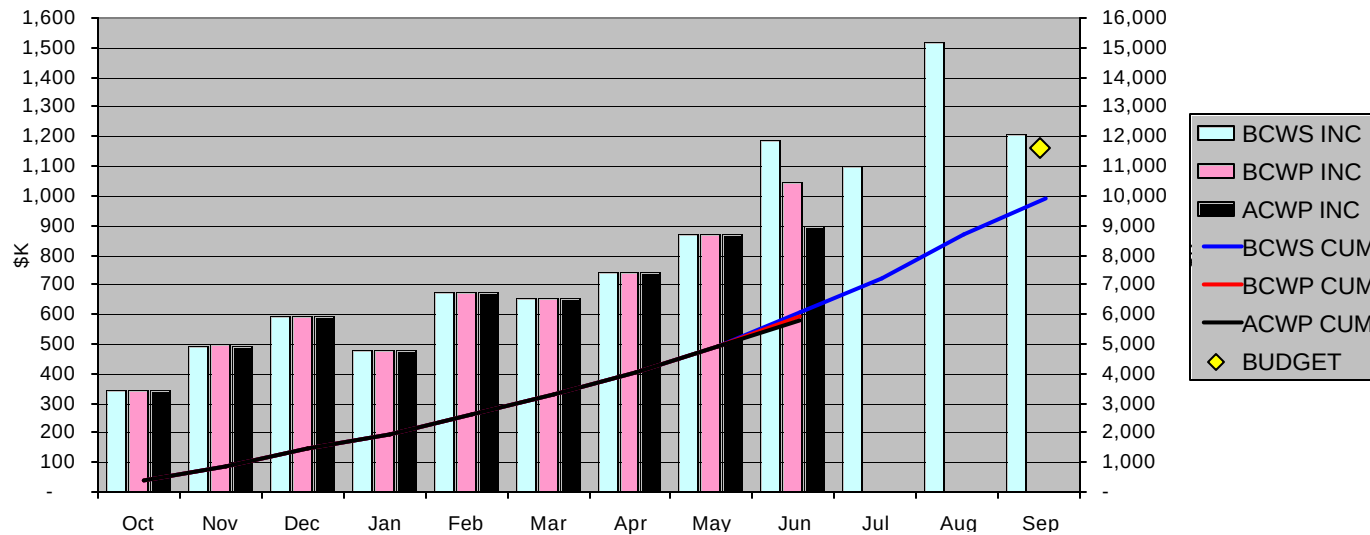


NCSX PPPL & ORNL ACD/MIE FY 2003 Cost Performance



PrincetonUniversity Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

NCSX

****** Fiscal Year 03 only (Adv Concep Dsn and MIE)******

JUNE FY03

	CURRENT PERIOD			CUMULATIVE TO DATE							FY03
	Budgeted Cost		ACWP	Budgeted Cost		ACWP	VARIANCES				Budget
	BCWS	BCWP		BCWS	BCWP		Sch Var	SPI	Cst Var	CPI	Baseline
PPPL and ORNL	\$K			\$K							\$K
Advanced Conceptual Design											
1 - Stellarator Core Systems	766	705	546	3,632	3,572	3,413	-60	.98	159	1.05	6,446
11 In-Vessel Components		0		0		0	0		0		19
1101 - Limiter Advanced Concep Design		0		0		0	0		0		19
1102 - Limiter Prelim & Final Design											
12 Vacuum Vessel Systems	179	178	181	557	556	559	-1	1.00	-3	.99	1,369
1201 - Vacuum Vessel Dsn	42	42	75	335	335	368	0	1.00	-33	.91	464
1202 - Vacuum Vessel R&D	137	136	106	221	221	191	-1	1.00	30	1.16	905
1203 - Vacuum Vessel Final Dsn											
13 Conventional Coils	36	17	16	96	77	75	-19	.80	1	1.02	288
1301 - Convential Coils Design	36	17	16	96	77	75	-19	.80	1	1.02	288
14 Modular Coils	467	437	321	2,581	2,551	2,435	-30	.99	116	1.05	3,912
1401 - Mod. Coil Design (casting&winding)	7	6	6	266	265	265	-1	1.00	0	1.00	379
1402 - Mod.Coil Analyses	28	9	26	271	253	270	-18	.93	-16	.94	398
1403 - Mod. Coil Final Desigr											
1404 - Mod. Coil Winding Form R&D	252	278	95	519	546	362	26	1.05	184	1.51	1,013
1405 - Mod. Coil Winding R&D Prep	3	0	67	659	656	723	-3	1.00	-67	.91	662
1406 - Mod. Coil Winding R&D	153	119	103	569	535	519	-34	.94	16	1.03	907
1407 - Mod. Coil Winding Facility	24	24	24	296	296	296	0	1.00	0	1.00	553
1408 -Mod. Coil Prototype Coil Winding											
15 1501 - Structures Design		0		18	18	18	0	1.00	0	1.00	44
16 1601 - Coil Services Design											29
17 1701 - Cryostat & Base Support Struct Dsr		0		8	8	8	0	1.05	0	1.05	148
18 1801 - Field Period Assembly Design	13	0	3	22	9	12	-13	.42	-3	.78	101
19 1901 - Stellarator Core Management&Integr	71	73	26	351	353	306	2	1.01	47	1.15	537
2 - Plasma Heating, Fueling & Vac Systems	41	13	26	315	287	300	-28	.91	-13	.96	370
2001 - VPS,Gas & Cond sys Design/Oversig	6	1	4	53	48	51	-5	.90	-3	.94	71
2501 - Neutral Beam Refurbishment	35	12	22	263	239	249	-23	.91	-10	.96	298
3 - Diagnostics	27	27	30	218	218	221	0	1.00	-3	.99	302
39 3901 - Diagnostics systems Integration	27	27	30	218	218	221	0	1.00	-3	.99	302
4 - Electrical Power Systems	21	21	28	53	53	60	0	1.00	-7	.89	123
43 4301 - Electrical Dsn DC SystemsWBS 432&	2	2	2	7	7	7	0	1.00	0	.99	7
44 4401 - Electrical Dsn Control & Protection											
45 4501 - Electr System Design & Integration	19	19	26	46	46	52	0	1.00	-6	.88	104
46 4601 - FCPC Bldg Modifications											12
5 - Central I&C Systems	3	0		6	4	4	-3	.58	0	1.00	15
58 5801 - Central I&C Integration & Oversight	3	0		6	4	4	-3	.58	0	1.00	15
6 - Facility Systems		-3		31	29	29	-3	.92	0	1.00	31
65 6501 - Facility Systems Integration		-3		31	29	29	-3	.92	0	1.00	31
7 - Test Cell Preparation and Machine Assy	126	84	61	154	112	89	-42	.73	23	1.26	335
71 7101 - Shield Wall Modifications Design	11	6	3	16	11	8	-5	.68	3	1.41	53
74 7401 - TC Prep & Mach Assy Plan&Oversigl	115	78	59	137	101	81	-36	.74	20	1.24	282
8 - Project Oversight and Support	201	201	204	1,631	1,631	1,634	0	1.00	-3	1.00	2,244
81 Project Management and Control	75	75	62	576	575	563	0	1.00	13	1.02	804
8101 - Project Management and Control	56	56	38	397	396	378	-1	1.00	18	1.05	568
8102 - NCSX MIE Management ORNL	11	6	9	96	91	93	-5	.95	-2	.97	130
8998 - Allocations	7	13	15	83	89	91	5	1.06	-2	.97	106
82 Project Engineering	90	90	86	653	653	649	0	1.00	3	1.01	927
8202 - Engineering Mgmt & Sys Engr Supp	46	45	51	415	415	421	0	1.00	-6	.99	555
8203 - Design Integration	31	31	31	194	194	195	0	1.00	-1	1.00	288
8204 - Systems Analysis	14	14	4	43	43	34	0	1.00	10	1.29	84
84 Project Physics	36	36	56	403	403	422	0	1.00	-19	.95	514
8401 - Project Physcis	28	28	55	358	358	385	0	1.00	-27	.93	442
8402 - Project Physics MIE ORNL	9	9	1	45	45	37	0	1.00	8	1.20	71
Subtotal	1,185	1,049	896	6,041	5,906	5,749	-136	.98	156	1.03	9,866
Contingency											
Management Reserve											1,721
TOTAL PPPL/ORNL											11,587
Funding											
Financial Plan BA											10,868
FY02 Carryover											445
Rate Adjustment setaside											274
ERWM Allocation Increment]											
TOTAL PPPL/ORNL FUNDING											11,587

PrincetonUniversity Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE
NCSX
****** Fiscal Year 03 only (Adv Concep Dsn and MIE)******
JUNE FY03

CURRENT PERIOD			CUMULATIVE TO DATE							FY03	
Budgeted Cost			Budgeted Cost			VARIANCES				Budget	Baseline
BCWS	BCWP	ACWP	BCWS	BCWP	ACWP	Sch Var	SPI	Cst Var	CPI		

PPPL

Advanced Conceptual Design

1 - Stellarator Core Systems	662	614	448	2,780	2,732	2,566	-48	.98	166	1.06	5,110
11 In-Vessel Components											
1101 - Limiter Advanced Concep Design											
1102 - Limiter Prelim & Final Design											
12 Vacuum Vessel Systems	152	151	128	305	304	281	-1	1.00	23	1.08	1,035
1201 - Vacuum Vessel Dsn	15	15	22	84	83	90	0	1.00	-7	.92	130
1202 - Vacuum Vessel R&D	137	136	106	221	221	191	-1	1.00	30	1.16	905
1203 - Vacuum Vessel Final Dsn											
13 Conventional Coils	36	17	16	96	77	75	-19	.80	1	1.02	288
1301 - Convential Coils Design	36	17	16	96	77	75	-19	.80	1	1.02	288
14 Modular Coils	453	427	285	2,227	2,200	2,059	-27	.99	142	1.07	3,416
1401 - Mod. Coil Design (casting&winding)	1	0		12	11	11	-1	.91	0	1.00	17
1402 - Mod.Coil Analyses	21	6	18	225	210	222	-15	.93	-12	.95	320
1403 - Mod. Coil Final Design											
1404 - Mod. Coil Winding Form R&D	252	277	73	466	492	287	26	1.06	205	1.71	957
1405 - Mod. Coil Winding R&D Prep	3	0	67	659	656	723	-3	1.00	-67	.91	662
1406 - Mod. Coil Winding R&D	153	119	103	569	535	519	-34	.94	16	1.03	907
1407 - Mod. Coil Winding Facility	24	24	24	296	296	296	0	1.00	0	1.00	553
1408 -Mod. Coil Prototype Coil Winding											
15			0	18	18	18	0	1.00	0	1.00	44
1501 - Structures Design			0	18	18	18	0	1.00	0	1.00	44
16											
1601 - Coil Services Design											
17			0	8	8	8	0	1.05	0	1.05	148
1701 - Cryostat & Base Support Struct Dsn			0	8	8	8	0	1.05	0	1.05	148
18			0	11	9	12	-2	.86	-3	.78	15
1801 - Field Period Assembly Design	2	0	3	11	9	12	-2	.86	-3	.78	15
19			17	115	115	113	0	1.00	2	1.02	163
1901 - Stellarator Core Management&Integr	20	20	17	115	115	113	0	1.00	2	1.02	163
2 - Plasma Heating, Fueling & Vac Systems	41	13	26	315	287	300	-28	.91	-13	.96	370
2001 - VPS,Gas & Cond sys Design/Oversig	6	1	4	53	48	51	-5	.90	-3	.94	71
2501 - Neutral Beam Refurbishment	35	12	22	263	239	249	-23	.91	-10	.96	298
3 - Diagnostics	27	27	30	218	218	221	0	1.00	-3	.99	302
39 3901 - Diagnostics systems Integration	27	27	30	218	218	221	0	1.00	-3	.99	302
4 - Electrical Power Systems	21	21	28	53	53	60	0	1.00	-7	.89	123
43 4301 - Electrical Dsn DC SystemsWBS 432&	2	2	2	7	7	7	0	1.00	0	.99	7
44 4401 - Electrical Dsn Control & Protection											
45 4501 - Electr System Design & Integration	19	19	26	46	46	52	0	1.00	-6	.88	104
46 4601 - FCPC Bldg Modifications											12
5 - Central I&C Systems	3	0		6	4	4	-3	.58	0	1.00	15
58 5801 - Central I&C Integration & Oversight	3	0		6	4	4	-3	.58	0	1.00	15
6 - Facility Systems		-3		31	29	29	-3	.92	0	1.00	31
65 6501 - Facility Systems Integration		-3		31	29	29	-3	.92	0	1.00	31
7 - Test Cell Preparation and Machine Assy	126	84	61	154	112	89	-42	.73	23	1.26	335
71 7101 - Shield Wall Modifications Design	11	6	3	16	11	8	-5	.68	3	1.41	53
74 7401 - TC Prep & Mach Assy Plan&Oversigl	115	78	59	137	101	81	-36	.74	20	1.24	282
8 - Project Oversight and Support	181	186	194	1,491	1,495	1,504	4	1.00	-8	.99	2,043
81 Project Management and Control	64	68	53	480	484	469	5	1.01	15	1.03	674
8101 - Project Management and Control	56	56	38	397	396	378	-1	1.00	18	1.05	568
8102 - NCSX MIE Management ORNL											
8998 - Allocations	7	13	15	83	89	91	5	1.06	-2	.97	106
82 Project Engineering	90	90	86	653	653	649	0	1.00	3	1.01	927
8202 - Engineering Mgmt & Sys Engr Supp	46	45	51	415	415	421	0	1.00	-6	.99	555
8203 - Design Integration	31	31	31	194	194	195	0	1.00	-1	1.00	288
8204 - Systems Analysis	14	14	4	43	43	34	0	1.00	10	1.29	84
84 Project Physics	28	28	55	358	358	385	0	1.00	-27	.93	442
8401 - Project Physcis	28	28	55	358	358	385	0	1.00	-27	.93	442
8402 - Project Physics MIE ORNL											

Subtotal **1,062** **943** **788** **5,048** **4,930** **4,772** **-119** **.98** **158** **1.03** **8,329**

Management Reserve

1,337

TOTAL PPPL

9,666

Funding

Financial Plan BA

8,947

FY02 Carryover

+ 445

Rate Adjustment setaside

+ 274

TOTAL PPPL FUNDING

9,666

PrincetonUniversity Plasma Physics Laboratory
PPPL COST PERFORMANCE REPORT WORKBREAKDOWN STRUCTURE

NCSX

**** Fiscal Year 03 only (Adv Concep Dsn and MIE)****

JUNE FY03

	CURRENT PERIOD			CUMULATIVE TO DATE							FY03
	Budgeted Cost		ACWP	Budgeted Cost		ACWP	VARIANCES				Budget
	BCWS	BCWP		BCWS	BCWP		Sch Var	SPI	Cst Var	CPI	Baseline
ORNL											
Advanced Conceptual Design											
1 - Stellarator Core Systems	104	91	98	852	840	846	-13	.99	-7	.99	1,337
11 In-Vessel Components		0		0		0	0		0		19
1101 - Limiter Advanced Concep Design		0		0		0	0		0		19
1102 - Limiter Prelim & Final Design											
12 Vacuum Vessel Systems	27	27	53	252	252	277	0	1.00	-26	.91	334
1201 - Vacuum Vessel Dsn	27	27	53	251	252	277	0	1.00	-26	.91	334
1202 - Vacuum Vessel R&D		0		0	0	0	0	1.03	0	1.03	0
1203 - Vacuum Vessel Final Dsn											
13 Conventional Coils											
1301 - Conventional Coils Design											
14 Modular Coils	14	11	36	354	351	376	-3	.99	-25	.93	495
1401 - Mod. Coil Design (casting&winding)	6	6	6	254	254	254	0	1.00	0	1.00	362
1402 - Mod.Coil Analyses	7	3	8	46	43	47	-4	.92	-5	.90	77
1403 - Mod. Coil Final Design											
1404 - Mod. Coil Winding Form R&D	1	1	22	53	54	74	0	1.01	-21	.72	56
1405 - Mod. Coil Winding R&D Prep											
1406 - Mod. Coil Winding R&D											
1407 - Mod. Coil Winding Facility											
1408 -Mod. Coil Prototype Coil Winding											
15 1501 - Structures Design											
16 1601 - Coil Services Design											29
17 1701 - Cryostat & Base Support Struct Dsn											
18 1801 - Field Period Assembly Design	11			11			-11				86
19 1901 - Stellarator Core Management&Integr	51	53	9	236	238	193	2	1.01	44	1.23	374
2 - Plasma Heating, Fueling & Vac Systems											
2001 - VPS,Gas & Cond sys Design/Oversig											
2501 - Neutral Beam Refurbishment											
3 - Diagnostics											
39 3901 - Diagnostics systems Integration											
4 - Electrical Power Systems											
43 4301 - Electrical Dsn DC SystemsWBS 432&											
44 4401 - Electrical Dsn Control & Protection											
45 4501 - Electr System Design & Integration											
46 4601 - FCPC Bldg Modifications											
5 - Central I&C Systems											
58 5801 - Central I&C Integration & Oversight											
6 - Facility Systems											
65 6501 - Facility Systems Integration											
7 - Test Cell Preparation and Machine Assy											
71 7101 - Shield Wall Modifications Design											
74 7401 - TC Prep & Mach Assy Plan&Oversig											
8 - Project Oversight and Support	20	15	10	141	136	131	-5	.97	5	1.04	201
81 Project Management and Control	11	6	9	96	91	93	-5	.95	-2	.97	130
8101 - Project Management and Control											
8102 - NCSX MIE Management ORNL	11	6	9	96	91	93	-5	.95	-2	.97	130
82 Project Engineering											
8202 - Engineering Mgmt & Sys Engr Supp											
8203 - Design Integration											
8204 - Systems Analysis											
84 Project Physics	9	9	1	45	45	37	0	1.00	8	1.20	71
8401 - Project Physcis											
8402 - Project Physics MIE ORNL	9	9	1	45	45	37	0	1.00	8	1.20	71
Subtotal	123	106	108	993	976	977	-17	.98	-2	1.00	1,538
Contingency											
Management Reserve											383
TOTAL ORNL											1,921
Funding											
Financial Plan BA											1,921
TOTAL ORNL FUNDING											1,921