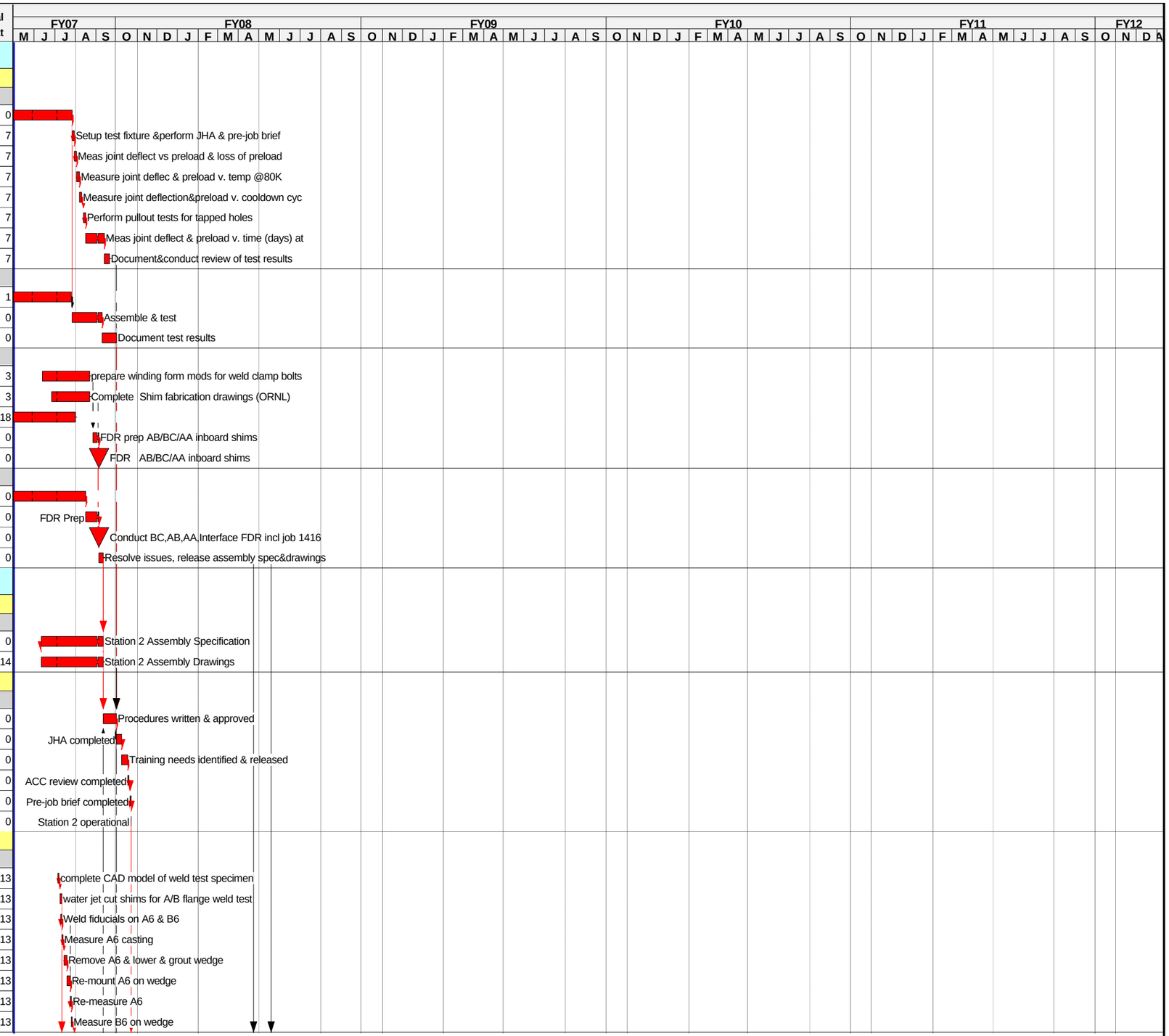
Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
14 - Modular Coils						
Job: 1421 - Mod Coil Interface Design-WILLIAMSON						
Outboard Interface-Bolted Joint Tests-Tension						
1421-3067	Procure 2 studs f/joint test.Use existing part	01MAY07	61*	26JUL07		0
1421-3075	Setup test fixture &perform JHA & pre-job brief	27JUL07*	2	30JUL07		7
1421-3077	Meas joint deflect vs preload & loss of preload	31JUL07	3	02AUG07		7
1421-3079	Measure joint deflec & preload v. temp @80K	03AUG07	3	07AUG07		7
1421-3084	Measure joint deflection&preload v. cooldown cyc	08AUG07	3	10AUG07		7
1421-3087	Perform pullout tests for tapped holes	13AUG07	3	15AUG07		7
1421-3081	Meas joint deflect & preload v. time (days) at	16AUG07	20	13SEP07		7
1421-3090	Document&conduct review of test results	14SEP07	5	20SEP07		7
Outboard Interface-Bolted Joint Tests-Shear						
1421-3112B	Procure/fab parts for test&initial assembly	01MAY07	60*	25JUL07		1
1421-3115B	Assemble & test	27JUL07	31	10SEP07		0
1421-3119B	Document test results	11SEP07	15	01OCT07		0
Inboard Interface-AB/BC/AA						
INTRF-049	prepare winding form mods for weld clamp bolts	13JUN07*	50	22AUG07		3
INTRF-050	Complete Shim fabrication drawings (ORNL)	27JUN07*	40	22AUG07		3
INTRF-051	Release info for procurement of shim material	01MAY07	64*	31JUL07		18
INTRF-054	FDR prep AB/BC/AA inboard shims	28AUG07	5	04SEP07		0
INTRF-055	FDR AB/BC/AA inboard shims		0	04SEP07		0
Overall MC Interface						
1421-3134	Issue interface dwgs for comment	01MAY07	75	15AUG07		0
1421-3135	FDR Prep	16AUG07	13	04SEP07		0
1421-3136	Conduct BC,AB,AA,Interface FDR incl job 1416		0	04SEP07		0
1421-3138	Resolve issues, release assembly spec&drawings	05SEP07	5	11SEP07		0
18 - Field Period Assembly						
Job: 1806 - FP Assembly specs and drawings-COLE						
Station 2-Modular Coil Sub- Assembly						
1803-201	Station 2 Assembly Specification	11JUN07*	65	11SEP07		0
1803-205	Station 2 Assembly Drawings	11JUN07*	65	11SEP07		14
Job: 1802 - FP Assy Oversight&Support-VIOLA						
Station 2 procedures,JHA,ACC,Training,Prep						
R1802-207	Procedures written & approved	12SEP07	14	01OCT07		0
R1802-209	JHA completed	02OCT07	6	09OCT07		0
R1802-211	Training needs identified & released	10OCT07	6	17OCT07		0
R1802-213	ACC review completed	18OCT07	2	19OCT07		0
R1802-215	Pre-job brief completed	22OCT07	1	22OCT07		0
R1802-217	Station 2 operational	23OCT07	1	23OCT07		0
Job:1810-Field Period Assy -Station 1,2,3 VIOLA						
Station 2 Trials & Development						
PHIL-03	complete CAD model of weld test specimen	06JUL07*	1	06JUL07		13
PHIL-04	water jet cut shims for A/B flange weld test	09JUL07	3	11JUL07		13
PHIL-12	Weld fiducials on A6 & B6	10JUL07*	2	11JUL07		13
PHIL-13	Measure A6 casting	12JUL07	2	13JUL07		13
PHIL-15	Remove A6 & lower & grout wedge	16JUL07	4	19JUL07		13
PHIL-16	Re-mount A6 on wedge	20JUL07	2	23JUL07		13
PHIL-17	Re-measure A6	24JUL07	2	25JUL07		13
PHIL-18	Measure B6 on wedge	26JUL07	2	27JUL07		13



Run Date 01AUG07 17:13

5/1/03 Status (forecast)
Progress Bar
Critical Activity

ETCL

NCSX CRITICAL PATHS

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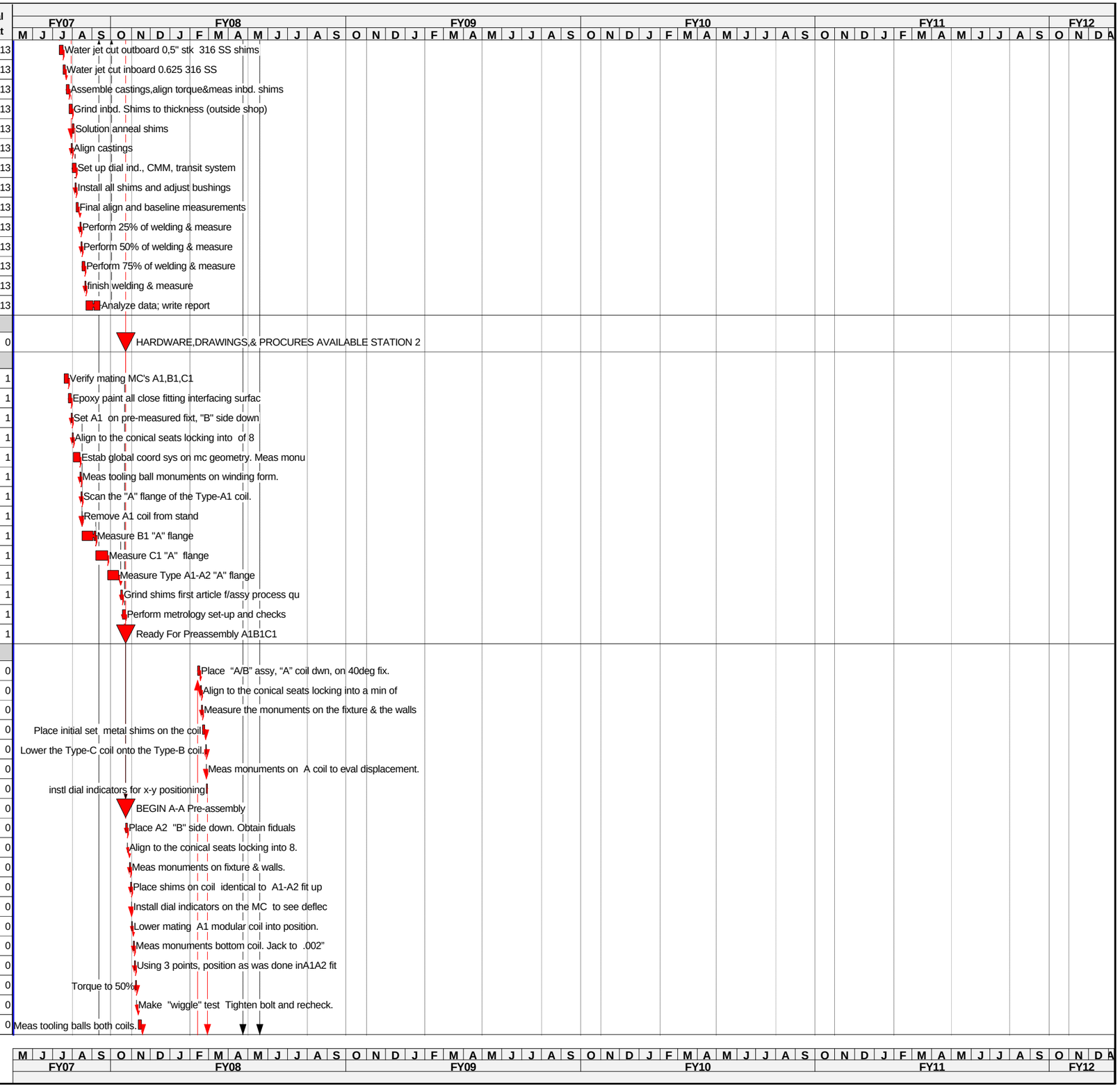
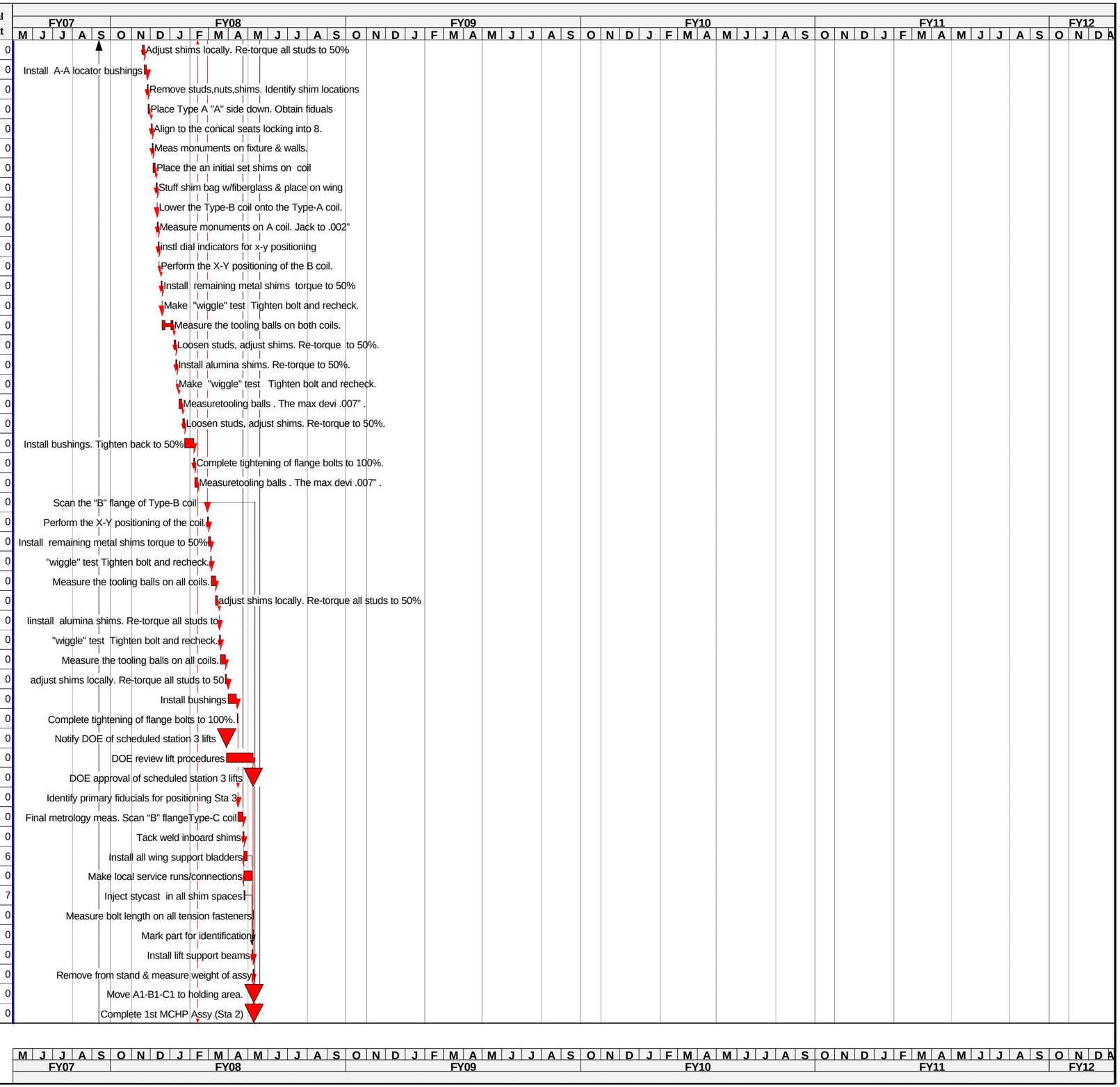
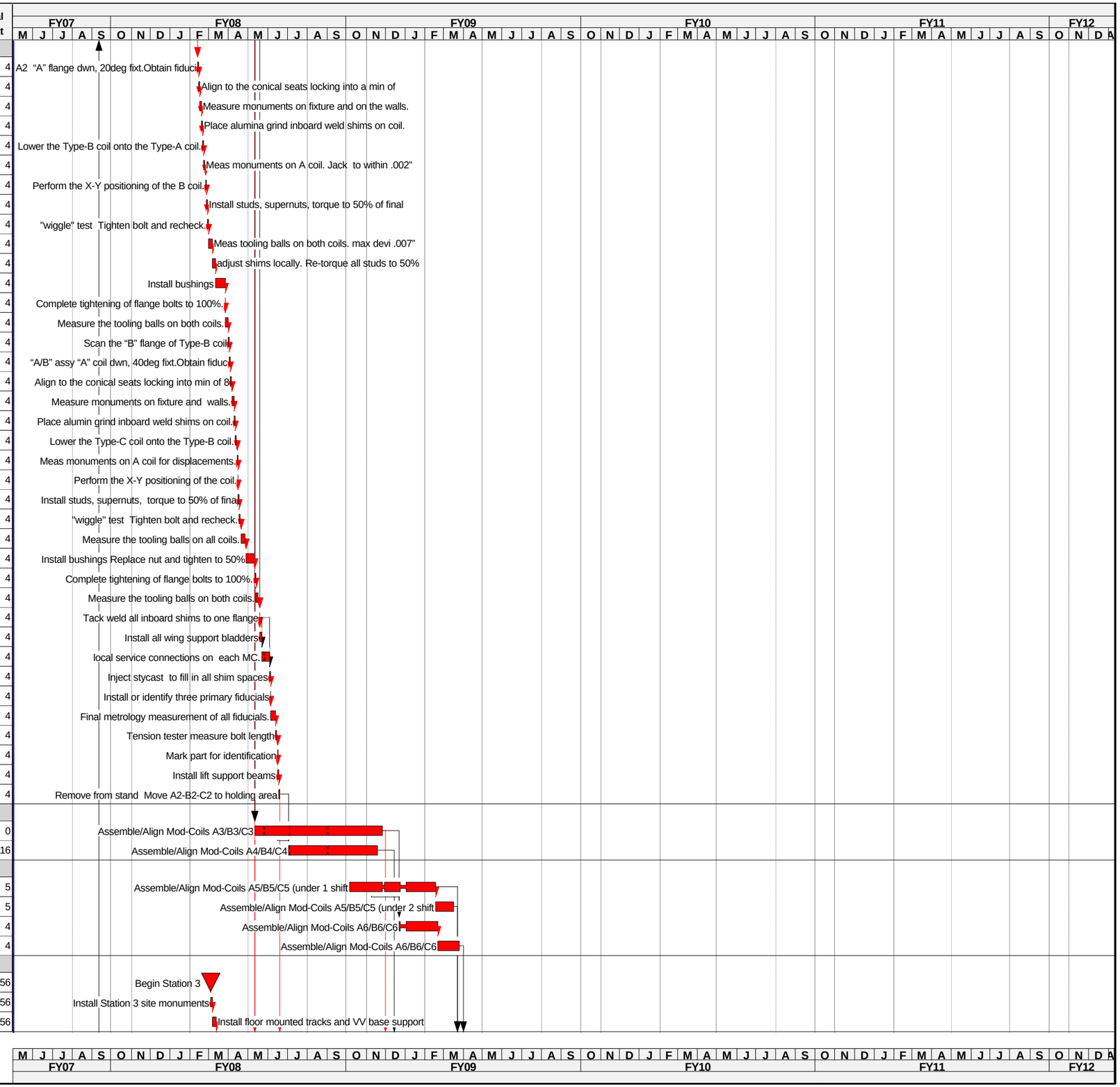
Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
PHIL-22	Water jet cut outboard 0,5" stk 316 SS shims	12JUL07	4	17JUL07		13
PHIL-23	Water jet cut inboard 0.625 316 SS	18JUL07	3	20JUL07		13
PHIL-24	Assemble castings,align torque&meas inbd. shims	23JUL07	4	26JUL07		13
PHIL-26	Grind inbd. Shims to thickness (outside shop)	27JUL07	4	01AUG07		13
PHIL-27	Solution anneal shims	02AUG07	2	03AUG07		13
PHIL-32	Align castings	30JUL07	2	31JUL07		13
PHIL-37	Set up dial ind., CMM, transit system	01AUG07	5	07AUG07		13
PHIL-38	Install all shims and adjust bushings	06AUG07	2	07AUG07		13
PHIL-39	Final align and baseline measurements	08AUG07	3	10AUG07		13
PHIL-40	Perform 25% of welding & measure	13AUG07	2	14AUG07		13
PHIL-41	Perform 50% of welding & measure	15AUG07	2	16AUG07		13
PHIL-42	Perform 75% of welding & measure	17AUG07	2	20AUG07		13
PHIL-43	finish welding & measure	21AUG07	2	22AUG07		13
PHIL-44	Analyze data; write report	23AUG07	14	12SEP07		13
Setup						
R1810-2108	HARDWARE,DRAWINGS,& PROCURES AVAILABLE		0	23OCT07	1	0
Pre-Measuring and fitup checks						
S21-1.01	Verify mating MC's A1,B1,C1	20JUL07*	4	25JUL07	1	1
S21-1.02	Epoxy paint all close fitting interfacing surfac	26JUL07	3	30JUL07	1	1
S21-2.01	Set A1 on pre-measured fixt, "B" side down	31JUL07	1	31JUL07	1	1
S21-2.02	Align to the conical seats locking into of 8	01AUG07	2	02AUG07	1	1
S21-2.03	Estab global coord sys on mc geometry. Meas monu	03AUG07	7	13AUG07	1	1
S21-2.04	Meas tooling ball monuments on winding form.	14AUG07	1	14AUG07	1	1
S21-2.05	Scan the "A" flange of the Type-A1 coil.	15AUG07	1	15AUG07	1	1
S21-2.07	Remove A1 coil from stand	16AUG07	1	16AUG07	1	1
S21-2.08	Measure B1 "A" flange	17AUG07	14	06SEP07	1	1
S21-2.11	Measure C1 "A" flange	07SEP07	13	25SEP07	1	1
S21-2.14	Measure Type A1-A2 "A" flange	26SEP07	13	12OCT07	1	1
S21-3.02	Grind shims first article f/assy process qu	15OCT07	4	18OCT07	1	1
S21-4.02	Perform metrology set-up and checks	19OCT07	2	22OCT07	1	1
S21-3.03	Ready For Preassembly A1B1C1		0	22OCT07	1	1
Station 2-MC Sub Assy A1-B1-C1						
S21-7.01	Place "A/B" assy, "A" coil dwn, on 40deg fix.	13FEB08	3	15FEB08	1	0
S21-7.02	Align to the conical seats locking into a min of	18FEB08	1	18FEB08	1	0
S21-7.03	Measure the monuments on the fixture & the walls	19FEB08	2	20FEB08	1	0
S21-7.04	Place initial set metal shims on the coil	21FEB08	2	22FEB08	1	0
S21-7.05	Lower the Type-C coil onto the Type-B coil.	25FEB08	1	25FEB08	1	0
S21-7.06	Meas monuments on A coil to eval displacement.	26FEB08	1	26FEB08	1	0
S21-6.062	instl dial indicators for x-y positioning	27FEB08	1	27FEB08	1	0
S21-5.00	BEGIN A-A Pre-assembly		0	23OCT07	1	0
S21-5.01	Place A2 "B" side down. Obtain fiduals	24OCT07	2	25OCT07	1	0
S21-5.02	Align to the conical seats locking into 8.	26OCT07	1	26OCT07	1	0
S21-5.03	Meas monuments on fixture & walls.	29OCT07	2	30OCT07	1	0
S21-5.04	Place shims on coil identical to A1-A2 fit up	31OCT07	1	31OCT07	1	0
S21-5.05	Install dial indicators on the MC to see deflec	01NOV07	1	01NOV07	1	0
S21-5.06	Lower mating A1 modular coil into position.	02NOV07	1	02NOV07	1	0
S21-5.07	Meas monuments bottom coil. Jack to .002"	05NOV07	1	05NOV07	1	0
S21-5.08	Using 3 points, position as was done inA1A2 fit	06NOV07	1	06NOV07	1	0
S21-5.09	Torque to 50%	07NOV07	2	08NOV07	1	0
S21-5.1	Make "wiggle" test Tighten bolt and recheck.	09NOV07	1	09NOV07	1	0
S21-5.11	Meas tooling balls both coils.	12NOV07	5	16NOV07	1	0



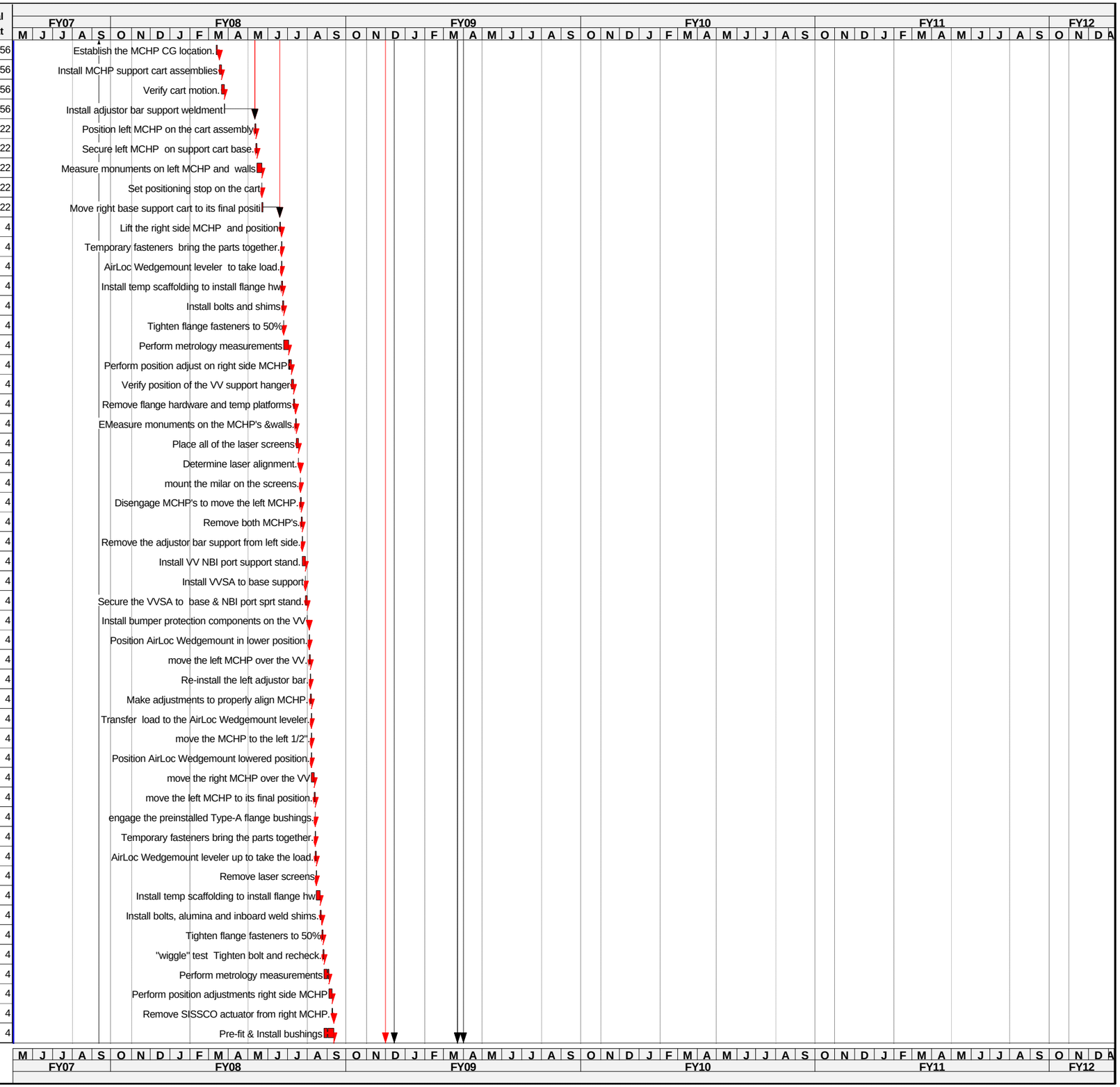
Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
S21-5.12	Adjust shims locally. Re-torque all studs to 50%	19NOV07	3	21NOV07	1	0
S21-5.14	Install A-A locator bushings	22NOV07	2	23NOV07	1	0
S21-5.15	Remove studs,nuts,shims. Identify shim locations	26NOV07	1	26NOV07	1	0
S21-6.01	Place Type A "A" side down. Obtain fiduals	27NOV07	2	28NOV07	1	0
S21-6.02	Align to the conical seats locking into 8.	03DEC07	1	03DEC07	1	0
S21-6.03	Meas monuments on fixture & walls.	04DEC07	2	05DEC07	1	0
S21-6.04	Place the an initial set shims on coil	06DEC07	2	07DEC07	1	0
S21-6.041	Stuff shim bag w/fiberglass & place on wing	10DEC07	1	10DEC07	1	0
S21-6.05	Lower the Type-B coil onto the Type-A coil.	11DEC07	1	11DEC07	1	0
S21-6.06	Measure monuments on A coil. Jack to .002"	12DEC07	1	12DEC07	1	0
S21-6.061	instl dial indicators for x-y positioning	13DEC07	1	13DEC07	1	0
S21-6.07	Perform the X-Y positioning of the B coil.	14DEC07	1	14DEC07	1	0
S21-6.08	Install remaining metal shims torque to 50%	17DEC07	2	18DEC07	1	0
S21-6.09	Make "wiggle" test Tighten bolt and recheck.	19DEC07	1	19DEC07	1	0
S21-6.1	Measure the tooling balls on both coils.	20DEC07	5	04JAN08	1	0
S21-6.11	Loosen studs, adjust shims. Re-torque to 50%.	07JAN08	3	09JAN08	1	0
S21-6.12	Install alumina shims. Re-torque to 50%.	10JAN08	1	10JAN08	1	0
S21-6.13	Make "wiggle" test Tighten bolt and recheck.	11JAN08	1	11JAN08	1	0
S21-6.14	Measuretooling balls . The max devi .007" .	14JAN08	5	18JAN08	1	0
S21-6.15	Loosen studs, adjust shims. Re-torque to 50%.	21JAN08	3	23JAN08	1	0
S21-6.16	Install bushings. Tighten back to 50%	24JAN08	10	06FEB08	1	0
S21-6.17	Complete tightening of flange bolts to 100%.	07FEB08	1	07FEB08	1	0
S21-6.18	Measuretooling balls . The max devi .007" .	08FEB08	2	11FEB08	1	0
S21-6.19	Scan the "B" flange of Type-B coil	12FEB08	1	12FEB08	1	0
S21-7.07	Perform the X-Y positioning of the coil.	28FEB08	1	28FEB08	1	0
S21-7.08	Install remaining metal shims torque to 50%	29FEB08	2	03MAR08	1	0
S21-7.09	"wiggle" test Tighten bolt and recheck.	04MAR08	1	04MAR08	1	0
S21-7.1	Measure the tooling balls on all coils.	05MAR08	5	11MAR08	1	0
S21-7.11	adjust shims locally. Re-torque all studs to 50%	12MAR08	3	14MAR08	1	0
S21-7.12	Iinstall alumina shims. Re-torque all studs to	17MAR08	1	17MAR08	1	0
S21-7.13	"wiggle" test Tighten bolt and recheck.	18MAR08	1	18MAR08	1	0
S21-7.14	Measure the tooling balls on all coils.	19MAR08	5	25MAR08	1	0
S21-7.15	adjust shims locally. Re-torque all studs to 50	26MAR08	3	28MAR08	1	0
S21-7.16	Install bushings	31MAR08	10	11APR08	1	0
S21-7.17	Complete tightening of flange bolts to 100%.	14APR08	1	14APR08	1	0
DOE-1	Notify DOE of scheduled station 3 lifts		0	27MAR08	1	0
DOE-2	DOE review lift procedures	28MAR08	30	08MAY08	1	0
DOE-3	DOE approval of scheduled station 3 lifts		0	08MAY08	1	0
S21-11.01	Identify primary fiducials for positioning Sta 3	15APR08	1	15APR08	1	0
S21-7.18	Final metrology meas. Scan "B" flangeType-C coil	16APR08	5	22APR08	1	0
S21-8.01	Tack weld inboard shims	23APR08	2	24APR08	1	0
S21-10.01	Install all wing support bladders	25APR08	2	28APR08	1	6
S21-10.02	Make local service runs/connections	25APR08	8	06MAY08	1	0
S21-10.03	Inject stycast in all shim spaces	25APR08	1	25APR08	1	7
S21-11.03	Measure bolt length on all tension fasteners	09MAY08	0	08MAY08	1	0
S21-11.04	Mark part for identification	09MAY08	0	08MAY08	1	0
S21-11.05	Install lift support beams	07MAY08	2	08MAY08	1	0
S21-11.06	Remove from stand & measure weight of assy	09MAY08	1	09MAY08	1	0
S21-11.07	Move A1-B1-C1 to holding area.		0	09MAY08	1	0
S21-11.07M	Complete 1st MCHP Assy (Sta 2)		0	09MAY08	1	0



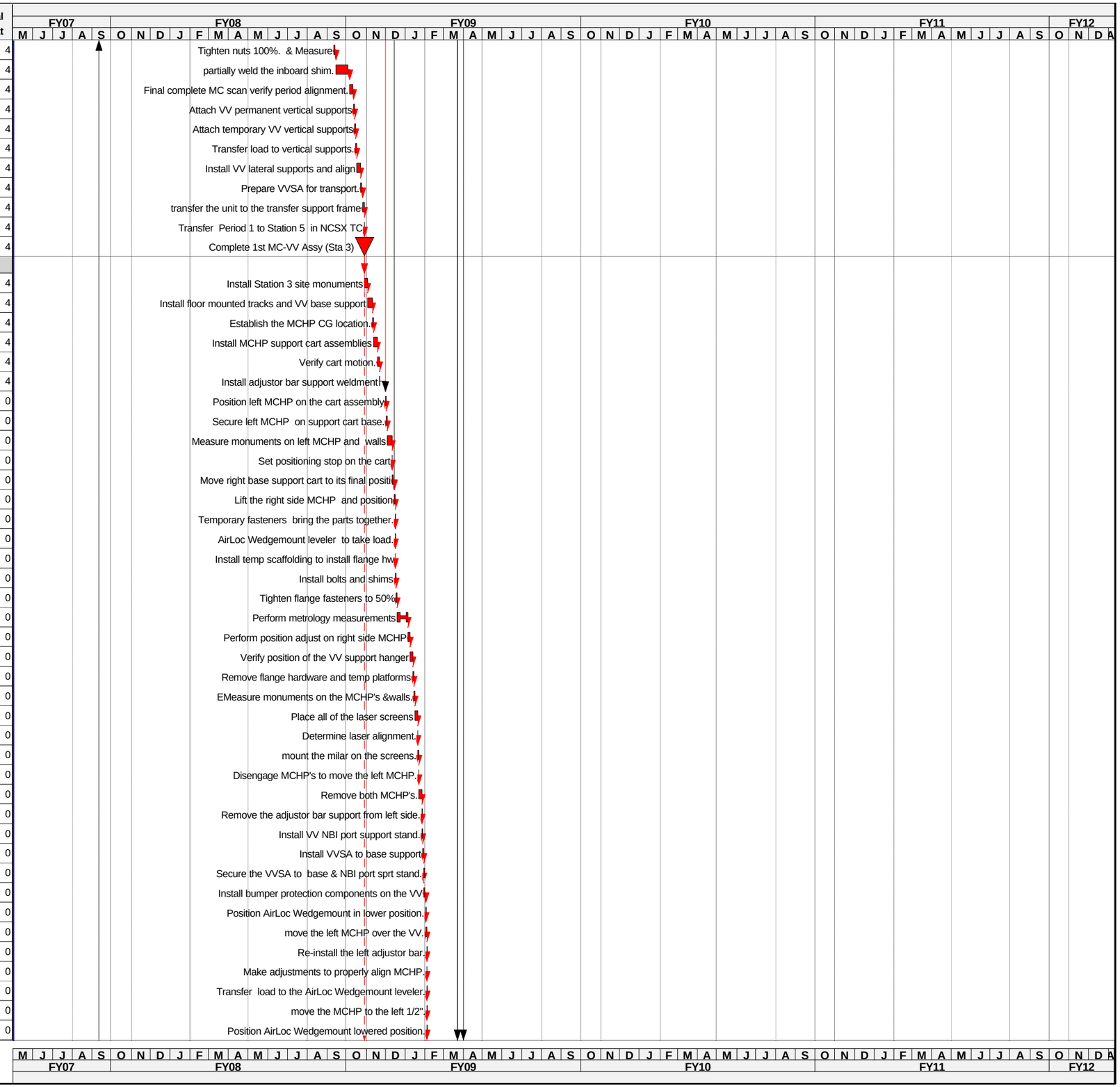
Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
Station 2 MC Sub Assy A2-B2-C2						
S22-6.01	A2 "A" flange dwn, 20deg fixt.Obtain fiduci	13FEB08	1	13FEB08	1	4
S22-6.02	Align to the conical seats locking into a min of	14FEB08	1	14FEB08	1	4
S22-6.03	Measure monuments on fixture and on the walls.	15FEB08	2	18FEB08	1	4
S22-6.04	Place alumina grind inboard weld shims on coil.	19FEB08	2	20FEB08	1	4
S22-6.05	Lower the Type-B coil onto the Type-A coil.	21FEB08	1	21FEB08	1	4
S22-6.06	Meas monuments on A coil. Jack to within .002"	22FEB08	1	22FEB08	1	4
S22-6.07	Perform the X-Y positioning of the B coil.	25FEB08	1	25FEB08	1	4
S22-6.08	Install studs, supernuts, torque to 50% of final	26FEB08	2	27FEB08	1	4
S22-6.09	"wiggle" test Tighten bolt and recheck.	28FEB08	1	28FEB08	1	4
S22-6.1	Meas tooling balls on both coils. max devi .007"	29FEB08	5	06MAR08	1	4
S22-6.11	adjust shims locally. Re-torque all studs to 50%	07MAR08	3	11MAR08	1	4
S22-6.12	Install bushings	12MAR08	10	25MAR08	1	4
S22-6.13	Complete tightening of flange bolts to 100%.	26MAR08	1	26MAR08	1	4
S22-6.14	Measure the tooling balls on both coils.	27MAR08	3	31MAR08	1	4
S22-6.15	Scan the "B" flange of Type-B coil	01APR08	1	01APR08	1	4
S22-7.01	"A/B" assy "A" coil dwn, 40deg fixt.Obtain fiduc	02APR08	2	03APR08	1	4
S22-7.02	Align to the conical seats locking into min of 8	04APR08	1	04APR08	1	4
S22-7.03	Measure monuments on fixture and walls.	07APR08	2	08APR08	1	4
S22-7.04	Place alumin grind inboard weld shims on coil.	09APR08	2	10APR08	1	4
S22-7.05	Lower the Type-C coil onto the Type-B coil.	11APR08	1	11APR08	1	4
S22-7.06	Meas monuments on A coil for displacements.	14APR08	1	14APR08	1	4
S22-7.07	Perform the X-Y positioning of the coil.	15APR08	1	15APR08	1	4
S22-7.08	Install studs, supernuts, torque to 50% of fina	16APR08	2	17APR08	1	4
S22-7.09	"wiggle" test Tighten bolt and recheck.	18APR08	1	18APR08	1	4
S22-7.1	Measure the tooling balls on all coils.	21APR08	5	25APR08	1	4
S22-7.11	Install bushings Replace nut and tighten to 50%	28APR08	10	09MAY08	1	4
S22-7.12	Complete tightening of flange bolts to 100%.	12MAY08	1	12MAY08	1	4
S22-7.13	Measure the tooling balls on both coils.	13MAY08	4	16MAY08	1	4
S22-8.01	Tack weld all inboard shims to one flange	19MAY08	1	19MAY08	1	4
S22-10.01	Install all wing support bladders	20MAY08	2	21MAY08	1	4
S22-10.02	local service connections on each MC.	22MAY08	8	03JUN08	1	4
S22-10.03	Inject stycast to fill in all shim spaces	04JUN08	1	04JUN08	1	4
S22-11.01	Install or identify three primary fiducials	05JUN08	1	05JUN08	1	4
S22-11.02	Final metrology measurement of all fiducials.	06JUN08	5	12JUN08	1	4
S22-11.03	Tension tester measure bolt length	13JUN08	1	13JUN08	1	4
S22-11.04	Mark part for identification	16JUN08	0	13JUN08	1	4
S22-11.05	Install lift support beams	16JUN08	2	17JUN08	1	4
S22-11.06	Remove from stand Move A2-B2-C2 to holding area	18JUN08	2	19JUN08	1	4
Station 2-Modular Coil Subassembly-FP#2						
S23-A3B3C3	Assemble/Align Mod-Coils A3/B3/C3	12MAY08	140	26NOV08	1	0
S24-A4B4C4	Assemble/Align Mod-Coils A4/B4/C4	03JUL08	97	18NOV08	1	16
Station 2-Modular Coil Subassembly-FP#3						
S25-A5B5C5	Assemble/Align Mod-Coils A5/B5/C5 (under 1 shift	07OCT08*	86	16FEB09	1	5
S25A5B5C52	Assemble/Align Mod-Coils A5/B5/C5 (under 2 shift	17FEB09*	20	16MAR09	2	5
S26-A6B6C6	Assemble/Align Mod-Coils A6/B6/C6	23DEC08*	36	19FEB09	1	4
S26A6B6C62	Assemble/Align Mod-Coils A6/B6/C6	20FEB09*	24	25MAR09	2	4
Station 3-Assemble Mod Coils and VVSA-FP#1						
R1810-2109	Begin Station 3	03MAR08*	0		1	56
S31-1.01	Install Station 3 site monuments	03MAR08	3	05MAR08	1	56
S31-1.02	Install floor mounted tracks and VV base support	06MAR08	5	12MAR08	1	56



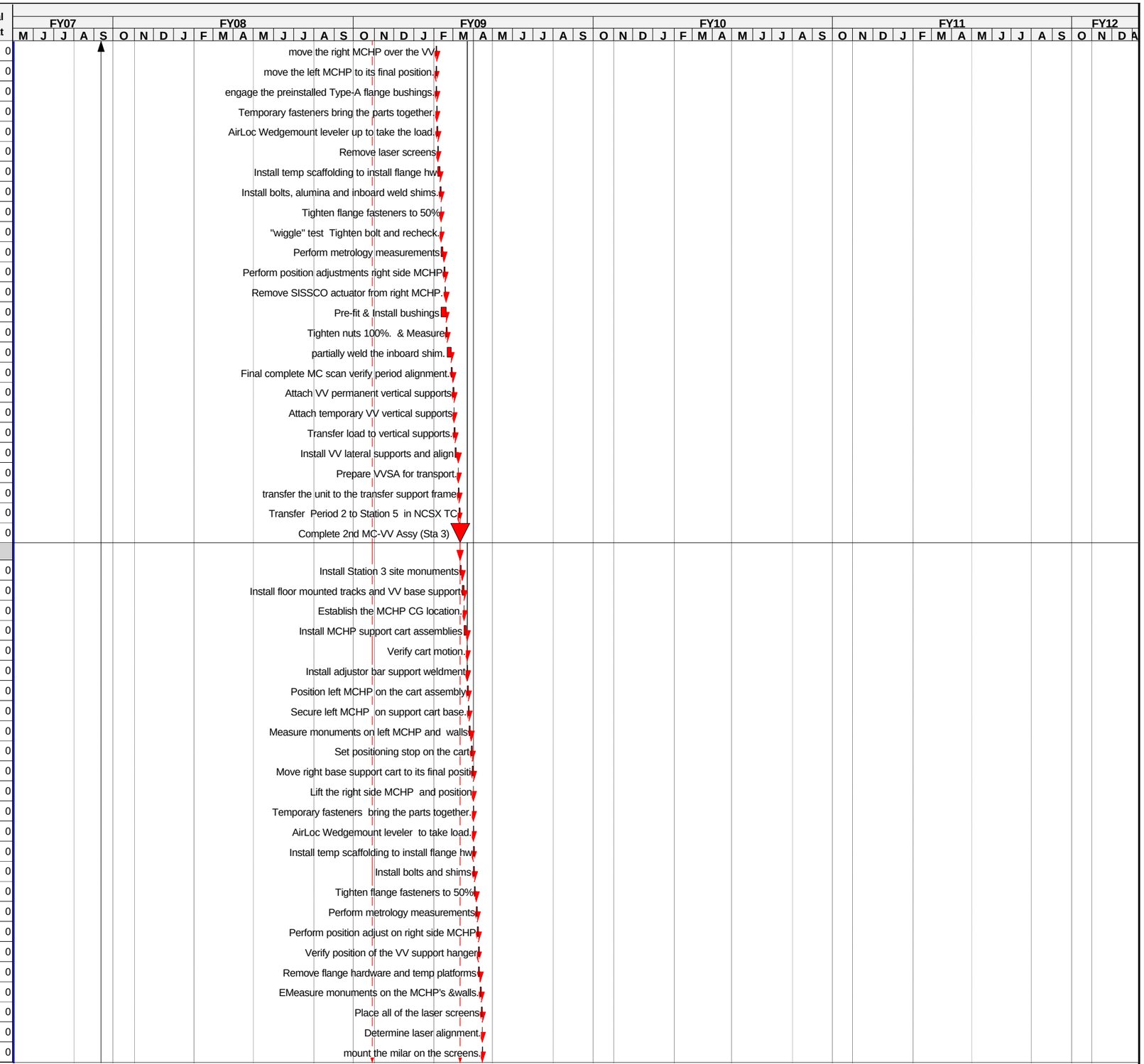
Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
S31-1.03	Establish the MCHP CG location.	13MAR08	2	14MAR08	1	56
S31-2.01	Install MCHP support cart assemblies	17MAR08	4	20MAR08	1	56
S31-2.02	Verify cart motion.	21MAR08	2	24MAR08	1	56
S31-2.03	Install adjustor bar support weldment	25MAR08	0	24MAR08	1	56
S31-2.04	Position left MCHP on the cart assembly	12MAY08	1	12MAY08	1	22
S31-2.05	Secure left MCHP on support cart base.	13MAY08	2	14MAY08	1	22
S31-2.06	Measure monuments on left MCHP and walls	15MAY08	5	21MAY08	1	22
S31-2.07	Set positioning stop on the cart	22MAY08	1	22MAY08	1	22
S31-3.01	Move right base support cart to its final positi	23MAY08	1	23MAY08	1	22
S31-3.02	Lift the right side MCHP and position	20JUN08	1	20JUN08	1	4
S31-3.03	Temporary fasteners bring the parts together.	23JUN08	0	20JUN08	1	4
S31-3.04	AirLoc Wedgemount leveler to take load.	23JUN08	0	20JUN08	1	4
S31-3.05	Install temp scaffolding to install flange hw	23JUN08	1	23JUN08	1	4
S31-3.06	Install bolts and shims	24JUN08	1	24JUN08	1	4
S31-3.07	Tighten flange fasteners to 50%	25JUN08	1	25JUN08	1	4
S31-3.08	Perform metrology measurements	26JUN08	5	02JUL08	1	4
S31-3.09	Perform position adjust on right side MCHP	03JUL08	2	07JUL08	1	4
S31-3.1	Verify position of the VV support hanger	08JUL08	3	10JUL08	1	4
S31-3.11	Remove flange hardware and temp platforms	11JUL08	1	11JUL08	1	4
S31-4.01	EMeasure monuments on the MCHP's &walls.	14JUL08	2	15JUL08	1	4
S31-4.02	Place all of the laser screens	16JUL08	2	17JUL08	1	4
S31-4.03	Determine laser alignment.	18JUL08	1	18JUL08	1	4
S31-4.04	mount the milar on the screens.	21JUL08	1	21JUL08	1	4
S31-4.05	Disengage MCHP's to move the left MCHP.	22JUL08	1	22JUL08	1	4
S31-4.06	Remove both MCHP's.	23JUL08	2	24JUL08	1	4
S31-5.01	Remove the adjustor bar support from left side.	25JUL08	0	24JUL08	1	4
S31-5.02	Install VV NBI port support stand.	25JUL08	2	28JUL08	1	4
S31-5.03	Install VVSA to base support	29JUL08	1	29JUL08	1	4
S31-5.04	Secure the VVSA to base & NBI port sprt stand.	30JUL08	2	31JUL08	1	4
S31-6.01	Install bumper protection components on the VV	01AUG08	1	01AUG08	1	4
S31-6.02	Position AirLoc Wedgemount in lower position.	04AUG08	0	01AUG08	1	4
S31-6.03	move the left MCHP over the VV.	04AUG08	2	05AUG08	1	4
S31-6.04	Re-install the left adjustor bar.	06AUG08	0	05AUG08	1	4
S31-6.05	Make adjustments to properly align MCHP.	06AUG08	2	07AUG08	1	4
S31-6.06	Transfer load to the AirLoc Wedgemount leveler.	08AUG08	0	07AUG08	1	4
S31-6.07	move the MCHP to the left 1/2".	08AUG08	0	07AUG08	1	4
S31-7.01	Position AirLoc Wedgemount lowered position.	08AUG08	0	07AUG08	1	4
S31-7.02	move the right MCHP over the VV	08AUG08	2	11AUG08	1	4
S31-7.03	move the left MCHP to its final position.	12AUG08	1	12AUG08	1	4
S31-7.04	engage the preinstalled Type-A flange bushings.	13AUG08	1	13AUG08	1	4
S31-7.05	Temporary fasteners bring the parts together.	14AUG08	0	13AUG08	1	4
S31-7.06	AirLoc Wedgemount leveler up to take the load.	14AUG08	1	14AUG08	1	4
S31-7.07	Remove laser screens	15AUG08	0	14AUG08	1	4
S31-7.08	Install temp scaffolding to install flange hw	15AUG08	4	20AUG08	1	4
S31-7.09	Install bolts, alumina and inboard weld shims.	21AUG08	2	22AUG08	1	4
S31-7.1	Tighten flange fasteners to 50%	25AUG08	1	25AUG08	1	4
S31-7.11	"wiggle" test Tighten bolt and recheck.	26AUG08	1	26AUG08	1	4
S31-7.12	Perform metrology measurements	27AUG08	5	03SEP08	1	4
S31-7.13	Perform position adjustments right side MCHP	04SEP08	3	08SEP08	1	4
S31-7.14	Remove SISSCO actuator from right MCHP.	09SEP08	0	08SEP08	1	4
S31-7.15	Pre-fit & Install bushings	28AUG08	10	11SEP08	1	4



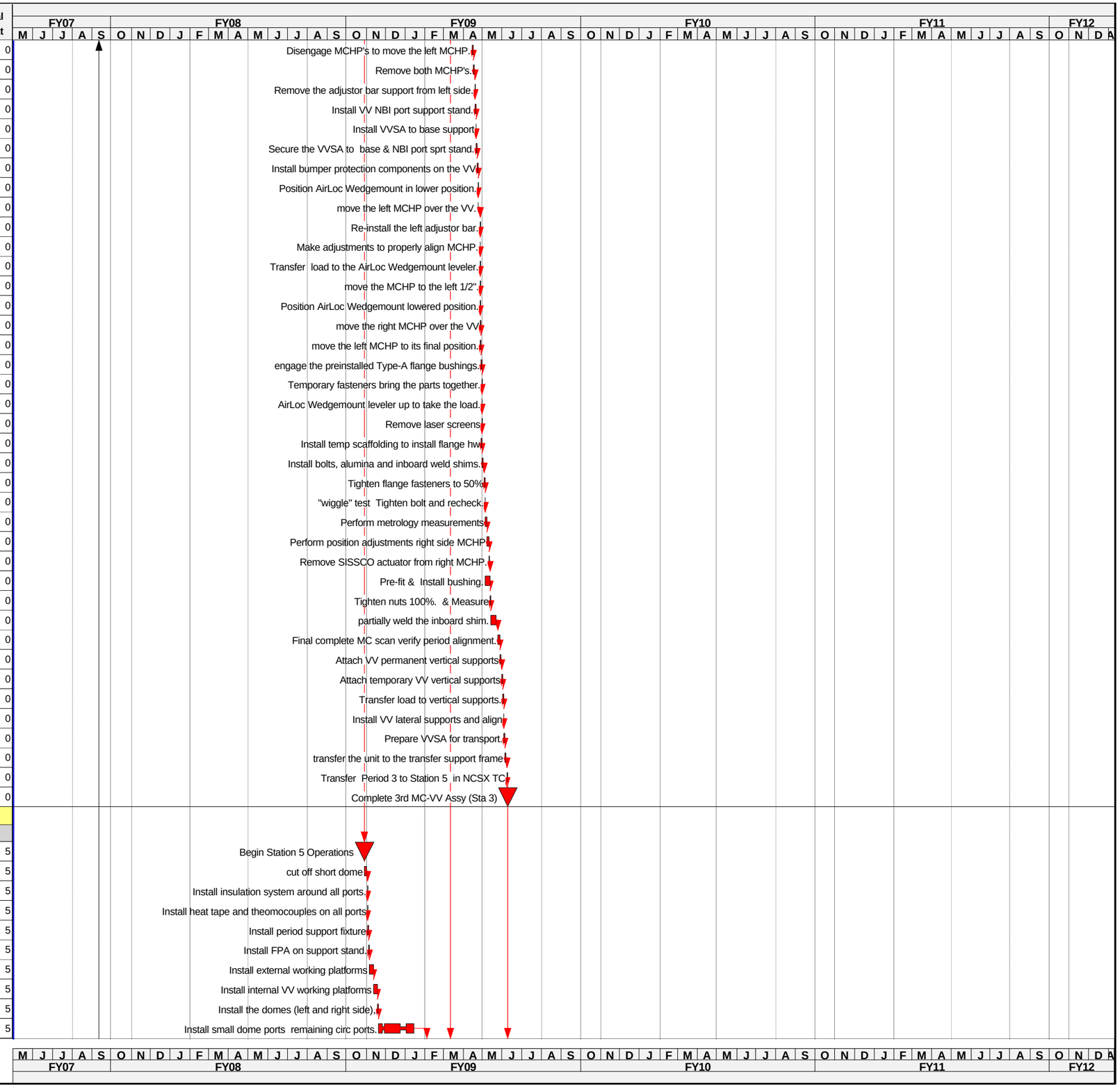
Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
S31-7.16	Tighten nuts 100%. & Measure	12SEP08	1	12SEP08	1	4
S31-8.01	partially weld the inboard shim.	15SEP08	15	03OCT08	1	4
S31-8.02	Final complete MC scan verify period alignment.	06OCT08	5	10OCT08	1	4
S31-9.01	Attach VV permanent vertical supports	13OCT08	2	14OCT08	1	4
S31-9.02	Attach temporary VV vertical supports	15OCT08	1	15OCT08	1	4
S31-9.03	Transfer load to vertical supports.	16OCT08	1	16OCT08	1	4
S31-9.04	Install VV lateral supports and align	17OCT08	4	22OCT08	1	4
S31-9.05	Prepare VVSA for transport.	23OCT08	2	24OCT08	1	4
S31-10.01	transfer the unit to the transfer support frame	27OCT08	2	28OCT08	1	4
S31-10.02	Transfer Period 1 to Station 5 in NCSX TC	29OCT08	1	29OCT08	1	4
S31-10.02M	Complete 1st MC-VV Assy (Sta 3)		0	29OCT08	1	4
Station 3-Assemble Mod Coils and VVSA-FP#2						
S32-1.01	Install Station 3 site monuments	30OCT08	3	03NOV08	1	4
S32-1.02	Install floor mounted tracks and VV base support	04NOV08	5	10NOV08	1	4
S32-1.03	Establish the MCHP CG location.	11NOV08	2	12NOV08	1	4
S32-2.01	Install MCHP support cart assemblies	13NOV08	4	18NOV08	1	4
S32-2.02	Verify cart motion.	19NOV08	2	20NOV08	1	4
S32-2.03	Install adjustor bar support weldment	21NOV08	0	20NOV08	1	4
S32-2.04	Position left MCHP on the cart assembly	01DEC08	1	01DEC08	1	0
S32-2.05	Secure left MCHP on support cart base.	02DEC08	2	03DEC08	1	0
S32-2.06	Measure monuments on left MCHP and walls	04DEC08	5	10DEC08	1	0
S32-2.07	Set positioning stop on the cart	11DEC08	1	11DEC08	1	0
S32-3.01	Move right base support cart to its final positi	12DEC08	1	12DEC08	1	0
S32-3.02	Lift the right side MCHP and position	15DEC08	1	15DEC08	1	0
S32-3.03	Temporary fasteners bring the parts together.	16DEC08	0	15DEC08	1	0
S32-3.04	AirLoc Wedgemount leveler to take load.	16DEC08	0	15DEC08	1	0
S32-3.05	Install temp scaffolding to install flange hw	16DEC08	1	16DEC08	1	0
S32-3.06	Install bolts and shims	17DEC08	1	17DEC08	1	0
S32-3.07	Tighten flange fasteners to 50%	18DEC08	1	18DEC08	1	0
S32-3.08	Perform metrology measurements	19DEC08	5	05JAN09	1	0
S32-3.09	Perform position adjust on right side MCHP	06JAN09	2	07JAN09	1	0
S32-3.1	Verify position of the VV support hanger	08JAN09	3	12JAN09	1	0
S32-3.11	Remove flange hardware and temp platforms	13JAN09	1	13JAN09	1	0
S32-4.01	EMeasure monuments on the MCHP's &walls.	14JAN09	2	15JAN09	1	0
S32-4.02	Place all of the laser screens	16JAN09	2	19JAN09	1	0
S32-4.03	Determine laser alignment.	20JAN09	1	20JAN09	1	0
S32-4.04	mount the milar on the screens.	21JAN09	1	21JAN09	1	0
S32-4.05	Disengage MCHP's to move the left MCHP.	22JAN09	1	22JAN09	1	0
S32-4.06	Remove both MCHP's.	23JAN09	2	26JAN09	1	0
S32-5.01	Remove the adjustor bar support from left side.	27JAN09	0	26JAN09	1	0
S32-5.02	Install VV NBI port support stand.	27JAN09	2	28JAN09	1	0
S32-5.03	Install VVSA to base support	29JAN09	1	29JAN09	1	0
S32-5.04	Secure the VVSA to base & NBI port sprt stand.	30JAN09	1	30JAN09	2	0
S32-6.01	Install bumper protection components on the VV	30JAN09	1	30JAN09	2	0
S32-6.02	Position AirLoc Wedgemount in lower position.	02FEB09	0	30JAN09	2	0
S32-6.03	move the left MCHP over the VV.	02FEB09	1	02FEB09	2	0
S32-6.04	Re-install the left adjustor bar.	03FEB09	0	02FEB09	2	0
S32-6.05	Make adjustments to properly align MCHP.	03FEB09	1	03FEB09	2	0
S32-6.06	Transfer load to the AirLoc Wedgemount leveler.	04FEB09	0	03FEB09	2	0
S32-6.07	move the MCHP to the left 1/2".	04FEB09	0	03FEB09	2	0
S32-7.01	Position AirLoc Wedgemount lowered position.	04FEB09	0	03FEB09	2	0



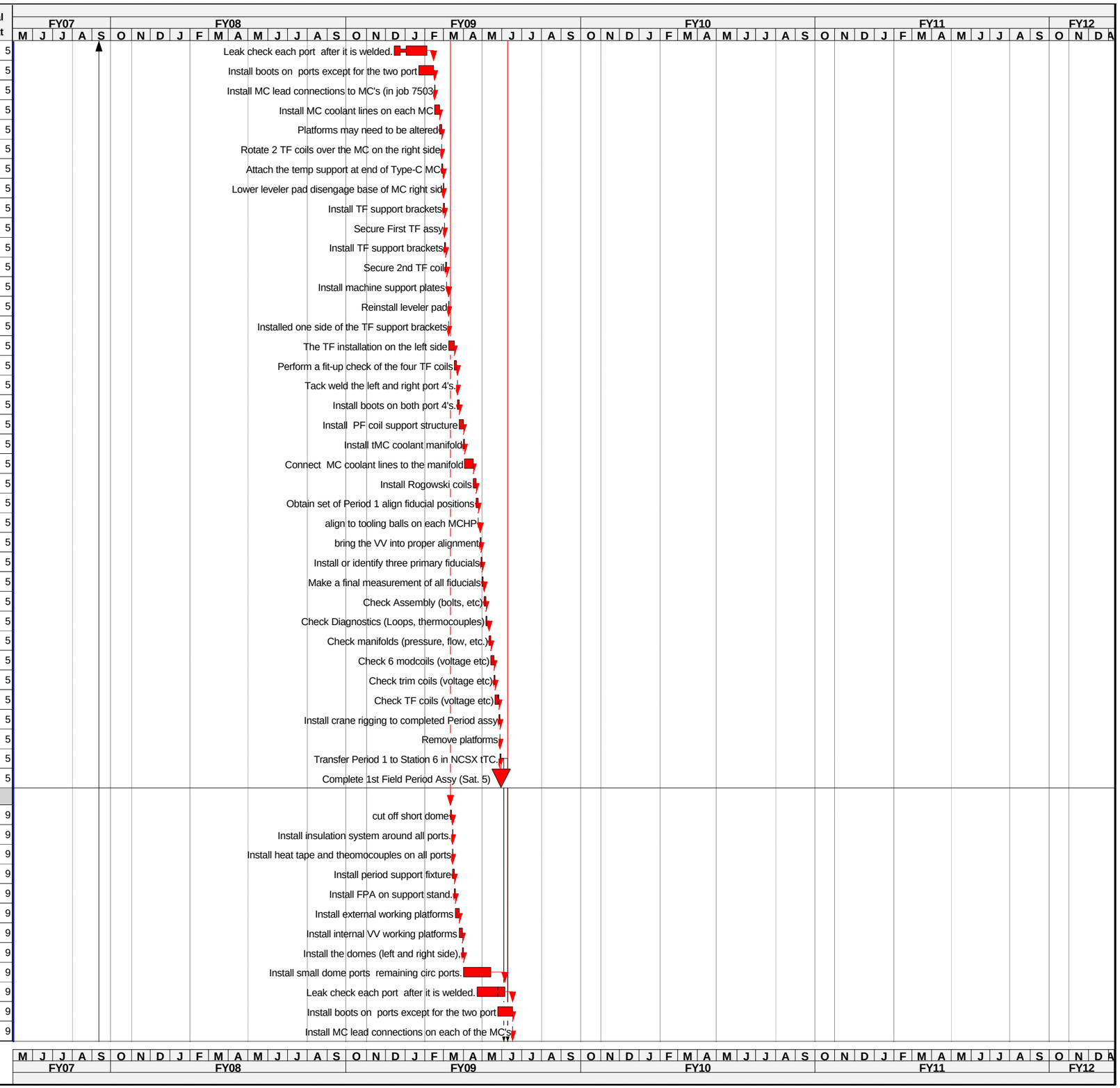
Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
S32-7.02	move the right MCHP over the VV	04FEB09	1	04FEB09	2	0
S32-7.03	move the left MCHP to its final position.	04FEB09	1	04FEB09	2	0
S32-7.04	engage the preinstalled Type-A flange bushings.	04FEB09	1	04FEB09	2	0
S32-7.05	Temporary fasteners bring the parts together.	05FEB09	0	04FEB09	2	0
S32-7.06	AirLoc Wedgemount leveler up to take the load.	05FEB09	1	05FEB09	2	0
S32-7.07	Remove laser screens	06FEB09	0	05FEB09	2	0
S32-7.08	Install temp scaffolding to install flange hw	06FEB09	2	09FEB09	2	0
S32-7.09	Install bolts, alumina and inboard weld shims.	10FEB09	1	10FEB09	2	0
S32-7.1	Tighten flange fasteners to 50%	11FEB09	1	11FEB09	2	0
S32-7.11	"wiggle" test Tighten bolt and recheck.	11FEB09	1	11FEB09	2	0
S32-7.12	Perform metrology measurements	12FEB09	2	13FEB09	2	0
S32-7.13	Perform position adjustments right side MCHP	16FEB09	2	17FEB09	2	0
S32-7.14	Remove SISSCO actuator from right MCHP.	18FEB09	0	17FEB09	2	0
S32-7.15	Pre-fit & Install bushings	12FEB09	5	18FEB09	2	0
S32-7.16	Tighten nuts 100%. & Measure	19FEB09	1	19FEB09	2	0
S32-8.01	partially weld the inboard shim.	20FEB09	4	25FEB09	2	0
S32-8.02	Final complete MC scan verify period alignment.	26FEB09	2	27FEB09	2	0
S32-9.01	Attach VV permanent vertical supports	02MAR09	1	02MAR09	2	0
S32-9.02	Attach temporary VV vertical supports	03MAR09	1	03MAR09	2	0
S32-9.03	Transfer load to vertical supports.	04MAR09	1	04MAR09	2	0
S32-9.04	Install VV lateral supports and align	05MAR09	2	06MAR09	2	0
S32-9.05	Prepare VVSA for transport.	09MAR09	1	09MAR09	2	0
S32-10.01	transfer the unit to the transfer support frame	10MAR09	1	10MAR09	2	0
S32-10.02	Transfer Period 2 to Station 5 in NCSX TC	11MAR09	1	11MAR09	2	0
S32-10.02M	Complete 2nd MC-VV Assy (Sta 3)		0	11MAR09	2	0
Station 3-Assemble Mod Coils and VVSA-FP#3						
S33-1.01	Install Station 3 site monuments	12MAR09	2	13MAR09	2	0
S33-1.02	Install floor mounted tracks and VV base support	16MAR09	2	17MAR09	2	0
S33-1.03	Establish the MCHP CG location.	18MAR09	1	18MAR09	2	0
S33-2.01	Install MCHP support cart assemblies	19MAR09	2	20MAR09	2	0
S33-2.02	Verify cart motion.	23MAR09	1	23MAR09	2	0
S33-2.03	Install adjustor bar support weldment	24MAR09	0	23MAR09	2	0
S33-2.04	Position left MCHP on the cart assembly	24MAR09	1	24MAR09	2	0
S33-2.05	Secure left MCHP on support cart base.	25MAR09	1	25MAR09	2	0
S33-2.06	Measure monuments on left MCHP and walls	26MAR09	2	27MAR09	2	0
S33-2.07	Set positioning stop on the cart	30MAR09	1	30MAR09	2	0
S33-3.01	Move right base support cart to its final positi	31MAR09	1	31MAR09	2	0
S33-3.02	Lift the right side MCHP and position	01APR09	1	01APR09	2	0
S33-3.03	Temporary fasteners bring the parts together.	02APR09	0	01APR09	2	0
S33-3.04	AirLoc Wedgemount leveler to take load.	02APR09	0	01APR09	2	0
S33-3.05	Install temp scaffolding to install flange hw	02APR09	1	02APR09	2	0
S33-3.06	Install bolts and shims	02APR09	1	02APR09	2	0
S33-3.07	Tighten flange fasteners to 50%	03APR09	1	03APR09	2	0
S33-3.08	Perform metrology measurements	06APR09	2	07APR09	2	0
S33-3.09	Perform position adjust on right side MCHP	08APR09	1	08APR09	2	0
S33-3.1	Verify position of the VV support hanger	09APR09	2	10APR09	2	0
S33-3.11	Remove flange hardware and temp platforms	09APR09	2	10APR09	2	0
S33-4.01	EMeasure monuments on the MCHP's &walls.	13APR09	1	13APR09	2	0
S33-4.02	Place all of the laser screens	14APR09	1	14APR09	2	0
S33-4.03	Determine laser alignment.	15APR09	1	15APR09	2	0
S33-4.04	mount the milar on the screens.	16APR09	0	15APR09	2	0



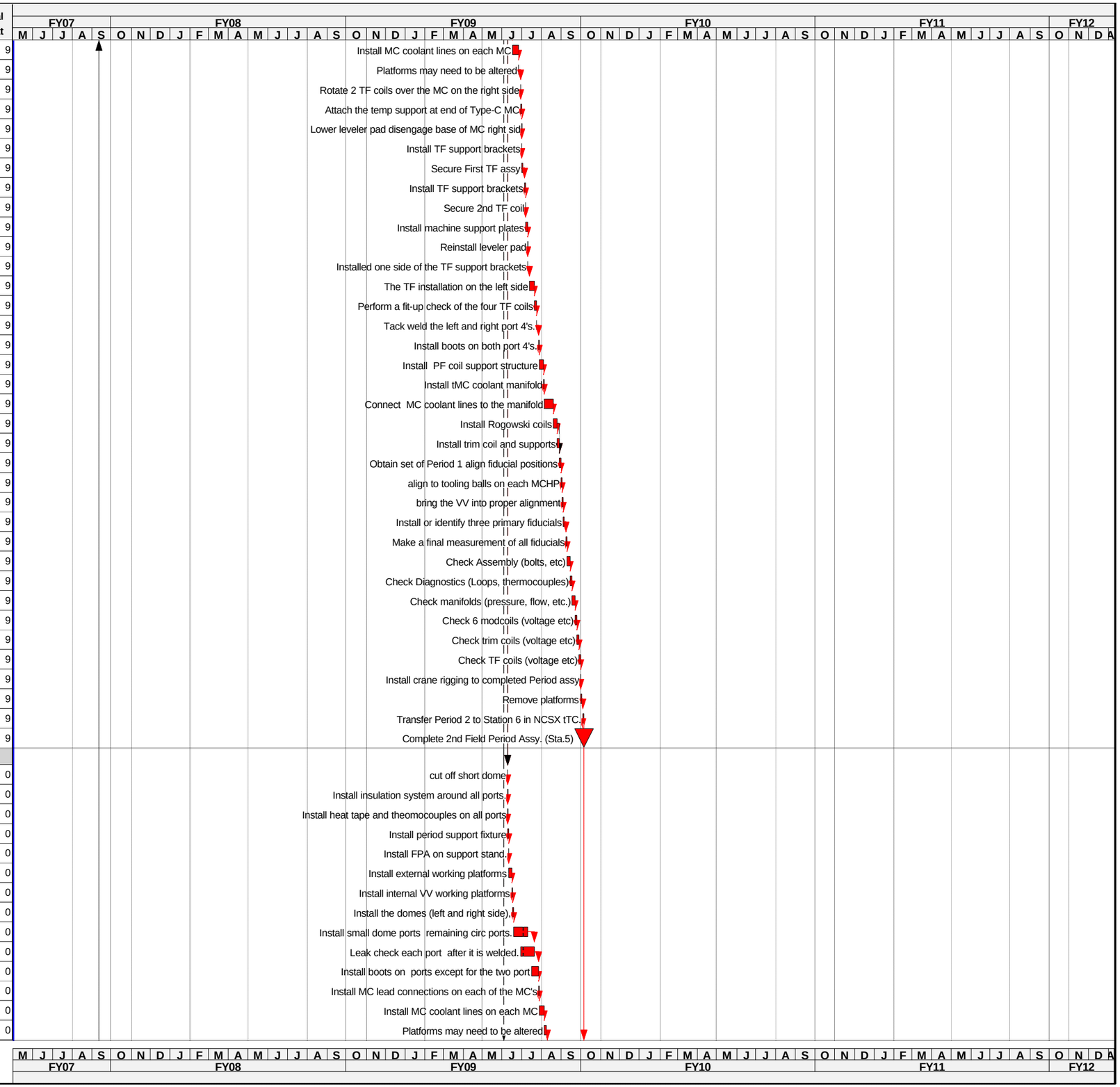
Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
S33-4.05	Disengage MCHP's to move the left MCHP.	16APR09	1	16APR09	2	0
S33-4.06	Remove both MCHP's.	17APR09	1	17APR09	2	0
S33-5.01	Remove the adjustor bar support from left side.	20APR09	0	17APR09	2	0
S33-5.02	Install VV NBI port support stand.	20APR09	1	20APR09	2	0
S33-5.03	Install VVSA to base support	21APR09	1	21APR09	2	0
S33-5.04	Secure the VVSA to base & NBI port sprt stand.	22APR09	1	22APR09	2	0
S33-6.01	Install bumper protection components on the VV	23APR09	1	23APR09	2	0
S33-6.02	Position AirLoc Wedgemount in lower position.	24APR09	0	23APR09	2	0
S33-6.03	move the left MCHP over the VV.	24APR09	1	24APR09	2	0
S33-6.04	Re-install the left adjustor bar.	27APR09	0	24APR09	2	0
S33-6.05	Make adjustments to properly align MCHP.	27APR09	1	27APR09	2	0
S33-6.06	Transfer load to the AirLoc Wedgemount leveler.	28APR09	0	27APR09	2	0
S33-6.07	move the MCHP to the left 1/2".	28APR09	0	27APR09	2	0
S33-7.01	Position AirLoc Wedgemount lowered position.	28APR09	0	27APR09	2	0
S33-7.02	move the right MCHP over the VV	28APR09	1	28APR09	2	0
S33-7.03	move the left MCHP to its final position.	28APR09	1	28APR09	2	0
S33-7.04	engage the preinstalled Type-A flange bushings.	29APR09	1	29APR09	2	0
S33-7.05	Temporary fasteners bring the parts together.	30APR09	0	29APR09	2	0
S33-7.06	AirLoc Wedgemount leveler up to take the load.	30APR09	1	30APR09	2	0
S33-7.07	Remove laser screens	01MAY09	0	30APR09	2	0
S33-7.08	Install temp scaffolding to install flange hw	29APR09	2	30APR09	2	0
S33-7.09	Install bolts, alumina and inboard weld shims.	01MAY09	1	01MAY09	2	0
S33-7.1	Tighten flange fasteners to 50%	04MAY09	1	04MAY09	2	0
S33-7.11	"wiggle" test Tighten bolt and recheck.	05MAY09	1	05MAY09	2	0
S33-7.12	Perform metrology measurements	06MAY09	2	07MAY09	2	0
S33-7.13	Perform position adjustments right side MCHP	08MAY09	2	11MAY09	2	0
S33-7.14	Remove SISSCO actuator from right MCHP.	12MAY09	0	11MAY09	2	0
S33-7.15	Pre-fit & Install bushing.	06MAY09	5	12MAY09	2	0
S33-7.16	Tighten nuts 100%. & Measure	13MAY09	1	13MAY09	2	0
S33-8.01	partially weld the inboard shim.	14MAY09	7	22MAY09	2	0
S33-8.02	Final complete MC scan verify period alignment.	26MAY09	3	28MAY09	2	0
S33-9.01	Attach VV permanent vertical supports	29MAY09	1	29MAY09	2	0
S33-9.02	Attach temporary VV vertical supports	01JUN09	1	01JUN09	2	0
S33-9.03	Transfer load to vertical supports.	02JUN09	1	02JUN09	2	0
S33-9.04	Install VV lateral supports and align	03JUN09	1	03JUN09	2	0
S33-9.05	Prepare VVSA for transport.	04JUN09	1	04JUN09	2	0
S33-10.01	transfer the unit to the transfer support frame	05JUN09	1	05JUN09	2	0
S33-10.02	Transfer Period 3 to Station 5 in NCSX TC	08JUN09	1	08JUN09	2	0
S33-10.02M	Complete 3rd MC-VV Assy (Sta 3)		0	08JUN09	2	0
Job: 1815 - Field Period Assy -Station 5-VIOLA						
Station 5- Final FP Assy -FP#1 (in NCSX TC)						
R1810-5109	Begin Station 5 Operations		0	29OCT08	1	5
S51-1.01	cut off short dome	30OCT08	2	31OCT08	1	5
S51-1.02	Install insulation system around all ports.	03NOV08	0	31OCT08	1	5
S51-1.03	Install heat tape and theomocouples on all ports	03NOV08	0	31OCT08	1	5
S51-2.01	Install period support fixture	03NOV08	2	04NOV08	1	5
S51-2.02	Install FPA on support stand.	05NOV08	2	06NOV08	1	5
S51-2.03	Install external working platforms	07NOV08	4	12NOV08	1	5
S51-2.04	Install internal VV working platforms	13NOV08	3	17NOV08	1	5
S51-3.01	Install the domes (left and right side),	18NOV08	2	19NOV08	1	5
S51-3.02	Install small dome ports remaining circ ports.	20NOV08	30	13JAN09	1	5



Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
S51-3.03	Leak check each port after it is welded.	15DEC08	30	03FEB09	1	5
S51-4.01	Install boots on ports except for the two port	23JAN09	16	13FEB09	1	5
S51-5.01	Install MC lead connections to MC's (in job 7503	16FEB09	0	13FEB09	1	5
S51-5.02	Install MC coolant lines on each MC	16FEB09	6	23FEB09	2	5
S51-5.03	Platforms may need to be altered	24FEB09	2	25FEB09	2	5
S51-6.01	Rotate 2 TF coils over the MC on the right side	26FEB09	1	26FEB09	2	5
S51-6.02	Attach the temp support at end of Type-C MC	27FEB09	1	27FEB09	2	5
S51-6.03	Lower leveler pad disengage base of MC right sid	02MAR09	0	27FEB09	2	5
S51-6.04	Install TF support brackets	02MAR09	1	02MAR09	2	5
S51-6.05	Secure First TF assy	03MAR09	1	03MAR09	2	5
S51-6.06	Install TF support brackets	04MAR09	1	04MAR09	2	5
S51-6.07	Secure 2nd TF coil	05MAR09	1	05MAR09	2	5
S51-6.08	Install machine support plates	06MAR09	1	06MAR09	2	5
S51-6.09	Reinstall leveler pad	09MAR09	0	06MAR09	2	5
S51-6.1	Installed one side of the TF support brackets	09MAR09	1	09MAR09	2	5
S51-7.01	The TF installation on the left side	10MAR09	7	18MAR09	2	5
S51-8.01	Perform a fit-up check of the four TF coils	19MAR09	2	20MAR09	2	5
S51-9.01	Tack weld the left and right port 4's.	23MAR09	1	23MAR09	2	5
S51-9.02	Install boots on both port 4's.	24MAR09	2	25MAR09	2	5
S51-10.01	Install PF coil support structure	26MAR09	4	31MAR09	2	5
S51-11.01	Install tMC coolant manifold	01APR09	2	02APR09	2	5
S51-11.02	Connect MC coolant lines to the manifold	03APR09	10	16APR09	2	5
S51-12.01	Install Rogowski coils	17APR09	3	21APR09	2	5
S51-13.01	Obtain set of Period 1 align fiducial positions	22APR09	2	23APR09	2	5
S51-13.02	align to tooling balls on each MCHP	24APR09	1	24APR09	2	5
S51-13.03	bring the VV into proper alignment	27APR09	2	28APR09	2	5
S51-13.04	Install or identify three primary fiducials	29APR09	1	29APR09	2	5
S51-13.05	Make a final measurement of all fiducials	30APR09	2	01MAY09	2	5
S51-13.11	Check Assembly (bolts, etc)	04MAY09	3	06MAY09	2	5
S51-13.12	Check Diagnostics (Loops, thermocouples)	07MAY09	2	08MAY09	2	5
S51-13.13	Check manifolds (pressure, flow, etc.)	11MAY09	3	13MAY09	2	5
S51-13.14	Check 6 modcoils (voltage etc)	14MAY09	3	18MAY09	2	5
S51-13.15	Check trim coils (voltage etc)	19MAY09	2	20MAY09	2	5
S51-13.16	Check TF coils (voltage etc)	21MAY09	3	26MAY09	2	5
S51-14.01	Install crane rigging to completed Period assy	27MAY09	1	27MAY09	2	5
S51-14.02	Remove platforms	28MAY09	1	28MAY09	2	5
S51-14.03	Transfer Period 1 to Station 6 in NCSX tTC.	29MAY09	1	29MAY09	2	5
S51-14.03M	Complete 1st Field Period Assy (Sat. 5)		0	29MAY09	2	5
Station 5- Final FP Assy -FP#2 (in NCSX TC)						
S52-1.01	cut off short dome	12MAR09	2	13MAR09	1	9
S52-1.02	Install insulation system around all ports.	16MAR09	0	13MAR09	1	9
S52-1.03	Install heat tape and theomocouples on all ports	16MAR09	0	13MAR09	1	9
S52-2.01	Install period support fixture	16MAR09	2	17MAR09	1	9
S52-2.02	Install FPA on support stand.	18MAR09	2	19MAR09	1	9
S52-2.03	Install external working platforms	20MAR09	4	25MAR09	1	9
S52-2.04	Install internal VV working platforms	26MAR09	3	30MAR09	1	9
S52-3.01	Install the domes (left and right side),	31MAR09	2	01APR09	1	9
S52-3.02	Install small dome ports remaining circ ports.	02APR09	30	13MAY09	1	9
S52-3.03	Leak check each port after it is welded.	23APR09	30	04JUN09	1	9
S52-4.01	Install boots on ports except for the two port	26MAY09	16	16JUN09	1	9
S52-5.01	Install MC lead connections on each of the MC's	17JUN09	1	17JUN09	2	9



Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
S52-5.02	Install MC coolant lines on each MC	18JUN09	6	25JUN09	2	9
S52-5.03	Platforms may need to be altered	26JUN09	1	26JUN09	2	9
S52-6.01	Rotate 2 TF coils over the MC on the right side	29JUN09	1	29JUN09	2	9
S52-6.02	Attach the temp support at end of Type-C MC	30JUN09	1	30JUN09	2	9
S52-6.03	Lower leveler pad disengage base of MC right sid	01JUL09	0	30JUN09	2	9
S52-6.04	Install TF support brackets	01JUL09	1	01JUL09	2	9
S52-6.05	Secure First TF assy	02JUL09	1	02JUL09	2	9
S52-6.06	Install TF support brackets	06JUL09	1	06JUL09	2	9
S52-6.07	Secure 2nd TF coil	07JUL09	1	07JUL09	2	9
S52-6.08	Install machine support plates	08JUL09	2	09JUL09	2	9
S52-6.09	Reinstall leveler pad	10JUL09	0	09JUL09	2	9
S52-6.1	Installed one side of the TF support brackets	10JUL09	1	10JUL09	2	9
S52-7.01	The TF installation on the left side	13JUL09	6	20JUL09	2	9
S52-8.01	Perform a fit-up check of the four TF coils	21JUL09	3	23JUL09	2	9
S52-9.01	Tack weld the left and right port 4's.	24JUL09	1	24JUL09	2	9
S52-9.02	Install boots on both port 4's.	27JUL09	2	28JUL09	2	9
S52-10.01	Install PF coil support structure	29JUL09	4	03AUG09	2	9
S52-11.01	Install tMC coolant manifold	04AUG09	2	05AUG09	2	9
S52-11.02	Connect MC coolant lines to the manifold	06AUG09	10	19AUG09	2	9
S52-12.01	Install Rogowski coils	20AUG09	3	24AUG09	2	9
S21-9.01	Install trim coil and supports	25AUG09	3	27AUG09	2	9
S52-13.01	Obtain set of Period 1 align fiducial positions	28AUG09	2	31AUG09	2	9
S52-13.02	align to tooling balls on each MCHP	01SEP09	1	01SEP09	2	9
S52-13.03	bring the VV into proper alignment	02SEP09	2	03SEP09	2	9
S52-13.04	Install or identify three primary fiducials	04SEP09	1	04SEP09	2	9
S52-13.05	Make a final measurement of all fiducials	08SEP09	2	09SEP09	2	9
S52-13.11	Check Assembly (bolts, etc)	10SEP09	3	14SEP09	2	9
S52-13.12	Check Diagnostics (Loops, thermocouples)	15SEP09	2	16SEP09	2	9
S52-13.13	Check manifolds (pressure, flow, etc.)	17SEP09	3	21SEP09	2	9
S52-13.14	Check 6 modcoils (voltage etc)	22SEP09	3	24SEP09	2	9
S52-13.15	Check trim coils (voltage etc)	25SEP09	2	28SEP09	2	9
S52-13.16	Check TF coils (voltage etc)	29SEP09	2	30SEP09	2	9
S52-14.01	Install crane rigging to completed Period assy	01OCT09	1	01OCT09	2	9
S52-14.02	Remove platforms	02OCT09	1	02OCT09	2	9
S52-14.03	Transfer Period 2 to Station 6 in NCSX tTC.	05OCT09	1	05OCT09	2	9
S52-14.03M	Complete 2nd Field Period Assy. (Sta.5)		0	05OCT09	2	9
Station 5- Final FP Assy -FP#3 (in NCSX TC)						
S53-1.01	cut off short dome	09JUN09	1	09JUN09	2	0
S53-1.02	Install insulation system around all ports.	10JUN09	0	09JUN09	2	0
S53-1.03	Install heat tape and theomocouples on all ports	10JUN09	0	09JUN09	2	0
S53-2.01	Install period support fixture	10JUN09	1	10JUN09	2	0
S53-2.02	Install FPA on support stand.	11JUN09	1	11JUN09	2	0
S53-2.03	Install external working platforms	12JUN09	2	15JUN09	2	0
S53-2.04	Install internal VV working platforms	16JUN09	2	17JUN09	2	0
S53-3.01	Install the domes (left and right side),	18JUN09	1	18JUN09	2	0
S53-3.02	Install small dome ports remaining circ ports.	19JUN09	15	10JUL09	2	0
S53-3.03	Leak check each port after it is welded.	30JUN09	15	21JUL09	2	0
S53-4.01	Install boots on ports except for the two port	16JUL09	8	27JUL09	2	0
S53-5.01	Install MC lead connections on each of the MC's	28JUL09	1	28JUL09	2	0
S53-5.02	Install MC coolant lines on each MC	29JUL09	6	05AUG09	2	0
S53-5.03	Platforms may need to be altered	06AUG09	2	07AUG09	2	0

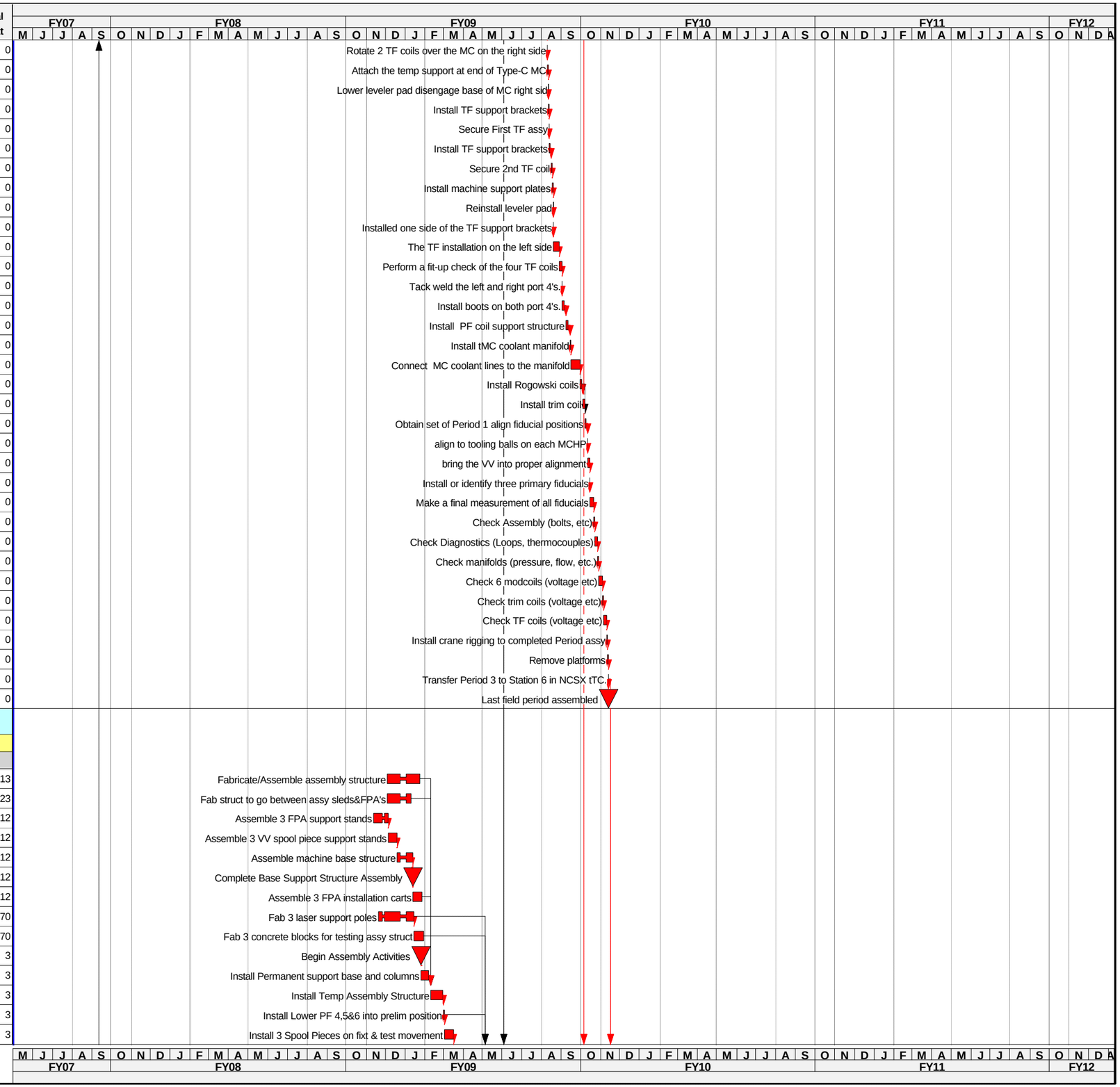


Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
S53-6.01	Rotate 2 TF coils over the MC on the right side	10AUG09	1	10AUG09	2	0
S53-6.02	Attach the temp support at end of Type-C MC	11AUG09	1	11AUG09	2	0
S53-6.03	Lower leveler pad disengage base of MC right sid	12AUG09	0	11AUG09	2	0
S53-6.04	Install TF support brackets	12AUG09	1	12AUG09	2	0
S53-6.05	Secure First TF assy	13AUG09	1	13AUG09	2	0
S53-6.06	Install TF support brackets	14AUG09	1	14AUG09	2	0
S53-6.07	Secure 2nd TF coil	17AUG09	1	17AUG09	2	0
S53-6.08	Install machine support plates	18AUG09	1	18AUG09	2	0
S53-6.09	Reinstall leveler pad	19AUG09	0	18AUG09	2	0
S53-6.1	Installed one side of the TF support brackets	19AUG09	1	19AUG09	2	0
S53-7.01	The TF installation on the left side	20AUG09	6	27AUG09	2	0
S53-8.01	Perform a fit-up check of the four TF coils	28AUG09	3	01SEP09	2	0
S53-9.01	Tack weld the left and right port 4's.	02SEP09	1	02SEP09	2	0
S53-9.02	Install boots on both port 4's.	03SEP09	2	04SEP09	2	0
S53-10.01	Install PF coil support structure	08SEP09	4	11SEP09	2	0
S53-11.01	Install tMC coolant manifold	14SEP09	2	15SEP09	2	0
S53-11.02	Connect MC coolant lines to the manifold	16SEP09	10	29SEP09	2	0
S53-12.01	Install Rogowski coils	30SEP09	3	02OCT09	2	0
S22-9.01	Install trim coil	05OCT09	3	07OCT09	2	0
S53-13.01	Obtain set of Period 1 align fiducial positions	08OCT09	2	09OCT09	2	0
S53-13.02	align to tooling balls on each MCHP	12OCT09	1	12OCT09	2	0
S53-13.03	bring the VV into proper alignment	13OCT09	2	14OCT09	2	0
S53-13.04	Install or identify three primary fiducials	15OCT09	1	15OCT09	2	0
S53-13.05	Make a final measurement of all fiducials	16OCT09	3	20OCT09	2	0
S53-13.11	Check Assembly (bolts, etc)	21OCT09	2	22OCT09	2	0
S53-13.12	Check Diagnostics (Loops, thermocouples)	23OCT09	3	27OCT09	2	0
S53-13.13	Check manifolds (pressure, flow, etc.)	28OCT09	2	29OCT09	2	0
S53-13.14	Check 6 modcoils (voltage etc)	30OCT09	3	03NOV09	2	0
S53-13.15	Check trim coils (voltage etc)	04NOV09	2	05NOV09	2	0
S53-13.16	Check TF coils (voltage etc)	06NOV09	3	10NOV09	2	0
S53-14.01	Install crane rigging to completed Period assy	11NOV09	1	11NOV09	2	0
S53-14.02	Remove platforms	12NOV09	1	12NOV09	2	0
S53-14.03	Transfer Period 3 to Station 6 in NCSX tTC.	13NOV09	1	13NOV09	2	0
R1810-5333	Last field period assembled		0	13NOV09	2	0

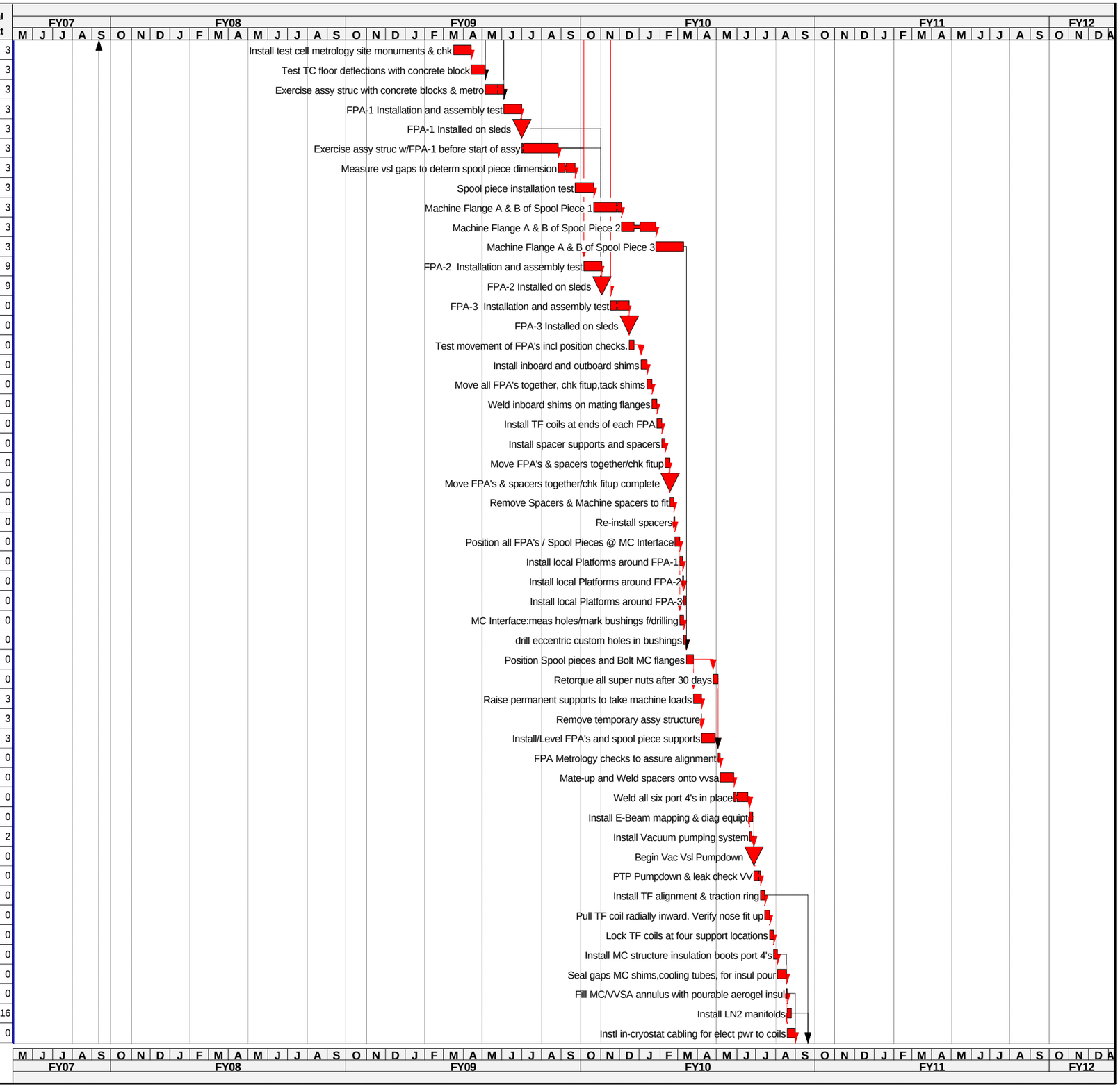
75 - Test Cell and Basement Assembly Operations

Job: 7503 - Machine Assembly (station 6)-PERRY

7501-10	Fabricate/Assemble assembly structure	04DEC08	30	23JAN09	1	13
7501-10.1	Fab struct to go between assy sleds&FPA's	04DEC08	20	09JAN09	1	23
7501-10.2	Assemble 3 FPA support stands	12NOV08*	15	04DEC08	1	12
7501-10.3	Assemble 3 VV spool piece support stands	05DEC08	10	18DEC08	1	12
7501-10.4	Assemble machine base structure	19DEC08	10	12JAN09	1	12
7501-10.4M	Complete Base Support Structure Assembly		0	12JAN09	1	12
7501-10.5	Assemble 3 FPA installation carts	13JAN09	10	26JAN09	1	12
7501-10.6	Fab 3 laser support poles	20NOV08*	30	13JAN09	1	70
7501-10.7	Fab 3 concrete blocks for testing assy struct	14JAN09	12	29JAN09	1	70
7503-010	Begin Assembly Activities	26JAN09*	0		1	3
7503-020	Install Permanent support base and columns	26JAN09	10	06FEB09	1	3
7503-015	Install Temp Assembly Structure	09FEB09	15	27FEB09	1	3
7503-060	Install Lower PF 4,5&6 into prelim position	02MAR09	1	02MAR09	1	3
7503-070	Install 3 Spool Pieces on fixt & test movement	03MAR09	10	16MAR09	1	3



Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
7501-10.9	Install test cell metrology site monuments & chk	17MAR09	20	13APR09	1	3
7501-10.10	Test TC floor deflections with concrete block	14APR09	15	04MAY09	1	3
7501-10.8	Exercise assy struc with concrete blocks & metro	05MAY09	20	02JUN09	2	3
7503-080A	FPA-1 Installation and assembly test	03JUN09	20	30JUN09	1	3
7503-080	FPA-1 Installed on sleds		0	30JUN09	1	3
7501-11	Exercise assy struc w/FPA-1 before start of assy	01JUL09	40	26AUG09	1	3
7503-415.7	Measure vsl gaps to determ spool piece dimension	27AUG09	18	22SEP09	1	3
7503-415.0	Spool piece installation test	23SEP09	20	20OCT09	1	3
7503-416.1	Machine Flange A & B of Spool Piece 1	21OCT09	30	03DEC09	1	3
7503-416.2	Machine Flange A & B of Spool Piece 2	04DEC09	30	26JAN10	1	3
7503-416.3	Machine Flange A & B of Spool Piece 3	27JAN10	30	09MAR10	1	3
7503-110A	FPA-2 Installation and assembly test	06OCT09	20	02NOV09	1	9
7503-110	FPA-2 Installed on sleds		0	02NOV09	1	9
7503-150A	FPA-3 Installation and assembly test	16NOV09	20	15DEC09	1	0
7503-150	FPA-3 Installed on sleds		0	15DEC09	1	0
7503-120	Test movement of FPA's incl position checks.	16DEC09	5	22DEC09	1	0
7503-400	Install inboard and outboard shims	04JAN10	6	11JAN10	1	0
7503-402	Move all FPA's together, chk fitup,tack shims	12JAN10	6	19JAN10	1	0
7503-404	Weld inboard shims on mating flanges	20JAN10	6	27JAN10	1	0
7503-406	Install TF coils at ends of each FPA	28JAN10	6	04FEB10	1	0
7503-410	Install spacer supports and spacers	05FEB10	2	08FEB10	1	0
7503-412	Move FPA's & spacers together/chk fitup	09FEB10	6	16FEB10	1	0
7503-412M	Move FPA's & spacers together/chk fitup complete		0	16FEB10	1	0
7503-414	Remove Spacers & Machine spacers to fit	17FEB10	4	22FEB10	1	0
7503-415	Re-install spacers	23FEB10	2	24FEB10	1	0
7503-160	Position all FPA's / Spool Pieces @ MC Interface	25FEB10	6	04MAR10	1	0
7503-090	Install local Platforms around FPA-1	05MAR10	2	08MAR10	2	0
7503-130	Install local Platforms around FPA-2	09MAR10	2	10MAR10	2	0
7503-190	Install local Platforms around FPA-3	11MAR10	2	12MAR10	2	0
7503-415.5	MC Interface:meas holes/mark bushings f/drilling	05MAR10	3	09MAR10	1	0
7503-415.6	drill eccentric custom holes in bushings	10MAR10	3	12MAR10	1	0
7503-416	Position Spool pieces and Bolt MC flanges	15MAR10	9	25MAR10	2	0
7503-417	Retorque all super nuts after 30 days	26APR10	6	03MAY10	2	0
7503-418	Raise permanent supports to take machine loads	26MAR10	8	06APR10	2	3
7503-419	Remove temporary assy structure	07APR10	1	07APR10	2	3
7503-419.1	Install/Level FPA's and spool piece supports	08APR10	15	28APR10	2	3
7503-419.2	FPA Metrology checks to assure alignment	04MAY10	3	06MAY10	2	0
7503-420	Mate-up and Weld spacers onto vvsa	07MAY10	15	27MAY10	2	0
7503-422	Weld all six port 4's in place	28MAY10	15	18JUN10	2	0
7503-422.1	Install E-Beam mapping & diag equipt	21JUN10	5	25JUN10	2	0
7503-240	Install Vacuum pumping system	21JUN10	3	23JUN10	2	2
7503-250	Begin Vac Vsl Pumpdown	28JUN10	0		2	0
7503-260	PTP Pumpdown & leak check VV	28JUN10	8	08JUL10	2	0
7503-424	Install TF alignment & traction ring	09JUL10	4	14JUL10	2	0
7503-426	Pull TF coil radially inward. Verify nose fit up	15JUL10	5	21JUL10	2	0
7503-428	Lock TF coils at four support locations	22JUL10	4	27JUL10	2	0
7503-430	Install MC structure insulation boots port 4's	28JUL10	5	03AUG10	2	0
7503-431	Seal gaps MC shims,cooling tubes, for insul pour	04AUG10	10	17AUG10	2	0
7503-432	Fill MC/VVSA annulus with pourable aerogel insul	18AUG10	1	18AUG10	2	0
7503-433.1	Install LN2 manifolds	19AUG10	5	25AUG10	2	16
7503-434	Instl in-cryostat cabling for elect pwr to coils	19AUG10	8	30AUG10	2	0



Activity ID	Activity Description	Baseline Start	Work Days	Baselinet Finish	Shifts	Total Float
7503-436	Connect cabling, and I&C to MC & TF Coils	31AUG10	8	10SEP10	2	0
7503-439	Complete mag diag & machine I&C	13SEP10	5	17SEP10	2	0
7503-438	Align guide mechanism for solenoid installation	20SEP10	1	20SEP10	2	0
7503-444	Install solenoid support structure	21SEP10	1	21SEP10	2	0
7503-440	Install solenoid assembly	22SEP10	1	22SEP10	2	0
7503-442	Connect cabling, LN2 andI&C to solenoid assy	23SEP10	1	23SEP10	2	0
7503-446	Install PF4L	24SEP10	1	24SEP10	2	0
7503-448	Connect cabling, LN2 and I&C to PF4L	27SEP10	1	27SEP10	2	0
7503-450	Adjust spring compression in solenoid sprt struc	28SEP10	1	28SEP10	2	0
7503-451	Raise lower PF 5&6 coils into final position	29SEP10	3	01OCT10	2	0
7503-452	Instl Upper PF 4, 5 & 6	04OCT10	3	06OCT10	2	0
7503-330	Begin Cryostat Installation	07OCT10	0		2	0
7503-454	Install cryostat base, vapor barrier port boots	07OCT10	5	13OCT10	2	0
7503-456	Install elec pwr, LN2, & instr feedthrus	14OCT10	3	18OCT10	2	0
7503-458	Integrated Electrical testing	19OCT10	5	25OCT10	2	0
7503-458M	Complete Power System Pre-ops Tests		0	25OCT10	2	0
7503-460	Instl transition box,cabling,&connect to pwr sup	26OCT10	5	01NOV10	2	34
7503-462	LN2 connections from coils to manifolds	26OCT10	5	01NOV10	2	8
7503-464	Connect coil & VV instrumentation	26OCT10	5	01NOV10	2	0
7503-466	Connect 150C bakeout	02NOV10	3	04NOV10	2	0
7503-470	Install cryostat cooling syst & instrumentation	12NOV10	10	29NOV10	2	0
7503-471	Install cryostat upper section, VB & port boots	30NOV10	5	06DEC10	2	0
7503-472	Install midplane cryostat sections & port boots	07DEC10	8	16DEC10	2	0
7503-473	Install cryostat circulation duct	17DEC10	3	21DEC10	2	0
730.8200	PTP and Cool down	22DEC10	3	03JAN11	2	0
730.8200M	Colldown of Machine		0	03JAN11	2	0
82 - Project Engineering						
Job: 8205 - Dimensional Control Coordin-ELLIS						
METFY07R1	Dimensional control plans for station 2	01JUN07*	65	31AUG07		6
85 - Integrated Systems Testing						
Job: 8501 - Integrated Systems Testing-GENTILE						
8501-102	Punch list & CSIS & HIS PTP's complete,	01OCT10*	5	07OCT10	1	5
8501-103	PTP's complete for ECS,HCS,vac pmpg	08OCT10	5	14OCT10	1	5
8501-104	ACC review and ORA	15OCT10	5	21OCT10	1	5
730.1250	PSO Operational Readiness Assessment		0	21OCT10	1	5
8501-301	Configure for Startup ISTP	26OCT10	5	01NOV10	1	3
8501-304	Begin Start-up Testing	05NOV10	0		1	0
8501-305	Coil Testing at room temp	05NOV10	5	11NOV10	1	0
8501-106	Coil testing @ cryo temp, Pump-down VV	04JAN11	5	10JAN11	1	0
8501-107	Combined field testing, Make 1st Plasma	11JAN11	5	17JAN11	1	0
8501-108	Vent VV, Config for & instl e-beam mapping	18JAN11	5	24JAN11	1	0
8501-306	E-beam mapping	25JAN11	5	31JAN11	1	0
8501-110	NCSX Startup Complete		0	31JAN11	1	0
730.9000	CD-4		0	23DEC11*	1	0