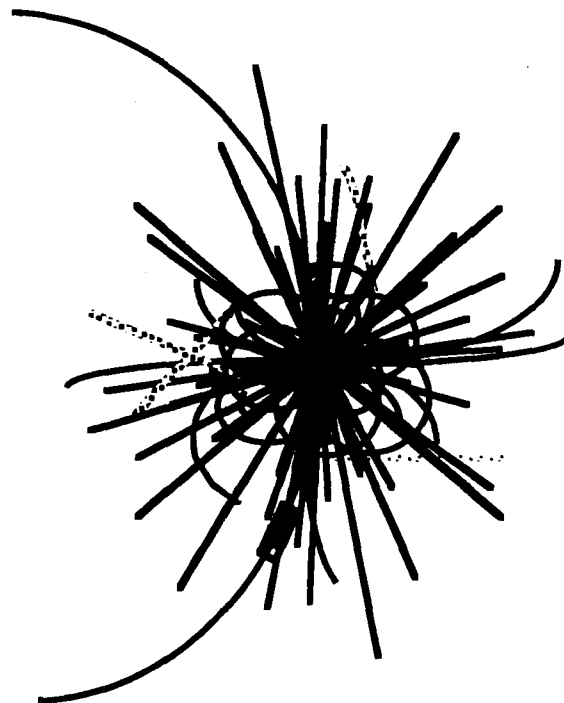


SSCL #356

# **SUPERCONDUCTING SUPER COLLIDER LABORATORY**



**SSC PROJECT  
MONTHLY PROGRESS REPORT  
JULY 1991**

**JULY**  
**DOE MONTHLY REVIEW AGENDA**  
**AUGUST 23, 1991**

1:30 - 1:40	Opening Remarks	Joe Cipriano/Ed Siskin
1:40 - 1:50	Project Overview	Paul Reardon
1:50 - 2:00	Administration Division	Bob Van Ness
2:00 - 2:30	Accelerator Design & Operations Division	John Rees
2:30 - 2:50	Accelerator Systems Division	Ted Kozman
2:50 - 3:10	Magnet Systems Division	Tom Bush
3:10 - 3:30	Conventional Construction Division	Jon Ives
3:30 - 3:50	Discussion	
3:50 - 4:00	Closing	Joe Cipriano/Ed Siskin

## INTRODUCTION

The July 1991 Monthly Progress Report consolidates divisional status reports by machine, as appropriate. Changes in conditions (red, yellow, green) from the previous month's report are marked with an asterisk. This report is intended to summarize Divisional status; additional information is available through the responsible organizations. Backup documentation and signatures are on file with the Project Cost, Schedule, and Reporting Group.

The Monthly Progress Reports are distributed electronically. All authorized SSCL personnel can access distribution via a locked folder on the PMO server. All DOE recipients will receive a copy via QuickMail. Hard copies will be provided to other Laboratory and University personnel who are PC based, or do not have computers for E-mail. Retrieving, printing, and security of the Monthly Progress Report will become the responsibility of the authorized recipients.

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PROJECT MANAGER'S STATUS REPORT																			
DESIGN <input checked="" type="checkbox"/>	PRODUCTION <input checked="" type="checkbox"/>	PART I																	
CONSTRUCTION <input checked="" type="checkbox"/>	RESEARCH & DEVELOPMENT <input checked="" type="checkbox"/>																		
1. IDENTIFIERS:																			
1a. PROJECT TITLE/NUMBER DE-AC02-89ER40486 SUPERCONDUCTING SUPER COLLIDER LABORATORY		1b. REPORTING PERIOD July 1991																	
1c. MANAGING DIVISION  Project Manager's Overview		1f. PERFORMING ORGANIZATION(S)  Accelerator Design & Operations Division Accelerator Systems Division Magnet Systems Division Conventional Construction Division Physics Research Division Project Management Division Laboratory Technical Services Division Administration Division Directorate																	
1d. OFFICE CONTACT  Robert Morse (ext. 4013)																			
1e. PROJECT MANAGER  Paul Reardon (ext. 3087)																			
2. DIVISION MANAGER'S PERSONAL ASSESSMENT:																			
2a. Summary Status																			
<p>Green      Yellow      Red</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 30px; height: 30px; text-align: center; line-height: 30px;">G</div> <div style="border: 1px solid black; width: 30px; height: 30px; background-color: #ffff00; text-align: center; line-height: 30px;">Y</div> <div style="border: 1px solid black; width: 30px; height: 30px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); text-align: center; line-height: 30px;">R</div> </div>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="text-align: center;">COST</td></tr> <tr><td style="text-align: center;">SCHEDULE</td></tr> <tr><td style="text-align: center;">TECHNICAL</td></tr> <tr><td style="text-align: center;">OVERALL PROJECT</td></tr> </table>	COST	SCHEDULE	TECHNICAL	OVERALL PROJECT	<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">LAST PERIOD</td> <td style="text-align: center;">THIS PERIOD</td> </tr> <tr> <td style="text-align: center;"> <table border="1" style="border-collapse: collapse;"> <tr><td style="text-align: center;">G</td></tr> <tr style="background-color: #cccccc;"><td style="text-align: center;">Y</td></tr> <tr><td style="text-align: center;">G</td></tr> <tr><td style="text-align: center;">G</td></tr> </table> </td> <td style="text-align: center;"> <table border="1" style="border-collapse: collapse;"> <tr><td style="text-align: center;">G</td></tr> <tr style="background-color: #cccccc;"><td style="text-align: center;">Y</td></tr> <tr><td style="text-align: center;">G</td></tr> <tr><td style="text-align: center;">G</td></tr> </table> </td> </tr> </table>	LAST PERIOD	THIS PERIOD	<table border="1" style="border-collapse: collapse;"> <tr><td style="text-align: center;">G</td></tr> <tr style="background-color: #cccccc;"><td style="text-align: center;">Y</td></tr> <tr><td style="text-align: center;">G</td></tr> <tr><td style="text-align: center;">G</td></tr> </table>	G	Y	G	G	<table border="1" style="border-collapse: collapse;"> <tr><td style="text-align: center;">G</td></tr> <tr style="background-color: #cccccc;"><td style="text-align: center;">Y</td></tr> <tr><td style="text-align: center;">G</td></tr> <tr><td style="text-align: center;">G</td></tr> </table>	G	Y	G	G	*
COST																			
SCHEDULE																			
TECHNICAL																			
OVERALL PROJECT																			
LAST PERIOD	THIS PERIOD																		
<table border="1" style="border-collapse: collapse;"> <tr><td style="text-align: center;">G</td></tr> <tr style="background-color: #cccccc;"><td style="text-align: center;">Y</td></tr> <tr><td style="text-align: center;">G</td></tr> <tr><td style="text-align: center;">G</td></tr> </table>	G	Y	G	G	<table border="1" style="border-collapse: collapse;"> <tr><td style="text-align: center;">G</td></tr> <tr style="background-color: #cccccc;"><td style="text-align: center;">Y</td></tr> <tr><td style="text-align: center;">G</td></tr> <tr><td style="text-align: center;">G</td></tr> </table>	G	Y	G	G										
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* Pending CCB approval.																			

PROJECT STATUS REPORT PART I		PROJECT MANAGER'S OVERVIEW
2b. PROJECT MANAGER'S NARRATIVE HIGHLIGHTS		(See item 5 for details on problems and variances)
<b>WBS</b>		
1.1.2.1.12	Linac RF System	Selected Drift Tube Linac and Coupled Cavity Linac Klystron suppliers.
2.1.6.25	String Enclosure (ASST)	Completed foundations and steel erection.
2.4	Campus	Completed Title II Design for Magnet Test Lab. Completed West Campus Preliminary Design Requirements Document.
3.1.4	Engineering Standards	Completed Guideline 4.1, "Description and Maintenance of Engineering Guidelines Standards and Practices".
4.2.1	Accelerator R&D	Submitted corrector magnet procurement packages (for collider) to DOE for approval.
4.2.1	Technical Specifications	Issued three (3) specifications.
4.5.1	Director's Office	Issued call for Letters of Intent for the second major detector.

PROJECT STATUS REPORT PART I		PROJECT MANAGER'S OVERVIEW	
5. SIGNIFICANT PROBLEMS/VARIANCE ANALYSIS			
5a. PROBLEMS, IMPACT ON PROJECT, CORRECTIVE ACTION			RESPONSIBLE GROUPS
PROBLEM IDENTIFICATION	IMPACT	CORRECTIVE ACTION	
2.2.2.1.1 IR4 Underground Hall and Shaft Structure - Rescoping of mechanical and electrical systems and underground design requirements.	Significant increases in scope from baseline will have cost and schedule impact.	Composite CCB package in process to address scope changes for Interaction Regions (IR1, IR4, IR5, IR8).	CCD, PB/MK, ADOD
3.1.2, 3.1.3 Cost & Scheduling - Development of Integrated schedules and development of new Work Breakdown Structure (WBS).	Mid-July 1991 Integrated Project Schedule (IPS) completion not achieved. Potential delay in implementation of WBS.	Workshops to be held August 19-23 to finalize IPS by August 30, 1991. Draft WBS ready for review in August.	PMO
4.2.1 ASST - Building Construction.	Current schedule projects a 2 week delay in the Beneficial Occupancy Date (BOD) of ASST Building.	Working on partial BOD - Contractor is currently ahead of this revised plan, schedule recovery is expected.	CCD, ADOD, PB/MK
4.2.1.6 Collider - Relocation of utility shaft resulted in increased system complexity.	Increased peak voltage as a result of power feed locations.	Proposed reduced spacing of niches and increased number of voltage dumps will improve system reliability. CCB package will be submitted.	ADOD
4.2.1 Development/Approval of Technical Specifications.	Six (6) to fifteen (15) week slips expected in issuance of remaining specifications.	Continued attention on expediting specifications. Three (of 22 total) have been issued to date.	ADOD
5b. ITEMS REQUIRING PMO/DIRECTORATE/DOE ACTION			
N/A	N/A	N/A	N/A

PROJECT STATUS REPORT PART II		PROJECT MANAGER'S OVERVIEW	
8. MILESTONE LOG			
SIGNIFICANT MILESTONES ACCOMPLISHED SINCE LAST REPORT		BASELINE DATE	ACTUAL DATE
WBS			
1.1.6	Start corrector magnet procurement for Collider	September 91	July 91
SIGNIFICANT MILESTONES OPEN		BASELINE DATE	FORECAST DATE
2.4.2	Start Magnet Test Lab Construction	June 91	August 91
2.4.22	Magnet Development Lab Beneficial Occupancy	April 91	September 91
KEY MILESTONES UPCOMING - NEXT THREE MONTHS		BASELINE DATE	FORECAST DATE
2.1.6.25	ASST Beneficial Occupancy	September 91	October 91
2.1.2	Start Linac Facility Construction	August 91	February 92*

\* No technical system impact, Beneficial Occupancy Date expected to be met.

**SUMMARY OF PROJECT MANAGEMENT DECISION PAPERS**  
**July 1991**

Item #	SUBJECT	DATE	DOCUMENT NUMBER
1	Proposed HEB Change (Tune)	7/3/91	E11-000015
2	Application of Three Shaft Design Concept - N20 through N45	7/3/91	E11-000016
3	Conventional (warm) Magnet design for HEB to Collider Transfer Line	7/11/91	E11-000017
4	Set spacing and quantity of Niches and Alcoves to Accommodate The Orientation of the Spools in The Collider Tunnel	7/15/91	E11-000018

**CCB ACTIONS**  
**(This reporting period)**

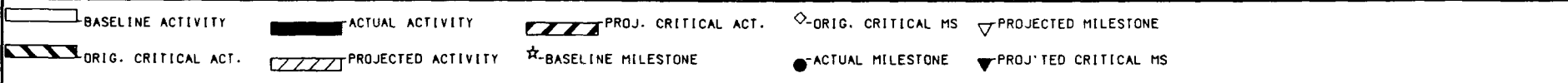
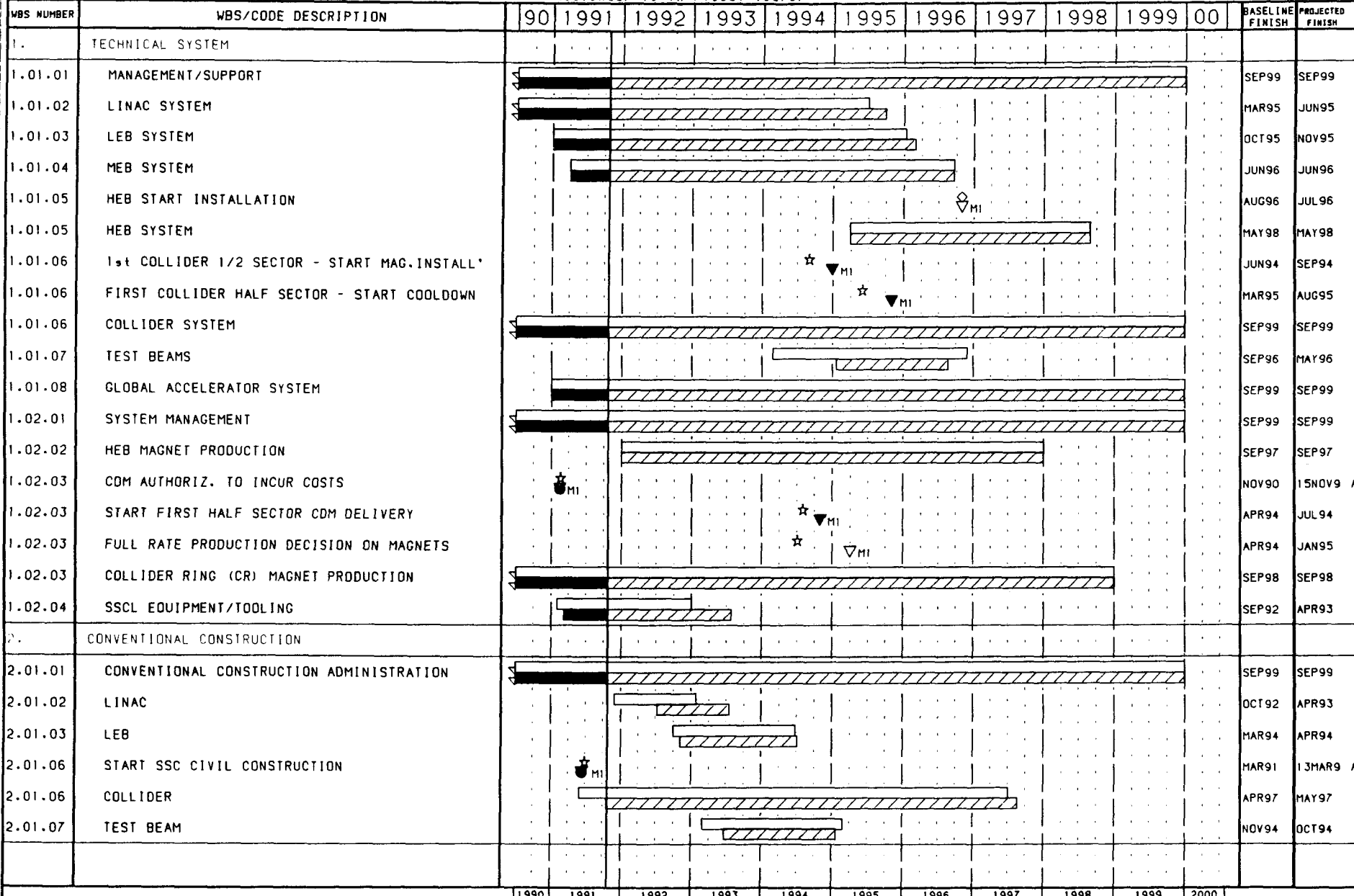
CCB Date	Description	Net Project Impact		CCB Action	Comments	DOE Action
		*Dollars	Sched			
7/24/91	CCSR E12-000044 Systems Engineering Budget Transfer	-0-	N/A	Approved	To DOE	For Approval

Superconducting Super Collider  
 Network Status Date: 21JUL91  
 Graphic Produced by PMO on 16AUG91

COMPARATIVE SUMMARY BARCHART  
 PROJECT SUMMARY LEVEL, PART 1  
 (Calendar is in Fiscal Years)

Baseline Master Scheduler Ver. 12, Rev. 7  
 SSCL MONTHLY PROGRESS REPORT BY WBS

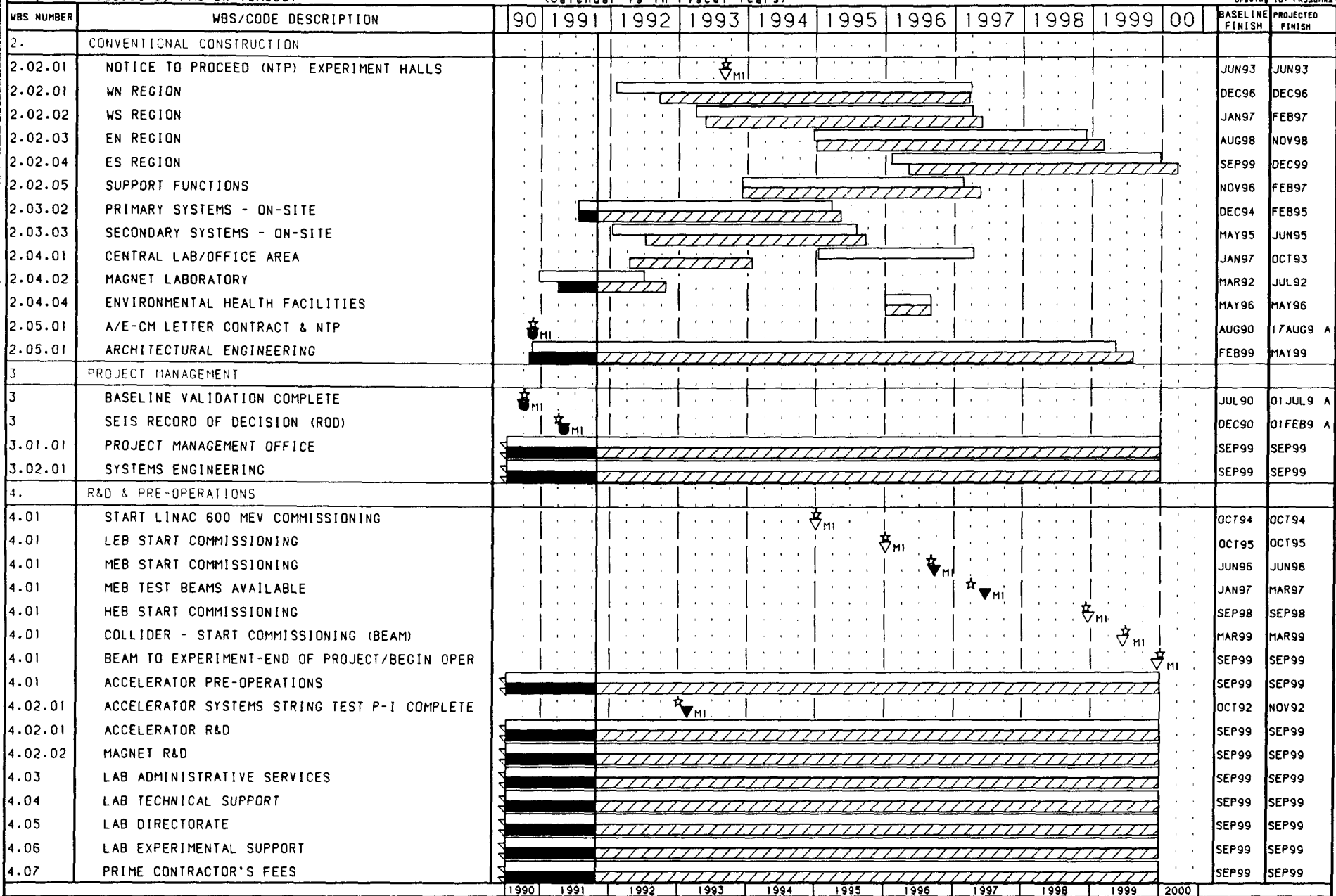
Drawing ID: PRJSSHW1



Superconducting Super Collider  
 Network Status Date: 21JUL91  
 Graphic Produced by PMO on 16AUG91

COMPARATIVE SUMMARY BARCHART  
 PROJECT SUMMARY LEVEL, PART 2  
 (Calendar is in Fiscal Years)

Baseline Master Schedule: Ver. 12, Rev. 7  
 SSCL MONTHLY PROGRESS REPORT BY WBS  
 Drawing ID: PRJSUMW2



[White Box] BASELINE ACTIVITY    [Black Box] ACTUAL ACTIVITY    [Hatched Box] PROJ. CRITICAL ACT.    ◇-ORIG. CRITICAL MS    ▽-PROJECTED MILESTONE  
 [Diagonal Hatched Box] ORIG. CRITICAL ACT.    [Horizontal Hatched Box] PROJECTED ACTIVITY    ☆-BASELINE MILESTONE    ●-ACTUAL MILESTONE    ▽-PROJ'CTED CRITICAL MS

Superconducting Super Collider  
 Network Status Date: 21JUL91  
 Graphic Produced by PMO on 16AUG91

COMPARATIVE SUMMARY BARCHART  
**PROJECT SUMMARY LEVEL, PART 3**  
 (Calendar is in Fiscal Years)

Baseline Master Schedule Ver. 12, Rev. 7  
 SSCL MONTHLY PROGRESS REPORT BY WBS

Drawing ID: PRJSUMW3

WBS NUMBER	WBS/CODE DESCRIPTION	90	1991	1992	1993	1994	1995	1996	1997	1998	1999	00	BASELINE FINISH	PROJECTED FINISH
5	EXPERIMENTAL SYSTEMS													
5	BOD LARGE EXPERIMENT HALLS							★ MI					JAN96	FEB96
5	EXPERIMENTAL SYSTEMS		■										SEP91	SEP91
5.01	EXPERIMENTAL SYSTEM R&D	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	SEP99	SEP99
5.02	BEGIN CONCEPTUAL DESIGN FOR DETECTORS		● MI										FEB91	01MAR9 A
5.02	WEST DETECTORS - START COMMISSIONING											▽ MI	MAR99	MAR99
5.02	DETECTORS	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	SEP99	NOV99
5.03	EXPERIMENTAL SYSTEM COMPUTERS	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	SEP99	SEP99

[White Box] BASELINE ACTIVITY    [Black Box] ACTUAL ACTIVITY    [Diagonal Lines /] PROJ. CRITICAL ACT.    ◇-ORIG. CRITICAL MS    ▽-PROJECTED MILESTONE  
 [Diagonal Lines \] ORIG. CRITICAL ACT.    [Diagonal Lines /] PROJECTED ACTIVITY    ★-BASELINE MILESTONE    ●-ACTUAL MILESTONE    ▽-PROJ'ED CRITICAL MS

## BASELINE SCHEDULE

WBS	DESCRIPTION	BASELINE (DEC 90)	PROJECTED* (A indicates actual date)	EXTENDED DESCRIPTION
3.0	Baseline Validation Complete	JUL90	1 JUL90 A	Completion of documents and briefings on Baseline Cost Estimate & Schedule and Supplemental Concept Design Report.
2.5.1	A-E/CM Letter Contract & NTP	AUG90	17 AUG90 A	DOE Approval and release of a letter contract, pending a full contract, for PB/MK to begin formal design & construction work.
1.2.3	CDM Authorization to Incur Costs	NOV90	15 NOV90 A	DOE permission for the CDM contractors to incur costs toward their contract in beginning the Collider Dipole Magnet industrial program.
3.0	SEIS Record of Decision (ROD)	JAN91	1 FEB91 A	Secretary signature and formal filing of the Environmental Record of Decision. This allows non-reversible project construction to begin.
5.2	Begin Conceptual Design for Detectors	FEB91	1 MAR91 A	Start the detector concept design and Title I conventional facilities design effort.
2.1.6	Start SSC Civil Construction	MAR91	13MAR91A	The first construction notice to proceed after the SEIS ROD. The first facility is the E1 Infrastructure.
2.2.1	Notice to Proceed (NTP) Experimental Halls	JUN93	JUN93	The first notice to proceed for construction of the experimental (interaction region) halls; IR-4 and IR-1. <sup>1</sup>
4.2.1	Accelerator System String Test (Phase I)Complete	OCT92	NOV92	Cooldown, power up and testing of the 1/2 cell with accelerator components including the string test of 5 Collider Dipole magnets of industrial fabrication.

### Variance Remarks

<sup>1</sup> = Forthcoming CCB request to reconcile dates.

\* = These dates are current projected dates from schedule updates and pending Change Control Board proposals.

WBS	DESCRIPTION	BASELINE (DEC 90)	PROJECTED* (A indicates actual date)	EXTENDED DESCRIPTION
1.2.3	Full-rate Production Contract Awarded on Collider Magnets	APR94 <sup>2</sup>	JAN95	SSCL award of the full rate production contract(s) for collider magnets requires prior DOE approval.
1.2.3	Start First Half Sector CDM Delivery from vendor plant	APR94 <sup>2</sup>	JUL94	Start Delivery of the first contractor production magnet (CDM) from the contractor's dock to the MAAS.
1.1.6	First Collider Half Sector - Start Magnet Installation	JUN94 <sup>2</sup>	SEP94	Start magnet and spool installation after completion of tunnel finish-out including power, lights & ventilation and primary technical components e.g. piping, electrical components cryogenics, etc.
4.1	LINAC Start Commissioning (600 MeV)	OCT94	OCT94	Start commission with beam of the full 600 MEV LINAC and signoff after suitable checkout of engineering and safety systems.
1.1.6	First Collider Half Sector - Start Cooldown	MAR95 <sup>2</sup>	AUG95	Cooldown of the first complete half sector (E1-F1) and the concurrent power safety check of a full half sector. Requires last magnetic component (472 15M, 8 13M, 96 CQM & 96 spools) delivered to tunnel 4 months prior to this date.
4.1	LEB Start Commissioning	OCT95	OCT95	Beginning of the LEB beam commissioning installation and suitable checkout of the subsystems and safety signoff. Requires the LINAC to be able to provide test beam.
5.0	Beneficial Occupancy of Large Experimental Halls	JAN96	JAN96	Beneficial occupancy of the experimental (interaction region) halls. This BOD includes lighting, power & ventilation, etc. and is 9 months after the first BOD where just the unfinished chamber is turned over for technical survey.

**Variance Remarks**

<sup>2</sup> = CCB Request in process to modify baseline schedule.

\* = These dates are current projected dates from schedule updates and pending Change Control Board proposals.

WBS	DESCRIPTION	BASELINE (DEC 90)	PROJECTED* (A indicates actual date)	EXTENDED DESCRIPTION
4.1	MEB Start Commissioning	JUN96	JUN96	Beginning of the MEB commissioning after installation and suitable checkout of the subsystems and safety signoff. Requires the LEB to be able to provide test beam.
1.1.5	HEB Start Installation	AUG96	JUL96	HEB installation of major technical components after completion of tunnel out fitting (e.g. power, lights, ventilation) technical components include piping, electrical components cryogenic components, spools, magnets etc.
1.1.4	MEB Test Beams Available	JAN97	MAR97	Completion of the MEB and test beam commissioning activity so that beam for detector component testing is available some fraction of the time.
4.1	HEB Start Commissioning	SEP98	SEP98	Beginning of the HEB commissioning after installation and suitable checkout of the subsystems and safety sign off. Requires the MEB to able to provide test beam.
5.2	West Detectors - Start Commissioning	MAR99	MAR99	Beginning of the Detector commissionings. Includes operable beamline through detectors to support Collider commissioning.
4.1	Collider - Start Commissioning (Beam)	MAR99	MAR99	Beginning of the full Collider beam commissioning after sector testing is successfully completed. Requires the HEB to be able to provide beam. Requires accelerator components to be previously installed and checked in both IR halls.
4.1	Beam to Exp. (End of Project/Begin Operations Phase)	SEP99	SEP99	Completion of the Collider and West detectors and Collider commissioning activities. The SSC is now ready to perform experiments in two experiment (interaction regions) halls.

**Variance Remarks**

\* = These dates are current projected dates from schedule updates and pending Change Control Board proposals.



DIVISION PROJECT STATUS REPORT				
DESIGN	<input type="checkbox"/>	PRODUCTION	<input type="checkbox"/>	PART I
CONSTRUCTION	<input type="checkbox"/>	RESEARCH & DEVELOPMENT	<input type="checkbox"/>	
1. IDENTIFIERS:				
1a. PROJECT TITLE/NUMBER DE-AC02-89ER40486 SUPERCONDUCTING SUPER COLLIDER LABORATORY		1b. REPORTING PERIOD July 1991		
1c. MANAGING DIVISION  Administration		1f. PERFORMING ORGANIZATION(S)  Personnel Procurement Finance Minority Affairs MIS Records Management		
1d. DIVISION/OFFICE CONTACT  Carol Matteson (ext. 5053)				
1e. DIVISION MANAGER  Robert L. Van Ness (ext. 1540)				
2. DIVISION MANAGER'S PERSONAL ASSESSMENT:				
2a. Summary Status				
GROUP	TECHNICAL	COST	SCHEDULE	OVERALL
OVERALL DIVISION ASSESSMENT	Green	Green	Green	Green
PREVIOUS DIVISION ASSESSMENT	Green	Green	Green	Green

## ADMINISTRATION DIVISION

**Goal** Develop, implement and maintain the Laboratory's Financial Reporting and Accounting System in accordance with GAAP (Generally Accepted Accounting Principles) and DOE Orders. Ensure SSC Laboratory compliance with DOE, DOL regulations, policies and procedures addressing equal opportunities and procurement.

**WBS Elements** **Description**

4.3.2 Finance

4.3.7 *Minority Affairs*

**Accomplishments**

4.3.2 Assisted Divisions in entering the FY91 institutional budgets in the Budget Forecast System.  
Established a task force to coordinate the year end closing and the new year opening lab-wide activities.  
Began developing means for segregating and reporting equipment purchased with Texas funds.  
Developed provisional FY92 labor rates.  
Completed a semi-annual summary report of DOE owned Plant and Capital Equipment from FY85 to May FY91 for use by DOE Chicago to close out the Central Design Group contract.

4.3.7 The Director of Minority Affairs briefed the Women, Hispanic, and Black Caucuses on the Public Law 101-514 and Small and Disadvantaged Business Opportunities held in Washington, D.C. and met with the New York State Governor's Office of Minority Affairs to develop a referral system of providing the Governor's Office with SSC procurement opportunities. The EEO/AA Manager participated in the NAACP National Convention in Houston, contacted all schools in our proposed HBCU Co-op Program for final feedback, and tentative recruiting schedule and attended the National Urban League conference and Georgia Tech Minority Career Fair in Atlanta.

**Issues and Concerns** None

**Corrective Action** N/A

**Condition** Green

**POC** Wanda Mizutowicz

**DATE:** August 15, 1991

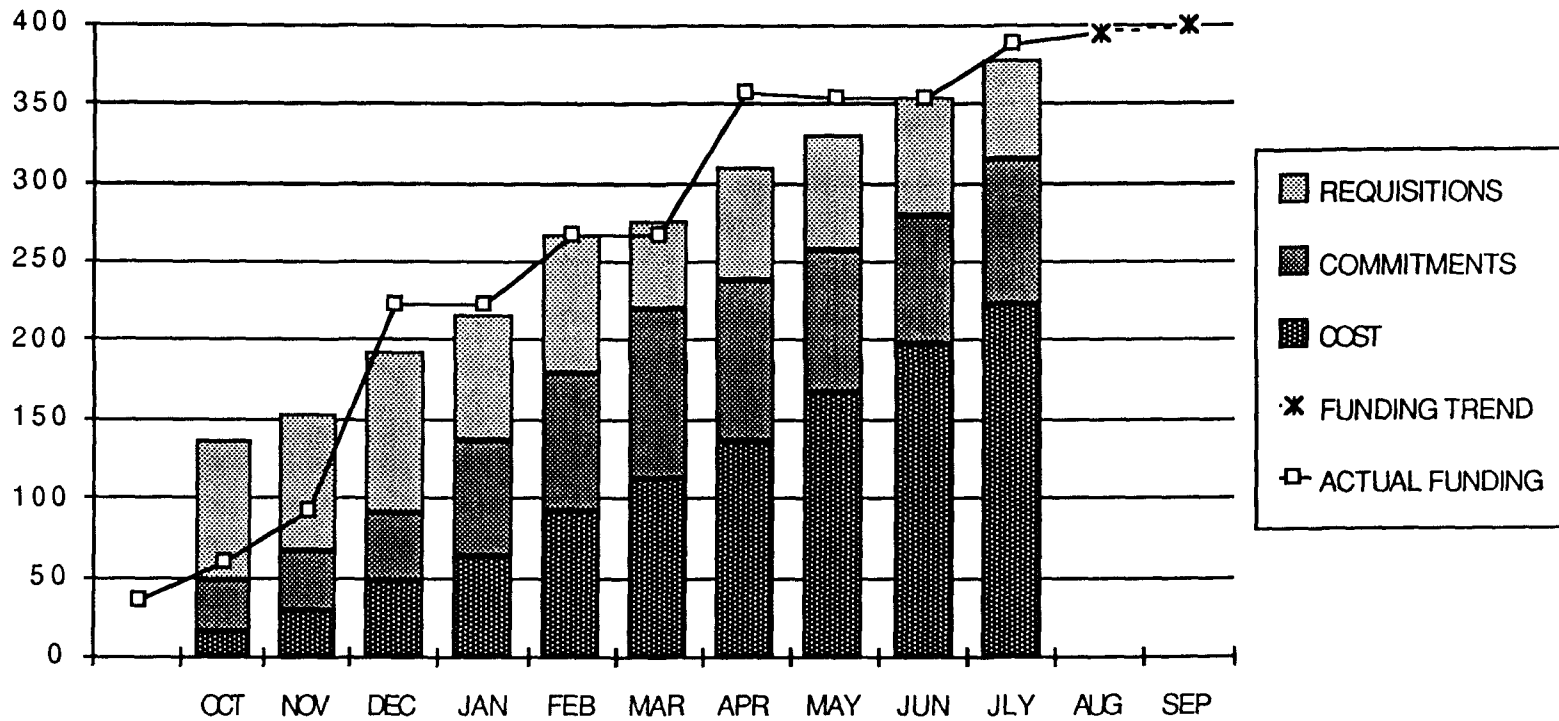
**LABORATORY FINANCIAL OVERVIEW**  
**Projected FY91 Funding vs YTD Contract Summary**

<b>Goal</b>	TO RECEIVE FUNDING IN A MANNER THAT DOES NOT IMPEDE THE TIMELY PLACEMENT OF PROCUREMENTS.
<b>WBS Elements</b>	<b>Description</b>
<b>Accomplishments</b>	CONTRACT MODIFICATIONS THUS FAR HAVE KEPT PACE WITH SSCL COMMITMENTS. MOD 19 TO THE CONTRACT RECEIVER IN JULY.
<b>Issues and Concerns</b>	OPERATING FUNDS NEARLY COMPLETELY OBLIGATED.
<b>Corrective Action</b>	MONITOR OPERATING FUNDS VERY CLOSELY FOR THE BALANCE OF FISCAL YEAR TO STAY WITHIN BA CEILING.
<b>Condition</b>	GREEN
<b>POC</b>	G. HILL

**DATE:** August 15, 1991

LABORATORY  
ALL FUNDS

### PROJECTED FY91 FUNDING VS YTD CONTRACT SUMMARY (KS-TPC)



8/13/91

**LABORATORY FINANCIAL OVERVIEW**  
**Labor and Labor Related Costs**

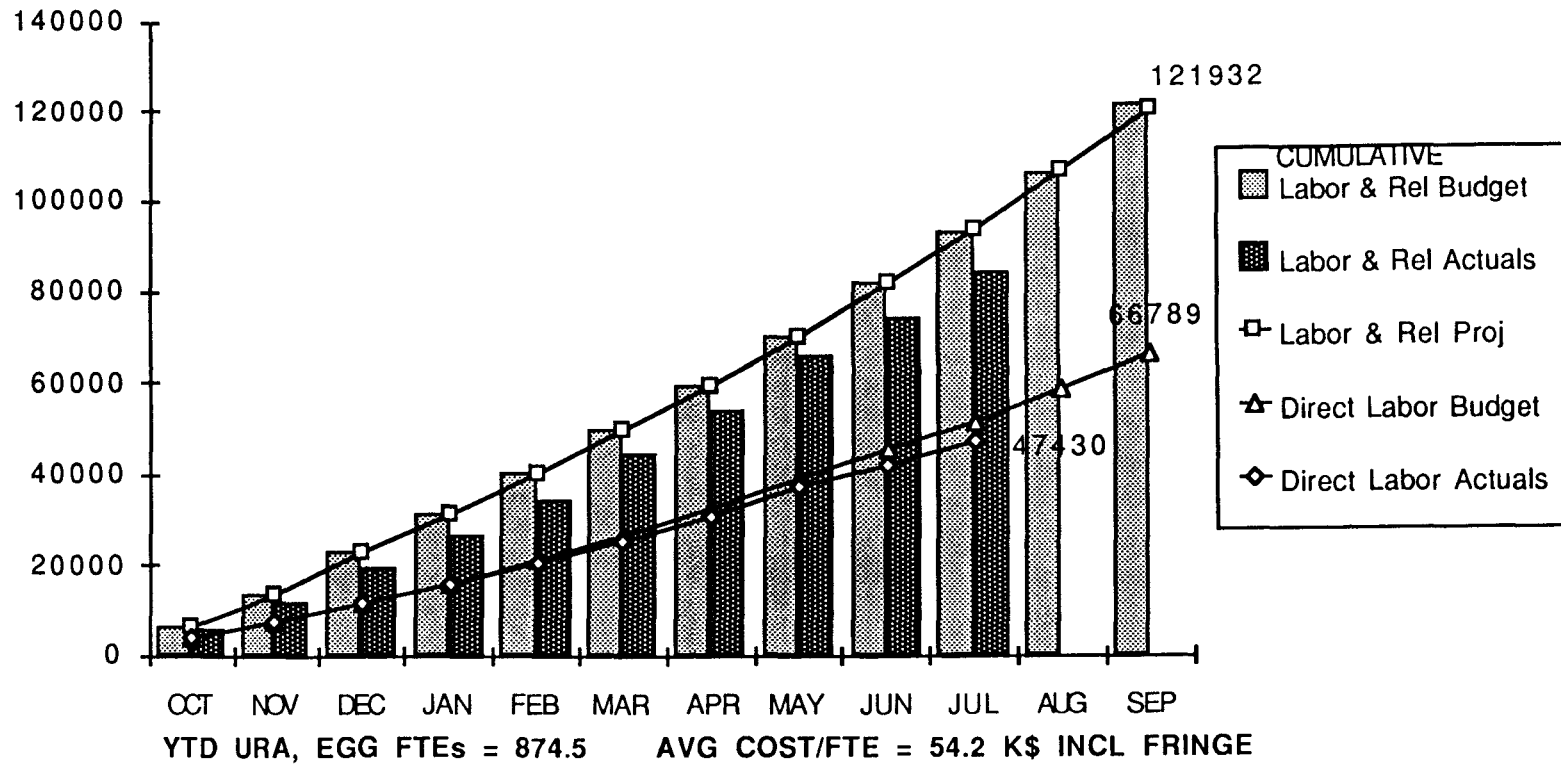
<b>Goal</b>	TO ENSURE ADEQUATE BUDGET TO COVER ALL EXISTING AND PLANNED LABOR AND LABOR RELATED COSTS.
<b>WBS Elements</b>	<b>Description</b>
<b>Accomplishments</b>	BUDGET PLANNING IS ADEQUATE TO COVER EXISTING AND PLANNED LABOR AND RELATED EXPENSES.
<b>Issues and Concerns</b>	COSTS CONTINUE TO LAG BEHIND PROJECTIONS.
<b>Corrective Action:</b>	RE'EVALUATE PROJECTIONS IN LIGHT OF HIRING AND FINALIZED BUDGETS AND REDIRECT EXCESS DOLLARS TO M&S.
<b>Condition:</b>	GREEN
<b>POC</b>	G. HILL

**DATE:** August 15, 1991

LABORATORY  
ALL FUNDS

**JULY FY91**  
**LABOR AND LABOR RELATED COSTS**  
(\$'S In Thousands)

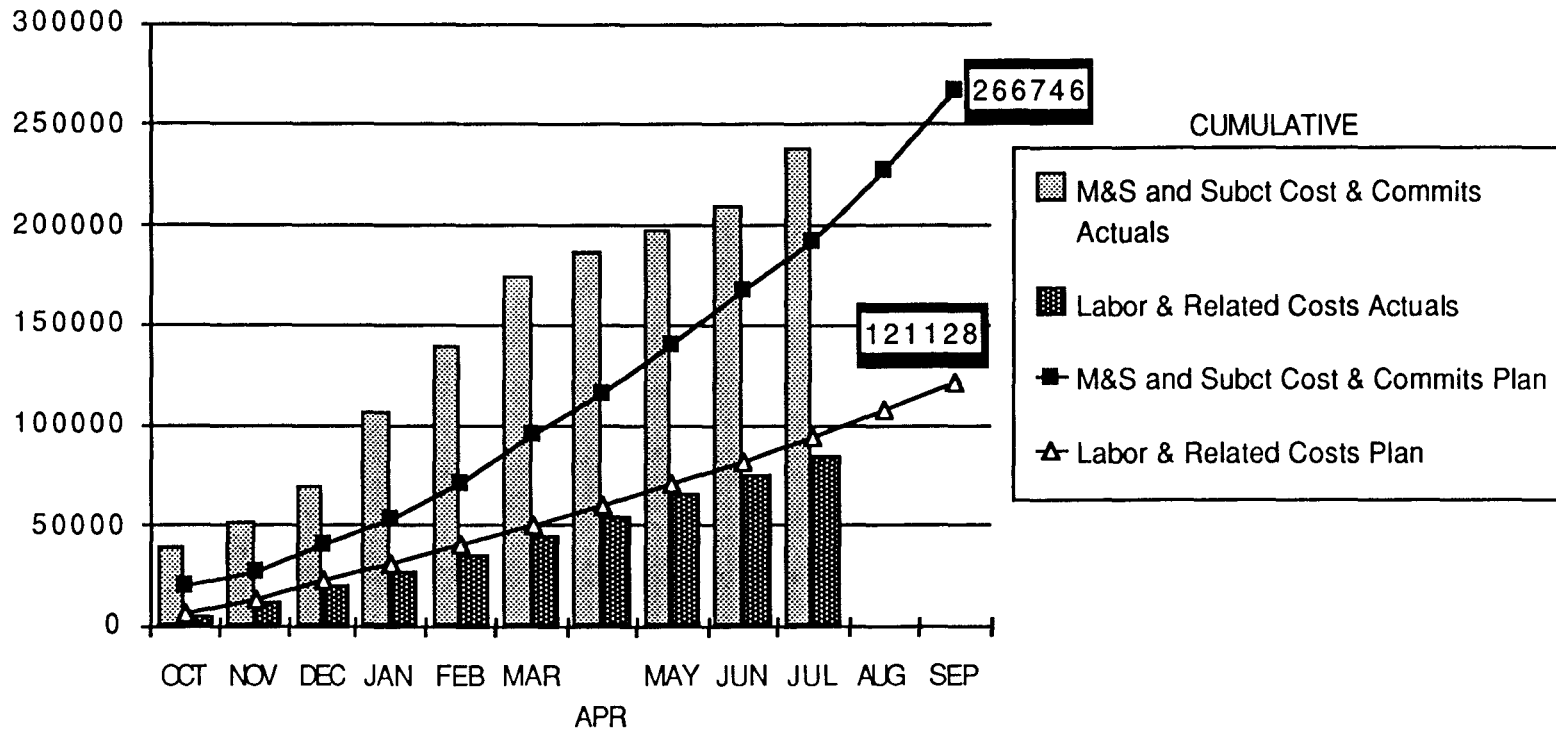
EXPENSES CLASS:  
39 - 48



LABORATORY  
ALL FUNDS

**JULY FY91**  
**PROJECTED COSTS & COMMITMENTS**  
**VS ACTUALS**

EXPENSE CLASS:  
Labor & Related: 39-48  
M&S Subc, L&U: 49-53



DOES NOT INCL: CTRL FAC (28.4), CONT (11.4), DOE W/HELD (6.9), MGMT RES (7.6), FWD FUNDING (2.6)



DIVISION PROJECT STATUS REPORT				
DESIGN <input type="checkbox"/>			PRODUCTION <input type="checkbox"/>	
CONSTRUCTION <input type="checkbox"/>			RESEARCH & DEVELOPMENT <input type="checkbox"/>	<b>PART I</b>
<b>1. IDENTIFIERS:</b>				
1a. PROJECT TITLE/NUMBER DE-AC02-89ER40486 SUPERCONDUCTING SUPER COLLIDER LABORATORY			1b. REPORTING PERIOD July 1991	
1c. MANAGING DIVISION  ADOD			1f. PERFORMING ORGANIZATION(S)  Linac High Energy Booster Accelerator System String Test Low Energy Booster Collider Medium Energy Booster Beamlines	
1d. DIVISION/OFFICE CONTACT  Don Edwards (ext. 3020)				
1e. DIVISION MANAGER  Don Edwards (ext. 3020)				
<b>2. DIVISION MANAGER'S PERSONAL ASSESSMENT:</b>				
2a. Summary Status				
GROUP	TECHNICAL	COST	SCHEDULE	OVERALL
Linac	Green	Green	Green	Green
LEB	Green	Green	Red	Green
MEB	Green	Green	Red	Green
HEB	Green	Green	Red	Green
Collider	Green	Green	Green	Green
ASST	Green	Green	Green	Green
Beamlines	Green	Green	Green	Green
<i>OVERALL DIVISION ASSESSMENT</i>	Green	Green	Red	Green
<i>PREVIOUS DIVISION ASSESSMENT</i>	Green	Green	Red	Green

## ADOD

<b>Goal</b>	To supply the necessary deliverables to support the project milestones.
<b>WBS Elements</b>	<b>Description</b>
4.2.1	Accelerator R&D
<b>Accomplishments</b>	Good progress on specification preparation: <ul style="list-style-type: none"><li>• Signed Off - Linac Segment 3a, Linac Facilities 3b, LEB Segment 3a;</li><li>• In Signature Process - LEB Facilities 3b, HEB Segment 3a, Linac Beam Transfer 3b, ASST 3b;</li><li>• In Formal Review - Linac Accelerator 3b, MEB Segment 3a, HEB Beam Transfer 3b, Collider Segment 3a;</li><li>• First Draft Complete - LEB Beam Transfer 3b, Collider Magnet 3b, Collider Accelerator 3b, HEB Accelerator 3b;</li><li>• Rough Draft Complete - LEB Accelerator 3b, LEB Beam Transfer 3b, MEB Accelerator 3b, HEB Magnet 3b, Collider Accelerator 3b;</li><li>• Rough Draft Started - MEB Facilities 3b, MEB Beam Transfer 3b, HEB Facilities 3b, Collider Facilities 3b.</li></ul>
<b>Issues and Concerns</b>	Preparation of most 3A and 3B specifications are behind schedule.
<b>Corrective Action</b>	Proceed with approvals so that the major portions of the specifications are available for use.
<b>Condition</b>	Green
<b>POC</b>	Don Edwards

**DATE:** August 15, 1991

**ADOD  
FY91-92 DELIVERABLES**

<b>WBS</b>	<b>Deliverables</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
4.2.1	LINAC Final Design Review	Aug91	Aug91	Green
4.2.1	Set Coordinates, All Accelerators	Apr91	Apr91	Complete
4.2.1	Magnet Requirements Completed			
	LEB	Jun91	Aug91	Red
	MEB	Jun91	Aug91	Red
	HEB	Jun91	Jul91	Red
4.2.1	RF Requirements Completed			
	LEB	Jun91	Aug91	Red
	MEB	Jun91	Aug91	Red
	HEB	Jun91	Jul91	Red



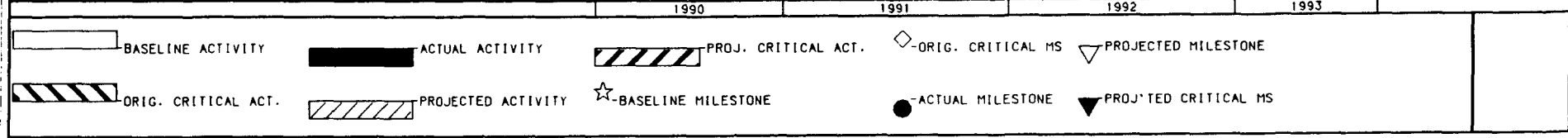
## ACCELERATOR SYSTEM STRING TEST (ASST)

<b>Goal</b>	Demonstrate operation of a half-cell of industrially produced collider magnets.
<b>WBS Elements</b>	<b>Description</b>
4.2.1	Accelerator R&D
2.1.6	(String enclosure/N15 service buildings)
<b>Accomplishments</b>	
4.2.1	Completed Iron-work for string enclosure August 5, and a roof and side casing installation. Backfilled pits for refrigerator building. Completed conduit work in floor for compressor building. Began cool down for 40mm five dipole string at FNAL on August 5. PDR presented for electronics racks and cable trays on July 30. Racks installed in electronics trailer. Orders placed for TISTAR slow controls electronics. Issued SPR Spool bid packages (bids due August 12-13).
<b>Issues and Concerns</b>	
4.2.1	<ol style="list-style-type: none"><li>1. Staffing requirements.</li><li>2. Software for controls system.</li><li>3. KPS/SEDALCO work around in Sept - Oct still not resolved; SEDALCO reports delay in delivery of compressor building due to change order for under floor conduits.</li><li>4. ER spool installation may interfere with manpower for ASST.</li></ol>
<b>Corrective Action</b>	
4.2.1	<ol style="list-style-type: none"><li>1. Appointed J. Weisend (Cryo Group) technician supervisor, P. Kraushaar design layouts, W. Robinson data analysis.</li><li>2. ASD assignment of programmers to Grey's residence at E1 will allow day-to-day contact with ASST team.</li><li>3. PB/MK trying to work up an integrated schedule for KPS installation; PB/MK negotiating with SEDALCO to minimize compressor building delay.</li><li>4. KPS developing installation schedule.</li></ol>
<b>Condition</b>	Green
<b>POC</b>	Thomas Dombeck (ADOD); Ted Kozman (ASD); Craig N. Trimble (CCD) <b>DATE:</b> August 15, 1991

ASST (Continued)

<b>Goal</b>	Demonstrate collider operation of a half-cell of industrially produced magnets.
<b>WBS Elements</b>	<b>Description</b>
1.1.6	Collider
2.1.6.25	String Enclosure (Cryo Alcove & Shop)
2.1.6.2.2.1	N15 Service Building
2.1.6.2.2.2	Compressor Building
<b>Accomplishments</b>	
1.1.6	Completed vendor Critical Design Review and testing of the first article magnet power supplies.
2.1.6	Completed string foundations.
<b>Issues and Concerns</b>	
1.1.6	1. There is a potential problem with protection for a quadrupole magnet connected in series with the five dipole magnets during a quench.
2.1.6	1. BOD delayed thru bid protest to October 14. 2. Process change order for underslab conduits between buildings (not included in general package). 3. Permanent electrical power for testing (HCEC power line).
<b>Corrective Action</b>	
1.1.6	1. Need decision on whether or not quadrupole will be installed
2.1.6	1-3. Interface Working Group resolved major critical path design issues.
<b>Condition</b>	Green
<b>POC</b>	Thomas Dombeck (ADOD); Ted Kozman (ASD); Craig N. Trimble (CCD) <b>DATE:</b> August 15, 1991

WBS NUMBER	WBS/CODE DESCRIPTION	1990	1991	1992	1993	BASELINE FINISH	PROJECTED FINISH
2.01.06	COLLIDER						
	ASST FACILITY - FINAL DESIGN REVISIONS		★ M2			MAR91	07MAR91 A
	STRING TEST FACILITY -CONSTR.NTP		★ M2			APR91	13MAR91 A
	STRING TEST FACILITY & EI BLDGS. -ISSUE RFP		★ M2			FEB91	28MAR91 A
	STRING TEST FACILITY (BOD) -COMPLETE		★ M2			SEP91	OCT91
	CONVENTIONAL CONSTR. DESIGN & CONSTRUCTION			★ M2		SEP91	OCT91
4.02.01	ACCELERATOR R&D						
	ACCELERATOR SYSTEMS STRING TEST P-I COMPLETE				★ M1	OCT92	NOV92
	POWER SYSTEMS					AUG92	JUL92
	SPOOL PIECE					MAY92	JUL92
	CRYOGENICS					MAR92	APR92
	UTILITIES					JAN92	DEC91
	CONTROLS					JUN92	JUL92
	INSTALLATION					JUN92	JUL92
	TESTING					SEP92	NOV92
4.02.02	MAGNET R&D						
	1ST CDM (DCA313) AVAILABLE FOR INSTALLATION				★ M2	JAN92	JAN92
	5TH CDM (DCA317) AVAILABLE FOR INSTALLATION				★ M2	APR92	APR92
	1 QUAD. AVAILABLE (OCC404)				★ M2	MAR92	MAY92



## LINEAR ACCELERATOR (LINAC)

<b>Goal</b>	Design, Construct and Commission a 600 MeV H <sup>-</sup> Linac with high reliability and low transverse emittance to supply beam to the Low Energy Booster (LEB).
<b>WBS Elements</b>	<b>Description</b>
1.1.2.1.2	Ion Source/Matching
1.1.2.1.3	Radio Frequency Quadrupole
1.1.2.1.4	Drift Tube Linac
1.1.2.1.5	Coupled Cavity Linac
<b>Accomplishments</b>	
1.1.2.1.2	Installed Emittance Measuring Unit and commissioning is in progress.
1.1.2.1.3	Verified Vane tip machining programs. Issued Electroforming RFP. Scheme proposed which may reduce the number of RFQ Drift Tube Linac (DTL) buncher amplifiers.
1.1.2.1.4	Scheme developed to power both DTL/Coupled Cavity Linac bunchers from a single klystron amplifier.
1.1.2.1.5	Provided LANL with end-to-end design information for detailed critique. Quadrupole Magnet design ready to go out for prototyping for the Coupled Cavity Linac.
<b>Issues and Concerns</b>	
1.1.2.1.2	Smooth integration of computerized data acquisition and controls into Ion Source/LEBT operation.
1.1.2.1.3	Lack of schedule float in an essentially linear fabrication schedule.
1.1.2.1.4	Lack of experienced manpower to manage acquisition of DTL.
1.1.2.1.5	Outstanding decisions: will Chinese provide CCL? will we build 1 GeV linac now?
<b>Corrective Action</b>	
1.1.2.1.2	Submitted request to Controls Department for long-term personnel commitment, holding weekly co-ordination and planning meetings between Linac, I&D and Controls section leaders.
1.1.2.1.3	LANL shops working overtime to make up some lost time.
1.1.2.1.4	LANL will post an rf structures expert at SSCL full time.
1.1.2.1.5	Proceed full speed with engineering development and support efforts to reach decisions and prepare contingency plans.
<b>Condition</b>	
1.1.2.1	Green
2.1.2	Green
<b>POC</b>	Warren Funk(ADOD); Deryl Earsom (CCD)

DATE: August 15, 1991

## LINAC (Continued)

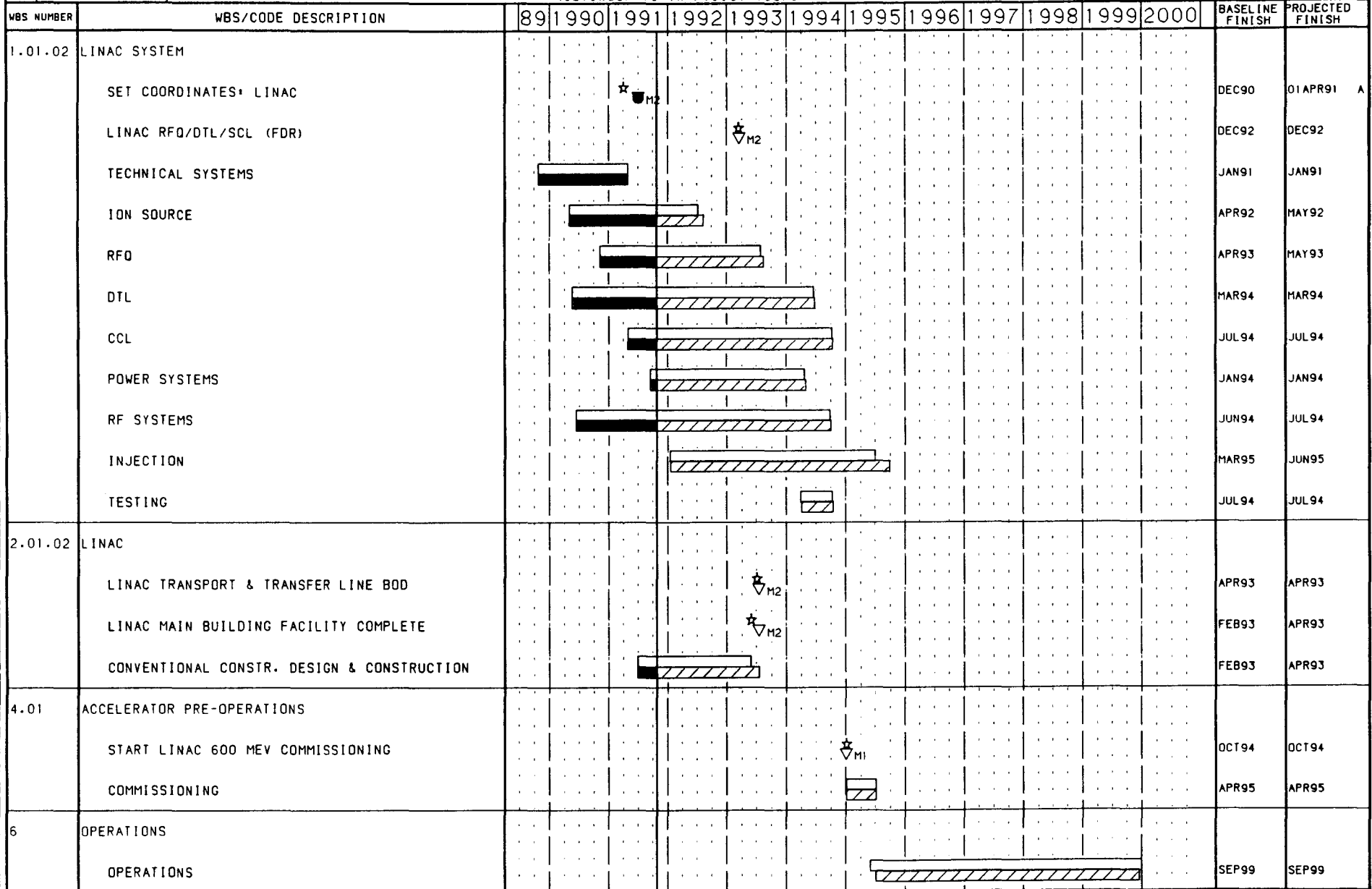
<b>Goal</b>	Design, Construct and Commission a 600 MeV H <sup>-</sup> Linac with high reliability and low transverse emittance to supply beam to the Low Energy Booster (LEB).
<b>WBS Elements</b>	<b>Description</b>
1.1.2.1.8	Quadrupole Magnets
1.1.2.1.12	RF System
1.1.2.1.18,19	Instrumentation, Controls
2.1.2	Linear Accelerator Conventional Construction (including beam transfer to LEB)
<b>Accomplishments</b>	
1.1.2.1.8	Reviewing alternative design prepared by Indian lab.
1.1.2.1.12	DTL and Coupled Cavity Linac klystron suppliers chosen. Contract being prepared.
1.1.2.1.18,19	EMU controls implemented and operational.
2.1.2	Title I Design Report and Cost Estimate submitted July 31, 1991.
<b>Issues and Concerns</b>	
1.1.2.1.8	Management of an Indian contribution of the pulsed quads.
2.1.2	<ol style="list-style-type: none"> <li>1. Projecting 6-month schedule slip in issuance of construction Notice to Proceed, resulting in a projected 17 day slip in baseline BOD from December 11 to 28, 1992.</li> <li>2. Need to minimize revisions in requirements and scope and "freeze" the design concept for the Title II phase.</li> </ol>
<b>Corrective Action</b>	
1.1.2.1.8	Communications with donor lab being improved.
2.1.2	<ol style="list-style-type: none"> <li>1. None. No technical system impact identified.</li> <li>2. Definitize requirements prior to Title I review (July 22, 1991). Decisions on Scope.</li> </ol>
<b>Condition</b>	
1.1.2.1	Green
2.1.2	Green
<b>POC</b>	Warren Funk(ADOD); Deryl Earsom (CCD)

**DATE:** August 15, 1991

Superconducting Super Collider  
 Network Status Date: 21JUL91  
 Graphic Produced by PMO on 12AUG91

LONG TERM COMPARATIVE SUMMARY BARCHART  
 TMR Report: LINAC w/Level 1&2 Milestones  
 (Calendar is in Fiscal Years)

Baseline Master Schedule: Ver. 12, Rev. 7  
 SSCL REVIEW SUMMARY BY WBS  
 Drawing ID: LIN-SUN



■ BASELINE ACTIVITY    ■ ACTUAL ACTIVITY    ▨ PROJ. CRITICAL ACT.    ◇-ORIG. CRITICAL MS    ▽ PROJECTED MILESTONE  
 ▨ ORIG. CRITICAL ACT.    ▨ PROJECTED ACTIVITY    ★ BASELINE MILESTONE    ● ACTUAL MILESTONE    ▽ PROJ'ED CRITICAL MS

## LOW ENERGY BOOSTER (LEB)

<b>Goal</b>	Meet the overall Laboratory Goals to start commissioning by early FY96.
<b>WBS Elements</b>	<b>Description</b>
1.1.3	LEB
2.1.3	Low Energy Booster Conventional Construction (including beam transfer to MEB)
4.2.1	Accelerator R&D
<b>Accomplishments</b>	
2.1.3	Initiated Title I Preliminary Design.
4.2.1	Circulated the first draft of the LEB magnet Advance Acquisition Plan. Power systems PDR was successfully completed in July.
<b>Issues and Concerns</b>	
2.1.3	Projecting two-month slip in issuance of construction NTP.
4.2.1	The current schedule shows the start of commissioning to be August 31, 1995, allowing seven months before the start of commissioning for the MEB, with the RF system as critical path.
<b>Corrective Action</b>	
2.1.3	None. Projecting early turnover for installation. No FY funding impact.
4.2.1	Complete and finalize the magnet requirements so that the Preliminary Design Reviews can be held.
<b>Condition</b>	2.1.3 Green; Yellow (Schedule) - ASD; Red (3A/3B Spec Schedule) - ADOD
<b>POC</b>	Richard York (ADOD); Ted Kozman (ASD); Deryl Earsom (CCD) <b>DATE:</b> August 15, 1991

Superconducting Super Collider  
 Network Status Date: 21JUL91  
 Graphic Produced by PMO on 12AUG91

LONG TERM COMPARATIVE SUMMARY BARCHART  
 TMR Report: LEB w/ Level 1&2 Milestones  
 (Calendar is in Fiscal Years)

Baseline Master Schedule: Ver. 12, Rev. 7  
 SSCL REVIEW SUMMARY BY WBS  
 Drawing ID: LEB-SUM

WBS NUMBER	WBS/CODE DESCRIPTION	90	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	BASELINE FINISH	PROJECTED FINISH
1.01.03	LEB SYSTEM													
	SET COORDINATES: LEB		★ M2										APR91	01APR91 A
	TECHNICAL SYSTEMS						□						JUN95	JUL95
	POWER SYSTEMS		▨	▨	▨	▨	▨						MAY95	JUN95
	DIPOLE MAGNETS		▨	▨	▨	▨	▨						MAR95	MAR95
	QUADRUPOLE MAGNETS		▨	▨	▨	▨	▨						MAR95	MAR95
	RF SYSTEMS		▨	▨	▨	▨	▨						AUG95	JUL95
	UTILITIES					▨	▨						JUN94	AUG94
	VACUUM					▨	▨						FEB95	AUG94
	EXTRACTION		▨	▨	▨	▨	▨						JUN95	JUL95
	INSTRUMENTATION		▨	▨	▨	▨	▨						OCT95	NOV95
	CONTROLS			▨	▨	▨	▨						SEP94	MAR95
	INSTALLATION					▨	▨						MAR95	OCT94
	SAFETY			▨	▨	▨	▨						APR95	MAR95
2.01.03	LEB													
	LEB: FACILITY COMPLETE						★ M2						DEC93	JAN94
	CONVENTIONAL CONSTR. DESIGN & CONSTRUCTION		▨	▨	▨	▨	▨						DEC93	JAN94
	UTILITIES					▨	▨						MAR94	APR94
4.01	ACCELERATOR PRE-OPERATIONS													
	LEB START COMMISSIONING						★ M1						AUG95	AUG95
	LEB COMPLETE COMMISSIONING							★ M2					MAY96	FEB96
	COMMISSIONING						▨	▨					MAR96	FEB96
6	OPERATIONS													
	OPERATIONS								▨	▨	▨	▨	SEP99	SEP99

□ BASELINE ACTIVITY    ▨ ACTUAL ACTIVITY    ▨ PROJ. CRITICAL ACT.    ◇ ORIG. CRITICAL MS    ▽ PROJECTED MILESTONE  
 ▨ ORIG. CRITICAL ACT.    ▨ PROJECTED ACTIVITY    ★ BASELINE MILESTONE    ● ACTUAL MILESTONE    ▽ PROJ'ED CRITICAL MS

## MEDIUM ENERGY BOOSTER (MEB)

<b>Goal</b>	To provide an accelerator which will accelerate protons from 12 GeV/c to 200 GeV/c for injection into the HEB and to provide test beams, on a schedule to meet major milestones.
<b>WBS Elements</b>	<b>Description</b>
1.1.4	MEB System
4.4.4.1	MEB
4.2.1	Accelerator R&D
2.1.4	Medium Energy Booster Conventional Construction (including beam transfers to HEB bored tunnel for Test Beam)
<b>Accomplishments</b>	
4.4.4.1	Issued 3A specifications for formal review. Completed draft of Preliminary Design requirements for MEB conventional construction. MEB dipole and quadrupole magnet designs are under evaluation at Fermilab.
4.2.1	Started work on the kicker power supply requirements and the design of the MEB central LCW cooling plant.
2.1.4	Continued preliminary design requirements with the working group.
<b>Issues and Concerns</b>	
1.1.4	Overall MEB schedule shows criticality due to Test Beam Area Commissioning time to meet MEB Test Beam Available milestone.
4.4.4.1	1. Ministraight space extremely tight. 2. Continued concern over main magnetic element design.
2.1.4	Projecting 6 month schedule slip in issuance of construction Notice to Proceed but no slip i projected BOD date versus Baseline date.
<b>Corrective Action</b>	
1.1.4	Review commissioning plan - probable logic revision to allow overlap of MEB and Test Beam Area commissioning to preserve both Level 1 milestone dates.
4.4.4.1	1. Focused attention on space budget by Mechanical Engineering. 2. Possible minor magnet relocation.
2.1.4	None. No technical system impacted as all BOD's are projected to be met.
<b>Condition</b>	Green
<b>POC</b>	Rod Gerig (ADOD); Ted Kozman (ASD); Jack Clifton (CCD)

**DATE:** August 15, 1991

Superconducting Super Collider  
 Network Status Date: 21JUL91  
 Graphic Produced by PMO on 12AUG91

LONG TERM COMPARATIVE SUMMARY BARCHART  
 TMR Report: MEB w/ Level 1&2 Milestones  
 (Calendar is in Fiscal Years)

Baseline Master Schedule Ver. 12, Rev. 7  
 SSCL REVIEW SUMMARY BY WBS  
 Drawing ID: MEB-SUM

WBS NUMBER	WBS/CODE DESCRIPTION	Year										BASELINE FINISH	PROJECTED FINISH						
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000								
1.01.04	MEB SYSTEM																		
	SET COORDINATES: MEB		★ M2														APR91	01 APR91	A
	POWER SYSTEMS		▨	▨	▨	▨	▨										JUN96	JUN96	
	DIPOLE MAGNETS		▨	▨	▨	▨	▨										APR96	JUN96	
	QUADRUPOLE MAGNETS		▨	▨	▨	▨	▨										APR96	JUN96	
	RF SYSTEMS		▨	▨	▨	▨	▨										MAY96	MAY96	
	UTILITIES		▨	▨	▨	▨	▨										AUG95	AUG95	
	VACUUM				▨	▨	▨	▨									APR96	JUN96	
	INSTRUMENTATION		▨	▨	▨	▨	▨	▨									MAY96	JUN96	
	INSTALLATION				▨	▨	▨	▨									APR96	JUN96	
TESTING								▨	▨							JUN96	JUN96		
2.01.04	MEDIUM ENERGY BOOSTER (MEB)																		
	MEB: FACILITY COMPLETE								▼ M2									JUL94	JUL94
	CONVENTIONAL CONSTR. DESIGN & CONSTRUCTION		▨	▨	▨												JUL94	JUL94	
4.01	ACCELERATOR PRE-OPERATIONS																		
	MEB START COMMISSIONING									▼ M1							JUN96	JUN96	
	MEB COMPLETE COMMISSIONING										▼ M2						JAN97	DEC96	
	MEB TEST BEAMS AVAILABLE										★ ▼ M1						JAN97	MAR97	
	COMMISSIONING									▨							OCT96	DEC96	
6	OPERATIONS																		
	OPERATIONS																	SEP99	SEP99

[White Box] BASELINE ACTIVITY    [Black Box] ACTUAL ACTIVITY    [Hatched Box] PROJ. CRITICAL ACT.    [Diamond] -ORIG. CRITICAL MS    [Inverted Triangle] PROJECTED MILESTONE  
 [Diagonal Hatched Box] ORIG. CRITICAL ACT.    [Horizontal Hatched Box] PROJECTED ACTIVITY    [Star] -BASELINE MILESTONE    [Circle] -ACTUAL MILESTONE    [Downward Triangle] PROJ'ED CRITICAL MS

## HIGH ENERGY BOOSTER (HEB)

<b>Goal</b>	Meet the overall Laboratory goals to start commissioning prior to FY99.
<b>WBS Elements</b>	<b>Description</b>
4.2.1	Accelerator R&D
<b>Accomplishments</b>	Started work in preliminary design and the 3A and 3B specifications.
<b>Issues and Concerns</b>	None.
<b>Corrective Action</b>	None.
<b>Condition</b>	Green
<b>POC</b>	Dave Johnson (ADOD); Ted Kozman (ASD)

**DATE:** August 15, 1991

Superconducting Super Collider  
 Network Status Date: 21JUL91  
 Graphic Produced by PMO on 12AUG91

LONG TERM COMPARATIVE SUMMARY BARCHART  
 TMR Report: HEB w/ Level 1&2 Milestones  
 (Calendar is in Fiscal Years)

Baseline Master Schedule: Ver. 12, Rev. 7  
 SSSL REVIEW SUMMARY BY WBS  
 Drawing ID: HEB-SUM

WBS NUMBER	WBS/CODE DESCRIPTION	91	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	02	BASELINE FINISH	PROJECTED FINISH	
1.01.05	HEB SYSTEM															
	SET COORDINATES: HEB	● M2												APR91	29MAR91 A	
	HEB START INSTALLATION						◇ M1							AUG96	JUL96	
	POWER SYSTEMS		[Hatched bar from 1992 to 1998]												JUN98	SEP98
	CORRECTION MAGNETS			[Hatched bar from 1993 to 1996]											MAY96	SEP96
	SPOOL PIECE			[Hatched bar from 1993 to 1995]											NOV96	FEB97
	CRYOGENICS				[Hatched bar from 1994 to 1996]										JUL97	MAR97
	RF SYSTEMS			[Hatched bar from 1993 to 1997]											FEB98	APR98
	UTILITIES			[Hatched bar from 1993 to 1995]											APR97	MAY97
	VACUUM			[Hatched bar from 1993 to 1997]											APR98	MAY98
	INSTRUMENTATION			[Hatched bar from 1993 to 1997]											JUN98	JUN98
	INSTALLATION			[Hatched bar from 1993 to 1997]											JUN98	SEP98
1.02.02	HEB MAGNET PRODUCTION															
	CONTRACT AWARD	☆ M2												SEP91	NOV91	
	DIPOLE MAGNETS		[Hatched bar from 1992 to 1999]											AUG01	JUN98	
	QUADRUPOLE MAGNETS		[Hatched bar from 1992 to 1997]												JUN98	JUN98
2.01.05	HEB															
	1ST BOD HEB, H20 EAST TO H60						☆ M2							APR96	APR96	
	2ND BOD HEB, H20 WEST TO H60						☆ M2							JUN96	JUN96	
	CONVENTIONAL CONSTR. DESIGN & CONSTRUCTION			[Hatched bar from 1993 to 1996]										DEC96	JAN97	
4.01	ACCELERATOR PRE-OPERATIONS															
	HEB START COMMISSIONING								◇ M1					SEP98	SEP98	
	HEB COMPLETE COMMISSIONING								◇ M2					MAR99	MAR99	
	COLLIDER - START COMMISSIONING (BEAM)								◇ M1					MAR99	MAR99	
	COMMISSIONING								◇ M1					MAR99	MAR99	
4.02.01	ACCELERATOR R&D															
	POWER SYSTEMS		[Hatched bar from 1992 to 1995]												JUL95	JUL95
	CORRECTION MAGNETS		[Hatched bar from 1992 to 1994]												NOV93	FEB94
	SPOOL PIECE		[Hatched bar from 1992 to 1995]												DEC94	FEB95
	INSTRUMENTATION		[Hatched bar from 1992 to 1995]												MAR96	MAR96
6	OPERATIONS															
	OPERATIONS									▧				SEP99	SEP99	

[White box] BASELINE ACTIVITY    [Black box] ACTUAL ACTIVITY    [Hatched box] PROJ. CRITICAL ACT.    ◇-ORIG. CRITICAL MS    ▽-PROJECTED MILESTONE  
 [Diagonal hatched box] ORIG. CRITICAL ACT.    [Horizontal hatched box] PROJECTED ACTIVITY    ☆-BASELINE MILESTONE    ●-ACTUAL MILESTONE    ▽-PROJ'ED CRITICAL MS

## COLLIDER

<b>Goal</b>	Develop design and specification of 20 TeV Collider. Provide tunnel segments and servicing shafts in support of major milestones.
<b>WBS Elements</b>	<b>Description</b>
4.2.1	3B specifications, integrated schedule
2.1.6.2	N15 Shafts and N15 to N20 Tunnel Segment N20 and N25 Shafts and N20 to N30 Tunnel Segment N30 to N45 Shafts and N30 to N45 Tunnel Segment
<b>Accomplishments</b>	
4.2.1	3A Specs sent out for signature. Work on integrated collider schedule progressing. CSA doing pilot project of modeling West Utility. Working groups formed to define requirements for N15 to N20 tunnel finish design. Working group formed to define specs for IR quad alignment. Workshops: Beam Loss Monitoring for the SSC.
2.1.6.2	Held N15 Magnet Shaft Pre-Bid Meeting. Bids will be received on August 20.
<b>Issues and Concerns</b>	
4.2.1	1. Decision on niche spacing and extra dump switch required. 2. Information for IPS still missing. 3. Evaluate eliminating underground string test in lieu of 1st half-sector cooldown by 6 cell test. 4. Decision on CAD system to model West Utility interfaces required.
2.1.6.2	Larger tunnel diameter may require change in tunnel elevation to provide required shielding at collider low cover areas.
<b>Corrective Action</b>	
4.2.1	1. Proceeding with niche spacing evaluation. CCB package needs to be prepared. 2. Continue work on ASD. 3. Discussion with ADOD and ASD, prepare CCB package. 4. Discussion with CCD and ASD.
2.1.6.2	The A-E/CM has been tasked to perform a Collider Tunnel Elevation Study which will address tunnel elevation, construction costs associated with different elevations, and land areas affected at the low cover areas.
<b>Condition</b>	4.2.1 Yellow (3A/3B Spec Schedule); 2.1.6.2 Green
<b>POC</b>	Rainer Meinke (ADOD); Tracy Lundin (CCD)

DATE: August 15, 1991

## TEST BEAMS

**Goal** Design and build 200 GeV Test Beams and Calibration Hall.

**WBS Elements** **Description**

1.1.7.1 Test Beams

2.1.7 Test Beams Conventional Construction

### Accomplishments

1.1.7.1 Completed new optics design based on 40' separation between calibration areas.

Entered current (40') layout into the site-wide footprint database.

Began specification of conventional facilities. On track for September 1 completion.

2.1.7 Formed working group to develop Preliminary Design Requirements for test beam tunnel in MEB design and construction package.

**Issues and Concerns** None.

**Corrective Action** N/A

**Condition** Green

**POC** John McGill (ADOD); Jack Clifton (CCD)

**DATE:** August 15, 1991

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DIVISION PROJECT STATUS REPORT				
DESIGN <input checked="" type="checkbox"/>		PRODUCTION <input type="checkbox"/>		
CONSTRUCTION <input checked="" type="checkbox"/>		RESEARCH & DEVELOPMENT <input checked="" type="checkbox"/>		PART I
1. IDENTIFIERS:				
1a. PROJECT TITLE/NUMBER	DE-AC02-89ER40486	1b. REPORTING PERIOD	July 1991	
1c. MANAGING DIVISION	Accelerator Systems	Division Office Mechanical Engineering Electrical Engineering RF Engineering Controls Instrumentation and Diagnostics Cryogenics Systems		
1d. DIVISION/OFFICE CONTACT	Ted Kozman (ext. 3825)			
1e. DIVISION MANAGER	Ted Kozman (ext. 3825)			
2. DIVISION MANAGER'S PERSONAL ASSESSMENT:				
2a. Summary Status				
GROUP	TECHNICAL	COST	SCHEDULE	OVERALL
Division Office	Green	Green	Green	Green
Mechanical Engineering	Green	Green	Red	Yellow
Electrical Engineering	Green	Green	Green	Green
RF Engineering	Yellow	Green	Yellow	Yellow
Controls	Green	Green	Green*	Green
Instrumentation & Diagnostics	Green	Green	Green	Green
Cryogenics Systems	Green	Green*	Yellow	Yellow
<i>OVERALL DIVISION ASSESSMENT</i>	Green	Green	Green	Green
<i>PREVIOUS DIVISION ASSESSMENT</i>	Green	Green	Yellow	Yellow

\* Change from last month.



**ACCELERATOR SYSTEMS DIVISION  
FY91 Deliverables**

<b>WBS</b>	<b>Milestone</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
4.2.1	Start refrigerator fabrication for ASST	Nov90	Nov90 <sup>A</sup>	Complete
4.2.1	Magnet supports - order prototype for ASST	Dec90	Dec90 <sup>A</sup>	Complete
4.2.1	4cm prototype spool available for ER string test	Jun91	Aug91	Red
4.2.1	Power supplies, quench protection procurement started	Jul91	Feb91 <sup>A</sup>	Complete
1.1.2	LINAC RFQ procurement started	Dec90	Dec90 <sup>A</sup>	Complete
1.1.2	Start procurement of klystrons and power systems	Feb91	Feb91 <sup>A</sup>	Complete
1.1.2	LINAC final design review	Aug91	Aug91 <sup>**</sup>	Green
1.1.6	Start procurement of E1 cryoplant with the ASST/MTL	Nov90	Nov90 <sup>A</sup>	Complete
1.1.6	Start corrector magnet procurement for collider	Sep91	Jul91 <sup>A</sup>	Complete

<sup>A</sup>Milestone complete

<sup>\*\*</sup>Series of reviews: RFQ--4/91, CCL--11/91, DTL--12/92

**ACCELERATOR SYSTEMS DIVISION  
FY92 DELIVERABLES**

<b>WBS</b>	<b>Milestone</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
4.2.1	Two Spools completed for ASST	Mar92	Dec91	Green
1.1.6	Cryogenic 4 K Plant - Commissioning Complete	Apr92	Apr92	Green
4.2.1	Accelerator Systems available for Cooldown for ASST	Apr92	Apr92	Green
1.1.2	Start SCL Procurement for Linac	Oct91	Nov91	Yellow
1.1.2	Start DTL Fabrication for Linac	Oct91	Feb92	Red
1.1.2	Linac RFQ Completed	Jul92	Jul92	Green
1.1.2	Delivery of Klystrons and Power Systems	Jul92	Jul92	Yellow
1.1.3	LEB Magnet Engineering Complete	Dec91	Dec91	Yellow
1.1.3	Start Procurement Process for LEB Dipole/Quadrupole	Jun92	Jun92	Green
1.1.6	E2 Cryoplant - Start Procurement	Jun92	Jun92	Green

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DIVISION PROJECT STATUS REPORT				
DESIGN <input checked="" type="checkbox"/>	PRODUCTION <input type="checkbox"/>			
CONSTRUCTION <input type="checkbox"/>	RESEARCH & DEVELOPMENT <input checked="" type="checkbox"/>			PART I
<b>1. IDENTIFIERS:</b>				
1a. PROJECT TITLE/NUMBER DE-AC02-89ER40486 SUPERCONDUCTING SUPER COLLIDER LABORATORY		1b. REPORTING PERIOD July 1991		
1c. MANAGING DIVISION  Magnet Systems Division		1f. PERFORMING ORGANIZATION(S)  Engineering Test Production Quality Assurance Business Management Fermi National Accelerator Laboratory Lawrence Berkeley Laboratory Brookhaven National Laboratory Space System Division Westinghouse Electric Corporation		
1d. DIVISION/OFFICE CONTACT  Ken Mountain (ext. 1161)				
1e. DIVISION MANAGER  Tom Bush (ext. 2023)				
<b>2. DIVISION MANAGER'S PERSONAL ASSESSMENT:</b>				
<b>2a. Summary Status</b>				
GROUP	TECHNICAL	COST	SCHEDULE	OVERALL
WBS 1.2.1 Program Management	Green	Green	Green	Green
WBS 1.2.2 HEB Magnets	Green	Green	Green	Green
WBS 1.2.3 Collider Ring Magnets	Green	Green	Green	Green
WBS 1.2.4 Magnet Equipment & Tooling	Green	Green	Green	Green
WBS 4.2.2 Magnet R&D	Green	Green	Green	Green
<i>OVERALL DIVISION ASSESSMENT</i>	Green	Green	Green	Green
<i>PREVIOUS DIVISION ASSESSMENT</i>	Green	Green	Green	Green

DIVISION PROJECT STATUS REPORT  
PART I

MAGNET SYSTEMS DIVISION

2b. DIVISION MANAGER'S NARRATIVE HIGHLIGHTS

1.2.1 PROGRAM MANAGEMENT

Developing schedules to comply with the CDM program SSCL functional resource projections. Loaded budgets in Cobra at the work package level and identified the earned value.

1.2.2 HEB MAGNETS

Dipole Magnets: Preparations for proposals evaluation underway. SEB nominated and briefed. Released formal RFP.

Quadrupole Magnets: Finished final CEN/SACLAY draft subcontract. Submitted draft subcontract to France for review and comments.

1.2.3 COLLIDER RING MAGNETS

Collider Dipole Magnets: Definitized contract with GD and WEC executed effective July 12, 1991. Completed negotiation for WEC involvement at BNL: Submitted contract files to DOE for review/approval.

Quadrupole Magnets: Definitized contract with Babcock & Wilcox executed July 8, 1991.

1.2.4 MAGNET FACILITIES EQUIPMENT AND TOOLING

MDL: The coil winding machine was setup and debugged at leased facility. First run of QSE cables have been wrapped.

MTL: Feed can specification completed and released for procurement. Software ready for test of rotating coil field harmonic system at BNL.

4.2.2 MAGNET R&D

FNAL: All coils (inner and outer) for magnets DCA 311 through DCA 315 have been wound. Magnets DCA 312 has completed final end assembly. DCA 311 is in yoke and skinning. GD has full complement of 26 at the FNAL site.

BNL: First dipole being assembled.

LBL: Completed magnet QCC 401 and shipped to SSCL.

SSCL: Completed practice winding for DSA 101.

**MAGNET SYSTEMS DIVISION**  
**HEB Dipole Magnets**

<b>Goal</b>	Provide reliable HEB Dipole Magnets on schedule and within budget.
<b>WBS Elements</b>	<b>Description</b>
1.2.2.1	HEB Dipole Magnets
<b>Accomplishments</b>	Received HEB Dipole Magnets Proposals on July 29, 1991.
<b>Issues and Concerns</b>	<ol style="list-style-type: none"><li>1. Lack of finalized level 3A and B spec is critical.</li><li>2. FY92 budget allocation compared with SSC and subcontract task requirements.</li></ol>
<b>Corrective Action</b>	<ol style="list-style-type: none"><li>1. Provide level 3A and B specifications.</li><li>2. Revise budget allocation or modify HEB schedule/task requirements.</li></ol>
<b>Condition</b>	Green
<b>POC</b>	Dave Fortunato

**DATE:** August 15, 1991

**MAGNET SYSTEMS DIVISION  
HEB Quadrupole Magnets**

<b>Goal</b>	Provide reliable HEB Quadrupole Magnets on schedule and within budget.
<b>WBS Elements</b>	<b>Description</b>
1.2.2.2	HEB Quadrupole Magnets
<b>Accomplishments</b>	Finish final CEN/SACLAY draft subcontract and shipped to France for review.
<b>Issues and Concerns</b>	<ol style="list-style-type: none"><li>1. Lack of level 3A and B specifications are critical.</li><li>2. Formal relocation policy approval.</li><li>3. Completion of contract with CEN/SACLAY.</li></ol>
<b>Corrective Action</b>	<ol style="list-style-type: none"><li>1. Provide level 3A and B spec.</li><li>2. Establish an approved relocation package for SSCL personnel moving to CEN/SACLAY.</li><li>3. Work with CEN key decision makers.</li></ol>
<b>Condition</b>	Green
<b>POC</b>	Dave Fortunato
	<b>DATE:</b> August 15, 1991

**MAGNET SYSTEMS DIVISION  
15 Meter CDM/13 Meter CDM**

<b>Goal</b>	Provide reliable collider dipole magnets on schedule and within budget.		
<b>WBS Elements</b>	<b>Description</b>	<b>WBS Elements</b>	<b>Description</b>
1.2.3.1	15 Meter CDM	1.2.3.2	13 Meter CDM
<b>Accomplishments</b>	<p>General Dynamics, leader, and Westinghouse, follower, contracts were definitized effective July 12, 1991.</p> <p>Conducted the first monthly program reviews with General Dynamics.</p> <p>Conducted technology transfer session at FNAL for leader/follower.</p> <p>Completed negotiations for industry involvement at BNL in magnet assembly and provided contract files to DOE for review and approval.</p> <p>Obtained DOE approval to proceed with actions to have leader procure follower tooling, cryogenic plant and certain test instrumentation.</p> <p>Conducted a number of detailed technical meetings with leader relative to contract start.</p>		
<b>Issues and Concerns</b>	<ol style="list-style-type: none"> <li>1. Hiring of a subcontract administrator and support personnel sufficient to support these major contracts.</li> <li>2. Ability of the SSCL to support the review of subcontractor procurement actions without impact to schedule.</li> </ol>		
<b>Corrective Action</b>	<ol style="list-style-type: none"> <li>1. Continue to bring program requirements to management attention.</li> <li>2. Test procurement review process with initial subcontractor purchases and adjust process and resources as required.</li> </ol>		
<b>Condition</b>	Green		
<b>POC</b>	Herb Trenham	<b>DATE:</b>	August 15, 1991

**MAGNET SYSTEMS DIVISION**  
**Collider Quadrupole Magnets**

<b>Goal</b>	Provide reliable collider quadrupole magnets on schedule and within budget.
<b>WBS Elements</b>	<b>Description</b>
1.2.3.3	Collider ring Quadrupole Magnets
<b>Accomplishments</b>	Issued definitive contract. Conducted technical and management interface meetings. Completed curing, collaring and yoke/skinning tooling presses review and provided recommendations to B&W for incorporation prior to release of RFP's. Initiated activity to support the issue of compliance with ASME boiler and pressure codes.
<b>Issues and Concerns</b>	Need to estimate impact on program of compliance with ASME boiler and pressure codes.
<b>Corrective Action</b>	None.
<b>Condition</b>	Green
<b>POC</b>	Sol Shapiro

**DATE:** August 15, 1991

**MAGNET SYSTEMS DIVISION**  
**MDL Tooling**

<b>Goal</b>	Equip the Magnet Development Lab (MDL) with tooling to support magnet production plans.
<b>WBS Elements</b>	<b>Description</b>
1.2.4.1	MDL Tooling
<b>Accomplishments</b>	Cable wrapping machine (ordered form dour) was set up in a leased facility in Waxahachie. Debugging is complete and first run of QSE Cable has been wrapped.
<b>Issues and Concerns</b>	Design of long Quad Collaring Press remains on hold while the current concept of using the Dipole Collaring is evaluated.
<b>Corrective Action</b>	Decision made by Engineering/Production on lack of need for long quad collaring press. The press should be eliminated from the tooling schedule.
<b>Condition</b>	Green
<b>POC</b>	Ron Wood for David Bailey

**DATE:** August 15, 1991

**CONVENTIONAL CONSTRUCTION DIVISION  
Magnet Development Lab (MDL)**

<b>Goal</b>	Support MSD PBOD of April 1, 1991 and a BOD of August 1, 1991.
<b>WBS Elements</b>	<b>Description</b>
2.4.2.2	Magnet Development Lab (MDL)
<b>Accomplishments</b>	Exterior skin complete; interior finish proceeding.  Interior CMU walls and studs for second floor drywall under construction.  Beneficial occupancy: High Bay August 15, 1991; Offices September 15, 1991.
<b>Issues and Concerns</b>	Interim electrical power (Hill County). Fire pumps scheduled delivery September 20; installed September 30. Final negotiations on large modification 13.
<b>Corrective Action</b>	Expedite and monitor resolution of remaining issues.
<b>Condition</b>	Yellow (Cost)
<b>POC</b>	Craig N. Trimble

**DATE:** August 15, 1991

**MAGNET SYSTEMS DIVISION**  
**MTL Equipment and Tooling**

<b>Goal</b>	Design and test the measurement and control instrumentation which will be used to evaluate superconducting magnet performance in the Magnet Test Laboratory (MTL).
<b>WBS Elements</b>	<b>Description</b>
1.2.4.2	MTL Equipment and Tooling
<b>Accomplishments</b>	Isolation amplifiers successfully tested on Rev. 2 PC boards. Feed can specification completed and released for procurement. Prototype cryogenic thermometry instrumentation and software now running (test planned at final in August). Software ready for test of rotating coil field harmonic system at BNL calibration facility.
<b>Issues and Concerns</b>	<ol style="list-style-type: none"><li>1. Installation of LHe refrigerator in MTL conflicts with MTL construction schedule.</li><li>2. 33mm ID for CDM beam pipe impacts magnet measurement instrumentation design.</li></ol>
<b>Corrective Action</b>	<ol style="list-style-type: none"><li>1. Negotiation ongoing with Koch for joint occupancy of MTL during construction.</li><li>2. Evaluate options for reduced instrumentation size and alternate warm bore designs.</li></ol>
<b>Condition</b>	Green
<b>POC</b>	Mark Coles

**DATE:** August 15, 1991

**CONVENTIONAL CONSTRUCTION DIVISION  
Magnet Test Lab (MTL)**

<b>Goal</b>	Support MSD with a BOD of April 1, 1992 and a PBOD of January 1, 1992.
<b>WBS Elements</b>	<b>Description</b>
2.4.2.1	Magnet Test Lab (MTL)
<b>Accomplishments</b>	Title II design, 100% completed review. Title II - 100% steel package in bid period. CCD incorporated in the MTL bid package accelerated completion dates of March 15, 1992 for MTL Service Building and July 15, 1992 for substantial completion of the MTL building.
<b>Issues and Concerns</b>	Funding for technical systems elements, Refrigeration Area, Compressor Building.
<b>Corrective Action</b>	Joint MSD/CCD CCP approved action for additional technical and conventional funds; CCB set for August 8.
<b>Condition</b>	Yellow (Schedule)
<b>POC</b>	Craig N. Trimble

**DATE:** August 15, 1991

**MAGNET SYSTEMS DIVISION  
2.5 Micron Conductor**

<b>Goal</b>	Continue the development of 2.5µm conductor in support of the HEB Magnet Program.		
<b>WBS Elements</b>	<b>Description</b>	<b>WBS Elements</b>	<b>Description</b>
4.2.2.3	Continue process development for 2.5µm conductor.	1.2.2	Supply prototype conductor for HEB magnet programs requiring 2.5µm conductor
<b>Accomplishments</b>	<p>Completed IGC/ASI negotiations process in development, if successful, allows 2.5µm fabrication for the same cost as 6µm. Contract preparation in process.</p> <p>Supercon negotiations are stalled. Continuing discussions to reach rational price agreement.</p> <p>Hitachi negotiations scheduled for August. DCAA audit completed.</p>		
<b>Issues and Concerns</b>	<ol style="list-style-type: none"> <li>1. Contract preparation is difficult in parallel with 6µm workload.</li> <li>2. Long delays in contract approval process may impede the schedule.</li> <li>3. Premature to kill 2.5µm program in light of IGC/ASI process potential.</li> </ol>		
<b>Corrective Action</b>	<ol style="list-style-type: none"> <li>1. Relieved SCA of all responsibility except for wire and cable procurements.</li> <li>2. Providing direct support to SCA by members of conductor group for document preparation, etc.</li> <li>3. Continue 2.5µm program for this year with IGC/ASI, as a minimum, to verify if new process yields manufacturable results (three full-size billets already in process at IGC on IR&amp;D, first yielded successful results).</li> </ol>		
<b>Condition</b>	Green		
<b>POC</b>	Don Capone	<b>DATE:</b>	August 15, 1991

**MAGNET SYSTEMS DIVISION**  
**6 Micron Conductor**

<b>Goal</b>	Qualify conductor vendors for the SSCL Magnet Programs requiring 6µm conductor.		
<b>WBS Elements</b>	<b>Description</b>	<b>WBS Elements</b>	<b>Description</b>
4.2.2.3	Complete process optimization to ensure adequate fabricability	1.2.3	Supply prototype and preproduction conductor for magnet programs requiring 6µm conductor
<b>Accomplishments</b>	<p>Doe approval for SEI subcontract received July 16th. Work has begun. AISA approval pending. Remaining contracts in final review.</p> <p>Continued technical reviews as required by contract. TSC reviewed week of July 23, IGC review will occur in August (this is the last review to perform).</p> <p>Vendor liaison offers accepted, one fluent in Japanese. Two started this month, final liaison starts August 9th. Already making good progress toward program monitoring.</p>		
<b>Issues and Concerns</b>	<ol style="list-style-type: none"> <li>1. Still behind the curve on contract preparation, but things are improving.</li> <li>2. Worst case schedule of August 1st start dates is not achievable. This will now reduce the two months of float available for the CDM Cable deliveries.</li> <li>3. Long lead time required for foreign travel makes rapid monitoring of problems difficult. Regular technical review not a problem.</li> </ol>		
<b>Corrective Action</b>	<ol style="list-style-type: none"> <li>1. Emphasis on first inner and outer subcontracts to support CDM program.</li> <li>2. New preliminary CDM schedule indicates October 1992 for prototype start date (originally August 1992). This may provide extra float. Projected first deliveries still two months ahead of CDM requirements.</li> <li>3. Putting in foreign travel requests now for anticipated travel requirements.</li> </ol>		
<b>Condition</b>	Green		
<b>POC</b>	Don Capone	<b>DATE:</b>	August 15, 1991

**MAGNET SYSTEMS DIVISION  
Major Project Milestones**

<b>WBS</b>	<b>Milestone</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
1.2.3	CDM Authorization to incur costs	Nov90	Nov90 A*2	Green
1.2.3	Full-rate production contract awarded on collider magnets	Apr94*1	Jan95	Green
1.2.3	Start first half sector CDM delivery from vendor plant	Apr94*1	Jul94	Green

\*1 CCB action in process to modify baseline schedule dates to reflect actual work schedule.

\*2 Note that GD did not incur costs until May 91.

A Indicates actual date.

**MAGNET SYSTEMS DIVISION  
FY91/92 Deliverables**

<b>WBS</b>	<b>Milestone</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
4.2.2.2	Complete Testing of 1st Lab Prototype Quad Cold Mass	May91	May91 <sup>A</sup>	Green
1.2.3.1	Start GD assembly of dipoles at FNAL	Jun91	Jun91 <sup>A</sup>	Green
1.2.3.1	First 5cm Long Magnet Assembled	Sep91	Sep91	Green
1.2.4	Start Magnet Lab Tooling Procurement	Oct90	Oct90 <sup>A</sup>	Green
4.2.2.3	Collider S/C Dipole Magnet Cable Vendor Qualification program started	Jan91	Jan91 <sup>A</sup>	Green
1.2.3.1	CR Dipole Development started in Industry	Feb91	Apr91 <sup>A</sup>	Green
1.2.3.3	CR Quad Development started in Industry	Apr91	Jun91 <sup>A</sup>	Green
4.2.2.2	Quad string test delivered to ASST	Mar92	Mar92	Green
1.2.3.1	All string test delivered to ASST	May92	May92	Green
1.2.4	Complete Installation of Magnet Lab Tooling	Sep92	Sep92	Green

A Actual

## COLLIDER DIPOLE MAGNET MILESTONES

CDM Milestone	Baseline Finish	Projected Finish
Contract Negotiations Complete	Mar91	Mar91 <sup>A</sup>
Contract Award - Letter	Mar91	May91 <sup>A</sup>
Technology Transfer Start	Apr91	Apr91 <sup>A</sup>
Contact Award (Definitized)	Apr91	Jul91 <sup>A</sup>
Industry Team at FNAL	May91	Apr91 <sup>A</sup>
Industry Team at BNL	Jun91	Aug91 <sup>A</sup>
System Design Review	Mar92	
Preliminary Design Review	Mar92	
1st Prototype Magnet Start	Oct92	
1st Prototype Magnet Complete	Mar93	
Last Prototype Magnet Complete	Nov93	
1st Preproduction Magnet Start	Nov93	
1st Preproduction Magnet Complete	Jan94	
Critical Design Review	Feb94	
LRIP Readiness Review	Apr94	
Last Preproduction Magnet Complete	Jun94	
First LRIP Magnet Shipped	Jul94	
Production Readiness Review	Nov94	
Last LRIP Magnet Shipped	Jun95	
Annex III Award	Jan95	
Production Phase Start	Jun95	
Last CDM Delivery	Jun98	

<sup>A</sup> Actuals



DIVISION PROJECT STATUS REPORT				
DESIGN	<input checked="" type="checkbox"/>	PRODUCTION	<input type="checkbox"/>	
CONSTRUCTION	<input checked="" type="checkbox"/>	RESEARCH & DEVELOPMENT	<input type="checkbox"/>	PART I
1. IDENTIFIERS:				
1a.	PROJECT TITLE/NUMBER (DE-AC02-89ER40486) SUPERCONDUCTING SUPER COLLIDER LABORATORY		1b.	REPORTING PERIOD July 1991
1c.	MANAGING DIVISION  Conventional Construction		1f.	PERFORMING ORGANIZATION(S) CCD Division Office Program Management Department Requirements Planning Department Engineering & Design Department Construction Department PB/MK Team TNRLC
1d.	DIVISION/OFFICE CONTACT Robert K. Tener			
1e.	DIVISION MANAGER  Jon R. Ives			
2. DIVISION MANAGER'S PERSONAL ASSESSMENT:				
2a. Summary Status				
GROUP	TECHNICAL	COST	SCHEDULE	OVERALL
2.1.1 CCD Administration	Green	Yellow	Green	Yellow
2.1.2 thru 2.1.5 Injector	Green	Green	Green*	Green
2.1.6 Collider	Green	Green	Yellow	Green
2.2 Experimental Halls	Green	Green	Green	Green
2.3 Infrastructure	Green	Green	Green	Green
2.4 Campus	Green	Green	Yellow	Green
2.5 A-E/CM	Green	Red	Green	Green
<i>OVERALL DIVISION ASSESSMENT</i>	Green	Green	Yellow	Green
<i>PREVIOUS DIVISION ASSESSMENT</i>	Green	Green	Yellow	Green

\* Change from last month.

**CONVENTIONAL CONSTRUCTION DIVISION**  
**Conventional Facilities**

**Goal**

**WBS Elements**      **Description**  
 2.0                      Conventional Facilities

**Accomplishments**

- 2.1                      Received PMO budget for staffing CCD to 61 positions by September 1992. Received Linac Title I design for review. Started LEB Title I design. Issued Invitation to Bid for N15 Magnet Shaft. Awarded instrumentation subcontract for Exploratory Shaft.
- 2.2                      Submitted Tier II Schedule for IR4 and IR1 Halls to PMO.
- 2.3                      Completed Title II designs for Sewage Treatment Plant (Phase II) and for Hoyt, Arrowhead and N15 Perimeter Roads. Completed Environmental Compliance Plan for N15 shafts and first tunnel segment, for Linac, and for Exploratory Shaft.
- 2.4                      Completed MTL Title II design. Completed West Campus Preliminary Design Requirements Document.
- 2.5                      PB/MK project management and administration provided 37 task completions and/or continuations.

- Issues and Concerns**
- 1. Development of integrated cost and schedule systems.
  - 2. Baseline cost estimate does not cover A-E/CM PM&A costs.

- Corrective Action**
- 1. PMO activities underway to develop integrated cost and schedule systems.
  - 2. Change Control action to reflect A-E/CM PM&A costs to cover scope of contract as negotiated.

**Condition**                      Green

**POC**                              R.K Tener

**DATE:** August 15, 1991

**CONVENTIONAL CONSTRUCTION DIVISION  
N15 (E1) Infrastructure**

<b>Goal</b>	Provide necessary infrastructure to support BOD of each completed facility.
<b>WBS Elements</b>	<b>Description</b>
2.3.2	Infrastructure - Primary
2.3.3	Infrastructure - Secondary
<b>Accomplishments</b>	<ul style="list-style-type: none"> <li>• Draft Environmental Compliance Plan inventory/permits for LCW plant.</li> <li>• Completed 100% Title II Final Design Plans for Phase II of Sewage Treatment Plant.</li> <li>• Completed 100% Title II Final Design Plans for N15 Perimeter Road.</li> <li>• Completed 100% Title II Final Design Plans for Hoyt Road.</li> <li>• Completed 90% Title II Preliminary Design Plans for N15 Infrastructure.</li> <li>• Accepted as Final Environmental Compliance Plan for N15 Shafts and N15 to N20 Tunnel.</li> <li>• Completed 100% Title II Final Design Plans for Arrowhead Road.</li> <li>• Access for Staking/Surveying/Testing Secured for HCEC Electric Line.</li> </ul>
<b>Issues and Concerns</b>	<ul style="list-style-type: none"> <li>• Baseline Cost Estimate.</li> <li>• TNRLC condemnation of Parcel 156 could delay construction of Arrowhead Road.</li> </ul>
<b>Corrective Action</b>	<ul style="list-style-type: none"> <li>• Change Control Panel approved, action and forwarded to PM for identification of funding, the construction of Arrowhead Road and N15 Sewage Treatment Plant, neither of which are in the BCE.</li> <li>• TNRLC to expedite acquisition process for Parcel 156.</li> </ul>
<b>Condition</b>	Green
<b>POC</b>	Richard Wiebe

**DATE:** August 15, 1991

**CONVENTIONAL CONSTRUCTION DIVISION**  
**Collider Infrastructure Other than N15 (E1)**

<b>Goal</b>	Provide necessary infrastructure to support BOD of each completed facility.
<b>WBS Elements</b>	<b>Description</b>
2.3.2	Infrastructure - Primary
2.3.3	Infrastructure - Secondary
<b>Accomplishments</b>	Environmental Compliance Plan inventories and permits drafted for N20, 25, 30, 35, 40, 45, shafts and tunnels N20 to N45.
<b>Issues and Concerns</b>	Off-site road improvements (county roads).
<b>Corrective Action</b>	Action plan to be developed by Infrastructure Steering Committee (SSCL, DOE, TNRLC, PB/MK).
<b>Condition</b>	Green
<b>POC</b>	Richard Wiebe

**DATE:** August 15, 1991

**CONVENTIONAL CONSTRUCTION DIVISION  
West Campus (Injector) Infrastructure**

<b>Goal</b>	Provide necessary infrastructure to support BOD of each completed facility.		
<b>WBS Elements</b>	<b>Description</b>		
2.3.2	Infrastructure - Primary		
2.3.3	Infrastructure - Secondary		
<b>Accomplishments</b>	<p>Draft Environmental Compliance Plan inventory/permits for LEB.</p> <p>Began evaluation of access roads to accommodate most recent plans for Central Office, Linac, &amp; IR's.</p> <p>Accepted as final the Environmental Compliance Plan for the Linac and the Exploratory Shaft.</p> <p>Significant progress on HVAC alternatives study - final to be complete August 15, 1991.</p> <p>Work on cooling pond studies advanced.</p>		
<b>Issues and Concerns</b>	Initial analysis of road alternates indicates that an adequate system should be achievable close to baseline; needs final detailed estimate to confirm.		
<b>Corrective Action</b>	Estimate underway.		
<b>Condition</b>	Green		
<b>POC</b>	Richard Wiebe	<b>DATE:</b>	August 15, 1991

**CONVENTIONAL CONSTRUCTION DIVISION**  
**Exploratory Shaft (IR1 Location)**

<b>Goals</b>	To provide large scale, in-situ, test input for the design of underground structures in Eagle Ford Shale rock strata and detector support systems. To provide shaft access to the utility bypass and/or experimental facilities, at the IR1 location. Final function and finish-out to be determined.		
<b>WBS Elements</b>	<b>Description</b>		
2.1.6.26	Exploratory Shaft (IR1)		
<b>Accomplishments</b>	Site preparation for arrival of drill rig. Shaft collar construction underway. Geotechnical Instrumentation subcontract negotiated and signed. Instrument procurement underway.		
<b>Issues and Concerns</b>	None.		
<b>Corrective Action</b>	None.		
<b>Condition</b>	Green		
<b>POC</b>	Chris Laughton	<b>DATE:</b>	August 15, 1991

**CONVENTIONAL CONSTRUCTION DIVISION  
IR4 Experimental Facilities; Underground Housings**

<b>Goal</b>	Conceptual Underground Design of the IR4 Experimental Facility Housings.
<b>WBS Elements</b> 2.2.2.1.1	<b>Description</b> "IR4" Underground Hall and Shaft Structures
<b>Accomplishments</b>	Floor Load Conceptual Design requirements redefined for SDC. New scheduling being input to IPS. Completed new estimate of conventional facility costs.
<b>Issues and Concerns</b>	Significant scope and cost increases over baseline for Experimental Facilities.
<b>Corrective Action</b>	Cost and scope reconciliation action being planned.
<b>Condition</b>	Green
<b>POC</b>	Chris Laughton

**DATE:** August 15,1991

**CONVENTIONAL CONSTRUCTION DIVISION**  
**Site Development (Master Plan)**

<b>Goals</b>	Develop a fully coordinated Site Development Plan to guide project planning and design.
<b>WBS Elements</b>	<b>Description</b>
2.5	Site Development Plan (Master Plan)
<b>Accomplishments</b>	Transmitted comments from SSCL, SSC Project Office and TNRLC on Site Development Plan to A-E/CM.
<b>Issues and Concerns</b>	Incorporating review comments and final printing of the Site Development Plan.
<b>Corrective Action</b>	Site Development Plan to be printed and distributed in August.
<b>Condition</b>	Green
<b>POC</b>	Robert W. Sims

**DATE:** August 15,1991

**CONVENTIONAL CONSTRUCTION DIVISION**  
**Major Project Milestones**

WBS	Milestone	Milestone Level	Baseline Schedule	Current Projection	Condition Appraisal
2.0	Start Civil Construction	1	Mar91	Mar91 <sup>A</sup>	Green
2.4.2.2	Magnet Development Lab BOD	2	Apr91	Sep91	Red
2.4.2.1	Magnet Test Lab BOD	2	Mar92	Jun92	Red
2.1.2	Linac Construction Start	2	Aug91	Feb92	Red
2.1.6.25	ASST Construction Start	2	Apr91	May91 <sup>A</sup>	Green
2.1.6.25	ASST BOD	2	Sep91	Oct91	Green
2.1.6.2	N15 Magnet Shaft Construction Start	2	Mar91	Sep91	Red
2.1.6.2	N15 to N20 Construction Basic Tunnel Start	2	Jul91	Jan92	Red
2.1.6.2	N20 to N30 Construction Basic Tunnel Start	2	Apr92 (Revised Baseline)	Apr92	Green
2.1.6.2	N30 to N45 Construction Basic Tunnel Start	2	Apr92 (Revised Baseline)	Apr92	Green
2.1.3	LEB Construction Start	2	Apr92	Jun92	Red
2.1.4	MEB Construction Start	2	Jul92	Jan93	Red
2.3.2	Infrastructure, Campus Construction Start1	2	Aug92	Oct91	Green
2.3.2	Infrastructure, Injector Construction Start1	2	Oct92	Dec91	Green*
2.2.2	Experimental Halls Construction Start	1	Jun93	Apr93	Green

<sup>A</sup> Actual

\* Change from last month.

<sup>1</sup> Accelerated schedule, dependent on approval of accelerated funding.

**CONVENTIONAL CONSTRUCTION DIVISION  
FY91 Deliverables**

<b>WBS</b>	<b>Milestone</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
2.4.2	MDL Completed (BOD - High Bay)	Apr91	Aug91	Red
2.1.6	ASST Construction Start	Apr91	May91 <sup>A</sup>	Green
2.1.6	ASST BOD	Sep91	Oct91	Yellow*
2.3.3	Infrastructure and Utilities Construction Start	Apr91	Mar91 <sup>A</sup>	Green
2.4.2	MTL Construction Start	Jun91	Aug91	Yellow
2.1.2	Linac Facility Construction Start	Aug91	Feb92	Red

**A Actual**

**\* Change from last month.**

**CONVENTIONAL CONSTRUCTION DIVISION  
FY92 Deliverables**

<b>WBS</b>	<b>Milestone</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
2.1.6	Collider-First Sector Construction Start	Oct91	Jan92	Red*
2.3.3	N15 Roads Completed	Oct91	Feb92**	Red**
2.4.2	MTL Completed (BOD)	Mar92	Jun92	Red
2.1.3	LEB Facility Construction Start	Apr92	Jun92	Red
2.1.4	MEB Facility Construction Start	Jul92	Jan93	Red

\* Collider construction sequencing has been rescheduled. Baseline date revision approval and acceptance by PMO will eliminate Red condition.

\*\* Phased completion will support MDL, ASST, and MTL as each is completed.



DIVISION PROJECT STATUS REPORT				
DESIGN	<input type="checkbox"/>	PRODUCTION	<input type="checkbox"/>	
CONSTRUCTION	<input type="checkbox"/>	RESEARCH & DEVELOPMENT	<input checked="" type="checkbox"/>	PART I
1. IDENTIFIERS:				
1a.	PROJECT TITLE/NUMBER SUPERCONDUCTING SUPER COLLIDER LABORATORY	DE-AC02-89ER40486	1b.	REPORTING PERIOD July 1991
1c.	MANAGING DIVISION  Physics Research Division		1f.	PERFORMING ORGANIZATION(S)  SSC Library Services Experimental Facilities Support Experimental Systems-Detector R&D Experimental Systems-Detectors Experimental Systems-Detector Computing SDC Collaboration--LBL GEM Collaboration
1d.	DIVISION/OFFICE CONTACT  Newton Norman (ext. 6035)			
1e.	DIVISION MANAGER  Fred Gilman (ext. 6113)			
2. DIVISION MANAGER'S PERSONAL ASSESSMENT:				
2a. Summary Status				
GROUP	TECHNICAL	COST	SCHEDULE	OVERALL
SSC Library	Green	Green	Green	Green
Experimental Facilities Support	Green	Green	Yellow	Green
Experimental Systems-Detector R&D	Green	Green	Green	Green
Experimental Systems-Detectors	Green	Green	Green	Green
Experimental Systems-Detector Computing	Green	Green	Green	Green
SDC Collaboration--LBL	Green	Yellow	Green	Green
GEM Collaboration	Yellow	Yellow	Red	Red
<i>OVERALL DIVISION ASSESSMENT</i>	Green	Green	Green	Green
<i>PREVIOUS DIVISION ASSESSMENT</i>	Green	Green	Green	Green

## PHYSICS RESEARCH DIVISION

<b>Goal</b>	Provide required support to Laboratory divisions.		
<b>WBS Elements</b>	<b>Description</b>	<b>WBS Elements</b>	<b>Description</b>
4.6.3	Experimental Facilities Support	5.2	Experimental Detectors
5.1	Detector R&D	5.3	Experimental Computing
<b>Accomplishments</b>			
4.6.3	<p>The first draft of the SDC Experimental Facilities User Requirements (SEFUR) document was transmitted to the Conventional Construction Division.</p> <p>Work is in progress on defining a test beam configuration for the SDC detector; the baseline hall was determined to be too small, and the beam-configuration will be modified to accommodate a larger hall.</p>		
5.1	Obtained DOE concurrence on 28 Memoranda of Understanding for SSC Detector Subsystems R&D.		
5.2	<p>A new collaboration, GEM, submitted an Expression of Interest (signed by more than 300 physicists from over 50 institutions) to propose a major detector complementary to SDC.</p> <p>The Program Advisory Committee recommended a call for Letters of Intent for the second major detector. The SSCL staff reported on the civil construction schedule and the criticality of defining the experimental hall requirements by January 1992.</p>		
5.3	<p>Completed design changes of each subsystem for the reconfiguration of the Physics Detector Simulation Facility (PDSF). Implementation of each subsystem is underway and on schedule, with approximately 50% of the implementation completed.</p>		
<b>Issues and Concerns</b>	None.		
<b>Corrective Action</b>	None.		
<b>Condition</b>	Green		
<b>POC</b>	N. Norman		<b>DATE:</b> August 15, 1991

**PHYSICS RESEARCH DIVISION**  
**Major Project Milestones**

<b>WBS</b>	<b>Milestone</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
4.6.3	Test beam configuration and coordination defined	Feb91	Apr91 <sup>A</sup>	Yellow (No impact on baseline expected)
4.6.3	Developed physics lab for detectors for test beam monitoring	Feb91	Feb91 <sup>A</sup>	Green
4.6.3	Test beam optics defined.	Apr91	Apr91 <sup>A</sup>	Green
4.6.3	Resource requirements for LOI detectors defined.	Dec90	Dec90 <sup>A</sup>	Green
4.6.3	Begin detector and support facilities design for proposal stage.	Feb91	Feb91 for SDCA Dec91 for GEM	Green Red (Could cause delays in proposal)
4.6.3	Develop detector assembly and installation schedules	Sep91	Sep91	Green
5.2	Letters of Intent submitted from the collaborations	Nov90	Nov90 <sup>A</sup>	Green
5.2	PAC recommendations for large, general purpose detectors	Dec90	Dec90 <sup>A</sup>	Green
5.2	Choose two large, general purpose detectors to be supported to full proposals	Jan91	SDC Jan91 <sup>A</sup> GEM Dec (earliest)	Green Red (Could cause delays in defining overall experimental program)
5.2	Begin conceptual design reports for large detectors	Feb91	SDC Feb91 <sup>A</sup> GEM Dec (earliest)	Green Red (Same as above)
5.2	Prepare preliminary construction schedules and drawings for detector subsystems	Sep91	Sep91	Green
5.3	Acquire and install 500 MIPS of distributed, UNIX-based computing hardware for detector simulation	Mar91	Mar91 <sup>A</sup>	Green
5.3	Begin detector physics simulation work at SSCL	Mar91	Mar91 <sup>A</sup>	Green

<sup>A</sup> Complete

**PHYSICS RESEARCH DIVISION  
FY91/92 Deliverables**

<b>WBS</b>	<b>Milestone</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
4.6.3	Test beam configuration and coordination defined	Feb91	Apr91 <sup>A</sup>	Yellow (No impact on baseline expected)
	Developed physics lab for detectors for test beam monitoring	Feb91	Feb91 <sup>A</sup>	Green
	Test beam optics defined.	Apr91	Apr91 <sup>A</sup>	Green
	Resource requirements for LOI detectors defined.	Dec90	Dec90 <sup>A</sup>	Green
	Begin detector and support facilities design for proposal stage.	Feb91	Feb91 for SDCA Dec91 for GEM (earliest)	Green Red (Could cause delays in proposal)
	Develop detector assembly and installation schedules	Sep91	Sep91	Green
	Start prototype detectors for test beams	Oct91	Oct91	Green
	Identify magnet alternatives for test beams	Oct91	Oct91	Green
	Establish compliance with ES&H design criteria	Oct91	Oct91	Green
	Have full operation of detector Technical Information Center	Oct91	Oct91	Green
	Test beam facility requirements set	Jan92	Apr92	Green
	Complete detector and facility design for proposal stage	Apr92	Apr92	Green

<sup>A</sup> Complete

**PHYSICS RESEARCH DIVISION  
FY91/92 Deliverables**

<b>WBS</b>	<b>Milestone</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
5.1	Develop wire alignment and tensioning devices for muon chambers	Apr91	May91A Prototype chambers constructed and gas mixtures tested	Yellow
5.1	Develop prototype VLSI test subcircuits for front end electronic subsystems	Jun91	May91 • New design of time to voltage converter chip • Strawtube tracker chip for level 1 trigger	Green
5.1	Continue small test prototype calorimeter modules for beam and radiation damage tests	Sep91	Sep91 April 91A • BNL Liquid Argon module in BNL beam. • Scintillator-plate module made for Fermilab test.  May 91 • Liquid Argon module assembled at SSCL, beam test at BNL in June.  June 91A • Beam test of Scintillator-plate module at Fermilab	Green
5.1	Continue testing prototype straw tube, fiber and silicon tracking test devices	Sep91	Sep91 Mar91 Successful test of photon yield with 4 meter scintillating fiber	Green

A Complete

**PHYSICS RESEARCH DIVISION  
FY91/92 Deliverables**

<b>WBS</b>	<b>Milestone</b>	<b>Baseline Schedule</b>	<b>Current Projection</b>	<b>Condition Appraisal</b>
5.2	Letters of Intent submitted from the collaborations	Nov90	Nov90 <sup>A</sup>	Green
	PAC recommendations for large, general purpose detectors	Dec90	Dec90 <sup>A</sup>	Green
	Choose two large, general purpose detectors to be supported to full proposals	Jan91	SDC Jan91 <sup>A</sup> GEM Dec (earliest)	Green Red (Could cause delays in defining overall experimental program)
	Begin conceptual design reports for large detectors	Feb91	Feb91 for SDCA GEM Dec (earliest)	Green Red (Same as above)
	Prepare preliminary construction schedules and drawings for detector subsystems	Sep91	Sep91	Green
	Complete conceptual design reports for large detectors which include: A. Establishment of detector hall rqmts. B. Establishment of facility rqmts.	Nov91	Apr92	Red (SDC proceeding; GEM could cause delays in defining overall experimental program)
	Complete PAC reviews for large detectors and associated facilities	Feb92	Jun92	Red (Same as above)
	Start procurement of magnet and steel for large detectors	Mar92	Jun92	Red (Same as above)
	Complete the detailed technical evaluation and review of large detector proposals	Sep92	Sep92	Green

<sup>A</sup> Complete

**PHYSICS RESEARCH DIVISION**  
**FY91/92 Deliverables/Milestones**

WBS	Milestone	Baseline Schedule	Current Projection	Condition Appraisal
5.1	Start Large SSC calorimeter modules	Apr-Sep92	Apr-Sep92	Green
	Start prototype SSC detector tracking devices	Jan-Sep92	Jan-Sep92	Green
	Initiate procurement of tooling for prototype SSC detector construction	Sep92	Sep92	Green
	Develop VLSI circuits for front end electronics with radiation hard design	Mar-Sep92	Mar-Sep92	Green
5.3	Acquire and install 500 MIPS of distributed, UNIX-based computing hardware for detector simulation	Mar91	Mar91 <sup>A</sup>	Green - More than 1000 MIPS on schedule and within budget
	Begin detector physics simulation work at SSCL	Mar91	Mar91 <sup>A</sup>	Green
	Acquire and install up to 4000 MIPS of distributed, UNIX-based computing hardware for detector simulation	Sep92	Sep92	Green
	Establish full physics simulation effort at SSCL	Sep92	Sep92	Green

<sup>A</sup> Complete



DIVISION PROJECT STATUS REPORT				
DESIGN	<input type="checkbox"/>	PRODUCTION	<input type="checkbox"/>	
CONSTRUCTION	<input type="checkbox"/>	RESEARCH & DEVELOPMENT	<input type="checkbox"/>	<b>PART I</b>
<b>1. IDENTIFIERS: 4.4</b>				
1a. PROJECT TITLE/NUMBER DE-AC02-89ER40486 SUPERCONDUCTING SUPER COLLIDER LABORATORY		1b. REPORTING PERIOD July 1991		
1c. MANAGING DIVISION  Laboratory Technical Services		1f. PERFORMING ORGANIZATION(S)  TX- Technical Publications TH- Technical Support Management TJ- Facilities Engineering Services TK- Materiel & Logistics Services TL- Fabrication Shops TM- General Computing TN- Project Design Support TP- Communications TQ- Computer Operations TR- Engineering Standards/Support TS- Metrology & Calibration Labs TT- Protective Services TU- Staff Services TW- Technology Transfer		
1d. DIVISION/OFFICE CONTACT  Jerry Davis (ext. 1788)				
1e. DIVISION MANAGER  E. Jack Story (ext. 5010)				
<b>2. DIVISION MANAGER'S PERSONAL ASSESSMENT:</b>				
2a. Summary Status				
GROUP	TECHNICAL	COST	SCHEDULE	OVERALL
<i>OVERALL DIVISION ASSESSMENT</i>	Green	Green	Green	Green
<i>PREVIOUS DIVISION ASSESSMENT</i>	Green	Green	Green	Green

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## LABORATORY TECHNICAL SERVICES DIVISION

<b>Goal</b>	Provide high quality technical support services, in accordance with the approved FY91 Scope of work, within manpower and budgets.
<b>WBS Elements</b>	<b>Description</b>
4.4	Laboratory Technical Services
<b>Accomplishments</b>	Construction of Phase II, 175 offices, was completed. Laboratory and shops (100,000 square feet) bid documents were completed. Installation of new 10 kva UPS was completed July 16 and connection of the telephone system to UPS is expected August 16.
	Magnet inter-connect components and accelerator prototype spools were fabricated in the Interim Shops facilities.
	The ASST offices at the N-15 site were established.
<b>Issues and Concerns</b>	None.
<b>Corrective Action</b>	None.
<b>Condition</b>	Green
<b>POC</b>	Jerry Davis

**DATE: August 15, 1991**

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DIVISION PROJECT STATUS REPORT				
DESIGN	<input type="checkbox"/>	PRODUCTION	<input type="checkbox"/>	PART I
CONSTRUCTION	<input type="checkbox"/>	RESEARCH & DEVELOPMENT	<input type="checkbox"/>	
1. IDENTIFIERS:				
1a.	PROJECT TITLE/NUMBER (DE-AC02-89ER40486) SUPERCONDUCTING SUPER COLLIDER LABORATORY		1b.	REPORTING PERIOD July 1991
1c.	MANAGING DIVISION  Directorate		1f.	PERFORMING ORGANIZATION(S)  Director's Office External Affairs Legal Counsel User's Office Environment, Safety & Health Planning International Coordination Education
1d.	DIVISION/OFFICE CONTACT  Neil Baggett			
1e.	DIVISION MANAGER  Raphael Kasper			
2. DIVISION MANAGER'S PERSONAL ASSESSMENT:				
2a. Summary Status				
GROUP	TECHNICAL	COST	SCHEDULE	OVERALL
Director's Office	Green	Green	Green	Green
External Affairs	Green	Green	Green	Green
Legal Counsel	Green	Green	Green	Green
User's Office	Green	Green	Green	Green
Environment, Safety & Health	Green	Green	Green	Green
Planning	Green	Green	Green	Green
International Coordination	Green	Green	Green	Green
Education	Green	Green	Green	Green
<i>OVERALL DIVISION ASSESSMENT</i>	Green	Green	Green	Green
<i>PREVIOUS DIVISION ASSESSMENT</i>	Green	Green	Green	Green

**DIRECTORATE DIVISION**

<b>Goal</b>	To oversee and direct Laboratory activities		
<b>WBS Elements</b>	<b>Description</b>	<b>WBS Elements</b>	<b>Description</b>
4.5.6	ES&H	4.5.9	Education Office
4.5.8	International Coordination		
<b>Accomplishments</b>			
4.5.6	<p>Five Earthwatch students spent two weeks in the Office of Environment, Safety and Health (ES&amp;H) learning about monitoring and mitigation of SSC environmental impacts.</p> <p>Conducted meetings to receive input from area city managers, superintendents from affected school districts, and Ellis County officials for monitoring the socioeconomic impacts of the SSC.</p>		
4.5.8	<p>The Office of International Coordination (OIC) is presently working to coordinate the upcoming US-USSR working group and technical group meetings.</p> <p>KEK in Japan requested a delivery schedule of all components in the list presented to the Japanese government by DOE. Discussions are well advanced regarding a possible Israeli in-kind contribution to the SSCL which could amount to \$1M/year.</p> <p>The Laboratory received a letter from the Argentine Atomic Energy Commission indicating their interest in participating in the SSC.</p>		
4.5.9	<p>Education staff met with staff members from Governor Ann Richard's Office and the Texas Education Agency to discuss SSC participation in a state wide computer network called TENET (Texas Education Network).</p> <p>The Texas Higher Education Coordinating Board has awarded a third Carl Perkins grant to the University of Houston (Office of Technology) to facilitate the integration of SSC technology into community colleges within the state.</p> <p>An Adopt-A-Magnet workshop was conducted for elementary teachers in Hammond, Louisiana. Staff assistance funds for development of the Adopt-A-Magnet program have been requested in a proposal to DOE to accelerate and expand the program into fifteen states by the end of March 1992.</p> <p>SSC education staff met with education heads at SLAC and LBL, and toured facilities at the Exploratorium, the Lawrence Hall of Science, and Technology 2000.</p>		
<b>Issues and Concerns</b>	None.		
<b>Corrective Action</b>	None.		
<b>Condition</b>	Green		
<b>POC</b>	Raphael Kasper		<b>DATE</b> August 15, 91

