

GNIRS MONTHLY REPORT

August 99 to May 00

Project Title: Gemini Near InfraRed Spectrograph (GNIRS)

WBS: 5.1

Project Description: 1-5 um Spectrograph with multiple filters, slits, Deckers, prisms, gratings and cameras.

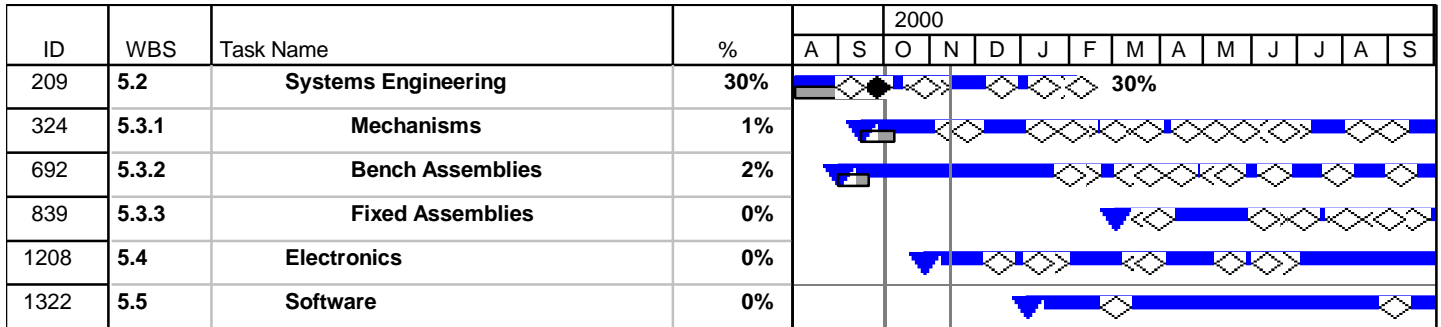
WPM: N. Gaughan

	Original Budget	Actual Spent Cum	Est. To Go	Est. Project Total
Labor Cost	\$3,391,232	\$598,712	\$2,792,520	\$3,391,232
Capital	\$836,462	\$109,921	\$726,541	\$836,462

Key Personnel		
Title	Name	% Dedicated
PM	Gaughan	100
PS	Elias	100
ME	Goble	100
ME	Muller	100
EE	Rudeen	100
MD	Andrew	100

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Labor Costs (\$K)										
Planned Labor	\$53,542	\$94,126	\$98,952	\$75,981	\$55,385	\$106,421	\$94,730	\$129,787	\$114,861	\$123,511
Actual Labor	\$34,302	\$50,463	\$156,596							
Cum Over/Under	\$19,240	\$43,663	\$5,259							
FTE Loading (FTE)										
Planned	12	15	14	13	13	14	16	19	20	19
Actual	5.6	8.3	25.8							
Capital (\$K)										
Planned Capital	\$0	\$34,100	\$6,250	\$9,810	\$8,780	\$19,450	\$1,500	\$8,851	\$8,1330	\$53,940
Actual Capital	\$12,798	\$1,608	\$18,245							

Key Milestones		
Activity	Date	Status
Project Start	1/1/1999	C
Pre-Fab Review	2/15/2000	



% Complete: 5%
Total Milestones: 192
Completed Milestones: 1
Key Milestone: Pre-Fabrication Review

BCWS	373,872	SPI	0.65
BCWP	244,671	CPI	1.13
ACWP	216,208		

Scope Changes:

- There are no new technical scope changes.

Pending Issues & Resolutions:

- The optical bench designs are not firm, and are behind schedule. We are working to resolve this.
- Bench-to-Mechanism interfaces is in the process of being documented in an internal SDN.
- Prototype testing of the linear and rotary drives will begin near the end of this month. The drive prototypes and the mirror prototype are currently in detail design with some parts in fabrication.
- The software plan was submitted to Gemini on November 3, and has been approved.
- All Restart Review items have been closed out, and an invoice for 746K has been submitted to Gemini.

Project Manager's Assessment of Project Health:

- We are behind schedule, primarily in Bench Design. The bench designs and the analyses should be completed to a preliminary level by December 15. Work in Systems Engineering (prototyping) is proceeding as planned, although this work is slightly behind schedule.

GNIRS MONTHLY REPORT

August 99 to May 00

Project Title: GNIRS Systems Engineering

WBS: 5.2

Project Description: Includes analyses, prototyping, and optical design updates.

WPM: J. Elias

	Original Budget	Actual Spent Cum	Est. To Go	Est. Project Total
Labor Cost	\$166,174	\$77,246	\$88,928	\$166,174
Capital	\$16,910	\$5,603	\$11,307	\$16,910

Key Personnel		
Title	Name	% Dedicated
PS	Elias	100
ME	Goble	100
ME	Muller	100
OE	Liang	10
IM	Rath	100

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Labor Costs (\$K)										
Planned Labor	\$ 12,882	\$49,723	\$36,877	\$20,824	\$ 13,982	\$26,756	\$5,130	\$0	\$0	\$0
Actual Labor	\$5,352	\$22,723	\$49,171							
Cum Over/Under	\$7,530	\$27,000	\$22,236							
FTE Loading (FTE)										
Planned	2	8	6	3	2	2	1	0	0	0
Actual	0.9	3.7	8.1							
Capital (\$K)										
Planned Capital	\$0	\$3,100	\$5,000	\$8,810	\$0	\$0	\$0	\$0	\$0	\$0
Actual Capital	\$525	\$2,178	\$2,900							

Key Milestones		
Activity	Date	Status
Analysis		
Cold Motor T&E		
Prototyping		
Optics Update		

ID	WBS	Task Name	%	2000												
				A	S	O	N	D	J	F	M	A	M	J	J	A
210	5.2.1	Thermal analysis	15%													
225	5.2.2	Structural Analysis	5%													
238	5.2.3	Update Optics Design	0%													
243	5.2.5	Mechanism Test Set	64%													
248	5.2.6	Cold Motor Testing & Evaluatic	85%													
258	5.2.7.2	Rotary Prototype Mechanism	37%													
285	5.2.7.3	Linear Prototype Mechanism	19%													
312	5.2.7.4	Prototype Optics Mounts	32%													

% Complete: 30%
Total Milestones: 10
Completed Milestones: 1

Scope Changes:

- None.

Pending Issues & Resolutions:

- The structural analysis is behind schedule, but is being addressed with high priority.
- The thermal analysis is also behind schedule but is not pacing the project effort. It will be done by Jay.
- A cold motor test report is in process.
- Parts of the three prototypes are in fabrication. Testing should start this month.

Project Manager's Assessment of Work Package Health:

- The structural analysis is a pacing item, but is being addressed. It should be completed by mid-December. All other components of this work package are under control and on an acceptable schedule.

GNIRS MONTHLY REPORT

August 99 to May 00

Project Title: GNIRS Bench Assemblies

WBS: 5.3.2

Project Description: Design and fabrication of the four cold bench assemblies used in GNIRS.

WPM: L. Goble

	Original Budget	Actual Spent Cum	Est. To Go	Est. Project Total
Labor Cost	\$194,142	\$8,691	\$185,451	\$194,142
Capital	\$101,069	\$565	\$100,504	\$101,069

Key Personnel		
Title	Name	% Dedicated
ME	Goble	100
MD	Andrew	100
MT	Davis	100

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Labor Costs (\$K)										
Planned Labor	\$12.16	\$12,768	\$12,312	\$2,204	\$0	\$228	\$14,478	\$12,008	\$17,708	\$13,566
Actual Labor	\$0	\$1,666	\$7,025							
Cum Over/Under	\$12.16	\$11,102	\$17,605							
FTE Loading (FTE)										
Planned	0	2	2	1	2	2	2	2	3	2
Actual	0.0	0.3	1.2							
Capital (\$K)										
Planned Capital	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,000	\$0
Actual Capital	\$0	\$282	\$283							

Key Milestones		
Activity	Date	Status

ID	WBS	Task Name	%	2000											
				A	S	O	N	D	J	F	M	A	M	J	J
693	5.3.2.1	Spectrograph Bench Castings	6%												
721	5.3.2.2	OIWFS Assembly	3%												
750	5.3.2.3	Collimator Assembly	0%												
789	5.3.2.4	Fore Optics Assembly	0%												

% Complete: 2%
Total Milestones: 23
Completed Milestones: 0

Scope Changes:

- None.

Pending Issues & Resolutions:

- This effort is on the project critical path, and is behind schedule. Preliminary bench designs are the minimum needed to proceed past the Pre-Fabrication Review with other parts of the system.

Project Manager's Assessment of Work Package Health:

- There is a medium-level risk that the preliminary designs of the benches will not be completed by the February scheduled Pre-Fabrication Review. Additional mechanical engineering resources may be needed.

GNIRS MONTHLY REPORT

August 99 to May 00

Project Title: GNIRS Fixed Assemblies

WBS: 5.3.3

Project Description: All assemblies with no moving parts except the optical benches.

WPM: G. Muller

	Original Budget	Actual Spent Cum	Est. To Go	Est. Project Total
Labor Cost	\$353,533	\$553	\$352,980	\$353,533
Capital	\$188,986	\$18	\$188,968	\$188,986

Key Personnel		
Title	Name	% Dedicated
ME	Muller/Goble	100
MD	Andrew	100
MD	Rosin	100
MD	Downey	100
MD	Robles	100
MT	Davis	100

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Labor Costs (\$K)										
Planned Labor	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,044	\$4,636	\$6,612
Actual Labor	\$0	\$358	\$195							
Cum Over/Under	\$0	-\$358	-\$553							
FTE Loading (FTE)										
Planned	0	0	0	0	0	0	0	1	1	1
Actual	0.0	0.1	0.0							
Capital (\$K)										
Planned Capital	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$640
Actual Capital	\$0	\$0	\$18							

Key Milestones		
Activity	Date	Status

ID	WBS	Task Name	%	2000															
				A	S	O	N	D	J	F	M	A	M	J	J	A	S		
840	5.3.3.1	Entrance Window Assembly	0%																
856	5.3.3.2	Detector Mount Assembly	0%																
876	5.3.3.3	Cryo Cooler Assembly	0%																
982	5.3.3.8	Environmental Cover Filter	0%																
1000	5.3.3.9	Bulkhead Assembly	0%																
1027	5.3.3.1i	Front Radiation Shield Assembly	0%																
1048	5.3.3.1i	Rear Radiation Shield Assembly	0%																
1066	5.3.3.1i	Front Dewar Shell	0%																
1089	5.3.3.1i	Rear Dewar Shell	0%																
1111	5.3.3.1i	Vertical Installation Frame Assembly	0%																
1134	5.3.3.1i	Horizontal Installation Frame Assembly	0%																
1157	5.3.3.1i	Dewar Mount Truss Assembly	0%																
1179	5.3.3.1i	Thermal Enclosure Mount Assembly	0%																

% Complete: 0%
Total Milestones: 67
Completed Milestones: 0

Scope Changes:

- None.

Pending Issues & Resolutions:

- None.

Project Manager's Assessment of Work Package Health:

- None.

GNIRS MONTHLY REPORT

August 99 to May 00

Project Title: GNIRS Software

WBS: 5.5

Project Description: Design, code and test of the GNIRS Engineering and System software.

WPM: R. Wolff

	Original Budget	Actual Spent Cum	Est. To Go	Est. Project Total
Labor Cost	\$156,256	\$0	\$156,256	\$156,256
Capital	\$0	\$0	\$0	\$0

Key Personnel		
Title	Name	% Dedicated
PS	Elias	10
P1	TBD	100
P2	TBD	100

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Labor Costs (\$K)										
Planned Labor	\$0	\$0	\$0	\$0	\$0	\$6,080	\$0	\$7,600	\$10,032	\$13,376
Actual Labor	\$0	\$0	\$0							
Cum Over/Under	\$0	\$0	\$0							
FTE Loading (FTE)										
Planned	0	0	0	0	0	1	1	1	1	1
Actual	0.0	0.0	0.0							
Capital (\$K)										
Planned Capital	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Actual Capital	\$0	\$0	\$0							

Key Milestones		
Activity	Date	Status
SW Plan	11/1/1999	
Eng SW Req	2/1/2000	
Sys SW Req	4/1/2000	

ID	WBS	Task Name	%	2000															
				A	S	O	N	D	J	F	M	A	M	J	J	A	S		
1323	5.5.1	Software Plan	0%																
1328	5.5.2	Engineering Software	0%																
1334	5.5.3	System Software	0%																

% Complete: 0%
Total Milestones: 10
Completed Milestones: 0

Scope Changes:

- None.

Pending Issues & Resolutions:

- The software plan was submitted to Gemini on November 3, and has been approved.

Project Manager's Assessment of Work Package Health:

- Full time effort on this work package is planned to begin in January.