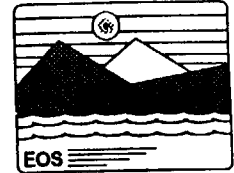


EOSDIS



MODIS SCIENCE TEAM MEETING

EOSDIS MILESTONE SCHEDULE

OCTOBER 1, 1991

**RICH BREDESON
GROUND SYSTEM AND OPERATIONS PROJECT
SCIENCE SOFTWARE MANAGER**

MODIS Science Team Meeting, Oct. 1 - 3, 1991. Attachment I

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AGENDA

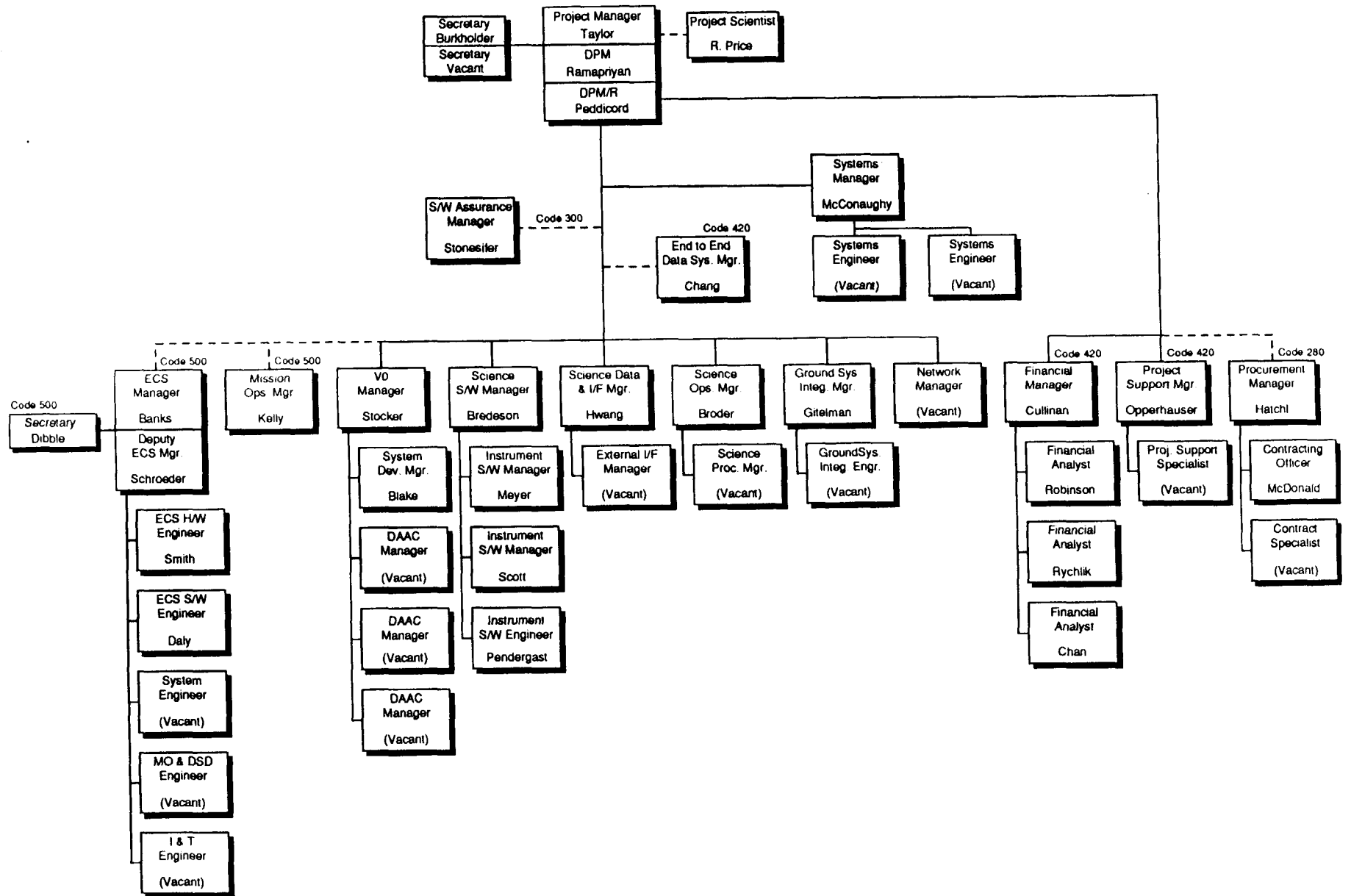


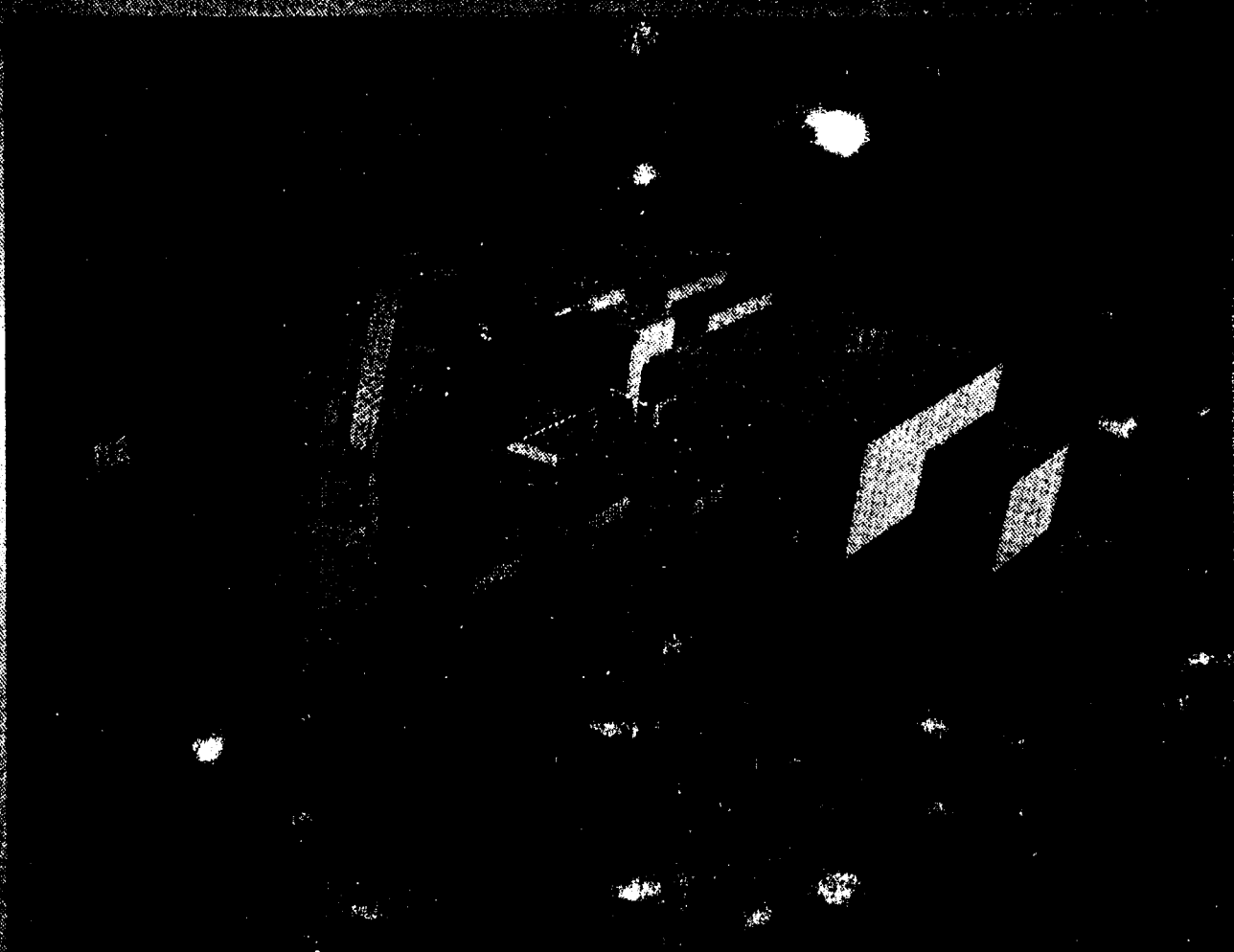
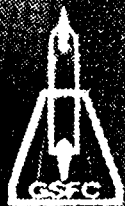
**INTRODUCTION TO THE GODDARD EOS GROUND SYSTEM
AND OPERATIONS PROJECT ORGANIZATION AND
SCHEDULE**

**SCIENCE SOFTWARE MANAGEMENT SCHEDULE AND
APPROACH**

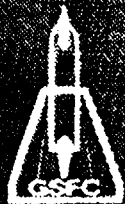
Tom Taylor's org

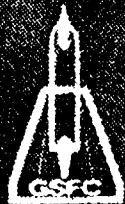
EOS Ground System & Operations Project - Code 423

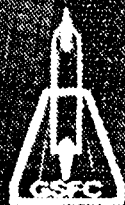


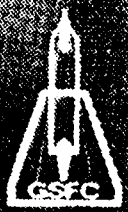


USA

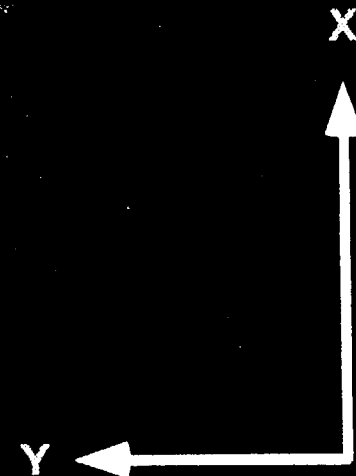
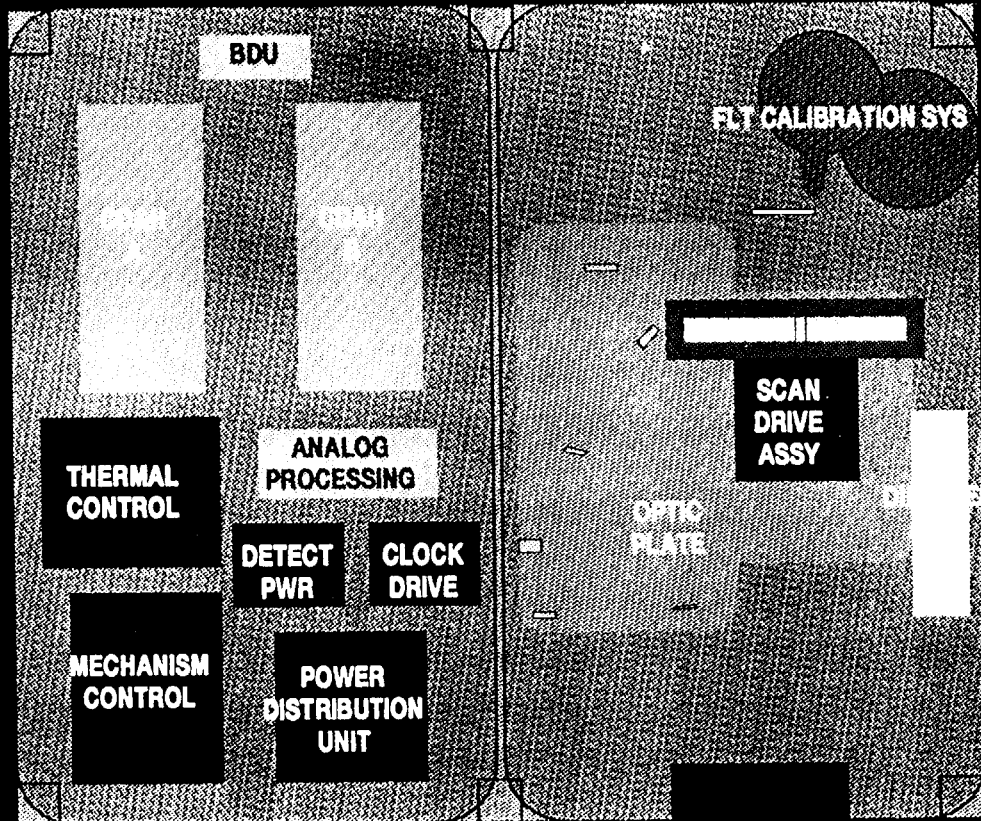








SYSTEMS ENGINEERING LAYOUT on PAYLOAD PLATE

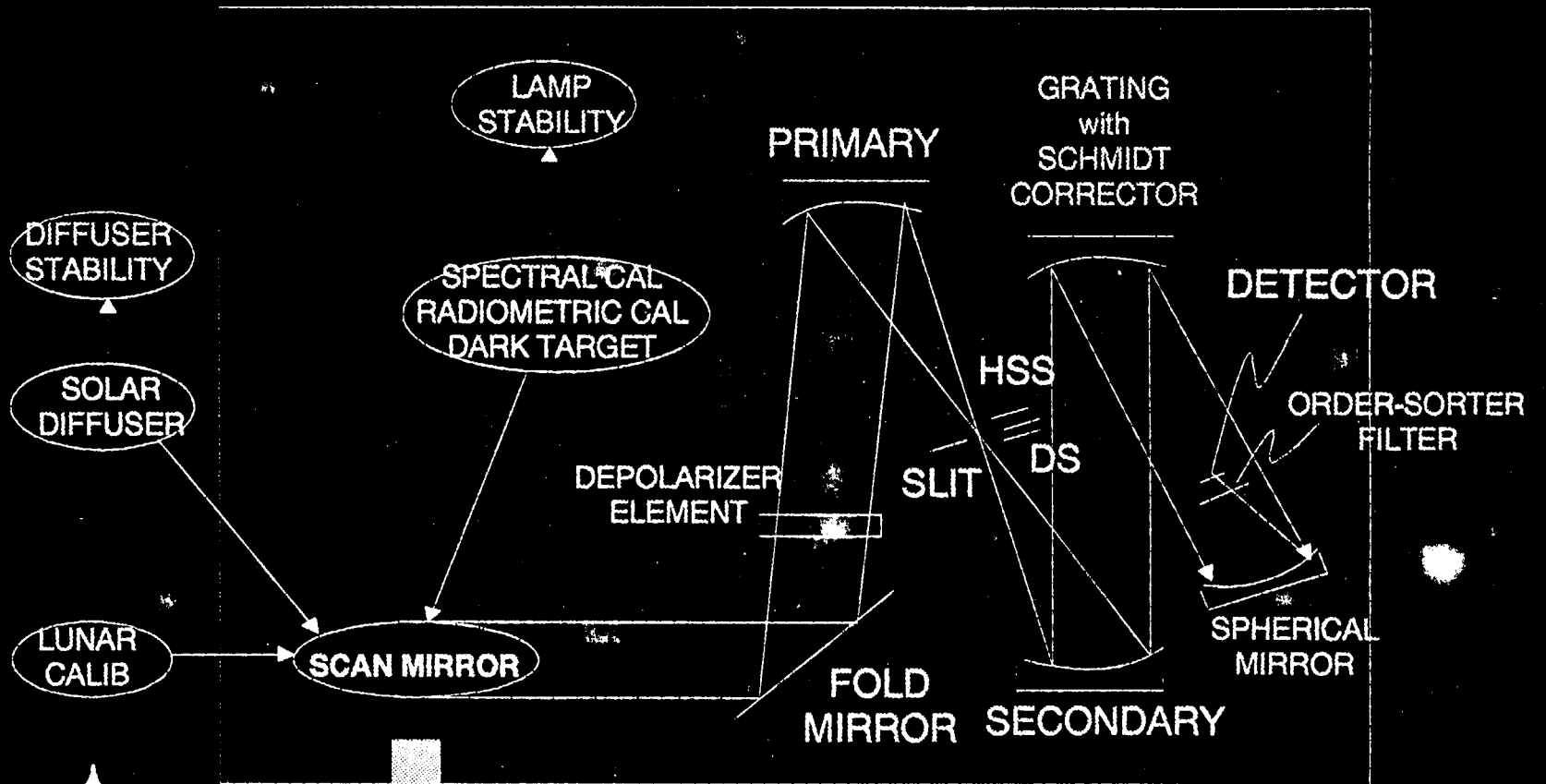


9/29/91

S-9

SYSTEMS ENGINEERING

OPTICAL PATH from scan mirror



EARTH
SCAN

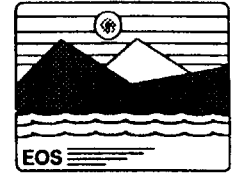


HSS - High Speed Shutter
DS - Dark Shutter

WRS - 9A

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KEY FUNCTIONAL OBJECTIVES

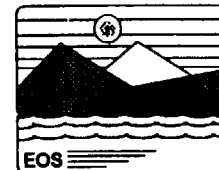


- **Operate EOS Observatories**
- **Support Algorithm Development**
- **Assure Prompt Generation of Standard Products**
- **Archive and Distribute 15 Years of Data and Scientific Reports**
- **Provide Research Scientists Information about, and Prompt Access to, EOSDIS Data Products**
- **Exchange Data, Commands, Algorithms, etc. with External Agencies, including International Partners**

GODDARD SPACE FLIGHT CENTER APPROVAL J. MADDEN ACCOMP. T. TAYLOR		EOS GROUND SYSTEM & OPERATIONS Page 1 of 1												ORIG. APPUL. 07/16/90 LAST CHANGE 03/25/91 STATUS AS OF 09/27/91																															
MILESTONES		90				91				92				93				94				95				96				97				98				99							
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
01	EXTERNAL MILESTONES					▽	▽			PRR								▽				BLCG READY																				LAUNCH EOS-A	▽		
02																																													
03	EOSDIS CORE SYSTEM:																																												
04	PROCUREMENT					RFI	RFP							AWARD																															
05						▽	▽																																						
06	REVIEWS																	SRR	PDR																										
07																																													
08	SYSTEM RELEASES																																												
09																																													
10	INTERFACE AGREEMENTS/MOU's					JPL																																							
11																																													
12	OPERATIONS																																												
13																																													
14	INTER-DAAC COMMUNICATIONS																																												
15																																													
16	VERSION-0 IMPLEMENTATION																																												
17																																													
18	SCIENCE SOFTWARE																																												
19																																													
20	INDEP/VERIF/&/VALIDATION																																												
Note: --- Denotes Slack																																													

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EOSDIS CORE SYSTEM (ECS)



•Status

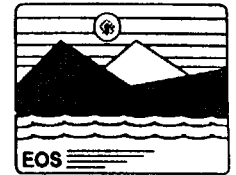
- Phase A and B studies complete
- RFP released July 1, 1991
- Proposals in evaluation

•One systems contract to develop three segments

- Flight Ops Segment
 - ICF and EOC
- Science Data Processing Segment
 - DADS, PGS, IMS
- System Management and Communications Segment
 - SMC and Network Management

•Core hardware and software plus operations at each DAAC

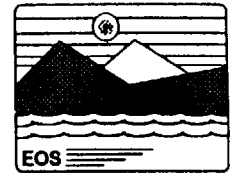
•Software tools for SCFs



- **Improve Access to Existing Data**
- **Guarantee Connectivity Among DAACs**
- **Develop Interoperability Among Existing Systems**
- **Establish Inter-DAAC Working Relationships**
- **Link to Pathfinder Datasets Managed by Headquarters**

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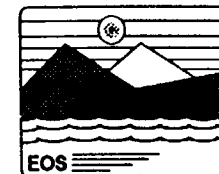
SCIENCE SOFTWARE CONTEXT



- **ESTABLISHING CONTRACT VEHICLES WITH THE SCIENCE INVESTIGATOR TEAMS FOR THE PURCHASE OF SCIENCE COMPUTING FACILITIES AND THE DEVELOPMENT OF SCIENCE SOFTWARE**
- **PLANNING THE PROCESS BY WHICH SCIENCE SOFTWARE DEVELOPMENT AND INTEGRATION WILL BE MANAGED**

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SCIENCE SOFTWARE SCHEDULE

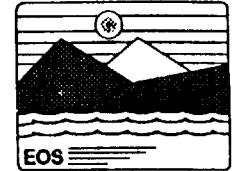


Activities	1991				1992				1993				1994				1995				1996				1997				1998			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
INVESTIGATOR MEETINGS																																
Budgets, needs, s/w issues	■	■	■		▨	▨	▨																									
Establish Science "contracts"	■	■	■	▨	▨	▨	▨	▨																								
INTERFACE STUDY																																
Interview Team Leaders/PIs		■	▨																													
Compile/analyze needs		■	▨																													
Review/revise study results					▨	▨	▨	▨																								
SOFTWARE MANAGEMENT																																
Develop Unix Lab environmt.	■	■	■	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨		
Develop software guidance	■	■	■	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨		
INTERFACE IMPLEMENTATION																																
Review study with ECS Contr.												◇																				
Review tool specification dev.													◇			◇																
SCIENCE S/W DEVELOPMENT																																
Develop s/w for Version 1					▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨		
Review progress												◇			◇			◇			◇			◇								
Deliver V. 1 science s/w																							◇									
Deliver V. 2 science s/w																																
Deliver V. 3 science s/w																																
LAUNCH																																

Full system development begins when tools are defined.

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SCIENCE, ALGORITHM, AND SCF SOW SUMMARY



DELIVERABLES:

- 1. Software and Data Management Plan**
- 2. Science Computing Facility Plan**
- 3. Calibration Plan**
- 4. Software end-items, including programs, test data, users guide, operations guide, and version description.**

MEETING SUPPORT:

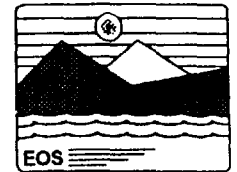
- 1. IWG meetings**
- 2. As-needed EOS project-wide meetings**
- 3. Annual software development status review meetings**
- 4. Internal investigation team meetings.**

REPORTS

- 1. Quarterly Investigation Status and Technical Report & monthly exception reports**
- 2. Quarterly Financial Report <\$500k/year; monthly>\$500k/year**

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SOFTWARE MANAGEMENT ACTIVITIES



SCIENCE SOFTWARE-TO-EOSDIS INTERFACE STUDY (DEFINING THE CONTENT OF THE PGS TOOLKIT):

- **SCHEDULING**
- **FILE ACCESS AND DATA I/O**
- **ERROR HANDLING**
- **MATH AND STATS LIBRARIES**
- **BIT MANIPULATION**
- **MEMORY MANAGEMENT**
- **IMAGE PROCESSING**
- **VECTOR/PARALLEL PROCESSING**

PROTOTYPING SCIENCE COMPUTING FACILITIES:

- **"UNIX LAB"**
- **TOOLKIT PROTOTYPES**

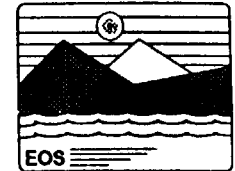
"STANDARDS AND GUIDELINES" DEVELOPMENT:

"EOS SCIENCE SOFTWARE DEVELOPER'S HANDBOOK"

**DEVELOPING A NOTEBOOK OF PAPERS GERMANE TO THE
SPECIAL NATURE OF SCIENCE SOFTWARE DEVELOPMENT
FOR EOSDIS**

EOSDIS

UPCOMING EVENTS



**GSOP NEWSLETTER PUBLICATION:
October 1991**

**DATA PROCESSING WORKING GROUP FORMATION:
First meeting in January/February 1992**

**INTERFACE STUDY:
First draft circulated in early 1992**

**HANDBOOK PUBLICATION:
First increment of papers published and available at the
DPWG meeting**