

# **MODIS**

## **SCIENCE DATA SUPPORT TEAM**

### **PRESENTATION**

**July 17, 1992**

## **AGENDA**

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**ACTION ITEMS:**

**06/05/92 [Lloyd Carpenter] Update the Team Leader's Software and Data Management Plan.** (An updated version was included in the handout and discussed at the meeting on 06/12/92.)  
**STATUS: Open. Due Date: 07/10/92**

**06/05/92 [Lloyd Carpenter] Update the Team Leader's Science Computing Facility Plan.** (An updated version will be discussed at the meeting, 06/26/92.)  
**STATUS: Open. Due Date: 07/10/92**

**04/24/92 [J. J. Pan] Develop a detailed schedule for a typical algorithm integration into the Level-2 processing shell.** (A detailed task list and schedule are included in the handout.)  
**STATUS: Open. Due Date: 06/05/92**

**04/24/92 [Lloyd Carpenter & Team] Develop a staffing plan for the accomplishment of the tasks shown on the schedule.** **STATUS: Open. Due Date: 06/12/92**

**06/12/92 [Tom Goff] Develop separate detailed schedules using Microsoft Project for Level-1A and -1B software design and development.** (Preliminary results were included in the handout and presented at the meeting on 06/19/92.)  
**STATUS: Open. Due Date: 07/10/92**

**04/24/92 [Lloyd Carpenter] Develop a system for collecting time management data for the SDST effort.** (An updated system is included in the handout.)  
**STATUS: Open. Due Date: 06/26/92**

# **MODIS Airborne Simulator (MAS) Status**

*Liam E. Gumley*

*Progress up to 17 July 1992*

## *(1) Delivery of MAS ASTEX data from Ames*

I spoke to Mike Fitzgerald at Ames regarding the delivery of MAS ASTEX data to GSFC. I requested that the copies of the MAS flight tapes be delivered in Exabyte 8500 format. I also requested that the flight data summaries be supplied. Mike expects delivery to start in the next week.

## *(2) MAS Exabyte format data decode routine*

The subroutine to convert MAS Exabyte format data to MAS Intermediate format data was ported to the Iris. This will allow conversion of the new data format to the old data format, thus requiring minimal changes in the data processing software. Porting of the driver for this routine (HDDT2MAS) required the writing of some new FORTRAN callable C routines for opening, reading, and writing files. This was necessary because of restrictions in FORTRAN when reading binary data files where the record lengths are not multiples of 4 bytes. The C language has no concept of record lengths, and allows the reading and writing of byte streams fairly easily.

## *(3) MAS Exabyte navigation data format decode routine*

A subroutine was developed which decodes the INS data recorded on every MAS scan line. The routine unpacks the data, converts it to SI units, and stores it in the COMMON block used for the old INS data format. Thus minimal redesign of existing software is required to ingest the new INS data format.

## *(4) MAS Exabyte tape to disk copy/conversion program*

A set of FORTRAN callable C routines was obtained from Code 912 which allow the Exabyte drive on LTPINDIGO to be accessed from within a FORTRAN program. A program is being developed which will read data from the Exabyte tape, convert to Intermediate format, and write to disk. This program will also extract the INS data and write it to a separate file on disk.

## *(5) MAS processing software development*

It is currently planned to process the MAS ASTEX data with almost identical software to the current software. The only changes required are to the navigation data ingest programs. The navigation programs will be modified to ingest the INS data stored in a file by the tape read program. The same process of computing linear regressions for INS data during straight line flight tracks is required because the INS data is updated only once a second, compared with the MAS scan rate of 6.25 scans/second.

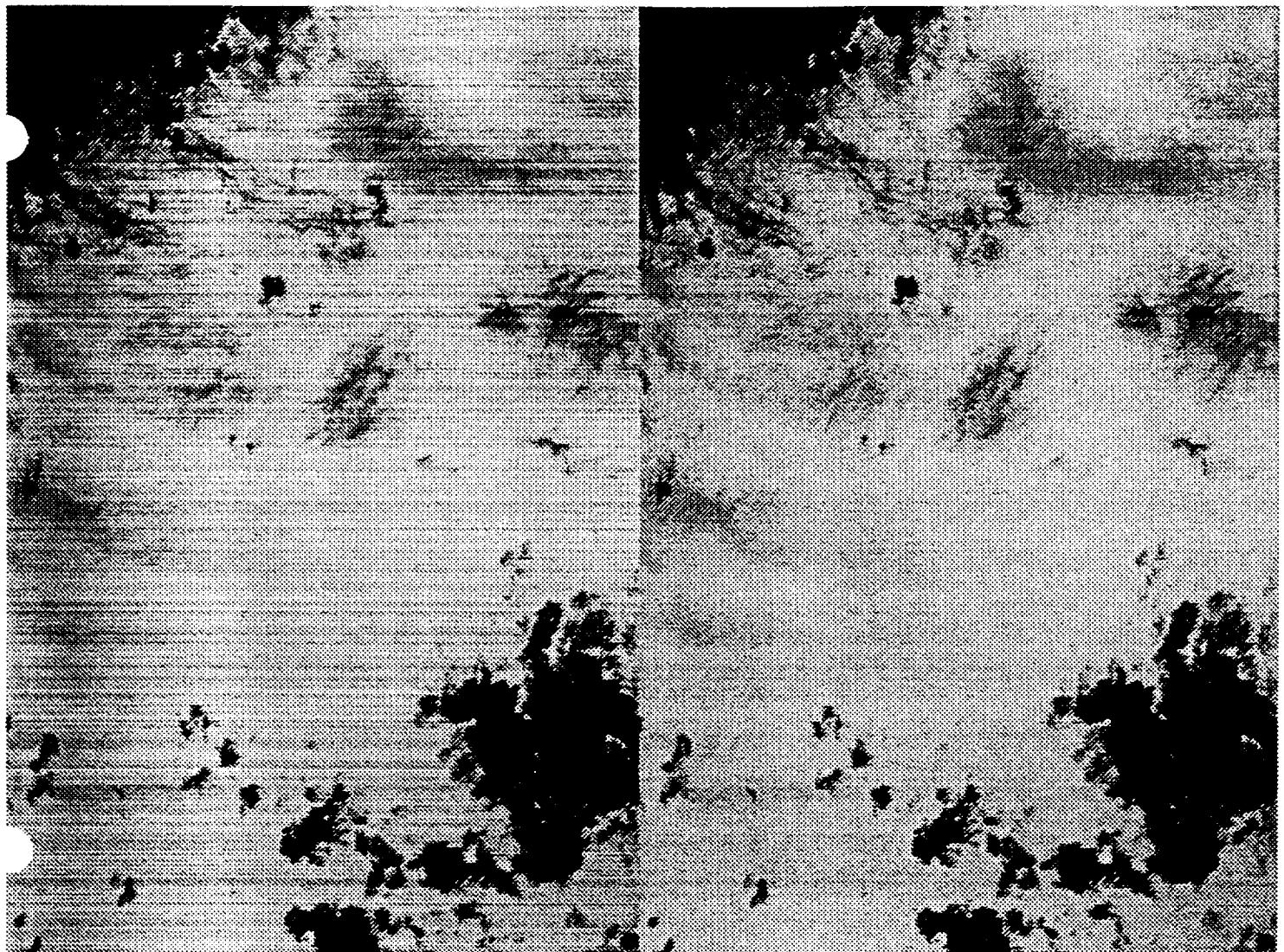
*(6) Copying of MAS FIRE 9-track tapes to Exabyte*

In order to enable all MAS processing to take place on the LTPINDIGO, I asked Brenda Colesanti to try copying a set of MAS FIRE 9-track tapes to Exabyte 8500 format on the LTP VAXcluster. 3 9-track tapes from 14-NOV-1991 were used for this purpose. I was able to read the Exabyte 8500 tape on LTPINDIGO with no problems. However the 8500 drive on the VAXcluster is heavily utilized by another project, so the copies can be made on one of the 8200 drives. I have already verified that 8200 tape copies created on the VAX can be read on the Indigo. Therefore next week I will ask Brenda to begin copying all of the MAS FIRE tapes to Exabyte. This should greatly simplify the task of processing the data on LTPINDIGO.

*(7) MAS processing status*

I called Pershing Anderson (STX) who was going to be assigned to the MAS processing task by Sol Broder. My call was returned by Tim Johnson, who said he would need to talk to Sol about what his plans were for supporting MAS processing. I am still waiting to hear from Tim regarding the outcome of these discussions.

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Original Image  
(400 x 320)

Filtered Image  
(400 x 320)

MODIS Airborne Simulator (MAS) Image, Channel 10

\*\* An adaptive filter is implemented to 'cosmetically' reduce the striping noise.

# DRAFT

## The Log of the MODIS Level-2 Processing Shell Design

J. J. Pan  
Research and Data Systems Corp.  
(301) 982-3700

Date: June 26 - July 16, 1992

### 1. Algorithm Integration Schedule:

A detailed schedule for a typical algorithm integration into the level-2 processing shell is updated. Basically there are five major tasks in this schedule:

- (1) Overview of the PGS toolkit
- (2) Overview of the Level-1B data
- (3) Integration of a typical algorithm
- (4) End-to-End test
- (5) Review and completion of the integration

The starting date of the typical algorithm integration is, tentatively , April 1,1993.  
The duration of the schedule also includes all holidays and vacation.

### 2. ALGOCHK (Algorithms Checker) Program

The ALGOCHK, a FORTRAN program used to check the algorithms discrepancies and dependencies, is updated. Currently the program can generate three output files:

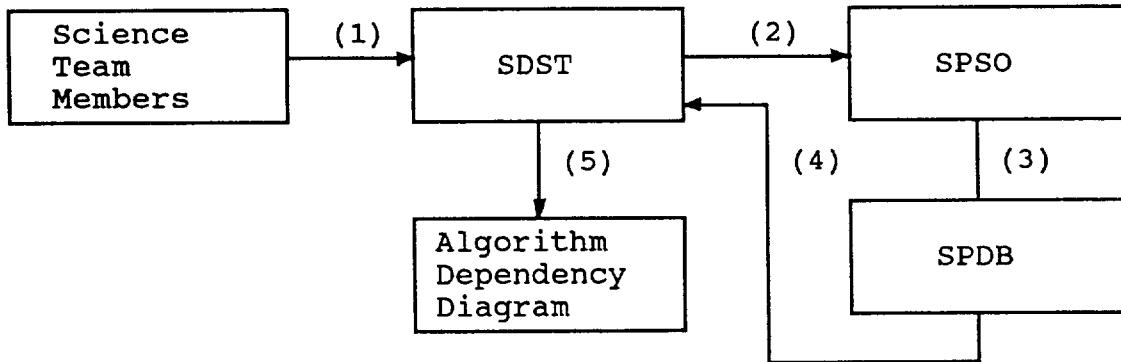
- (1) Input/Output data of each algorithm,
- (2) Algorithm dependencies and discrepancies, and
- (3) Input data usage (i.e., the data required by more than one algorithm).

The time frame of input data is NOT checked yet (Please see next section SPDB Interface). The data used for Before Launch (BL) will not be considered in the ALGOCHK. A draft of the diagram which indicates the data flow and algorithms dependencies is also updated on Macintosh. I am still checking the accuracy of this diagram.

### 3. SPDB Interface

We recommend an interface with the SPDB and expect that all input information can be transferred automatically from the Science Processing Database (SPDB).

# DRAFT



- (1) The SDST interacts regularly with the MODIS Science Team to maintain current knowledge of each MODIS standard product algorithm, and its data requirements.
- (2) The SDST provides updated information to the SPSO.
- (3) The SPSO maintains the SPDB in a current state.
- (4) The SDST logs on to the SPDB to retrieve specific algorithm attributes and dependencies.
- (5) The SDST runs ALGOCHK to generate a data dependency diagram for MODIS (AM and PM platforms).

I have talked to Dr. Krupp (SPSO) about how to set several batch jobs for information retrieval from the updated algorithms. Currently I listed the following tables which are required for MODIS Level-2 processing shell design and development:

- (1) Data products (output) and their attributes from level-2 processing
  - (a) Sorted by the investigator's name
  - (b) Sorted by the product number
- (2) Input data and their attributes from all instruments
  - (a) The time frame will be used to update the algorithm diagram
  - (b) Sorted by the data number
- (3) Algorithm reports
  - This report will include a detailed description of each algorithm and a list of algorithm ID, name, and investigator's name, but sorted by ID, name, and investigator's name, respectively.
- (4) Input file for ALGOCHK program
  - This file will include the algorithm ID, input data and output products number.

## DRAFT

Basically, (1) and (3) have been done without problems. Dr. Krupp needs some time to prepare (2) and (4). So far, there is no straight way to get (4). He will probably download data from FOX database to EXCEL, then I will write a program to read the data from EXCEL (on Macintosh) and reformat it.

### 4. Shell Development

I will start to simulate some C/FORTRAN interfaces and to develop a baseline for the shell development, in particular, with emphasis on the "common" data manipulation, data type declaration, arguments passing, array handling, and compiling/linking problems. Liam Gumley and Shahin Samadi have provided some information on mixed-language programming to me.

# Comments on the Proposed MODIS Telemetry List - Preliminary -

Thomas E. Goff  
NASA/GSFC/MODIS/SDST/RDC

Reference: Santa Barbara Research Center, Internal Memorandum PL3095-T00766

I agree that a separate APID (application process idendification) should be used for packets that are to be directed to differing combinations of packet receivers.

**Reordering of telemetry bits for word alignment.** I would like to recommend that the bits numbered 112 through 143 be reordered in such a manner that the fields representing the frame count and scan (with mirror side) count be aligned into the least significant bits of 16 bit computer words. An example ordering might be as follows: quick look, pkt type (packet type), source identification, spare, fpe configuration (focal plane electronics), scan count, mir side (mirror side). This would present fewer possible errors in computer coding and fewer machine instructions required to decode the scan and frame counters in the ground processing system. In addition, bit 1 of the source identification field would be adjacent to the pkt type (packet type) field allowing these 4 bits to be used in combination to determine the type of the current packet from among the five differing packet types.

Some thought might be given to using a spare bit in the sign position of a 16-bit word as an 'abnormal condition' bit. This bit would be enabled if any of the status bits is abnormal.

**Detector offset precision.** I would expect the precision of the detector offsets and gains to equal the 12-bit precision of the science data.

**Clarifications and explanations.** Here are some items in the referenced document that I could not understand and would like to find explanations for:

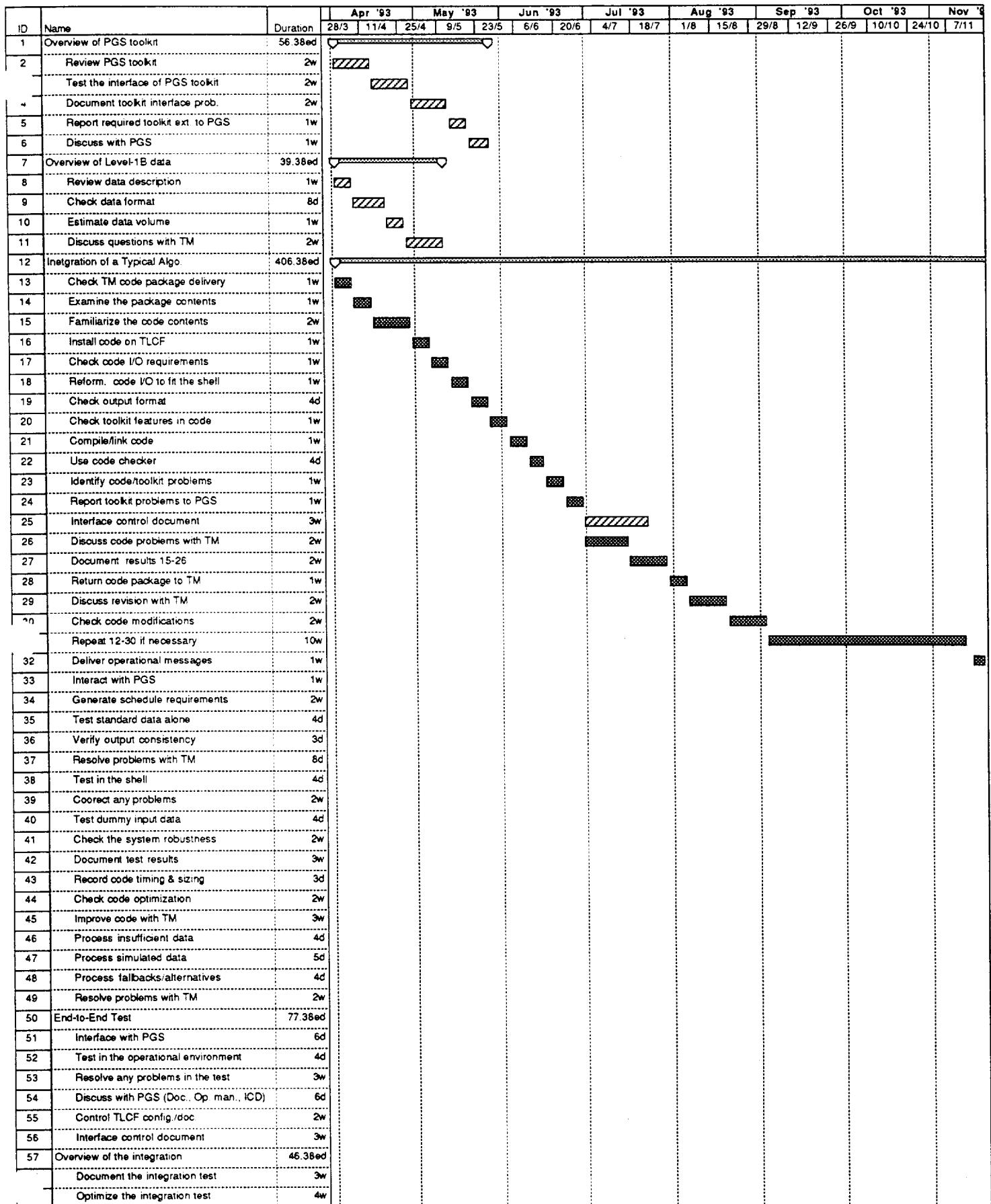
Encoder\*32, in Table V. How does the encoder operate and with what precision? What are the 78 items?

Table VII. Taking into account the dual gain bands and the higher spatial resolution bands, I do not arrive at the 430 value for the number of detectors. See also the comment about precision given above.

Schedule for A Typical Algorithm Integration into the Level-2 Processing Shell (DRAFT)

ID	Name	Duration	Scheduled Start	Scheduled Finish	Predecessors
1	Overview of PGS toolkit	56.38ed	Thu 1 Apr, '93	Thu 27 May, '93	
2	Review PGS toolkit	2w	Thu 1 Apr, '93	Wed 14 Apr, '93	
3	Test the interface of PGS toolkit	2w	Thu 15 Apr, '93	Wed 28 Apr, '93	2
4	Document toolkit interface prob.	2w	Thu 29 Apr, '93	Wed 12 May, '93	3
5	Report required toolkit ext. to PGS	1w	Thu 13 May, '93	Wed 19 May, '93	4
6	Discuss with PGS	1w	Thu 20 May, '93	Thu 27 May, '93	5
7	Overview of Level-1B data	39.38ed	Thu 1 Apr, '93	Mon 10 May, '93	
8	Review data description	1w	Thu 1 Apr, '93	Wed 7 Apr, '93	
9	Check data format	8d	Thu 8 Apr, '93	Mon 19 Apr, '93	8
10	Estimate data volume	1w	Tue 20 Apr, '93	Mon 26 Apr, '93	9
11	Discuss questions with TM	2w	Tue 27 Apr, '93	Mon 10 May, '93	10
12	Integration of a Typical Algo.	406.38ed	Thu 1 Apr, '93	Thu 12 May, '94	
13	Check TM code package delivery	1w	Thu 1 Apr, '93	Wed 7 Apr, '93	
14	Examine the package contents	1w	Thu 8 Apr, '93	Wed 14 Apr, '93	13
15	Familiarize the code contents	2w	Thu 15 Apr, '93	Wed 28 Apr, '93	14
16	Install code on TLCF	1w	Thu 29 Apr, '93	Wed 5 May, '93	15
17	Check code I/O requirements	1w	Thu 6 May, '93	Wed 12 May, '93	16
18	Reform, code I/O to fit the shell	1w	Thu 13 May, '93	Wed 19 May, '93	17
19	Check output format	4d	Thu 20 May, '93	Wed 26 May, '93	18
20	Check toolkit features in code	1w	Thu 27 May, '93	Wed 2 Jun, '93	19
21	Compile/link code	1w	Thu 3 Jun, '93	Wed 9 Jun, '93	20
22	Use code checker	4d	Thu 10 Jun, '93	Tue 15 Jun, '93	21
23	Identify code/toolkit problems	1w	Wed 16 Jun, '93	Tue 22 Jun, '93	22
24	Report toolkit problems to PGS	1w	Wed 23 Jun, '93	Tue 29 Jun, '93	23
25	Interface control document	3w	Wed 30 Jun, '93	Thu 22 Jul, '93	24
26	Discuss code problems with TM	2w	Wed 30 Jun, '93	Thu 15 Jul, '93	24
27	Document results 15-26	2w	Fri 16 Jul, '93	Thu 29 Jul, '93	26
28	Return code package to TM	1w	Fri 30 Jul, '93	Thu 5 Aug, '93	27
29	Discuss revision with TM	2w	Fri 6 Aug, '93	Thu 19 Aug, '93	28
30	Check code modifications	2w	Fri 20 Aug, '93	Thu 2 Sep, '93	29
31	Repeat 12-30 if necessary	10w	Fri 3 Sep, '93	Fri 12 Nov, '93	30
32	Deliver operational messages	1w	Mon 15 Nov, '93	Fri 19 Nov, '93	31
33	Interact with PGS	1w	Mon 22 Nov, '93	Fri 26 Nov, '93	32
34	Generate schedule requirements	2w	Mon 29 Nov, '93	Fri 10 Dec, '93	33
35	Test standard data alone	4d	Mon 13 Dec, '93	Thu 16 Dec, '93	34
36	Verify output consistency	3d	Fri 17 Dec, '93	Tue 21 Dec, '93	35
37	Resolve problems with TM	8d	Wed 22 Dec, '93	Fri 31 Dec, '93	36
38	Test in the shell	4d	Mon 3 Jan, '94	Thu 6 Jan, '94	37
39	Correct any problems	2w	Fri 7 Jan, '94	Thu 20 Jan, '94	38
40	Test dummy input data	4d	Fri 21 Jan, '94	Wed 26 Jan, '94	39
41	Check the system robustness	2w	Thu 27 Jan, '94	Wed 9 Feb, '94	40
42	Document test results	3w	Thu 10 Feb, '94	Wed 2 Mar, '94	41
43	Record code timing & sizing	3d	Thu 3 Mar, '94	Mon 7 Mar, '94	42
44	Check code optimization	2w	Tue 8 Mar, '94	Mon 21 Mar, '94	43
45	Improve code with TM	3w	Tue 22 Mar, '94	Mon 11 Apr, '94	44
46	Process insufficient data	4d	Tue 12 Apr, '94	Fri 15 Apr, '94	45
47	Process simulated data	5d	Mon 18 Apr, '94	Fri 22 Apr, '94	46
48	Process fallbacks/alternatives	4d	Mon 25 Apr, '94	Thu 28 Apr, '94	47
49	Resolve problems with TM	2w	Fri 29 Apr, '94	Thu 12 May, '94	48
50	End-to-End Test	77.38ed	Fri 13 May, '94	Fri 29 Jul, '94	
51	Interface with PGS	6d	Fri 13 May, '94	Fri 20 May, '94	49
52	Test in the operational environment	4d	Mon 23 May, '94	Thu 26 May, '94	51
53	Resolve any problems in the test	3w	Fri 27 May, '94	Thu 16 Jun, '94	52
54	Discuss with PGS (Doc., Op. man., ICD)	6d	Fri 17 Jun, '94	Fri 24 Jun, '94	53
55	Control TLCF config./doc.	2w	Mon 27 Jun, '94	Fri 8 Jul, '94	54
56	Interface control document	3w	Mon 11 Jul, '94	Fri 29 Jul, '94	55
57	Overview of the integration	46.38ed	Mon 1 Aug, '94	Fri 16 Sep, '94	
58	Document the integration test	3w	Mon 1 Aug, '94	Fri 19 Aug, '94	56
59	Optimize the integration test	4w	Mon 22 Aug, '94	Fri 16 Sep, '94	58

Schedule for A Typical Algorithm Integration into the Level-2 Processing Shell (DRAFT)

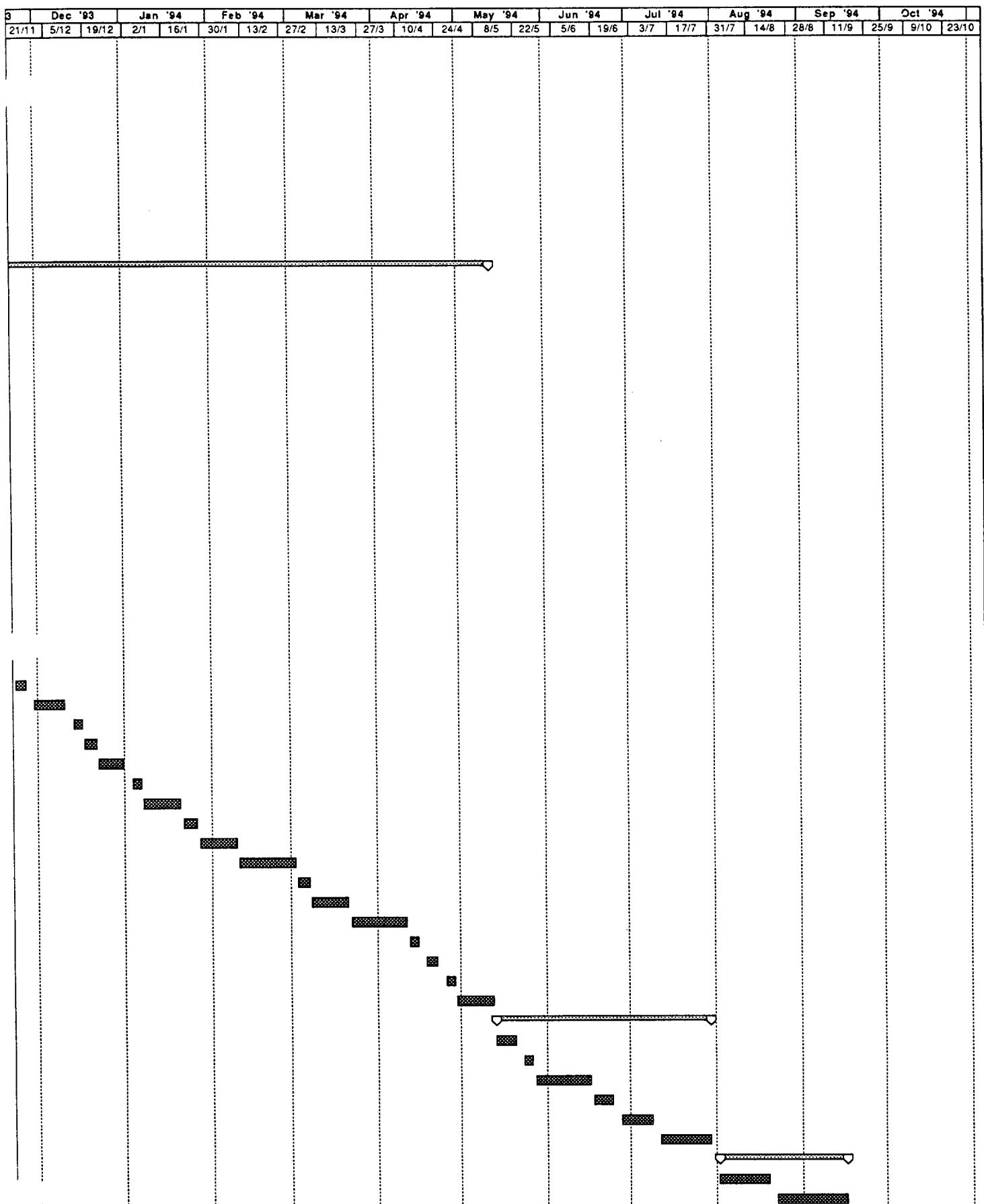


Project: A Typical Algo. Integrat.  
Date: 14/7/92

Critical      Noncritical      Progress      Milestone      Summary

MODIS/SDST/J.J.PAN

Schedule for A Typical Algorithm Integration into the Level-2 Processing Shell (DRAFT)



Project: A Typical Algo. Integr.  
Date: 14/7/92

Critical      Progress      Summary  
Noncritical      Milestone

MODIS/SDST/J.J.PAN

MODIS Level-2 Algorithms ID and Input/Output

\*\*\* The figure in the ( ) is the no. of data \*\*\*

Algorithm ID :

```

511  Input( 3): 2339 2392 51
      Output( 2): 1688 2254
512  Input( 7): 2339 2416 2417 18 32 42 101
      Output( 8): 2555 2556 2557 2558 2559 2560 3216 3217
513  Input( 9): 1588 2282 2283 2284 2339 2481 2523 44 75
      Output( 3): 1874 3321 3322
514  Input( 6): 1529 1781 2116 2312 2339 2466
      Output( 1): 2094
515  Input(11): 1332 1333 1680 1735 2338 2339 2392 3594 23 50 51
      Output( 4): 2580 2581 3662 3663
516  Input( 1): 2339
      Output( 8): 2573 2574 2593 2594 3317 3318 3319 3320
517  Input( 9): 2429 2430 2431 2434 112 113 114 115 847
      Output( 2): 2424 2425
518  Input( 5): 2088 2338 2339 2392 2828
      Output( 4): 2429 2430 2431 2434
519  Input( 5): 2338 2339 2392 7001 7002
      Output( 1): 2337
520  Input(11): 2338 2339 2340 2379 2392 2429 2484 2653 2751 2828 3021
      Output( 4): 2669 2670 2671 2672
521  Input( 7): 2338 2339 2340 2392 199 200 753
      Output( 3): 2680 2703 2723
522  Input( 2): 2339 2340
523  Input( 4): 1588 2339 2340 44
      Output( 2): 1333 1334
524  Input( 8): 1334 1874 2003 2335 2339 2340 2750 185
      Output( 2): 2293 2294
525  Input( 4): 2293 2339 2340 185
      Output( 1): 1022
526  Input( 7): 1828 2003 2293 2339 2340 44 185
      Output( 1): 1017
527  Input( 5): 2001 2335 2339 2340 185
      Output( 1): 2003
528  Input( 4): 1588 1828 44 75
      Output( 2): 1559 1560
530

```

```

Input( 6): 1588 1828 2339 2340 44 75
Output( 1): 1875
531  Input( 3): 2339 2340 75
      Output( 2): 2081 2082
532  Input( 2): 2339 2340
      Output( 2): 2068 2092
533  Input( 9): 1332 1529 1588 1828 2282 2283 2284 2339 44
      Output( 2): 2126 2127
534  Input( 5): 1588 1828 2339 2340 44
      Output( 4): 1528 1529 2466 2467
535  Input( 2): 2339 2340
      Output( 2): 1764 1765
536  Input( 6): 1764 1765 2015 2016 2339 2340
      Output( 4): 1780 1781 2311 2312
537  Input( 3): 2338 2339 197
      Output( 9): 2047 2095 2659 2660 2724 2748 2749 2750 2751
538  Input( 3): 2340 2350 2352
      Output( 4): 2484 2485 3323 3324
539  Input( 1): 198
      Output( 6): 2471 2663 2664 2665 2666 2711
540  Input( 7): 1333 1875 2338 2339 2392 2750 186
      Output( 2): 2015 2016
541  Input( 6): 2339 2340 184 201 202 203
      Output( 2): 3020 3021
543  Input( 5): 2340 23 50 51 191
      Output( 6): 2527 2528 2529 2530 2531 2532
544  Input( 2): 2339 2340
      Output( 2): 3153 3154
545  Input( 5): 2254 2339 23 50 51
      Output( 2): 2416 2417
546  Input( 4): 2339 23 50 51
      Output( 2): 2575 2576
547  Input( 9): 1680 1735 2339 2416 2417 3594 23 50 51
      Output( 2): 2571 2572
548  Input( 9): 2339 2416 2417 23 33 50 51 152 153
      Output( 2): 2569 2570
549  Input( 6): 2339 2416 2417 23 50 51
      Output( 2): 2577 2578
550  Output( 1): 2330
551  Input( 6): 2339 2416 2417 23 50 51
      Output( 2): 3199 3200
552  Input( 3): 2339 50 51
      Output( 4): 2031 2032 3206 3207
553  Input( 6): 2339 2416 2417 23 50 51

```

554      Output( 3): 2602 2603 2606  
Input ( 4): 2339 23 50 51  
Output( 2): 2295 2296

555      Input ( 4): 2339 23 50 51  
Output( 2): 2344 2345

557      Input ( 9): 1332 1333 1680 1735 1773 2339 23 50 51  
Output( 2): 2591 2592

558      Input (10): 1680 1735 2295 2339 2344 3594 13 25 50 51  
Output( 3): 2266 2267 2268

559      Input ( 5): 2339 18 32 42 101  
Output( 2): 2582 2583

560      Input ( 3): 2338 2339 2392  
Output( 3): 2379 2380 2381

561      Input ( 3): 2339 50 51  
Output( 4): 2608 3664 3085 3086

806      Input ( 9): 2424 2425 2429 2430 2431 2434 2631 2632 112  
Output( 4): 2001 3665 3666 3667

807      Input ( 3): 2424 2425 2828  
Output( 2): 1556 1557

808      Input (10): 2338 2339 2392 2828 2846 112 113 114 115 847  
Output( 2): 2404 2405

914      Input ( 8): 2339 2571 2572 2575 2576 23 50 51  
Output( 2): 3211 3212

916      Input ( 6): 2266 2267 2339 23 50 51  
Output( 2): 2566 2567

917      Input ( 2): 2339 2392  
Output( 2): 3696 3697

**Algochk : Algorithms dependencies checker**

ATTENTION: No data product from Algorithm 522  
 ATTENTION: No required (EOS) input data for Algorithm 550

**Algorithms Dependencies:-----**

Data ID	Generated from Algorithm	Input to Algorithm
---------	--------------------------	--------------------

2416	545	----> 512
2417	545	----> 512

1529	534	----> 514
1781	536	----> 514
2312	536	----> 514
2466	534	----> 514

1333	523	----> 515
------	-----	-----------

2429	518	----> 517
2430	518	----> 517
2431	518	----> 517
2434	518	----> 517

2379	560	----> 520
2429	518	----> 520
2484	538	----> 520
2751	537	----> 520
3021	541	----> 520

1334	523	----> 524
1874	513	----> 524
2003	527	----> 524
2750	537	----> 524

2293	524	----> 525
------	-----	-----------

2003	527	----> 526
2293	524	----> 526

2001	806	----> 527
------	-----	-----------

1529	534	----> 533
------	-----	-----------

1764	535	----> 536
1765	535	----> 536
2015	540	----> 536
2016	540	----> 536

1333	523	----> 540
1875	530	----> 540
2750	537	----> 540

2254	511	----> 545
------	-----	-----------

2416	545	----> 547
2417	545	----> 547

2416	545	----> 548
2417	545	----> 548

2416	545	----> 549
2417	545	----> 549

2416	545	----> 551
2417	545	----> 551

2416	545	----> 553
2417	545	----> 553

1333	523	----> 557
------	-----	-----------

2295	554	----> 558
2344	555	----> 558

2424	517	----> 806
2425	517	----> 806

2429	518	----> 806
2430	518	----> 806

2431	518	----> 806
2434	518	----> 806

2424	517	----> 807
2425	517	----> 807

2571	547	----> 914
2572	547	----> 914

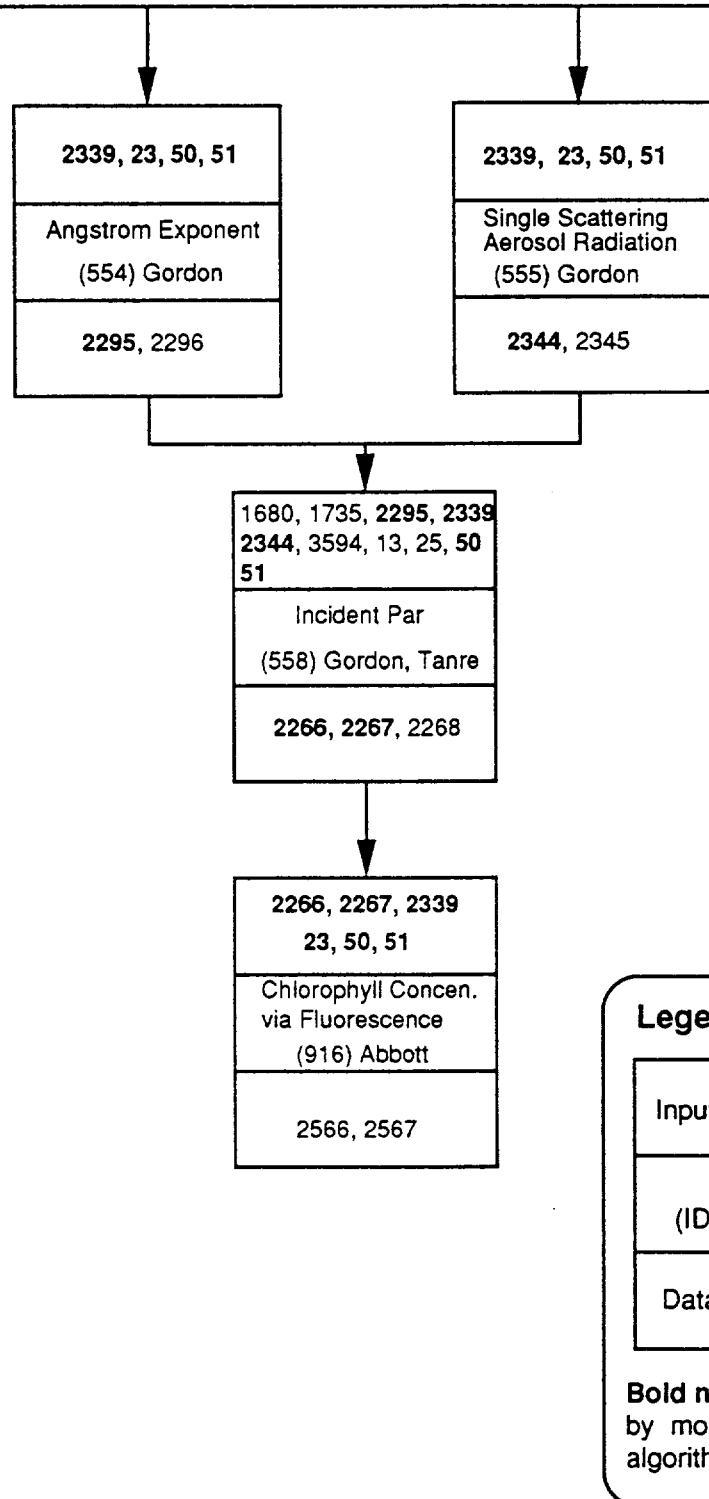
2575	546	----> 914
2576	546	----> 914

2266	558	----> 916
2267	558	----> 916

MODIS Level-2 Input Data Usage												MODIS Level-2 Input Data Usage														
No.	Input Data	No. of Algo. used	Algo. ID										No.	Input Data	No. of Algo. used	Algo. ID										
1	13	1	558										52	2266	1	916										
2	18	2	512	559									53	2267	1	916										
3	23	14	515	543	545	546	547	914	916	548	549	551	54	2282	2	513	533									
			553	554	555	557							55	2283	2	513	533									
4	25	1	558										56	2284	2	513	533									
5	32	2	512	559									57	2293	2	525	526									
6	33	1	548										58	2295	1	558										
7	42	2	512	559									59	2312	1	514	527									
8	44	7	513	523	526	528	530	533	534	549	551		60	2335	2	524	527									
9	50	17	515	543	545	546	547	548	549	551			61	2338	9	515	518	519	520	521	537	540	560			
			552	553	554	555	557	558	561	914			62	2339	45	511	512	513	514	515	518	519	520			
			916										63	2340	18	520	521	522	523	524	525	526	527	530		
10	51	18	511	515	543	545	546	547	548	549	561		64	2344	1	558										
			551	552	553	554	555	557	558	561			65	2350	1	538										
11	75	4	513	528	530	531							66	2352	1	538										
12	101	2	512	559									67	2379	1	520										
13	112	3	517	806	808								68	2392	10	511	515	518	519	520	521	540	560			
14	113	2	517	808									69	2416	6	512	547	548	549	551	553					
15	114	2	517	808									70	2417	6	512	547	548	549	551	553					
16	115	2	517	808									71	2424	2	806	807									
17	152	1	548										72	2425	2	806	807									
18	153	1	548										73	2429	3	517	520	806								
19	184	1	541										74	2430	2	517	806									
20	185	4	524		525	526	527						75	2431	2	517	806									
21	186	1	540										76	2434	2	517	806									
22	191	1	543										77	2466	1	514										
23	197	1	537										78	2481	1	513										
24	199	1	521										79	2484	1	520										
25	200	1	521										80	2523	1	513										
26	201	1	541										81	2571	1	914										
27	202	1	541										82	2572	1	914										
28	203	1	541										83	2575	1	914										
29	753	1	521										84	2576	1	914										
30	847	2	517	808									85	2631	1	806										
31	1332	3	515	533		557							86	2632	1	806										
32	1333	3	515	540	557								87	2653	1	520										
33	1334	1	524										88	2750	2	524	540									
34	1529	2	514	533									89	2751	1	520										
35	1588	6	513	523	528	530	533	534					90	2828	4	518	520	807	808							
36	1680	4	515	547	557	558							91	2846	1	808										
37	1735	4	515	547	557	558							92	3021	1	520										
38	1764	1	536										93	3594	3	515	547	558								
39	1765	1	536										94	7001	1	519										
40	1773	1	557										95	7002	1	519										
41	1781	1	514																							
42	1828	5	526		528	530	533	534																		
43	1874	1	524																							
44	1875	1	540																							
45	2001	1	527																							
46	2003	2	524		526																					
47	2015	1	536																							
48	2016	1	536																							
49	2088	1	518																							
50	2116	1	514																							
51	2254	1	545																							

**DRAFT**  
**Algorithms Dependencies in MODIS Level-2 Processing**  
**(Part 1)**

2339, 23, 50, 51

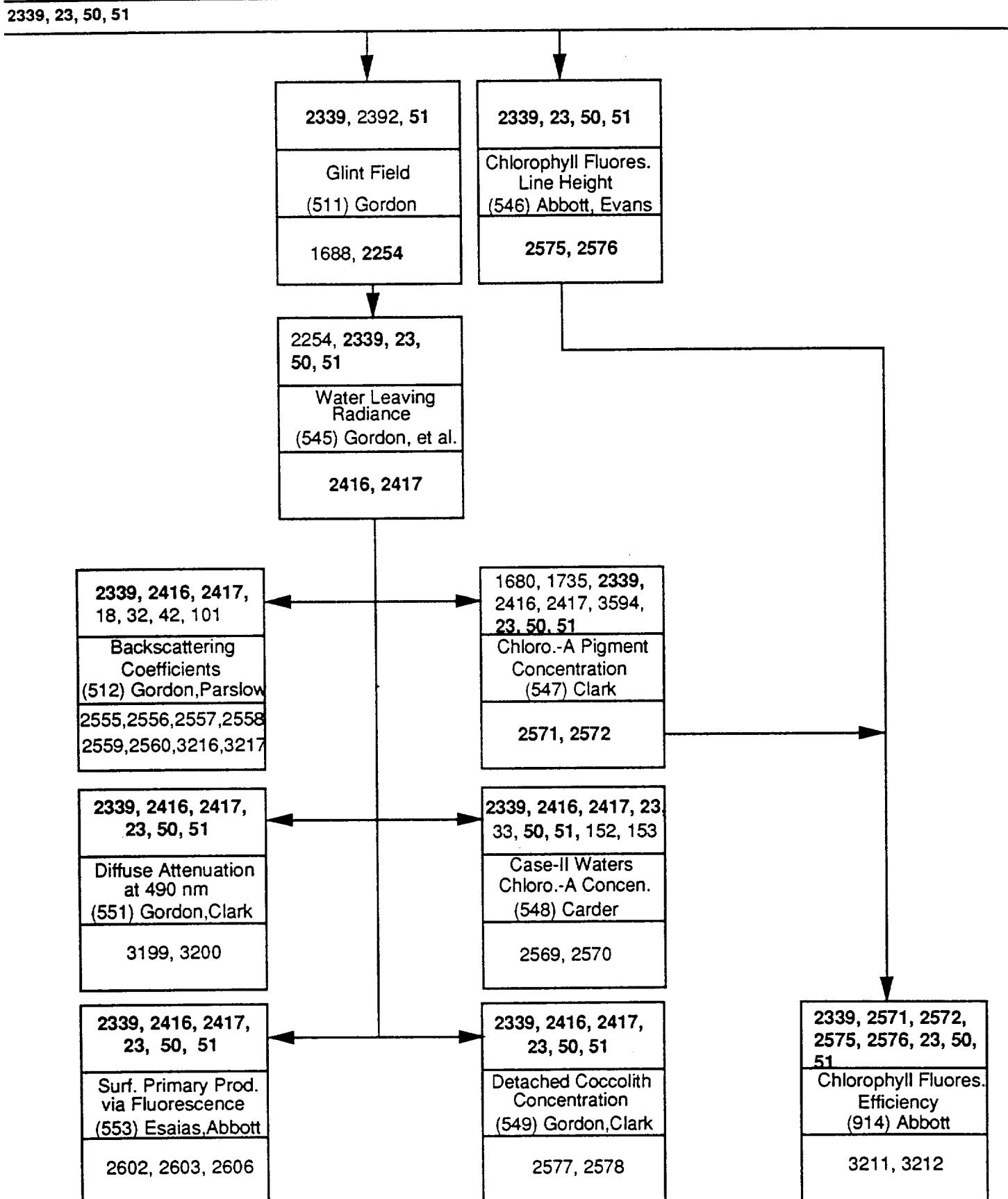


**Legend**

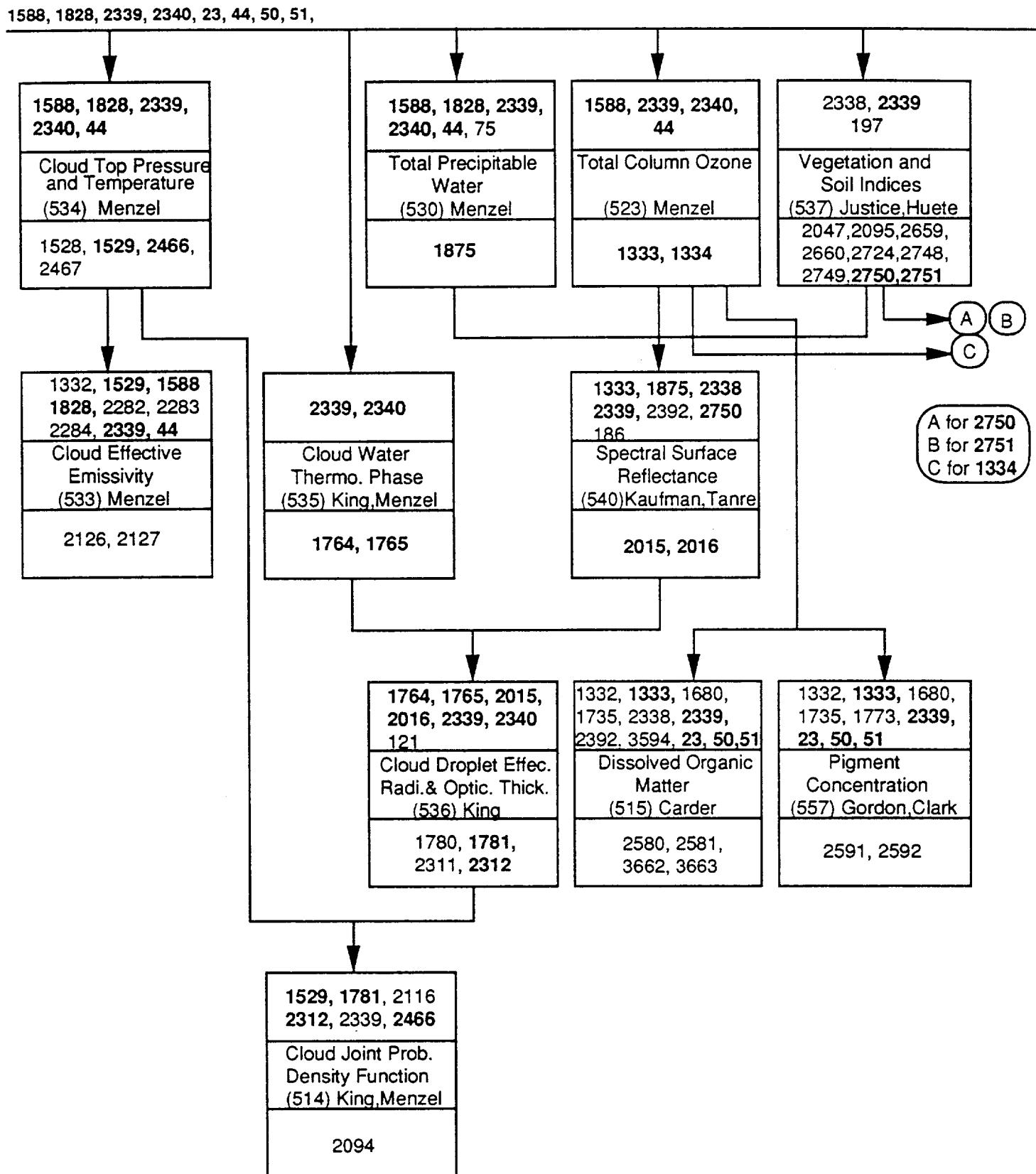
Input Data Number
Algorithm (ID) Investigator
Data Products No.

**Bold no.** is the data used  
by more than one  
algorithm in this part.

**DRAFT**  
**Algorithms Dependencies in MODIS Level-2 Processing**  
**(Part 2)**



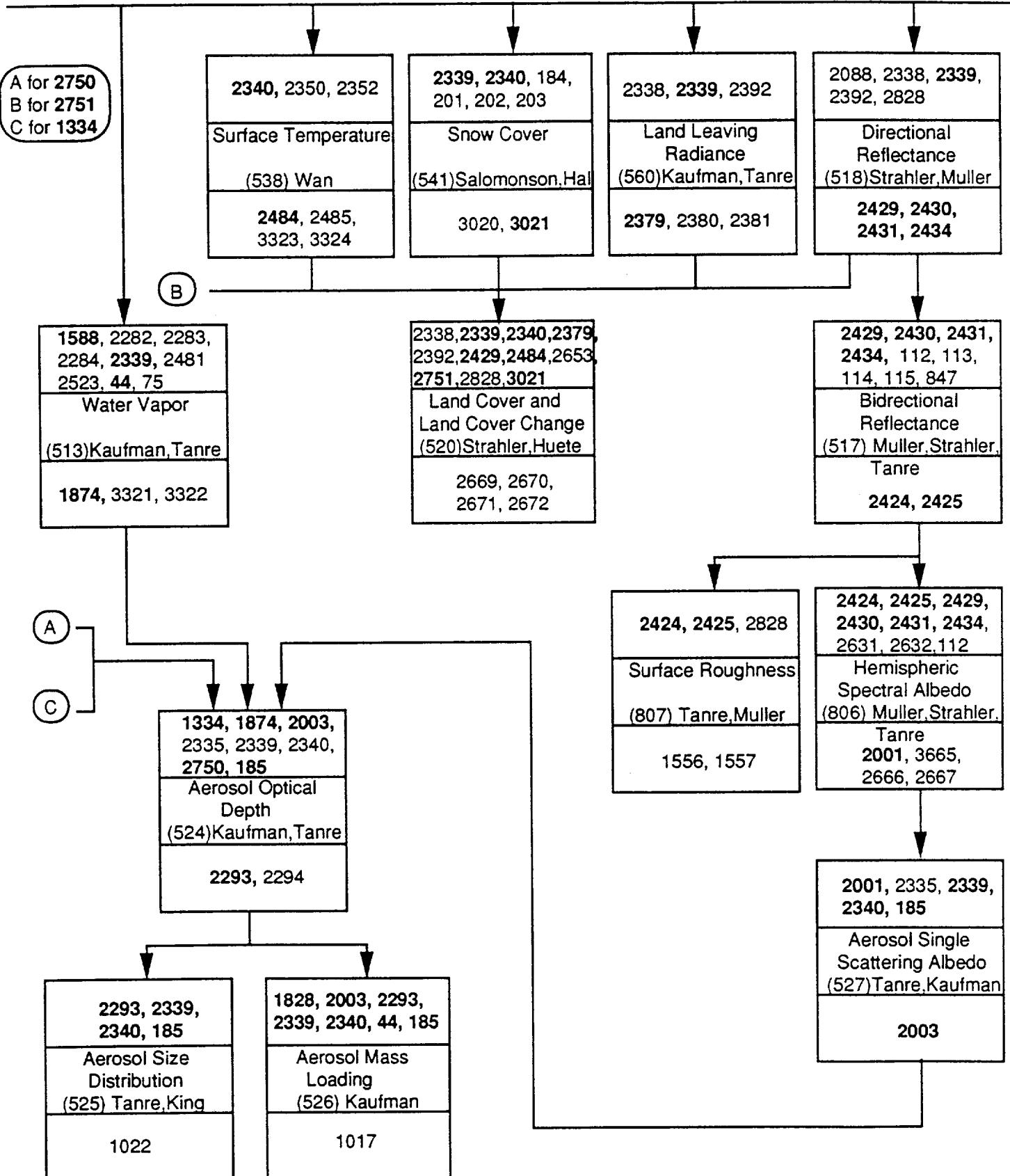
**DRAFT**  
**Algorithms Dependencies in MODIS Level-2 Processing**  
**(Part 3A)**



# DRAFT

## Algorithms Dependencies in MODIS Level-2 Processing (Part 3B)

1588, 1828, 2339, 2340, 23, 44, 50, 51, 185



## MODIS Data Proc Generator Design

### MODIS Design - Gantt Chart Resources, Thu 16 Jul, '92

Project: MODIS Design  
Date: 16/7/92

Critical  Noncritical  Progress  Milestone 

## Summary

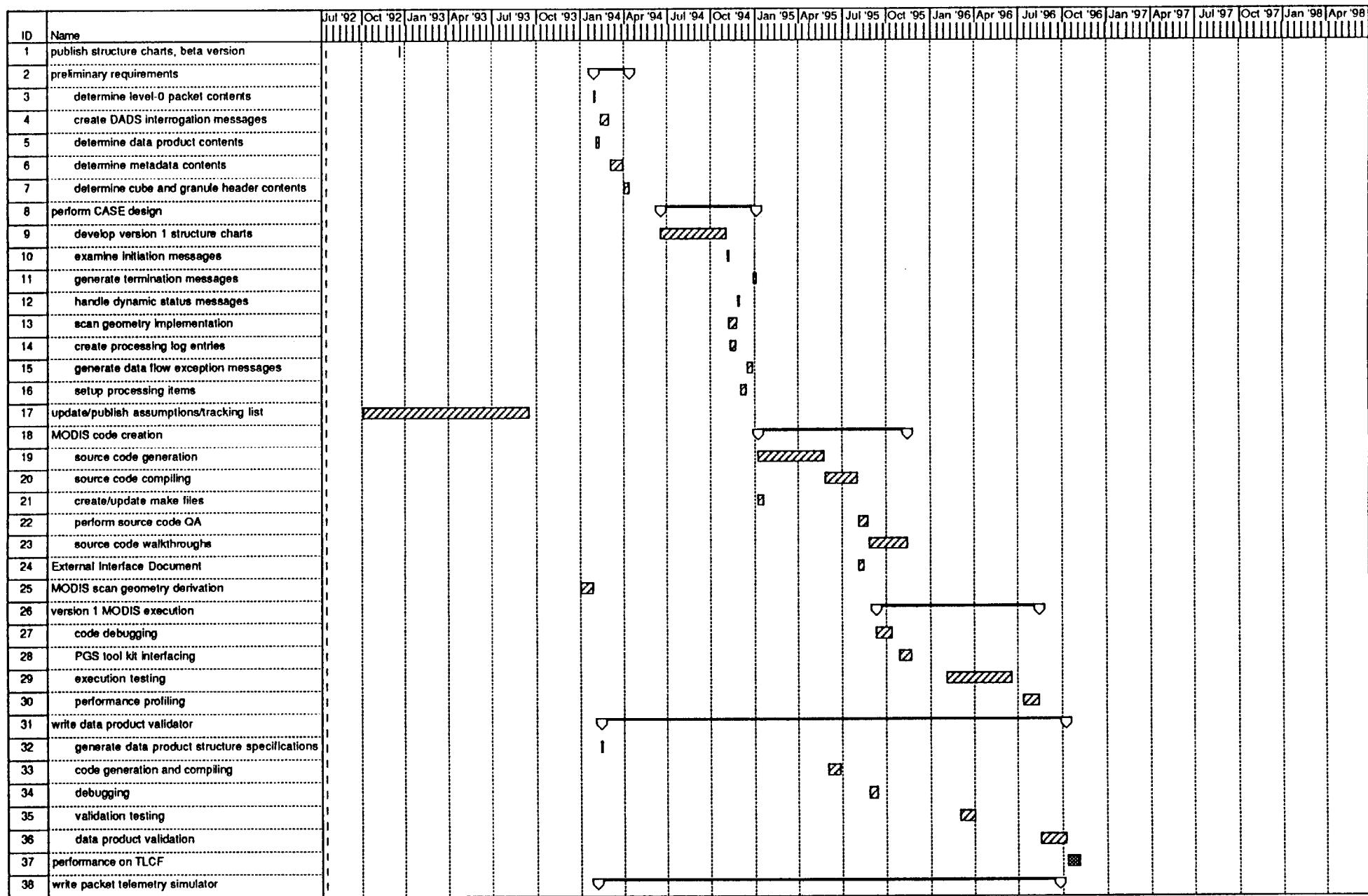
MODIS Data Proc      Generator Design  
 SDST Management - Gantt Chart  
 Management, Thu 16 Jul, '92

ID	Name	Jul '92	Oct '92	Jan '93	Apr '93	Jul '93	Oct '93	Jan '94	Apr '94	Jul '94	Oct '94	Jan '95	Apr '95	Jul '95	Oct '95	Jan '96	Apr '96	Jul '96	Oct '96	Jan '97	Apr '97	Jul '97	Oct '97	Jan '98	Apr '98
1	MODIS Executive Information Summary																								
2	Project Planning																								
3	Level-1A Task List																								
4	Level-1B Task List																								
5	Level-1A Scheduling																								
6	Level-1B Scheduling																								
7	Level-1A Software Requirements																								
8	Level-1B Software Requirements																								
9	MODIS Data Rate and Volume Spreadsheet																								

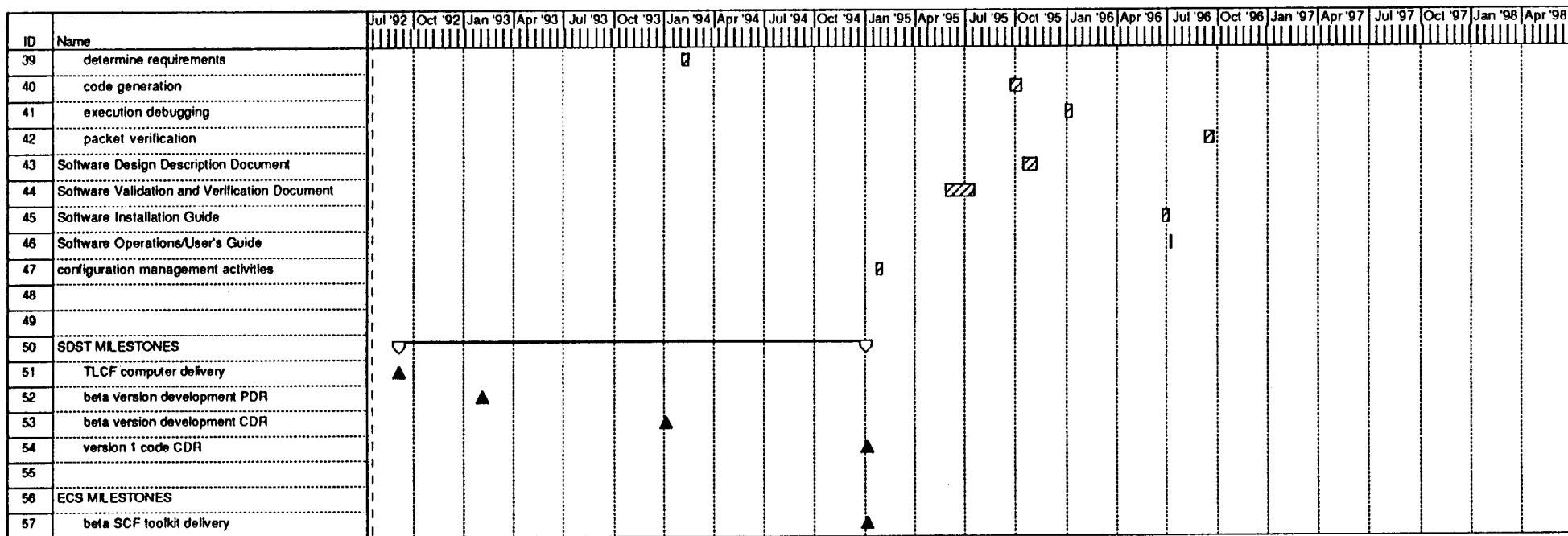
## MODIS Data Prod Generator Design

## MODIS Level-1A - Gantt Chart

Level-1A, Thu 16 Jul, '92



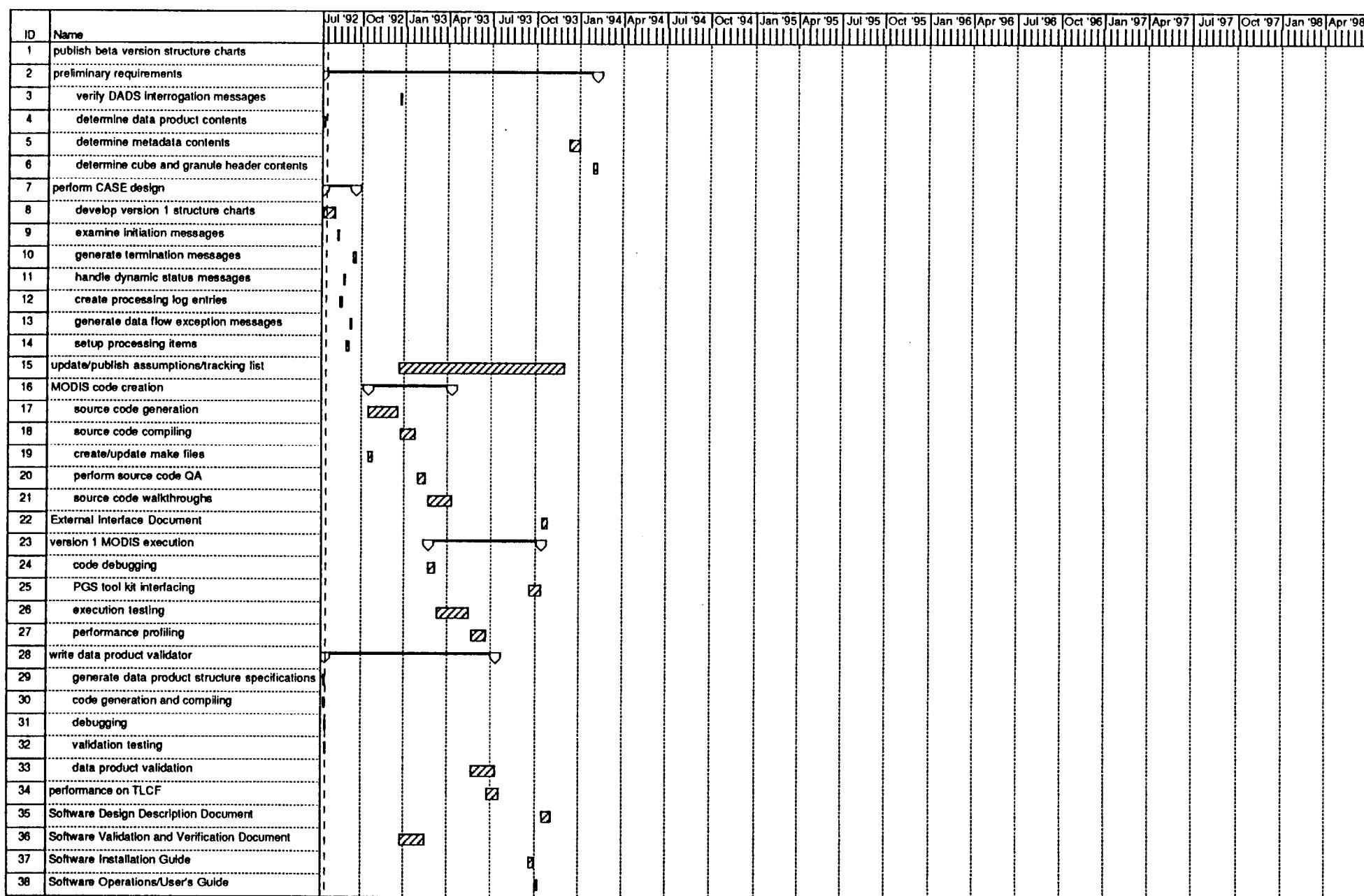
MODIS Data Prod Generator Design  
 MODIS Level-1A - Gantt Chart  
 Level-1A, Thu 16 Jul, '92



## MODIS Data Prc Generator Design

## MODIS Level-1B - Gantt Chart

Level-1B, Thu 16 Jul, '92



Project: MODIS Level-1B  
Date: 16/7/92

Critical      Noncritical      Progress      Milestone

Summary

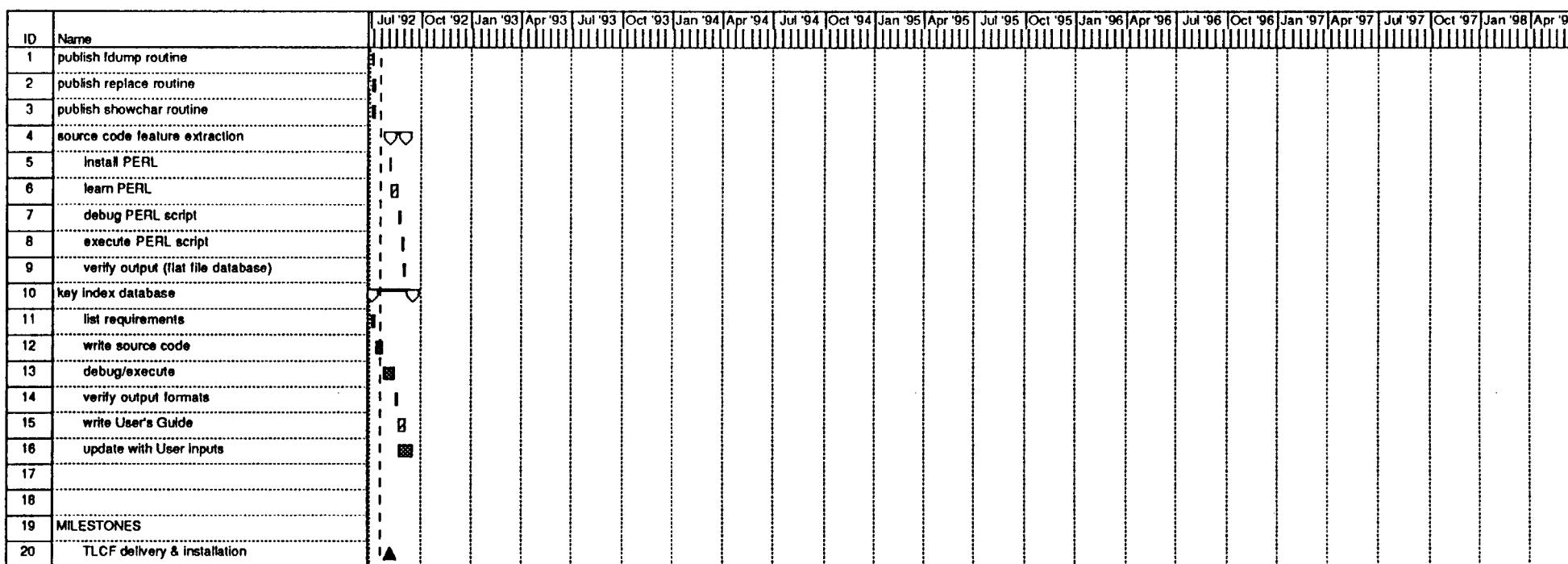
MODIS Data Prod Generator Design  
 MODIS Level-1B - Gantt Chart  
 Level-1B, Thu 16 Jul, '92

ID	Name	Jul '92	Oct '92	Jan '93	Apr '93	Jul '93	Oct '93	Jan '94	Apr '94	Jul '94	Oct '94	Jan '95	Apr '95	Jul '95	Oct '95	Jan '96	Apr '96	Jul '96	Oct '96	Jan '97	Apr '97	Jul '97	Oct '97	Jan '98	Apr '98
39	configuration management activities																								
40																									
41																									
42	SDST MILESTONES																								
43	TLCF computer delivery																								
44	beta version development PDR																								
45	beta version development CDR																								
46	version 1 code CDR																								
47																									
48																									
49																									
50	ECS MILESTONES																								
51	beta SCF toolkit delivery																								

## MODIS Data Pro' Generator Design

## Utility Programs - Gantt Chart

SDST Utilities, Thu 16 Jul, '92



Project: Utility Programs  
Date: 16/7/92

Critical      Noncritical      Progress      Milestone      Summary

MODIS Data F t Generator Design  
 non-SDST design tasks Task Sheet  
 Overhead, Thu 16 Jul, '92

ID	Name	Duration	Scheduled Start	Scheduled Finish	Predecessors	Resource Names
1	TLCF computer class	4w	Mon 28 Sep, '92	Fri 23 Oct, '92		T Goff, TLCF computer
2	Cadre's Teamwork class	2w	Tue 14 Sep, '92	Mon 27 Sep, '92		T Goff, TLCF computer, CASE tool
3	SoftBench usage class	2w	Thu 17 Dec, '92	Wed 30 Dec, '92		T Goff, TLCF computer, HP SoftBench
4	Configuration Management class	2w	Thu 17 Dec, '92	Wed 30 Dec, '92		T Goff, TLCF computer, HP SoftBench, Configuration Management tool
5	Programming QA classes	2w	Mon 6 Jul, '92	Fri 17 Jul, '92		T Goff, EOS computer
6	learn MS-Word	2w	Mon 6 Jul, '92	Fri 17 Jul, '92		T Goff
7	learn MS-Project	3w	Mon 28 Sep, '92	Fri 16 Oct, '92		T Goff
8	learn MS-Windows	1w	Mon 6 Jul, '92	Fri 10 Jul, '92		T Goff
9	learn C++	2m	Mon 21 Dec, '92	Mon 21 Dec, '92		T Goff, TLCF computer, HP SoftBench
10	attend code walkthroughs	12w	Mon 28 Sep, '92	Fri 18 Dec, '92		T Goff
11	Standard Coding Guidelines	3w	Mon 6 Jul, '92	Fri 24 Jul, '92		T Goff, Desktop Publisher
12	Software Management Document	1d	Mon 21 Dec, '92	Mon 21 Dec, '92		T Goff, Desktop Publisher
13	ECS documentation review	81.38ed	Mon 6 Jul, '92	Fri 25 Sep, '92		
14	toolkit	60d	Mon 6 Jul, '92	Fri 25 Sep, '92		T Goff[0.05]
15	telemetry list	60d	Mon 6 Jul, '92	Fri 25 Sep, '92		T Goff[0.05]
16	software guidelines	50d	Mon 6 Jul, '92	Fri 11 Sep, '92		T Goff[0.08]
17	Maintain PC	93.38ed	Mon 28 Sep, '92	Wed 30 Dec, '92		
18	backups	18d	Mon 28 Sep, '92	Wed 21 Oct, '92		T Goff
19	software updates	36d	Mon 28 Sep, '92	Mon 16 Nov, '92		T Goff
20	additional features	20d	Mon 28 Sep, '92	Fri 23 Oct, '92		T Goff
21	X-windows	2w	Thu 17 Dec, '92	Wed 30 Dec, '92		T Goff, TLCF computer
22	install utilities in TLCF	3w	Mon 28 Sep, '92	Fri 16 Oct, '92		T Goff, TLCF computer

MODIS Data Product Generator Design  
 MODIS Design Task Sheet  
 Resources, Thu 16 Jul, '92

ID	Name	Duration	Scheduled Start	Scheduled Finish	Predecessor	Resource Names
1						
2						
3						
4	EOSDIS (ECS) Milestone Chart	0d	Tue 1 Jan, '91	Tue 1 Jan, '91		L Carpenter,T Goff,JJ Pan,TLCF computer,CASE tool/Desktop Publisher,HP SoftBe...
5						
6						
7						
8						
9	INTERFACE STUDY AND DEFINITION	929ed	Wed 1 May, '91	Mon 15 Nov, '93		
10	interview team leaders/Pis	245.38ed	Wed 1 May, '91	Wed 1 Jan, '92		
11	compile/analyse needs	184.38ed	Mon 1 Jul, '91	Wed 1 Jan, '92		
12	review/review study results	274.38ed	Wed 1 Jan, '92	Thu 1 Oct, '92		
13	review study with ECS contractor	0d	Tue 1 Dec, '92	Tue 1 Dec, '92		
14	review tool specification development	0d	Thu 1 Apr, '93	Thu 1 Apr, '93		
15	review "final" specification	0d	Mon 15 Nov, '93	Mon 15 Nov, '93		
16	ECS SCHEDULE	912ed	Sun 1 Jan, '95	Tue 1 Jul, '97		
17	beta SCF toolkit delivery	0d	Sun 1 Jan, '95	Sun 1 Jan, '95		
18	beta ECS release 1.1	0d	Sat 1 Jul, '95	Sat 1 Jul, '95		
19	version 1 SCF revised toolkit	0d	Mon 1 Jan, '96	Mon 1 Jan, '96		
20	version 1 ECS release 3	0d	Mon 1 Jul, '96	Mon 1 Jul, '96		
21	version 2 SCF final AM toolkit	0d	Wed 1 Jan, '97	Wed 1 Jan, '97		
22	version 2 ECS release 4	0d	Tue 1 Jul, '97	Tue 1 Jul, '97		
23	SCIENCE SOFTWARE DEVELOPMENT SCHEDULE	1826.38ed	Wed 1 Jul, '92	Tue 1 Jul, '97		
24	develop science software for version 1	943.38ed	Wed 1 Dec, '93	Mon 1 Jul, '96		
25	review progress	1095.38ed	Wed 1 Jul, '92	Sat 1 Jul, '95		
26	test interfaces and portability	396.38ed	Thu 1 Jun, '95	Mon 1 Jul, '96		
27	deliver version 1 science software	0d	Thu 1 Aug, '96	Thu 1 Aug, '96		
28	develop and deliver version 2 science software	334.38ed	Thu 1 Aug, '96	Tue 1 Jul, '97		
29	EOSDIS SCHEDULE	457ed	Tue 1 Oct, '96	Thu 1 Jan, '98		
30	EOSDIS AM version 1	0d	Tue 1 Oct, '96	Tue 1 Oct, '96		
31	EOSDIS AM version 2 ATTR	0d	Wed 1 Oct, '97	Wed 1 Oct, '97		
32	AM ORR	0d	Sat 1 Nov, '97	Sat 1 Nov, '97		
33	EOSDIS AM launch ready	0d	Thu 1 Jan, '98	Thu 1 Jan, '98		
34	AM LAUNCH	0d	Mon 1 Jun, '98	Mon 1 Jun, '98		

MODIS Data P Generator Design  
 SDST Management Task Sheet  
 Management, Thu 16 Jul, '92

ID	Name	Duration	Scheduled Start	Scheduled Finish	Predecessor	Resource Names
1	MODIS Executive Information Summary	3w	Thu 28 Oct, '93	Wed 17 Nov, '93	9	T Goff, Desktop Publisher
2	Project Planning	387.38ed	Mon 28 Sep, '92	Wed 20 Oct, '93		
3	Level-1A Task List	1w	Mon 28 Sep, '92	Fri 2 Oct, '92		T Goff, Desktop Publisher
4	Level-1B Task List	1w	Mon 28 Sep, '92	Fri 2 Oct, '92		T Goff, Desktop Publisher
5	Level-1A Scheduling	2w	Thu 7 Oct, '93	Wed 20 Oct, '93	7	T Goff, Desktop Publisher
6	Level-1B Scheduling	2w	Thu 7 Oct, '93	Wed 20 Oct, '93	8	T Goff, Desktop Publisher
7	Level-1A Software Requirements	3w	Thu 16 Sep, '93	Wed 6 Oct, '93	3	T Goff, Desktop Publisher
8	Level-1B Software Requirements	3w	Thu 16 Sep, '93	Wed 6 Oct, '93	4	T Goff, Desktop Publisher
9	MODIS Data Rate and Volume Spreadsheet	1w	Thu 21 Oct, '93	Wed 27 Oct, '93	3,4,5,6,7,8	T Goff

MODIS Data File Generator Design  
MODIS Level-1A Task Sheet  
Level-1A, Thu 16 Jul, '92

ID	Name	Duration	Scheduled Start	Scheduled Finish	Predecessor	Resource Names
1	publish structure charts, beta version	3d	Thu 17 Dec, '92	Mon 21 Dec, '92		T Goff
2	preliminary requirements	76.38ed	Tue 25 Jan, '94	Mon 11 Apr, '94		
3	determine level-0 packet contents	1w	Tue 25 Jan, '94	Mon 31 Jan, '94	1	T Goff
4	create DADS interrogation messages	3w	Tue 8 Feb, '94	Mon 28 Feb, '94	5	T Goff
5	determine data product contents	1w	Tue 1 Feb, '94	Mon 7 Feb, '94	3	T Goff
6	determine metadata contents	4w	Tue 1 Mar, '94	Mon 28 Mar, '94	4	T Goff
7	determine cube and granule header contents	2w	Tue 29 Mar, '94	Mon 11 Apr, '94	6	T Goff
8	perform CASE design	202.38ed	Tue 14 Jun, '94	Mon 2 Jan, '95		
9	develop version 1 structure charts	20w	Tue 14 Jun, '94	Mon 31 Oct, '94	1	T Goff, TLCF computer, CASE tool
10	examine initiation messages	1w	Tue 1 Nov, '94	Mon 7 Nov, '94	9	T Goff, TLCF computer, CASE tool
11	generate termination messages	1w	Tue 27 Dec, '94	Mon 2 Jan, '95	15	T Goff, TLCF computer, CASE tool
12	handle dynamic status messages	1w	Tue 22 Nov, '94	Mon 28 Nov, '94	14	T Goff, TLCF computer, CASE tool
13	scan geometry implementation	3w	Thu 3 Nov, '94	Wed 23 Nov, '94	25	T Goff, TLCF computer, CASE tool
14	create processing log entries	2w	Tue 8 Nov, '94	Mon 21 Nov, '94	10	T Goff, TLCF computer, CASE tool
15	generate data flow exception messages	2w	Tue 13 Dec, '94	Mon 26 Dec, '94	16	T Goff, TLCF computer, CASE tool
16	setup processing items	2w	Tue 29 Nov, '94	Mon 12 Dec, '94	12	T Goff, TLCF computer, CASE tool
17	update/publish assumptions/tracking list	50w	Thu 1 Oct, '92	Wed 15 Sep, '93		T Goff[0.04]
18	MODIS code creation	314.38ed	Tue 3 Jan, '95	Mon 13 Nov, '95		
19	source code generation	20w	Tue 3 Jan, '95	Mon 22 May, '95	11	T Goff, TLCF computer, HP SoftBench
20	source code compiling	10w	Tue 23 May, '95	Mon 31 Jul, '95	19	T Goff, TLCF computer, HP SoftBench
21	create/update make files	2w	Tue 3 Jan, '95	Mon 16 Jan, '95	11	T Goff, TLCF computer, HP SoftBench
22	perform source code QA	3w	Tue 1 Aug, '95	Mon 21 Aug, '95	20	T Goff, EOS computer
23	source code walkthroughs	12w	Tue 22 Aug, '95	Mon 13 Nov, '95	22	T Goff
24	External Interface Document	2w	Tue 1 Aug, '95	Mon 14 Aug, '95	20	T Goff, Desktop Publisher
25	MODIS scan geometry derivation	4w	Tue 28 Dec, '93	Mon 24 Jan, '94	1	T Goff
26	version 1 MODIS execution	342.38ed	Tue 5 Sep, '95	Mon 12 Aug, '96		
27	code debugging	5w	Tue 5 Sep, '95	Mon 9 Oct, '95	22	T Goff, TLCF computer, HP SoftBench
28	PGS tool kit interfacing	4w	Tue 24 Oct, '95	Mon 20 Nov, '95	19,57	T Goff, TLCF computer, HP SoftBench, EOS computer
29	execution testing	20w	Tue 30 Jan, '96	Mon 17 Jun, '96	27	T Goff, TLCF computer, HP SoftBench
30	performance profiling	5w	Tue 9 Jul, '96	Mon 12 Aug, '96	29	T Goff, TLCF computer, HP SoftBench
31	write data product validator	972.38ed	Tue 8 Feb, '94	Mon 7 Oct, '96		
32	generate data product structure specifications	1w	Tue 8 Feb, '94	Mon 14 Feb, '94	5	T Goff, Desktop Publisher
33	code generation and compiling	4w	Tue 30 May, '95	Mon 26 Jun, '95	32	T Goff, TLCF computer, HP SoftBench
34	debugging	3w	Tue 22 Aug, '95	Mon 11 Sep, '95	33	T Goff, TLCF computer, HP SoftBench
35	validation testing	5w	Tue 27 Feb, '96	Mon 1 Apr, '96	34	T Goff, TLCF computer
36	data product validation	8w	Tue 13 Aug, '96	Mon 7 Oct, '96	29,35	T Goff, TLCF computer
37	performance on TLCF	4w	Tue 8 Oct, '96	Mon 4 Nov, '96	30	T Goff, TLCF computer, HP SoftBench
38	write packet telemetry simulator	965.38ed	Tue 1 Feb, '94	Mon 23 Sep, '96		
39	determine requirements	2w	Tue 1 Feb, '94	Mon 14 Feb, '94	3	T Goff, Desktop Publisher
40	code generation	3w	Tue 19 Sep, '95	Mon 9 Oct, '95	39	T Goff, TLCF computer, CASE tool, HP SoftBench
41	execution debugging	2w	Tue 26 Dec, '95	Mon 8 Jan, '96	40	T Goff, TLCF computer, HP SoftBench
42	packet verification	3w	Tue 3 Sep, '96	Mon 23 Sep, '96	41	T Goff, TLCF computer, HP SoftBench
43	Software Design Description Document	4w	Tue 10 Oct, '95	Mon 6 Nov, '95	27	T Goff, Desktop Publisher
44	Software Validation and Verification Document	6w	Tue 23 May, '95	Mon 17 Jul, '95	19	T Goff, Desktop Publisher
45	Software Installation Guide	2w	Tue 18 Jun, '96	Mon 1 Jul, '96	29	T Goff, Desktop Publisher
46	Software Operations/User's Guide	1w	Tue 2 Jul, '96	Mon 8 Jul, '96	45	T Goff, Desktop Publisher
47	configuration management activities	2w	Tue 17 Jan, '95	Mon 30 Jan, '95	21	T Goff, TLCF computer, HP SoftBench, Configuration Management tool
48						
49						
50	SDST MILESTONES	852ed	Tue 1 Sep, '92	Sun 1 Jan, '95		
51	TLCF computer delivery	0d	Tue 1 Sep, '92	Tue 1 Sep, '92		
52	beta version development PDR	0d	Mon 1 Feb, '93	Mon 1 Feb, '93		
53	beta version development CDR	0d	Sat 1 Jan, '94	Sat 1 Jan, '94		
54	version 1 code CDR	0d	Sun 1 Jan, '95	Sun 1 Jan, '95		
55						
56	ECS MILESTONES	0ed	Sun 1 Jan, '95	Sun 1 Jan, '95		
57	beta SCF toolkit delivery	0d	Sun 1 Jan, '95	Sun 1 Jan, '95		

MODIS Data P . Generator Design  
 MODIS Level-1B Task Sheet  
 Level-1B, Thu 16 Jul, '92

ID	Name	Duration	Scheduled Start	Scheduled Finish	Predecessor	Resource Names
1	publish beta version structure charts	3d	Tue 7 Jul, '92	Thu 9 Jul, '92		T Goff
2	preliminary requirements	577.38ed	Tue 7 Jul, '92	Fri 4 Feb, '94		
3	verify DADS interrogation messages	1w	Thu 17 Dec, '92	Wed 23 Dec, '92	4	T Goff
4	determine data product contents	1w	Tue 7 Jul, '92	Mon 13 Jul, '92		T Goff
5	determine metadata contents	4w	Mon 6 Dec, '93	Fri 31 Dec, '93	3	T Goff
6	determine cube and granule header contents	2w	Mon 24 Jan, '94	Fri 4 Feb, '94	5	T Goff
7	perform CASE design	69.38ed	Fri 10 Jul, '92	Thu 17 Sep, '92		
8	develop version 1 structure charts	4w	Fri 10 Jul, '92	Thu 6 Aug, '92	1	T Goff, TLCF computer, CASE tool
9	examine initiation messages	1w	Fri 7 Aug, '92	Thu 13 Aug, '92	8	T Goff, TLCF computer, CASE tool
10	generate termination messages	1w	Fri 11 Sep, '92	Thu 17 Sep, '92	13	T Goff, TLCF computer, CASE tool
11	handle dynamic status messages	1w	Fri 21 Aug, '92	Thu 27 Aug, '92	12	T Goff, TLCF computer, CASE tool
12	create processing log entries	1w	Fri 14 Aug, '92	Thu 20 Aug, '92	9	T Goff, TLCF computer, CASE tool
13	generate data flow exception messages	1w	Fri 4 Sep, '92	Thu 10 Sep, '92	14	T Goff, TLCF computer, CASE tool
14	setup processing items	1w	Fri 28 Aug, '92	Thu 3 Sep, '92	11	T Goff, TLCF computer, CASE tool
15	update/publish assumptions/tracking list	50w	Thu 17 Dec, '92	Wed 1 Dec, '93		T Goff [0.04], Desktop Publisher
16	MODIS code creation	179.38ed	Mon 12 Oct, '92	Fri 9 Apr, '93		
17	source code generation	10w	Mon 12 Oct, '92	Fri 18 Dec, '92	10	T Goff, TLCF computer, HP SoftBench
18	source code compiling	5w	Mon 21 Dec, '92	Fri 22 Jan, '93	17	T Goff, TLCF computer, HP SoftBench
19	create/update make files	2w	Mon 12 Oct, '92	Fri 23 Oct, '92	10	T Goff, TLCF computer, HP SoftBench
20	perform source code QA	3w	Mon 25 Jan, '93	Fri 12 Feb, '93	16	T Goff, EOS computer
21	source code walkthroughs	8w	Mon 15 Feb, '93	Fri 9 Apr, '93	20	T Goff
22	External Interface Document	2w	Thu 14 Oct, '93	Wed 27 Oct, '93	18	T Goff, Desktop Publisher
23	version 1 MODIS execution	240.38ed	Mon 15 Feb, '93	Wed 13 Oct, '93		
24	code debugging	3w	Mon 15 Feb, '93	Fri 5 Mar, '93	20	T Goff, TLCF computer, HP SoftBench
25	PGS tool kit interfacing	4w	Thu 16 Sep, '93	Wed 13 Oct, '93	17	T Goff, TLCF computer, HP SoftBench, EOS computer
26	execution testing	10w	Mon 8 Mar, '93	Fri 14 May, '93	24	T Goff, TLCF computer, HP SoftBench
27	performance profiling	5w	Mon 17 May, '93	Fri 18 Jun, '93	26	T Goff, HP SoftBench
28	write data product validator	360.38ed	Tue 14 Jul, '92	Fri 9 Jul, '93		
29	generate data product structure specifications	1d	Tue 14 Jul, '92	Tue 14 Jul, '92	4	T Goff, Desktop Publisher
30	code generation and compiling	1d	Wed 15 Jul, '92	Wed 15 Jul, '92	29	T Goff, TLCF computer, HP SoftBench
31	debugging	1d	Thu 16 Jul, '92	Thu 16 Jul, '92	30	T Goff, TLCF computer, HP SoftBench
32	validation testing	1d	Fri 17 Jul, '92	Fri 17 Jul, '92	31	T Goff, TLCF computer
33	data product validation	8w	Mon 17 May, '93	Fri 9 Jul, '93	26,32	T Goff, TLCF computer
34	performance on TLCF	4w	Mon 21 Jun, '93	Fri 16 Jul, '93	27	T Goff, TLCF computer, HP SoftBench
35	Software Design Description Document	3w	Thu 14 Oct, '93	Wed 3 Nov, '93	24	T Goff, Desktop Publisher
36	Software Validation and Verification Document	8w	Mon 21 Dec, '92	Fri 12 Feb, '93	17	T Goff, Desktop Publisher
37	Software Installation Guide	2w	Thu 16 Sep, '93	Wed 29 Sep, '93	26	T Goff, Desktop Publisher
38	Software Operations/User's Guide	1w	Thu 30 Sep, '93	Wed 6 Oct, '93	37	T Goff, Desktop Publisher
39	configuration management activities	2w	Mon 26 Oct, '92	Fri 6 Nov, '92	19	T Goff, TLCF computer, HP SoftBench, Configuration Management tool
40						
41						
42	SDST MILESTONES	852ed	Tue 1 Sep, '92	Sun 1 Jan, '95		
43	TLCF computer delivery	0d	Tue 1 Sep, '92	Tue 1 Sep, '92		
44	beta version development PDR	0d	Mon 1 Feb, '93	Mon 1 Feb, '93		
45	beta version development CDR	0d	Sat 1 Jan, '94	Sat 1 Jan, '94		
46	version 1 code CDR	0d	Sun 1 Jan, '95	Sun 1 Jan, '95		
47						
48						
49						
50	ECS MILESTONES	0ed	Sun 1 Jan, '95	Sun 1 Jan, '95		
51	beta SCF toolkit delivery	0d	Sun 1 Jan, '95	Sun 1 Jan, '95		

MODIS Data File Generator Design  
 Utility Programs Task Sheet  
 SDST Utilities, Thu 16 Jul, '92

ID	Name	Duration	Scheduled Start	Scheduled Finish	Predecessor	Resource Names
1	publish fdump routine	3d	Wed 1 Jul, '92	Mon 6 Jul, '92		T Goff, TLCF computer, Desktop Publisher
2	publish replace routine	1w	Wed 1 Jul, '92	Wed 8 Jul, '92		T Goff, TLCF computer, Desktop Publisher
3	publish showchar routine	1w	Wed 1 Jul, '92	Wed 8 Jul, '92		T Goff, TLCF computer, Desktop Publisher
4	source code feature extraction	29.38ed	Mon 3 Aug, '92	Tue 1 Sep, '92		
5	install PERL	2d	Mon 3 Aug, '92	Tue 4 Aug, '92	20	T Goff, TLCF computer
6	learn PERL	2w	Wed 5 Aug, '92	Tue 18 Aug, '92	5	T Goff, TLCF computer
7	debug PERL script	1w	Wed 19 Aug, '92	Tue 25 Aug, '92	6	T Goff, TLCF computer
8	execute PERL script	2d	Wed 26 Aug, '92	Thu 27 Aug, '92	7	T Goff, TLCF computer
9	verify output (flat file database)	3d	Fri 28 Aug, '92	Tue 1 Sep, '92	1,2,3,8,14	T Goff, TLCF computer
10	key index database	75.38ed	Wed 1 Jul, '92	Mon 14 Sep, '92		
11	list requirements	1w	Wed 1 Jul, '92	Wed 8 Jul, '92		T Goff
12	write source code	2w	Thu 9 Jul, '92	Wed 22 Jul, '92	11	T Goff, TLCF computer
13	debug/execute	3w	Thu 23 Jul, '92	Wed 12 Aug, '92	12	T Goff, TLCF computer
14	verify output formats	3d	Thu 13 Aug, '92	Mon 17 Aug, '92	13	T Goff, TLCF computer
15	write User's Guide	2w	Tue 18 Aug, '92	Mon 31 Aug, '92	14	T Goff, Desktop Publisher
16	update with User inputs	4w	Tue 18 Aug, '92	Mon 14 Sep, '92	14	T Goff, TLCF computer
17						
18						
19	MILESTONES	0ed	Sat 1 Aug, '92	Sat 1 Aug, '92		
20	TLCF delivery & installation	0d	Sat 1 Aug, '92	Sat 1 Aug, '92		

MODIS Data F...t Generator Design  
 non-SDST design tasks Task Sheet  
 Overhead, Thu 16 Jul, '92

ID	Name	Duration	Scheduled Start	Scheduled Finish	Predecessor	Resource Names
1	TLCF computer class	4w	Mon 28 Sep, '92	Fri 23 Oct, '92		T Goff, TLCF computer
2	Cadre's Teamwork class	2w	Tue 14 Sep, '92	Mon 27 Sep, '92		T Goff, TLCF computer, CASE tool
3	SoftBench usage class	2w	Thu 17 Dec, '92	Wed 30 Dec, '92		T Goff, TLCF computer, HP SoftBench
4	Configuration Management class	2w	Thu 17 Dec, '92	Wed 30 Dec, '92		T Goff, TLCF computer, HP SoftBench, Configuration Management tool
5	Programming QA classes	2w	Mon 6 Jul, '92	Fri 17 Jul, '92		T Goff, EOS computer
6	learn MS-Word	2w	Mon 6 Jul, '92	Fri 17 Jul, '92		T Goff
7	learn MS-Project	3w	Mon 28 Sep, '92	Fri 16 Oct, '92		T Goff
8	learn MS-Windows	1w	Mon 6 Jul, '92	Fri 10 Jul, '92		T Goff
9	learn C++	2m	Mon 21 Dec, '92	Mon 21 Dec, '92		T Goff, TLCF computer, HP SoftBench
10	attend code walkthroughs	12w	Mon 28 Sep, '92	Fri 18 Dec, '92		T Goff
11	Standard Coding Guidelines	3w	Mon 6 Jul, '92	Fri 24 Jul, '92		T Goff, Desktop Publisher
12	Software Management Document	1d	Mon 21 Dec, '92	Mon 21 Dec, '92		T Goff, Desktop Publisher
13	ECS documentation review	81.38ed	Mon 6 Jul, '92	Fri 25 Sep, '92		
14	toolkit	60d	Mon 6 Jul, '92	Fri 25 Sep, '92		T Goff [0.05]
15	telemetry list	60d	Mon 6 Jul, '92	Fri 25 Sep, '92		T Goff [0.05]
16	software guidelines	50d	Mon 6 Jul, '92	Fri 11 Sep, '92		T Goff [0.08]
17	maintain PC	93.30ed	Mon 28 Sep, '92	Wed 30 Dec, '92		
18	backups	18d	Mon 28 Sep, '92	Wed 21 Oct, '92		T Goff
19	software updates	36d	Mon 28 Sep, '92	Mon 16 Nov, '92		T Goff
20	additional features	20d	Mon 28 Sep, '92	Fri 23 Oct, '92		T Goff
21	X-windows	2w	Thu 17 Dec, '92	Wed 30 Dec, '92		T Goff, TLCF computer
22	install utilities in TLCF	3w	Mon 28 Sep, '92	Fri 16 Oct, '92		T Goff, TLCF computer

ID	Name	92						1993												1994									
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug		
1	L Carpenter																												
2	T Goff	384	208	207	790	442	405	208	208	208	139	160	208	94	8	251	337	76	104	128	195	100	33		59	100	100		
3	JJ Pan																												
4	TLCF computer	1	1		3	2	2				1	1	1	1												1	1		
5	CASE tool	18	25	14																							14	25	25
6	Desktop Publisher	13		2	1	4	8	10	5		1	1	1	1															
7	HP SoftBench				1	1	1																						
8	Configuration Management tool					5	5	10																					
9	EOS computer																												

1995												1996																			
Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
100	100	168	100	190	100	100	100	139	281	152	178	266	254	122	19	34	114	200	104	100	100	100	100	171	100	9					
1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	6		1	2	1				1	1	1						
25	25	42	25	1				3	10	5	4	1	7	1						4	2										
				1	1	1	1	1	1							1	1	1													
				11																											

