CR-203641

Report 10392B
December 1995

GENCORP
AEROJET

IN-61
018215

Integrated Advanced Microwave Sounding Unit-A (AMSU-A) Schedule Plan

Contract No. NAS5-32314
CDRL: 004

Submitted to:

National Aeronautics and Space Administration
Goddard Space Flight Center
Greenbelt, Maryland 20771

Submitted by:

Aerojet
1100 W. Hollyvale Street
Azusa, California 91702

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INTRODUCTION

This report, submitted under Contract NAS5-32314, Contract Data Requirements List (CDRL) item 004, consists of the following elements:

a. A description of the AMSU-A schedule plan

b. A Program Master Schedule, included as Appendix B

c. An Engineering Design Phase Schedule, included as Appendix C

d. An Intermediate Level Instrument Build Schedule, included as Appendix D

e. A detailed Instrument Build Schedule, included as Appendix E

f. The Electronics Team Schedule, included as Appendix F

g. The Metal Parts manufacturing Schedule, included as Appendix G.

Section 2

SCHEDULE SYSTEM DESCRIPTION (HARDWARE)

At Aerojet, the standard program scheduling system software is loaded on individual IBM-compatible personal computers (PC) located in each Program Scheduler's office. Currently, the standard configuration for these PC is a 586 Pentium 90MHz microprocessor with 16 megabytes (MB) of random access memory (RAM), a 528 MB hard disk drive, and a 3.5-inch floppy disk drive. Each PC is directly connected to it's own Hewlett Packard Laser Jet Series II, III, or IV printer. The Laser Jet printers are used to print bar charts (Gantt charts), small network diagrams such as Program Evaluation and Review Technique (PERT) charts, and numerous forms of axis-based statistical graphs; e.g., histograms, XY graphs, pie charts, profiles. A remote Calcomp 36-inch electrostatic plotter coupled to a UNIX workstation is available for plotting large network diagrams (PERT charts).

2.1 Schedule System Description - Software

The standard project scheduling software being currently used at Aerojet is ***Microsoft Project*** version 4.0, with a third-party graphics software package named ***Graneda Personal for Windows*** being used in concert with ***Microsoft Project. Graneda Personal*** is used primarily for the output of network diagrams (PERT charts).

2.1.1 Fundamental Capabilities of *Microsoft Project 4.0*

Microsoft Project 4.0 (M/P 4) provides full critical path method (CPM) functions for project planning. Up to 9,999 tasks, logic dependencies, and resources may be included in a project network. Up to 100 resources may be assigned to each task, allowing the build up of simple or complex resource profiles. Resources can be entered as either individual resources or groups of resources. A maximum of 20 separate projects can share a resource pool, but up to 80 projects can share a resource pool if the projects are consolidated. Also, up to 80 projects can be consolidated for reviewing or printing. Other standard capabilities are:

- Two or more projects can be combined into one overall consolidated project.
- Subprojects can be created and logically linked to a master project.
- Baseline plans can be created and baseline dates easily set.
- Single- or multi-projects "What if..?" simulation.
- Within a particular line of business, projects often consist of repetitive, similar components or sub-assemblies. For these cases, ***M/P 4*** allows templates (model projects) to be stored, in which the WBS elements, tasks, logic dependencies, and (optionally) resources are pre-defined. Creating a new project is then a matter of filling in the details specific to the new situation.
- Forward or backward scheduling.
- Multiple calendars can be defined by the user to accommodate any combination of working patterns; e.g., periods of work, rest, public holidays, and vacations.
- Task durations can be defined as either fixed or resource driven.
- Work can be entered as recurring tasks and displayed on an individual row in the Gantt chart.
- Eight different types of task constraints are available for precisely defining the start and finish dates of tasks. The following is a list of the constraints.
- As Late As Possible
- As Soon As Possible

- Finish No Earlier Than
- Finish No Later Than
- Must Finish On
- Must Start On
- Start No Earlier Than
- Start No Later Than
- Multiple symbols and bar types are available and easily changed for Gantt chart formatting.
- A large number of time-scale sizes and formats are available and easily changeable.
- ***Microsoft Windows***®-driven, with a standard ***Windows*** menu and toolbar format; standard ***Windows*** style on-line help facilities; full use of function keys; and mouse compatible.
- Cut, copy, and paste functions identical to ***Microsoft Word*** and ***Excel.***
- Common toolbar buttons shared with ***Word*** and ***Excel.***
- ***Excel*** style-of-cell layout and data input.
- Two different data input modes including a standard data entry table using cells and a task information dialog box.
- An outlining procedure can be used to organize the tasks in a project into groupings. A hierarchical outline structure of up to 10 different levels can be created. Subtasks are indented under broader groupings called summary tasks. Higher-level schedules can be automatically created by displaying various levels of summary tasks while hiding subtasks.
- 20 standard ***M/P 4*** schedule and resource reports are available to present project status, history, and forecasts.
- An almost endless number of custom reports can be created using the table views.
- Macros can be easily created to automate a sequence of routine work or every-day repeated tasks.
- Easy import and export of text, data, and graphics between ***M/P 4***, ***Word***, and ***Excel***.
- Text and graphic information can be linked with any software application that supports object linking and embedding (OLE) or dynamic data exchange (DDE).
- ***M/P 4*** supports ***Microsoft Mail*** or any other MAPI-compatible electronic mail system (E-mail). Whole projects (files) can be electronically transferred between computers.
- ***M/P 4*** is written in the ***Visual Basic*** for applications language. It can be customized and expanded using the well documented and structured ***Visual Basic*** source code to meet the exact and unique project control requirements of any program.

2.1.2 Risk Software Capabilities at Aerojet

Several software tools are being used within Aerojet to assess schedule and cost risk for ongoing and new programs. These include internally developed models as well as some commercially available products like ***@Risk*** and ***Risk+***.

2.1.2.1 Schedule Risk

Since schedules exist in Microsoft Project, risk associated with meeting target dates is best performed when uncertainty associated with task schedules can be directly entered into Project. ***@Risk***, ***Risk+,*** and ***Crystal Ball*** are add on products to ***Microsoft Project*** which facilitate this analysis. These products provide additional functions which allow the user to enter information on task uncertainties, and run Monte Carlo simulations to estimate a probability distribution around the target date(s). Aerojet has selected ***Risk+*** over the other products for initial assessment of risk. Task durations are entered as 'Low', 'Most Likely', and 'High' values and a probability distribution is assigned to each task (Triangular distribution being most common). Once this information is entered for all tasks, the second step is to identify the key or high risk tasks for which statistical data will be collected. Monte Carlo simulation is then run for a specified number of iterations. An iteration of the simulation consists of randomly sampling a duration for each uncertain task and applying the scheduling algorithm of ***Microsoft Project*** to determine critical path and task schedules. Statistical information is collected over all iterations and is used to assess program risk. Aerojet also has an internally developed ***Excel***-based model that can be used to perform this analysis.

2.1.2.2 Schedule Based Cost Risk

Costs are generally affected by schedule extensions. Therefore, schedule and costs need to be analyzed together for a more in-depth risk analysis. However, it makes the resulting model much more complex when cost/time variability is considered together. A good model will directly compute cost escalation when schedule gets extended and will include the effect of contingency plans, interdependence of tasks, time and cost correlations, level of effort costs, etc.

Cost uncertainty can be added into ***Microsoft Project***, along with schedule uncertainty and simulation results on cost, generated (along with schedules) by the ***@Risk*** or ***Risk+*** add-ons to ***Microsoft Project***. However, only a limited capability exists in the form of cost/time relationships. Aerojet has available a proprietary ***Excel***-based model that provides much extended capability.

Internal experience has been that team leaders and project managers are better able to identify potential problems associated with a task and its effect on time and cost for those tasks. This information is used to derive the network algorithm. For each issue or problem so identified, the probability of its occurrence, labor and capital resources needed to fix the problem as well as the additional time required are collected. Dependencies between problems are also recognized. Resource and time inputs can either be fixed values or some statistical distributions. Global issues and estimating uncertainties are included within the original network.

Monte Carlo simulation is then performed by taking a sample of problems and executing the network algorithm on the updated network with these problems included. Costing modules calculate costs with respect to increased duration of tasks, associated "marching army" effects, and for the additional support costs. The system has three modules 1) Network analysis that determines critical paths and project schedules, 2) a Costing Module that calculates costs in consistence with our pricing system, and 3) a Problem Analysis module that samples the problems, computes their joint effect, and associates it with specific tasks within the network. Results provide time and cost distributions for major program milestones and highlights the specific issues that are the major cause for schedule and cost escalation. The analysis is repeated as a mitigation approach is identified for major issues, as well as for periodic assessment of risk during the course of the program.

2.1.3 Granaeda Personal for Windows

Graneda Personal for Windows is a third-party software program designed to work in conjunction with ***Microsoft Project.*** The purpose of this program is to convert schedule data from ***M/P 4*** into meaningful, easy-to-read graphical outputs. Network diagrams, bar charts, linked bar charts, WBS and OBS diagrams, resource diagrams, and trend charts are the types of graphical outputs available. At Aerojet, this program is primarily used for the output of network diagrams because of the poor graphical output quality of the standard ***M/P 4*** network diagrams. This quality deficiency is evidenced by the

difficult-to-follow connecting lines between task boxes. These lines are frequently drawn by ***M/P 4*** at angles anywhere from 10 to 85 degrees rather than the more commonly drawn lines at right angles of 0 or 90 degrees. All task-connecting lines in ***Graneda*** network diagrams are drawn with clean right angles. One other disadvantage with ***M/P 4*** network diagrams is the inherent inability to select a smaller segment of a large network schedule. With ***M/P 4***, only the entire network can be viewed on-screen or printed as a network diagram. ***Graneda*** has the capability to easily select smaller segments or subassemblies within a large network schedule for viewing or printing as a network diagram.

2.1.4 Schedule System PMS Compliance

The ***Microsoft Project*** scheduling system at Aerojet complies with our internal Program Management System (PMS) in the following ways.

- Identifies major tasked work required to accomplish program objectives in accordance with the Contract Work Breakdown Structure (CWBS) (including major hardware and software configuration item deliveries).
- Identifies all work tasks and milestones with precise start and stop calendar dates.
- Identifies incoming and outgoing interfaces to each work task. This is accomplished through the standard procedure of building logical dependencies between tasks in a precedence (PERT) network.
- Establishes baseline (original planned) schedule dates for all tasks.
- Provides current status and forecasts completion dates for scheduled work in comparison with the baseline planned schedule.
- Updates and takes the status of the program network schedule on a monthly, bi-monthly, or weekly basis.

2.1.4.1 Baseline Schedules

Performance measurement baseline schedule dates are established at program inception during the original program planning stages. These dates can only be revised to incorporate: changes in contract scope of work; formal reprogramming changes approved by the procuring agency; and internal replanning approved by the Program Manager. In the ***M/P 4*** network scheduling system, the original plan is built into a network schedule using logical dependencies between tasks and milestones. This network is then calculated and the computer generates the original planned dates. In ***M/P 4*** these dates are called the "Start" and "Finish" schedule dates. At this point, the Program Scheduler sets the computer-generated "Start" and "Finish" dates equal to the baseline dates with a standard ***M/P 4*** menu command. The baseline dates in ***M/P 4*** are termed "Baseline Start" and "Baseline Finish". As the network is updated, the computer-generated "Start" and "Finish" dates can change. These changes will represent the LRE (latest revised estimate) dates for each task. However, the baseline dates "Baseline Start" and "Baseline Finish" dates will not change. The baseline dates can only be changed manually by the Program Scheduler.

2.1.5 Managing Projects with *M/P 4*

M/P 4 is a tool that will be used to plan and control projects effectively. It will be used to:

a. Schedule and manage projects with several thousand activities

b. Define how tasks relate to one another

c. Identify the critical paths of projects

d. Provide schedule control and analysis

e. Perform "*what-if..?*" simulations

f. Define special codes to organize project information in desired ways

g. Create customized project reports that suit project needs

2.1.5.1 Project Management Concepts

A project is a collection of interrelated work elements or tasks that must be completed to achieve specific program goals. Project management includes planning, scheduling, tracking, controlling, analyzing, and evaluating these tasks to successfully accomplish each goal.

Each work task takes a certain amount of time to complete. Some tasks may proceed simultaneously, while others cannot start until previous tasks are completed. The order of tasks is defined by placing logic dependencies between them. The dependencies define how tasks relate to each other.

2.1.5.2 Phases of Project Management

There are two major phases in managing projects with ***M/P 4***: planning and controlling.

During the project planning phase, ***M/P 4*** is used to build a plan for each project. The plan describes the tasks, date constraints, and milestones that can be anticipated to be involved in the project. It also includes putting together how the project is structured for both the work that needs to be done and the organization responsible for the work.

The objectives and, in turn, the scope of each project are broken down into more manageable pieces of work. This breakdown provides a framework for both planning and controlling.

After entering the project data, various calculations can be performed to determine a schedule for the project. These can be adjusted, changing the details of tasks or milestones, until the plan reflects the most accurate expectations of the actual project. This effort will continue in greater detail once the project begins.

Once work begins on a project, ***M/P 4*** can be used to control the project; that is, to track actual progress and compare it to the original baseline plan. By tracking the dates on which tasks actually start and finish, an accurate record can be kept of the project's progress. Similarly, tracking through the various levels of the work breakdown structure (WBS) can be accomplished. Based on progress and new information about work yet to be done, one can more easily anticipate how the program will proceed to successful completion.

2.1.5.2.1 Planning The Project - The critical path method is the most widely used technique for planning the tasks of a project. It uses a network diagram to show all the tasks and how they depend on each other. The method supported by ***M/P 4*** is the *precedence diagramming method*. The ***precedence diagramming method*** depicts tasks as boxes that an be connected using four different types of logic dependencies. The result is a ***precedence network***.

Precedence networks are sometimes termed *task on node networks* because each task is presented as a node or box as shown in Figure 1. Task boxes are connected to one another by arrows, or dependencies, showing the logic progress of work.

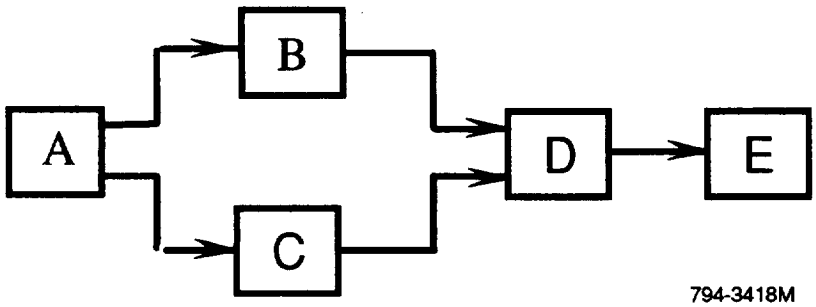


Figure 1 Sample Precedence

The logic dependencies identify the relationships between tasks. They also define the point at which a task can begin based on a preceding or concurrent task, and therefore define the order in which tasks occur, allowing critical tasks to be identified and more closely monitored.

2.1.5.2.1.1 Tasks - A task is an operation or process that consumes time and possible resources. The essential details of a task are:

a. An identifying code

b. The estimated duration of the work involved.

Additional information, such as a description, start and finish dates, and resource requirements are also provided for a task. A task may also consist of multiple items that are required to complete the task.

2.1.5.2.1.2 Logic Dependencies - In a precedence network, the logical dependencies between tasks are represented as arrows between nodes and are called logic dependencies. The logic dependencies identify the relationships between project tasks. They also define the point at which a task can begin based on a preceding or concurrent task and therefore define the order in which tasks occur.

M/P 4 supports four types of logic dependencies, as described in the following subparagraphs.

2.1.5.2.1.2.1 Finish-to-Start Dependencies - This is the most commonly used type of logic dependency, where the start of a task depends on the finish of the preceding one. It will specify whether the second task can start immediately, or whether there must be a delay. In Figure 2 the arrow indicates task B cannot start until task A has finished.

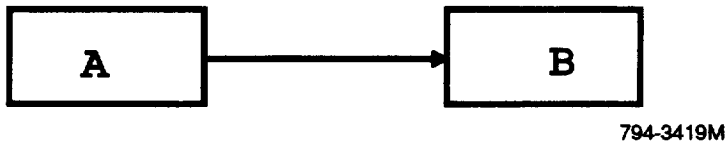


Figure 2 Finish-To-Start Dependency

2.1.5.2.1.2.2 Finish-to-Finish Dependencies - The task cannot finish until the finish of the preceding tasks. In Figure 3, the arrow indicates that task A cannot finish until task B has been completed.

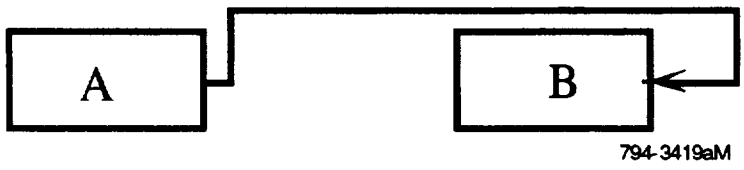


Figure 3 Finish-To-Finish Dependency

2.1.5.2.1.2.3 Start-to-Start Dependencies - The task cannot start until the start of the preceding task. In Figure 4, the arrow indicates that task B cannot start until task A has started.

Figure 4 Start-To-Start Dependency

2.1.5.2.1.2.4 Start-To-Finish Dependencies - The task cannot finish until the start of the preceding task. In Figure 5, the arrow indicates that task B cannot finish until task A has started.

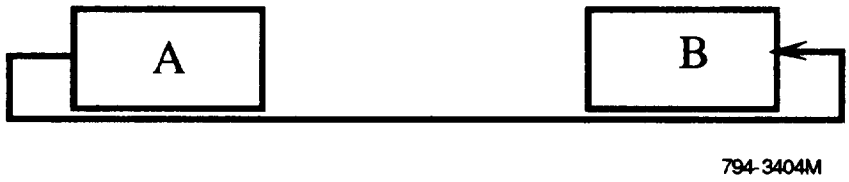


Figure 5 Start-To-Finish Dependency

2.1.5.2.1.3 Scheduling Tasks - In the schedule, tasks are scheduled and their related logic dependencies against time established to determine their start and finish dates. ***M/P 4*** uses time analysis to calculate these dates as well as the project end date and the network's critical path.

During time analysis, ***M/P 4*** calculates the start and finish dates for each task in the schedule based on its duration, logic dependencies, date constraints and project calendar. The project calendar will also identify days or hours on which no work occurs, such as rest days or holidays. Some tasks may require non-standard workweeks (5, 6, or 7 days). This can be accomplished in ***M/P 4*** by creating dummy resources with non-standard calendars (workweeks) attached to them. At that point the dummy resources are assigned to those tasks that require a non-standard workweek.

2.1.5.2.1.4 Total Slack - In addition to calculating start and finish dates, ***M/P 4*** has determined the total slack for each task. The total slack represents the amount of time a task may be delayed without affecting the overall project completion date as illustrated in Figure 6. Tasks with negative total slack are not achievable given the specified project completion date and network logic, and ***M/P 4*** flags the fact that appropriate adjustments will have to be made.

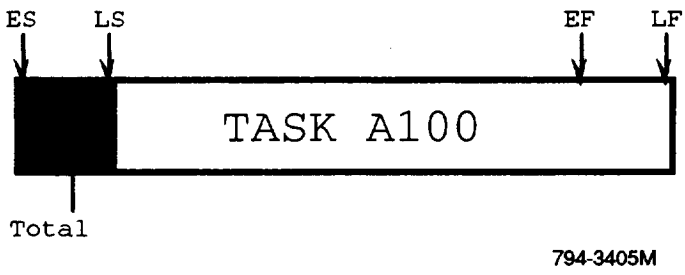


Figure 6 Sample Total Slack

2.1.5.2.1.5 **Critical Tasks** - In ***M/P 4***, tasks with zero or less total slack are called ***critical tasks***. Any delay to one of these tasks will delay the entire project. Together the critical tasks form the critical path of the project. Monitoring of these tasks closely will be required to keep the overall project on schedule.

Figure 7 provides an example of a small segment of a network that shows critical-path tasks and illustrates the flexibility of the network system. Any WBS activity can be excerpted from the overall network and provided in the format shown using the ***Graneda*** software program. The bold blocks are elements in the critical path. These elements stand out clearly when the overall network is viewed. Note also the use of logic dependencies: Task A200 cannot begin until Task A100 finishes.

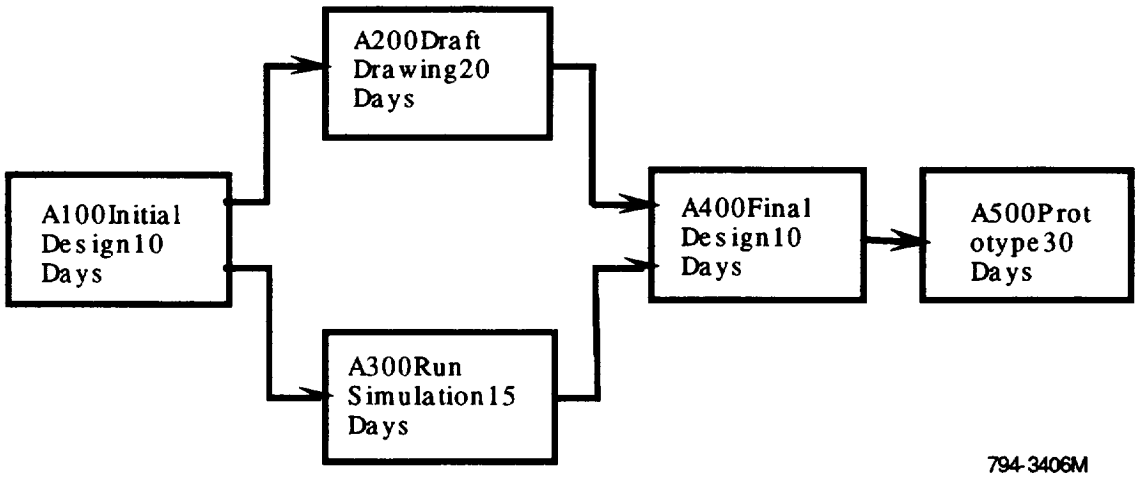


Figure 7 Sample of Critical Path and Logic Dependencies in a Segment of a Network

2.1.5.2.2 **Resources** - Once the network is established in detail, the critical resources (people, equipment, and facilities) required to complete any given task will be identified. Also the quantity of those resources required to complete each task will be identified. A pool of critical resources must be defined with the quantities of those resources available for allocation to individual work tasks. In ***M/P 4*** resources can be assigned different calendars than the project calendar, and task durations can be driven by those resource calendars rather than the project calendar. At Aerojet, the standard workweek is 4 days per week, but with this capability 5, 6, or 7 day workweeks can be assigned to individual tasks by using dummy resources with the appropriate non-standard workweek calendar attached to them.

2.1.5.2.2.1 Resource Aggregation - ***M/P 4*** automatically performs resource aggregation to summarize and compare resource requirements against resource availabilities in the resource pool for a specific time period. Resource aggregation calculates the resource loading across all program tasks and tells whether there are underloads or overloads of resources in a specific time period. If underloads occur, there will be idle resources. If the project contains overloads, the necessary adjustments will have to be identified and implemented. The Resource Graph, actually a resource histogram, can be used to graphically display resource allocation underloads or overloads. See Figure 8 for an example of a resource histogram.

2.1.5.2.2.2 Resource Leveling - If resource over-allocation is the result of scheduling multiple tasks at the same time, you can delay one or more tasks to level or spread out the demands on the resource over a longer period of time, which reduces the demands on currently over allocated days. Over-allocated tasks can be delayed manually by the responsible product team leader and project scheduler to level out the resource usage and eliminate resource overloads. In addition, ***M/P 4*** can delay tasks to remove resource over allocations by the use of resource leveling menu commands. There are three different choices of leveling methods used, based on the order selection of delaying tasks with over allocated resources. The two most significant methods are the Standard Order and the Priority, Standard order. First of all, a resource leveling priority must be chosen for each task that has assigned resources. These priorities range from Do Not Level, Highest, Very High, to Lowest. The tasks with the Lowest priority are the first tasks to be delayed, and the tasks with the highest priority are the last tasks to be delayed. At that point the resource leveling order method can be chosen before leveling. The Standard Order choice uses the following criteria for selecting the tasks to be delayed in the leveling operation.

1. Predecessor relationships.
2. The amount of total slack (the task with the most total slack is delayed before others).
3. The start date (the task with the latest start date s delayed before others).
4. The priority assignment.
5. Date constraints on the tasks.

The criteria for the Priority, Standard order are the same, except that the Priority assignment is moved to the top of the list.

2.1.5.3 Controlling the Project - After the program schedule has been accurately determined, the control phase of program management will be started. The program plan will be stored as the original baseline ***M/P 4*** schedule. Planning 9000 will use the original schedule to create comparison reports, once the project is underway.

2.1.5.4 Work Progress - As the project proceeds, the time progress can be monitored on the tasks using:

a. Actual start dates

b. Actual finish dates

c. Remaining duration (or work still to be completed)

d. Percentage complete of original duration.

After entering progress information, the project will re-calculate using a *time now (update date)*. Time now is the date that ***M/P 4*** uses as the starting date for date calculations. If information is entered up to a certain date, that date will be used as time now. With reported progress and time now, a new schedule will be calculated for the remaining work, and reports generated that reflect the project's current status.

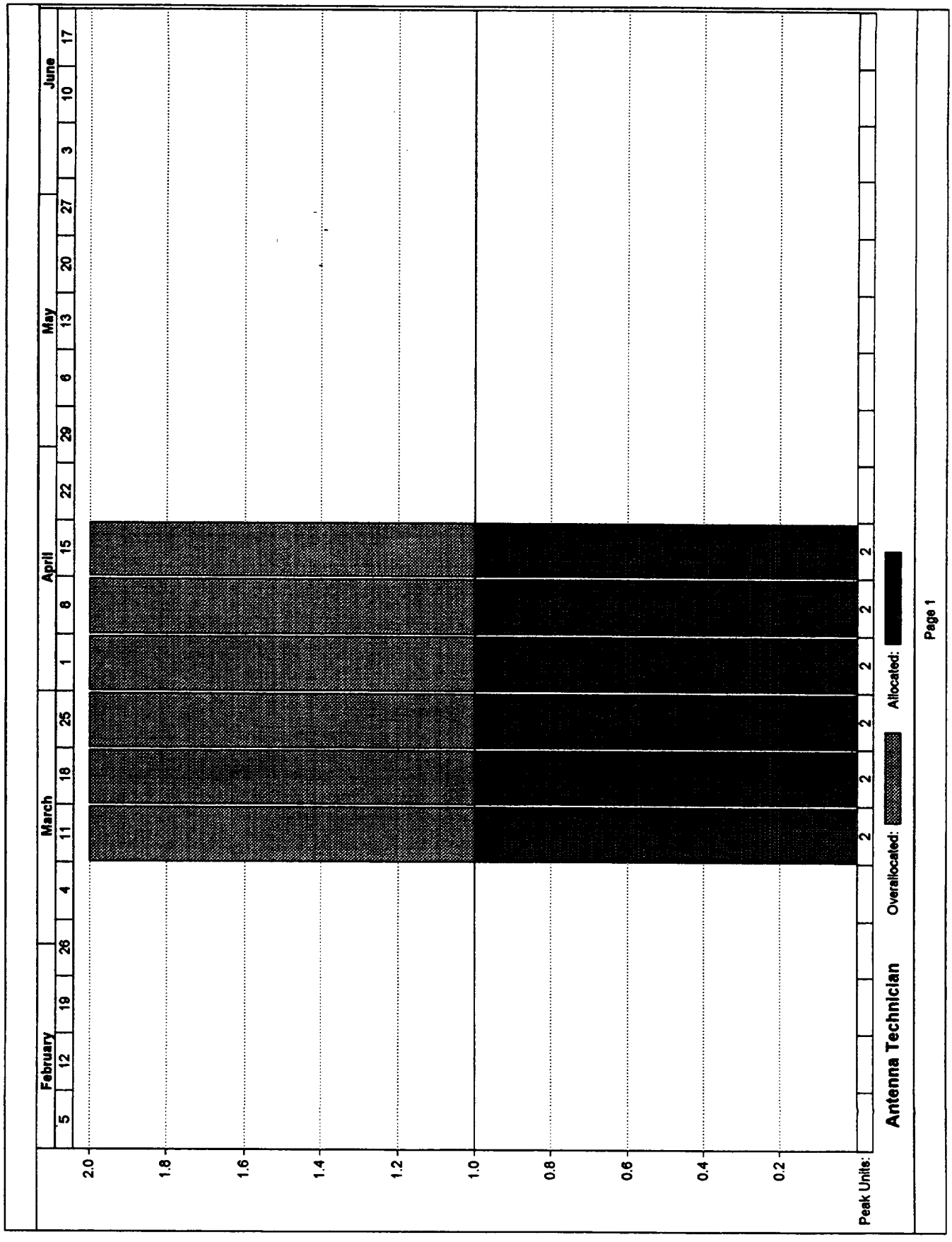


Figure 8 Resource Histogram

2.2 Schedule Hierarchy

The schedule hierarchy at Aerojet consists of: the Tier I Program Master Schedule; the Tier II Program Intermediate Schedule; and the Tier III Program Network Detail Schedules. These schedules are all based on the detailed program network database. The intermediate schedule tiers up from the detail schedules and the master schedule tiers up from the intermediate schedule. The master schedule is directly traceable down to the intermediate schedule and the intermediate schedule traces directly down to the detail schedules. The master schedule can also be traced directly and indirectly down to the detail schedules. See Figure 9 for a flow down chart of the schedule hierarchy. In ***M/P 4*** master and intermediate schedules are easily developed by the creation of summary tasks in the network schedules. A summary task is a task made up of subtasks, that also summarizes those subtasks. Tasks can be arranged in a hierarchical structure that shows how the subtasks fit within broader groups or summary tasks. This structure could also be called an outline structure. Up to 10 different levels of this hierarchical structure can be created. In the Name or Description column of any standard task table, subtasks are indented or demoted below summary tasks. Summary tasks, which are displayed in bold, can also be used as the general headings to help organize work tasks. The duration shown for a summary task reflects the total duration for all of it's subtasks, and the software also selects the earliest start date and the latest finish date of the subtasks and draws a summary task bar on a Gantt chart representing those dates.

As a minimum, the Program Master Schedule should contain all contract hardware delivery requirements and all major program tasks and milestones. This could translate into a schedule with as little as five tasks on one page to as many as 25 tasks per page spread over two pages. The Program Intermediate Schedule should contain all tasks in the master schedule coupled with all tasks summarized at a subsystem level. This level of schedule could contain as few as three and as many as a dozen pages with approximately twenty tasks per page. The detailed schedules must contain as many tasks as necessary to plan all tasks in the CWBS.

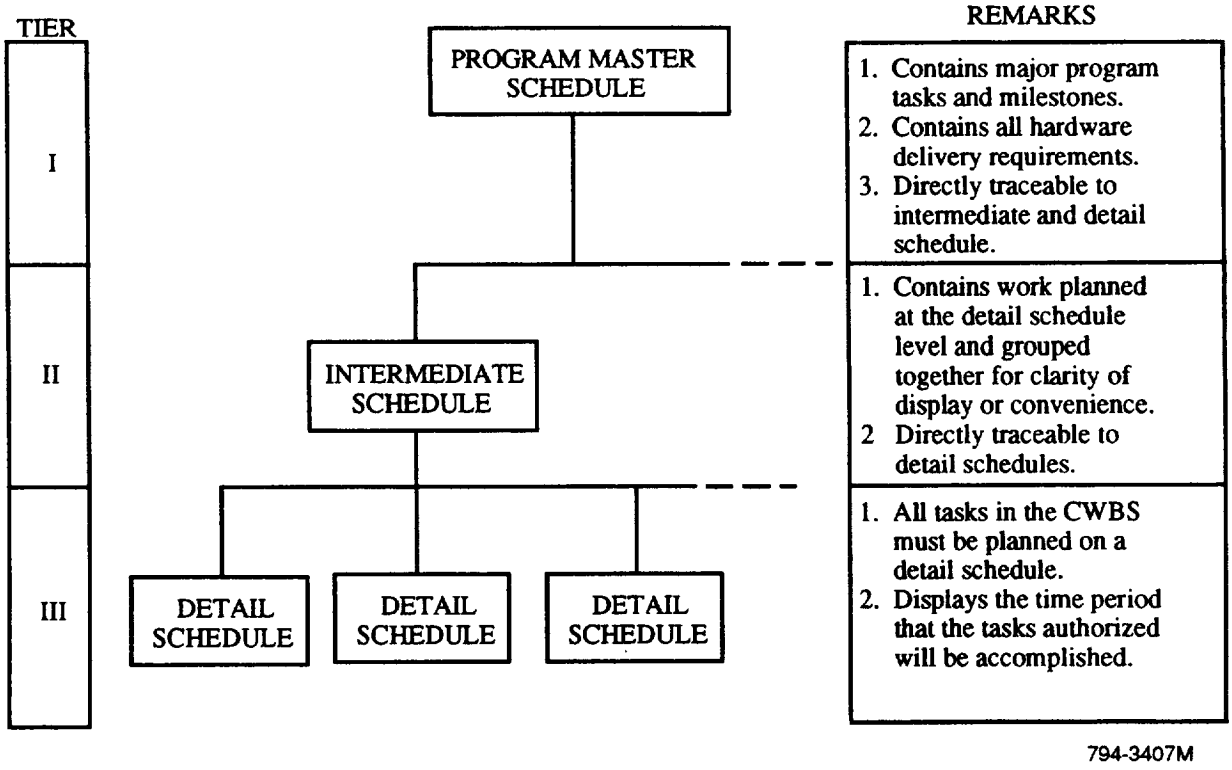


Figure 9 Schedule Hierarchy

2.3 Schedule Correlation with the CWBS

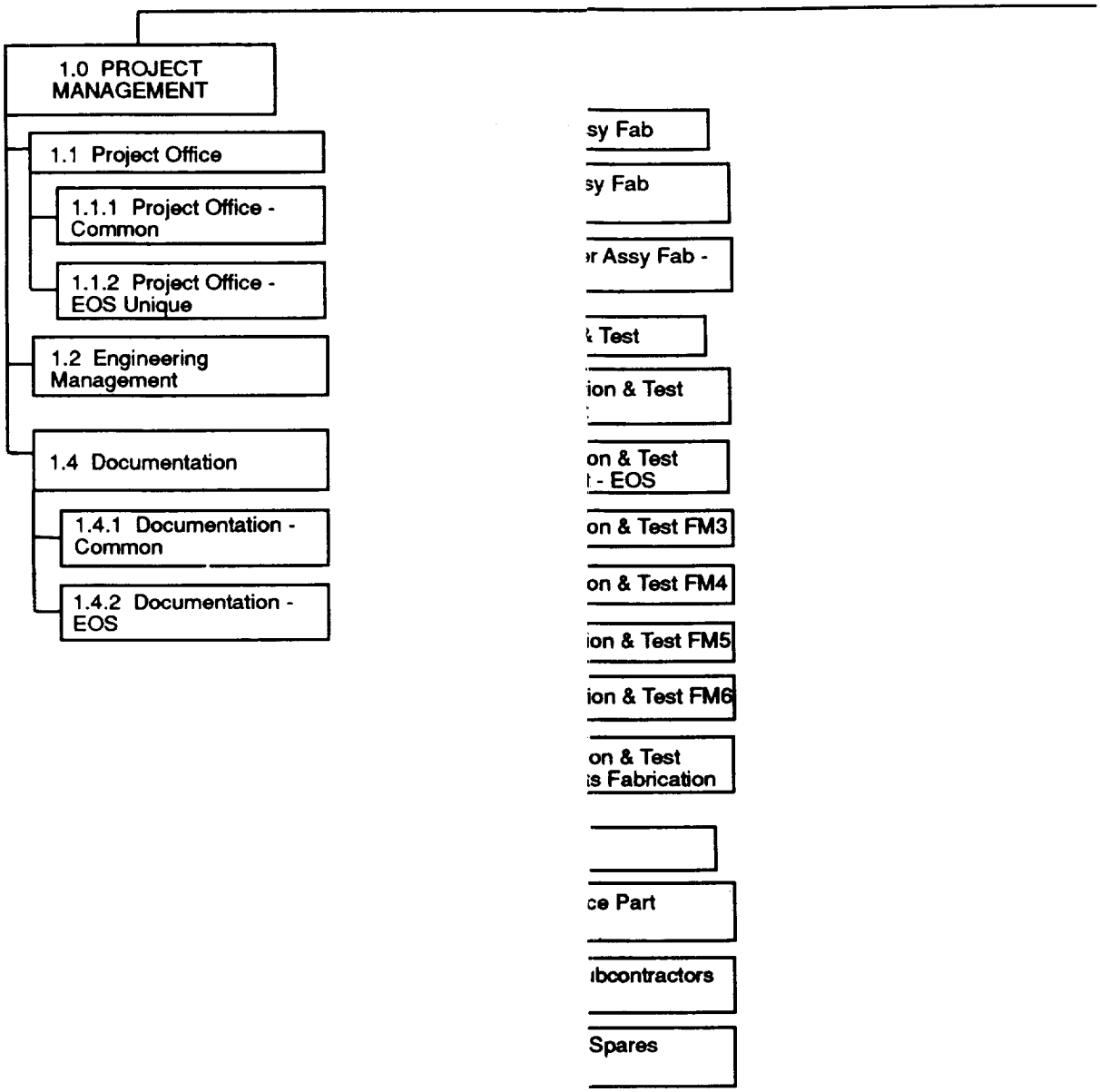
The AMSU-A Engineering & Design Phase detailed network schedule was set-up and organized by Product Teams. The Product Teams are organized to correlate very closely to the CWBS. See Project Management Plan, CDRL 001, 4.2.2, for a specific correlation matrix. In the design phase detailed schedule,the work tasks are divided by Product Teams, which in turn are directly traceable to the CWBS shown in Figure 10. In the Gantt charts the last 6 digits of the cost account number and the work package number are listed in separate columns for each work task. All tasks are also directly traceable to the CWBS. Numerals 5 through 8 of the 10 numeral cost account number match the corresponding CWBS number. For example in cost account number 4510-10-2130, the underlined numbers 10-21 match the CWBS number 10.2.1, "EOS GSE & Fixtures". In the AMSU-A Engineering & Design Phase Schedule the tasks that relate to this CWBS number contain the last 6 digits of the cost account number, 10-2130, in the cost account column. The first 4 digits directly relate to the CWBS. Another example is cost account number 4510-02-3210 with the underlined numbers 02-32 matching the CWBS number 2.3.2, "Elec Subsystem Design - EOS".

A description of the roll-up and vertical traceability capabilities built into the CWBS structure is provided in the "Performance Measurement System Implementation Plan and System Description", CDRL 003, "Program Instruction 003B", titled "Contract Work Breakdown Structure"

2.4 Schedule System and Subcontractor Data

Early in the procurement phase of the AMSU-A program, the Materiel Program Manager will generated and published a critical long-lead subcontract serial report. This report contained expected delivery dates for subcontractor hardware not yet under contract and committed hardware delivery dates for vendors under contract. It is updated and published on a weekly basis and distributed to the Program Manager, all hardware Product Team leaders, and the Program Scheduler. For detailed material and production planning, Aerojet utilizes Manufacturing Resource Planning II (MRP II). Original purchase order delivery dates and changes to delivery dates by subcontractors and vendors are entered by the responsible buyers into the MRP II computer database. In the MRP II system, the P.O. delivery date or vendor commitment date is called the ***dock date.*** As the name implies, that is the date that the materiel is delivered to the Aerojet receiving dock. Normally in the MRP II system the dock to stock time is the time it takes for the materiel to route through the receiving and receiving inspection departments and into main stores. This time is added to the dock date and results in the dock-to-stock date. On the AMSU-A program the dock to stock time also includes the product team leaders buffer lead time (red time, pad time) to produce a date when he really thinks the hardware will be available for fabrication or assembly. Based on past history and the Aerojet procurement department's expertise, this red time is really the product team leader's judgment as to how much the vendor will slip his original delivery commitment date. It is this dock to stock date that is used in the AMSU-A network build schedule for the critical subcontract long lead items. As the start of production nears, the Program Material Planner will utilize MRP II data to generate and publish a production material shortage report. This report will contain critical long-lead hardware, long-lead material, and any material not yet stocked but needed for upcoming material releases to the manufacturing assembly area. This report will be updated and distributed on a weekly basis to the above-mentioned personnel and to other interested parties. Delivery dates in all material shortage reports are derived from the latest data in the MRP II database.

Subcontractor data for specific parts/part numbers are represented in the detailed program network build schedule by individual tasks showing start dates for purchase order placement and finish dates for the delivery of hardware to stock. The program scheduler keys in the delivery dates from the material shortage list into the AMSU-A ***M/P 4*** schedule database. The program scheduler also has the option to obtain on a part by part basis the latest material delivery dates on-line from the MRP II database through his office PC.



December 8, 1995)

Figure 10 AMSU-A Work Breakdown Structure

2.5 Schedule Archives

Each program scheduler at Aerojet archives a copy of every detailed program bar chart that they are responsible for publishing in their office file cabinet. These bar charts can become very useful in the future as historical reference tools for the current program or future programs. Another archive tool available is the capability to store ***M/P 4*** program network files on 3.5" floppy disks, if required.

2.6 Schedule Organization at Aerojet

The AMSU-A Program Master Scheduler reports to the Manager of Plant Sche duling. This manager reports to the Director of the Integrated Planning Department who in turn reports to the Aerojet Vice President, Azusa, Ca. (See Figure 11). The Program Master Scheduler is assigned to the AMSU-A team, and is co-located with the entire AMSU-A team. He is directly responsible to the AMSU-A Program Manager for all program network scheduling tasks. He coordinates with the Program Manager, Deputy Program Managers, and the Product Team Leaders for the purpose of generating the various detailed program network schedules. After the detailed baseline network schedules are generated, status must be taken and the networks updated on a periodic basis. To do this the Program Master Scheduler regularly interfaces and coordinates with the Product Team Leaders. He also supports and helps the Product Team Leaders with any questions or special requests they may have regarding their own specific sections of the network schedules. The AMSU-A Business Manager also requires support from the Program Master Scheduler to ensure that the detailed network schedules comply with all PMS and C/SCSC requirements, and that the PMS detailed planning matches the detailed schedules. The master scheduler directly supports the Program Manager and the Deputy Program Managers with any assistance needed regarding all scheduling matters at any level of the schedule hierarchy. This includes schedule charts required for internal Aerojet management reviews, NASA quarterly and bi-annual reviews and special studies.

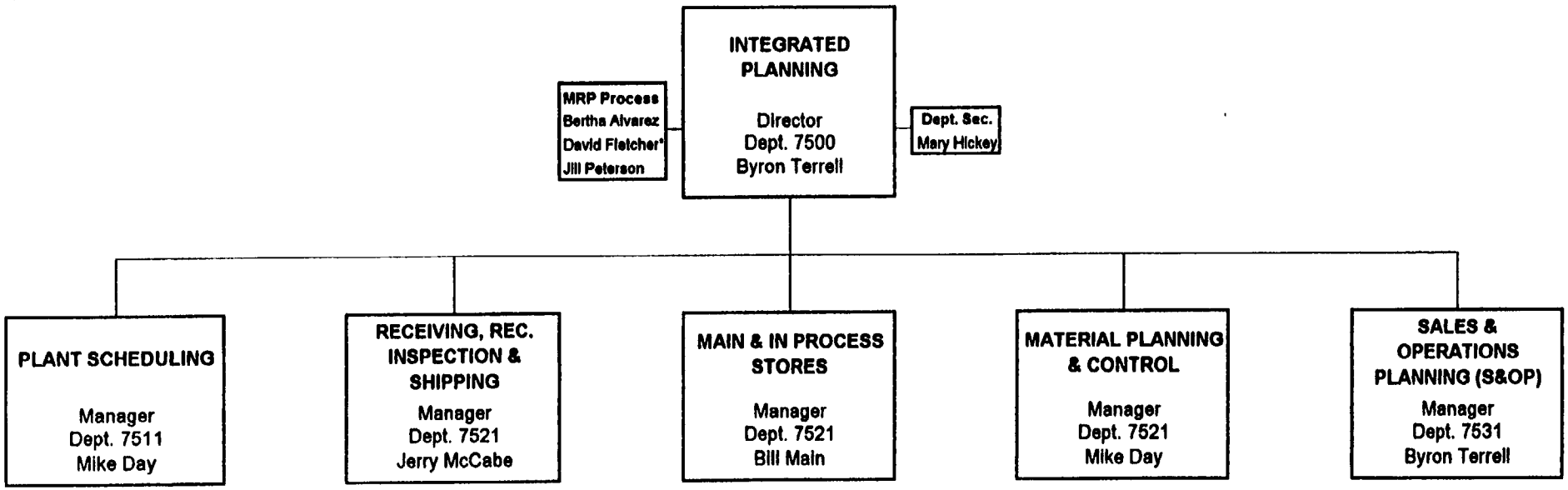
2.6.1 Program Master Scheduler Responsibilities

The Program Master Scheduler's primary responsibilities are to:

- Develop and maintain the various AMSU-A detailed precedence networks (PERT networks) in a ***M/P 4*** database.
- Generate and print-out network logic diagrams (PERT charts) as required.
- Status and update the network databases and generate detailed program bar charts on an established periodic basis.
- Develop, generate, and maintain Tier I and Tier II Master and Intermediate schedules on an as-required basis (at a minimum monthly).
- Develop, generate, and maintain any program schedule charts required to support internal Aerojet management reviews.
- Help in identifying interfaces between the different hardware/product teams, and determine how to incorporate those interfaces into the network build database logic.
- Assess how changes by one product team will affect other teams and the overall network build schedule.
- Identify and monitor the top critical paths in the network build database.
- Keep the Program Manager informed in a timely manner of changes or effects to the top critical paths.

2.7 Schedule Development and Administration

Aerojet has developed four inter-related network schedules with which to plan, monitor, and control the AMSU-A program. These schedules are the AMSU-A Engineering & Design Phase Schedule, the detailed AMSU-A Instrument Build & Test network schedule, the consolidated AMSU-A Metal Parts



Note: * Indicates Employee is --- to Integrated Planning.

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Figure 11 Integrated Planning Department

Manufacturing Schedule, and the consolidated AMSU-A Electronics & CCA Build schedule. The Engineering & Design Phase schedule was developed by the Program Master Scheduler with direct input from all of the Product Team Leaders. This input directly corresponds to the WBS and the PMS input. Various outputs of this schedule (such as drawing releases, and the fabrication and check-out of test equipment, tooling, and fixtures) directly feed into corresponding touch points in the detailed Instrument build schedule.

The detailed Instrument Build & Test network schedule was also developed by the Program Master Scheduler using history from the previous KLM NOAA AMSU-A program, in addition to direct input from all of the Product Team Leaders. This network contains the build sequence of each instrument from the kitting of the lowest subassembly through the integration, environmental test, and shipment of said instruments. This schedule contains one EOS and four METSAT ship sets consisting of one A1 and one A2 module per ship set. The schedule is also divided into a separate sub-network and file for each AMSU-A A1 and A2 module; a total of ten files. All ten files are consolidated to create one large merged program network file with the proper links between modules and ship sets. This consolidated program file is used to aggregate resources across all ship sets from one resource pool and for printing various total program Gantt charts and reports. The intermediate level build schedule Gantt charts are also created from this consolidated file. The EOS instruments are the first ship set scheduled for delivery, and therefore the detailed EOS Instrument network build schedule contains touch points or tasks that can be directly linked to the Engineering, Metal Parts Manufacturing and Electronics schedules. These touch points/tasks include drawing releases, and the check-out of test equipment, tooling and fixtures from the Engineering schedule; the completion of the consolidated (all five ship sets) CCA build and the Preamplifier Detector Assemblies from the Electronics schedule; and the completion of various groups (by subassembly) of metal and machine shop parts from the consolidated (all five ship sets) Metal Parts Manufacturing schedule. In the total merged detailed Instrument Build network, the critical resource requirements are allocated to each work task where needed. These allocations are then compared against the total critical resource availabilities in the resource pool. Below is a list of the critical resources identified for the merged Instrument Build schedule and their maximum quantities available in the resource pool.

Resource Name	Maximum Units
1. Antenna Range	1
2. Electronic Test	1
3. Receiver Test	1
4. EMI Chamber	1
5. Vibration Table	1
6. A1 Vacuum Chamber	1
7. A2 Vacuum Chamber	1

The Electronics & CCA Build Schedule was developed by the Program Master Scheduler with direct input from the Electronics product team leader. The Electronics product team leader utilized the historical data from the KLM NOAA AMSU-A program, and the extensive experience of his Manufacturing Engineer team member on the same program. The Program Master Scheduler has transferred all of the above inputs for the Engineering, Instrument Build and the Electronics schedule networks into the proper format, and added those formatted inputs into the ***M/P 4*** scheduling software to produce three inter-related finished products. The finished products consist of logically driven network schedules with the usual output of a logic network diagram and various levels of bar charts. Resource histograms and numerous reports can also be output. The program Master Scheduler transferred all of the above inputs into the proper format and added them into the Artemis Network Scheduling network. A logically driven program network schedule with the usual output of various levels of bar charts and a logic network diagram are provided. Additional output available are resource histograms and numerous ***M/P 4*** predefined reports. There also is

the capability to produce customized reports. The Engineering schedule is currently being updated on a weekly basis. The status updates are communicated directly from the individual product team leaders to the program master scheduler. As hardware production nears, the Electronics and Instrument Build schedules will be updated on a weekly basis. Schedule status updates will be communicated to the program master scheduler during weekly product team schedule status meetings. As a minimum, the product team leader, the Mfg. Engineer team member, and the production control team member will be present. Depending on team leader preference, another possible scenario would be for the team leader to communicate status updates gleaned from the schedule status meeting directly to the program master scheduler following the team meeting.

The Metal Parts Manufacturing (MPM) schedule was developed and generated by the manager of the machine shop with significant inputs from the program master scheduler, the AMSU-A Production Manager and various product team Manufacturing Engineers. MPM piece parts were grouped together by their parent assemblies, and the completion need dates to support those parent assemblies were established based on their scheduled dates in the Instrument Build schedule. The MPM schedule was primarily developed by using the piece parts groups with their corresponding need dates, and by resource loading the specific machine tools and fabrication facilities in the machine shop that were assigned to the AMSU-A program. After machine tool resource requirements were assigned to each piece part and resource leveling priorities assigned by group to each piece part, the entire MPM schedule was resource leveled against the machine tool resource pool to produce the MPM schedule. This schedule is being updated on a weekly basis by the machine shop senior program planner and the manager of the machine shop. Paper copies of the schedule are being produced and distributed, and the schedule is also being distributed by E-Mail to interested parties. The manager of the machine shop also conducts a weekly AMSU-A schedule status meeting with the AMSU-A Production Manager, responsible product team leaders, responsible manufacturing engineers, and the machine shop senior program planner. Progress of piece parts currently in work in the machine shop and the paperwork progress of parts scheduled to start in the near term are discussed. Technical, quality, paperwork, materiel, and logistics problems and solutions to those problems are all discussed at this meeting

2.8 Schedule Management

A basic approach in establishing the design phase of the program schedule was to set up the formal design reviews as significant milestones and then feed all design tasks into the appropriate design review. In this way, the progress of design tasks can be tracked and compared to the schedule of their corresponding design reviews. Slack time can be calculated and compared to the need dates of the significant milestones.

The critical schedule driven elements that affect the delivery of AMSU-A hardware are identified in the detailed Instrument Build network. Most important of these are critical paths and subcontracted long-lead items. Several of the long-lead items are the top critical paths in the build network. The top critical path (most critical) that drives the schedule end or delivery date is identified in the Instrument Build network logic diagram by an alternate graphic representation, such as bold outlines, of the task boxes. In the Gantt charts, the top critical path is also identified by alternate graphical representation of the task bars. The program scheduler can choose from a fairly extensive number of graphics available for this purpose. One of the principal approaches to schedule management on this program will be to monitor and manage the top critical paths in the detailed Instrument Build schedule. Since all of the top critical paths are driven by subcontracted long-lead hardware procurement, the control and management of these long-lead subcontracts is a major key to the overall success of the program. Because of this, program management and the product team leaders have decided to incorporate a schedule pad (Management Red Team) into each subcontracted procurement delivery schedule. This red time ranges anywhere from one to four months, and is represented in the Instrument Build schedule by the dock-to-stock task for each subcontracted long-lead item. The use of this red time represents an additional safety factor over and above whatever slack is currently present for most long lead items. As previously discussed, slack is the amount of time a task may be delayed without affecting the overall project ship date. The top 25 long-lead items, including major subcontracts, are being constantly watched and tracked by the product team leaders and

the program manager. These items are concentrated in the Antenna, Receiver, and Electronics teams. After purchase order placement, all major elements of the subcontracting effort are closely monitored and tracked. Some of these elements are: the Quality Assurance Plan, the Preliminary Design Review, the Critical Design Review, the Manufacturing Readiness Review, and the incremental delivery dates. Excel-based matrix reports, divided into the three major subsystem product teams of Antenna, Receiver, and Electronics are updated and published on a weekly basis. Figure 12 is an example of the Antenna Subcontractor report.

Another management schedule control procedure that will be used after the program baseline plan has been established is the comparison of LRE (latest revised estimate) schedules with the original baseline schedules. This will be accomplished by attaching Gantt chart symbols (open arrows) to the baseline dates for each task on the bar charts. In this way it will be easy to compare the baseline dates, open arrows, with the LRE dates, open bars. Diamonds on the bar charts will be used to show the last five previous period schedules. Every time the end date of a task slips, the previous date will be represented by a diamond. In this way negative schedule trends (constantly slipping schedule dates) can be easily identified.

2.8.1 Management Red Time

In addition to the major subcontract red time, program management has decided to add management red time to the end of each of the three major subsystem's build schedules. These major subsystems are the Antenna Assembly, the Receiver Assemblies, and the Signal Processor Assembly. Red time for these subsystems varies from 0 to 52 working days for the Antenna Assembly, 0 to 56 days working days for the Receiver Assemblies, and 0 to 22 working days for the Signal Processor Assembly. This red time forces the early start of subsystems at a minimum an earlier than needed start to support the start of final instrument integration. The early starts allow time to recover before affecting final instrument integration, if problems arise during subsystem assembly and test.

Management has also made the decision to add red time to the end of each instrument's final integration, test, and shipment schedule. This management red time varies in length from 28 to 66 working days, depending on the instrument and the shipset. This system-level management red time also allows time to recover before affecting the contract ship date, if problems should arise during final integration and acceptance test. This red time also forces an earlier than needed start of instrument integration, which in turn forces an earlier start of all the major subsystems. Consequently, we have both the system level and the subsystem level management red time forcing earlier starts of the major subsystems.

2.8.2 Schedule Risk Analysis

The program master scheduler has created an intermediate level build schedule (model) for the EOS shipset consisting of approximately 64 tasks. Along with final integration, test and shipment of the two modules, only the three major subsystems of Antenna Assembly, Receiver Assemblies and Signal Processor Assembly were scheduled. This schedule is a higher level accurate representation of the detailed Instrument Build schedule for the EOS shipset complete with the necessary inter-connecting logic dependencies. The nominal task durations were taken directly from the detailed Instrument Build network schedule. Significantly EOS is the first shipset and probably contains the most schedule risk. The product team leaders supplied the high (worst case) and low (best case) risk durations for each task they are responsible for in this schedule risk model. Monte Carlo simulations of this schedule model have been run in both the Risk+ program and the Aerojet EXCEL based program. Subsequently a schedule risk model containing all five shipsets was developed. This model contains approximately 285 tasks. Simulations of this model have been run in the Risk+ program using preliminary high and low risk task durations. This model is currently being analyzed and refined. After a final risk model is established and simulated to determine overall program risk, the program scheduler and the program risk manager will rerun the model using the latest information on approximately a quarterly basis or when new events warrant it. For an in-depth discussion of AMSU-A program risk see the AMSU-A Program Plan, CDRL 001.

Component	Supplier	Resp. Engr.	MRR	PDR	CDR	Need Date	FM 1	FM 2	FM 3	FM 4	FM 5	SPARE	SPARE
Bearings	Barden	Brest	N/A	N/A	N/A	7/16/96*	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96	3/28/96
Bearing Lube	Ball Aero.	Brest	N/A	N/A	N/A	9/16/96	5/30/96	5/30/96	5/30/96	5/30/96	5/30/96	5/30/96	5/30/96
Motors	Vernitron	Brest	9/28/95	N/A	N/A	10/8/96	12/22/95	1/19/96	1/19/96	2/16/96	2/16/96	3/22/96	3/22/96
Resolvers	Vernitron	Brest	8/24/95	N/A	N/A	10/8/96	12/22/95	12/29/95	12/29/95	2/2/96	2/2/96	2/2/96	3/1/96
A2 Reflector	COI	Brest	N/A	4/1/95	6/22/95	11/27/96	10/31/95	5/22/96	5/24/96	7/4/96	7/8/96	8/13/96	8/15/96
Diplexer/Feed	MEC	Brest	1/18/96	N/A	N/A	2/12/97	3/28/96	6/28/96	6/28/96	6/28/96	6/28/96	8/29/96	8/29/96
Multiplexer/Feed	MEC	Brest	1/18/96	N/A	N/A	12/3/96	3/28/96	6/28/96	6/28/96	6/28/96	6/28/96	8/29/96	8/29/96
Mtr Drv Shafts	ElectroTech	Brest	N/A	N/A	N/A	9/16/96	12/7/95	12/7/95	12/7/95	12/7/95	12/7/95	12/7/95	12/7/95
Warmload Cores	ZAX MMW	Brest	N/A	N/A	N/A	10/7/96	2/22/96	2/22/96	2/22/96	2/22/96	2/22/96	2/22/96	2/22/96

NOTE: ALL DELIVERY DATES ARE VENDOR PROMISE DATES WITH NO RED TIME. AN ASTERISK INDICATES THAT RESIDUAL PARTS ARE AVAILABLE FROM KLM CONTRACT

= adjusted since last report = COMPLETED

Figure 12 Antenna Subcontractor Activity

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3.0 Schedule Output to GSFC

Aerojet can output schedule data to GSFC in many varied forms. The most common formats would be bar charts at the Master, Intermediate, and detailed level. Other formats include logic diagram charts (PERT charts) and any number of table- or matrix-oriented schedule reports. Currently Aerojet is providing GSFC with a Gantt chart copy of the Engineering & Design Phase Schedule in the AMSU-A monthly report, CDRL 529. Gantt chart paper copies of a master schedule, an intermediate level Instrument Build schedule, the detailed Instrument Build schedule, the Electronics Team schedule, the Metal Parts Manufacturing schedule, a 90 day window schedule derived from any of the above mentioned detailed schedules, and a build schedule slack report can be mailed to GSFC on a regular basis. Any of the four Microsoft Project files used to create the above-mentioned schedules can be copied onto a 3.5 inch floppy disk and mailed to GSFC, or the files can be E-Mailed through the Internet if GSFC has the capability to receive Internet mail.

Report 10392B
December 1995

APPENDIX A

MASTER, INTERMEDIATE, AND DETAIL SCHEDULES - PREPARATION AND MAINTENANCE

Aerojet
Electronic Systems Division

TITLE		C/SCS Program Instruction 008D
Master, Intermediate, and Detail Schedules – Preparation and Maintenance		
APPROVED BY M. A. Citro	EFFECTIVE DATE 01 November 1990	
	SUPERSEDES PI DATED 008C 19 January 1987	PAGE NUMBER 1 of 5

1. Purpose

1.1 To establish policy, responsibility and procedures for the preparation and maintenance of master, intermediate, and detail schedules for programs requiring implementation of DoDI 5000.2-M.

2. Policy

2.1 All C/SCS programs shall establish and maintain a scheduling system for the work authorized in the contract work breakdown structure (CWBS). This system shall schedule the authorized work in a manner which describes the sequence of work and identifies the significant task interdependicies required to meet the development, production, and delivery requirements of the contract.

2.2 A program master schedule shall be developed by the Program Office to be used as the framework for all underlying schedules.

2.2.1 The master schedule shall contain all contract dates including contractual milestones and events, major subcontract dates, major hardware delivery dates and dates for government-furnished equipment or services.

2.2.2 Program Control, under the direction of the program manager, shall be responsible for the preparation, statusing and change control of the master schedule.

2.2.3 The master schedule shall reflect and be directly traceable to the tasks specified in the CWBS.

2.2.4 The master schedule will be the basis used by functional managers and cost account managers to establish subordinate schedules.

2.3 Intermediate schedules shall be required for all C/SCS programs.

2.3.1 Intermediate schedules shall be developed to define the tasks required to accomplish the program milestones shown in the master schedule.

2.3.2 Significant decision points, constraints and interfaces shall be identified as key milestones and included in the intermediate schedules.

2.3.3 All milestones and events shall integrate and tier to the master schedule.

2.3.4 Intermediate schedules shall provide a logical sequence from the master schedule to the detail schedules at the cost account level.

2.3.5 Intermediate schedules may be structured to display either product, CWBS or functional oriented tasks.

2.3.5.1 Engineering and Manufacturing schedules may be considered intermediate schedules or detail schedules depending on the level of detail included on the schedule.

2.4 Detail schedules at the cost account level shall be mandatory for all tasked accounts.

2.4.1 A detail schedule shall be prepared for each planned work package that uses discrete or apportioned performance measurement techniques.

2.4.2 The C/SCS Budget Plan and Detail Schedule form shown in attachment 1 shall be used for work package schedules prepared manually.

2.4.2.1 The use of automated scheduling systems is encouraged and recommended for large programs.

2.4.2.2 To avoid redundancy and to eliminate the confusion of having two schedules, an automated schedule may replace the use of the detail schedule included on the budget plan.

2.4.3 Detail schedules shall not be required for LOE cost accounts or planning packages.

2.4.3.1 The detail schedule portion of the budget plan and detail schedule (attachment 1) shall be left blank.

2.4.3.2 A start and completion date shall be required on the budget plan.

2.4.4 Work packages shall be scheduled in terms of physical accomplishment by using calendar dates to identify cost account and work package start and completion dates.

2.4.5 Detail schedules shall integrate and tier to intermediate schedules and the master schedule.

2.4.6 Detail schedules shall identify interfaces that recognize significant constraints and relationships to key milestones and activities.

2.4.6.1 Incoming and outgoing interfaces shall be identified on the C/SCS budget plan and detail schedule (attachment 1).

2.4.7 Meaningful (objective) indicators shall be identified for cost/schedule correlation and performance measurement determination.

2.4.8 Cost account managers (CAMs) are responsible for the preparation and statusing of detail schedules.

2.5 The master, intermediate, and detail schedules shall provide current status and forecast completion dates for scheduled work in comparison to the baseline (planned) schedule.

2.6 The frequency of statusing and updating schedules shall be determined by the program manager and set forth in a program directive.

2.6.1 To identify the status of work in a timely manner, detail schedules shall be statused at least once a month.

2.6.2 On a monthly basis, significant differences between planned (baseline) and actual schedule accomplishment shall be identified and the reasons explained in accordance with the procedures established for variance reporting under PI 015.

2.6.3 Planned schedule represents the timephased performance measurement baseline. Actual schedule accomplishment including forecasted schedules should be in accordance with the timephased estimate to complete.

2.7 Schedules are implemented and categorized in four tiers.

Tier I	Master Program Schedule
Tier II	Intermediate Schedules
Tier III	Detail Schedules – Cost Account or Work Package Level
Tier IV	Subwork Package Level

2.7.1 The hierarchy of the schedule tiers is shown in attachment 2.

2.7.2 A schedule matrix defining schedule authority, responsibility, update frequency and requirements, and format requirements is shown in attachment 3.

3. Procedures

3.1 The program master schedule is established by the Program Office and published through a program directive immediately following authority to proceed.

3.1.1 The program master schedule is used by all cost account managers as the baseline for the preparation of detail schedules.

3.1.2 The program master schedule is used to establish the Tier II intermediate schedules.

3.1.3 All changes or updates to the master schedule must be approved and controlled by the program manager.

3.2 Intermediate schedules are established concurrently with the program master schedule by the Program Office.

3.2.1 Functional managers use the Tier II intermediate schedules to develop functional schedules.

3.2.2 All changes or updates to the Tier II intermediate schedules must be approved and controlled by the program manager as specified in a program directive.

3.3 Detail schedules (Tier III) are prepared for all tasked cost accounts and work packages by the responsible CAM.

3.3.1 Detail schedules shall track the progress of individual cost accounts with key milestones traceable to the intermediate schedules and the master schedule.

3.3.2 The CAM ensures that all cost accounts and work packages contain specific start and completion dates that integrate with higher level schedules.

3.3.3 Detail schedules are statused by the CAM and submitted to the Program Office at least on a monthly basis coinciding with the end of the accounting month.

3.3.3.1 The frequency of statusing and submission is set forth in a program directive as discussed in paragraph 2.6.

3.3.3.2 The status of the detail schedules is used by the Program Office in determining the status of higher level schedules.

3.3.3.3 Program Control shall publish the current statused detail schedules and distribute to all affected personnel.

3.3.4 The program control schedule group reviews the traceability and accuracy of the detail schedules on a continual basis to ensure integrity with the program master and intermediate schedules, and with the work package activity report.

3.4 Tier IV subwork package schedules are optional and may be used at the discretion of the CAM.

3.4.1 No standard schedule technique or standard form is required for Tier IV schedules.

3.4.2 CAMs are encouraged to use lower level planning documents than are required by this C/SCS PI.

3.4.3 All start and completion calendar dates for Tier IV schedules must tier to Tier III schedules.

3.5 The control, approval, and documentation of schedule changes is established by the program manager and set forth in a unique program directive.

3.6 The definitions, symbology, and terminology to be used for statusing schedules is established by the program manager and set forth in a program directive.

3.6.1 When standards are not established by the customer, the program manager may use symbols and terminology that conform to acceptable industry standards.

3.6.2 An example of a preferred standard is shown in attachment 4.

3.7 All program control scheduling groups are encouraged to utilize any automated scheduling capabilities available at AESD, such as ARTEMIS, PROMIS, or PRIMAVERA.

SCHEDULE AUTHORITY, RESPONSIBILITY, AND UPDATE MATRIX

Schedule	Tier	Authorizing Documents	Responsibility-Authority		Update Requirements	Update Frequency	Format Requirements	Applicable Documents
			Establishment	Maintenance				
Program Master Schedule	I	Program contract and any contractual changes	Program manager by program directive (PD)	Program Control by program instruction 008	To incorporate contractual requirements To incorporate task or event changes having no impact on contractural requirements	Upon receipt of contractural changes As specified by program directive	As specified in program directive Preferred format is computerized Gantt or network chart	DoDI 5000.2-M APD 3.04 PI 004
Intermediate Schedule	II	Program directive	As designated in program directive	As designated in program directive	As specified in program directive To incorporate master or detail changes	As specified in program directive When impacted by Master or detail changes	As specified in program directive	APD 7.06
Detail Schedule	III	Program directive PI 006 PI 013	As designated in program directive PI 006 PI 013	As designated in program directive PI 006	To incorporate program manager's directed changes To incorporate contractual changes Work statusing	As specified in program directive and PI 006	As specified in program directive	APD 7.06 PI 004
Subwork Package Schedule	IV	Program directive APD 7.01	APD 7.01 APD 7.06	As required	As required	As required		APD 7.02 through APD 7.08

Electronic Systems Division

TITLE		C/SCS Program Instruction 010C
Program Management Networks (PMN)		
APPROVED BY M. A. Citro	EFFECTIVE DATE 2 March 1987	
	SUPERSEDES PI 010B DATED 01 May 1980	PAGE NUMBER 1 of 3

1. Purpose

1.1 To establish policy, responsibility and procedure for implementing and maintaining program management networks (PMN) for those programs requiring implementation of DoDI 5000.2-M.

1.2 To define the relationship between PMN and detailed, intermediate, and master schedules.

1.3 To define the relationship between PMN and the contract work breakdown structure (CWBS).

2. Policy

2.1 The program manager is responsible for ensuring that program management networks (PMN) are implemented and maintained on programs where they are a contractual or internal requirement.

2.2 The program manager shall specify the time period that PMNs are revised to show current program status. This status update period shall conform to the applicable internal or contractual requirements.

2.3 The program manager shall be responsible for ensuring that the PMN is constructed using logic that represents, and is traceable to, the currently authorized cost account/work package plan.

2.4 The program control scheduling group shall be responsible (at the program manager's direction) for constructing, periodic statusing, analyzing, and publishing the PMN.

2.5 PMN shall be produced using computerized time-analysis techniques. It is recommended that the precedent method of time-analysis be used.

2.6 The program control scheduling group shall be responsible for ensuring that the major contract milestones, interfaces, or events specified by the program manager shall be included in the PMN.

2.7 The PMN shall be used to determine if the original program planning conforms to the established contractual milestones, interfaces, and events, after which it shall be used to evaluate and control the program. The PMN is not to be used as a substitute for detailed and intermediate schedules, but to incorporate them into a format that will provide the program manager, or the customer when required, with a clear and concise overview of the current program status.

2.8 As a minimum, the PMN will provide:

2.8.1 Identification of the major tasked work required to accomplish program objectives in accordance with the CWBS.

2.8.2 Early and late start, early and late finish, and the total float of each activity in the network.

2.8.3 The critical path through the network.

2.8.4 Interface requirements are included as part of the formal network review with the responsible/ performing organizations.

2.8.5 A review by Program Control of all interfaces created by the organization or imposed on it from another area.

2.8.6 Milestones and summary events on networks that must be in accordance with the program master and intermediate schedules.

2.8.7 Integration and control of scheduling to produce a coordinated plan of accomplishment of program objectives.

2.8.8 A base for creating reports that indicate current status and forecasts against planned status which shows the total program impact.

2.8.9 Identification of future problem areas for preventative action.

2.8.10 Development of simulation techniques for evaluating and forecasting alternative plans prior to their implementation.

2.8.11 Network simulations to indicate the impact of Contract Change Notices, Engineering Change Proposals, and formal reprogramming action items.

2.8.12 Integration of subcontractor data into the program management system networks to ensure total program coverage.

3. Procedure

3.1 Program Control determines any requirements for data processing services to support program networks.

3.2 Networks are constructed to identify CWBS major contract end items of hardware and software that are to be delivered to the customer or that otherwise constitute an AESD commitment.

3.2.1 Networks shall be updated periodically, as specified by the program manager, to reflect program progress and changes to program plans.

3.3 The network critical path is re-evaluated each time program progress or changes to program plans are incorporated into the program network.

3.4 Interface requirements are included as a part of the formal network review with the responsible/performing organizations. Program Control performs a review of all interfaces created by that organization or imposed on it from another area.

3.5 Milestones and summary events on networks must be in accordance with the program master and intermediate schedules.

3.6 Networks shall be updated periodically as specified by the program manager.

3.7 Networks shall be produced by automated systems such as ARTEMIS and shall use the precedent or I-J technique to provide time-analysis and network/Gantt chart graphics.

3.8 The time-analysis shall provide the following data derived for each network activity:

- Early start date
- Early finish date
- Late start date
- Late finish date
- Total float

3.9 An activity in a network can consist of a partial or total amount of work contained in a work package, cost account, or any other measure of authorized work. An activity, however, must be traceable to that work contained in authorized work packages. Network activities are constructed for the convenience and clarity of analysis and, therefore, often consist of several functional cost accounts that perform a common operation.

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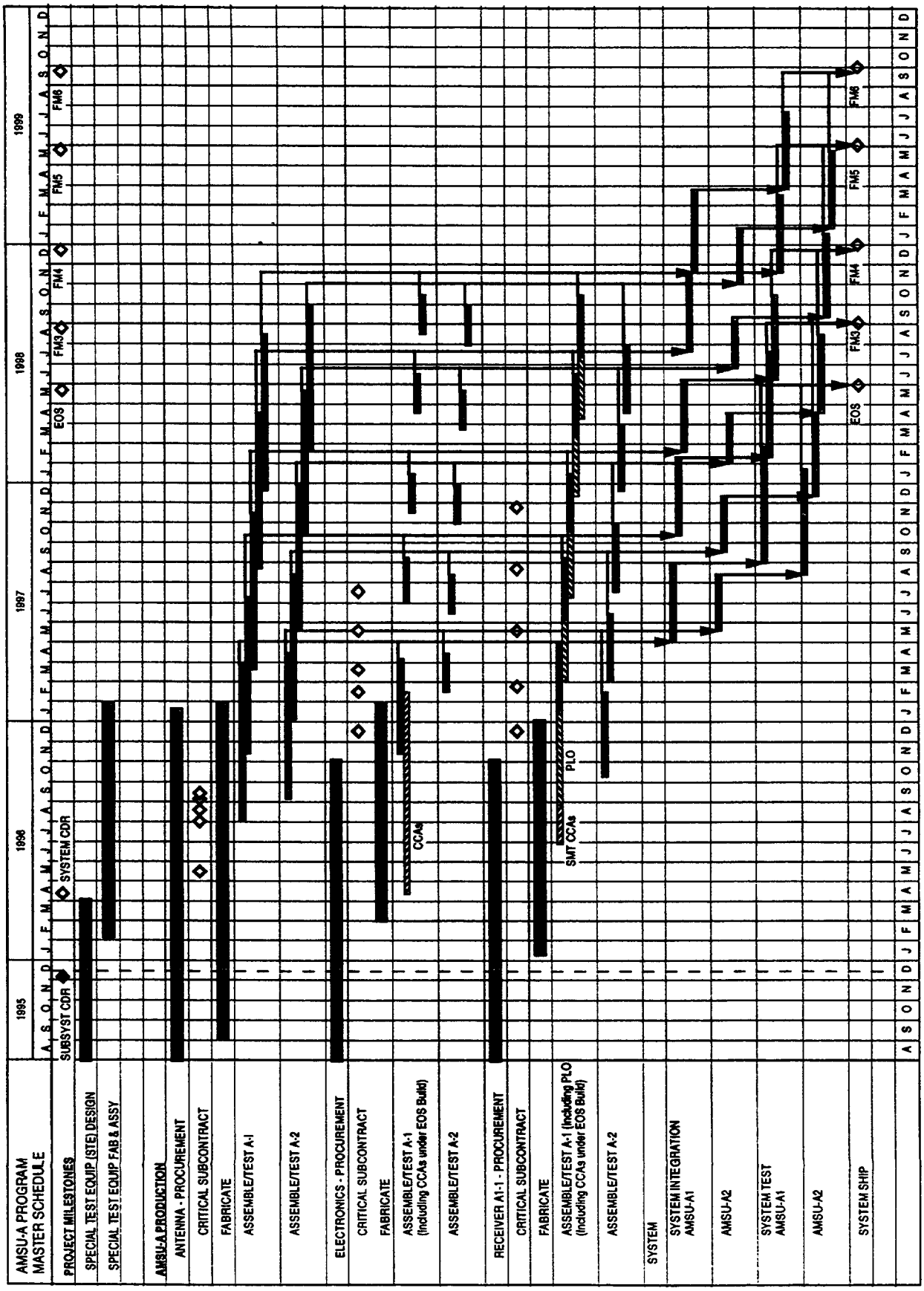
APPENDIX B

PROGRAM MASTER SCHEDULE


AMSU-A PROGRAM
MASTER SCHEDULE
1995
1996
1997
1998
1999
A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
SUBSYST CDR
SYSTEM CDR
EOS
FM3
FM4
FM5
FM6
PROJECT MILESTONES
SPECIAL TEST EQUIP (STE) DESIGN
SPECIAL TEST EQUIP FAB & ASSY
AMSU-A PRODUCTION
ANTENNA - PROCUREMENT
CRITICAL SUBCONTRACT
FABRICATE
ASSEMBLE/TEST A-1
ASSEMBLE/TEST A-2
ELECTRONICS - PROCUREMENT
CRITICAL SUBCONTRACT
FABRICATE
ASSEMBLE/TEST A-1
(Including CCAs under EOS Build)
CCAs
ASSEMBLE/TEST A-2
RECEIVER A1-1 - PROCUREMENT
CRITICAL SUBCONTRACT
FABRICATE
ASSEMBLE/TEST A-1 (Including PLO
(Including CCAs under EOS Build)
SMT CCAs
PLO
ASSEMBLE/TEST A-2
SYSTEM
SYSTEM INTEGRATION
AMSU-A1
AMSU-A2
SYSTEM TEST
AMSU-A1
AMSU-A2
SYSTEM SHIP
EOS
FM3
FM4
FM5
FM6
A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D

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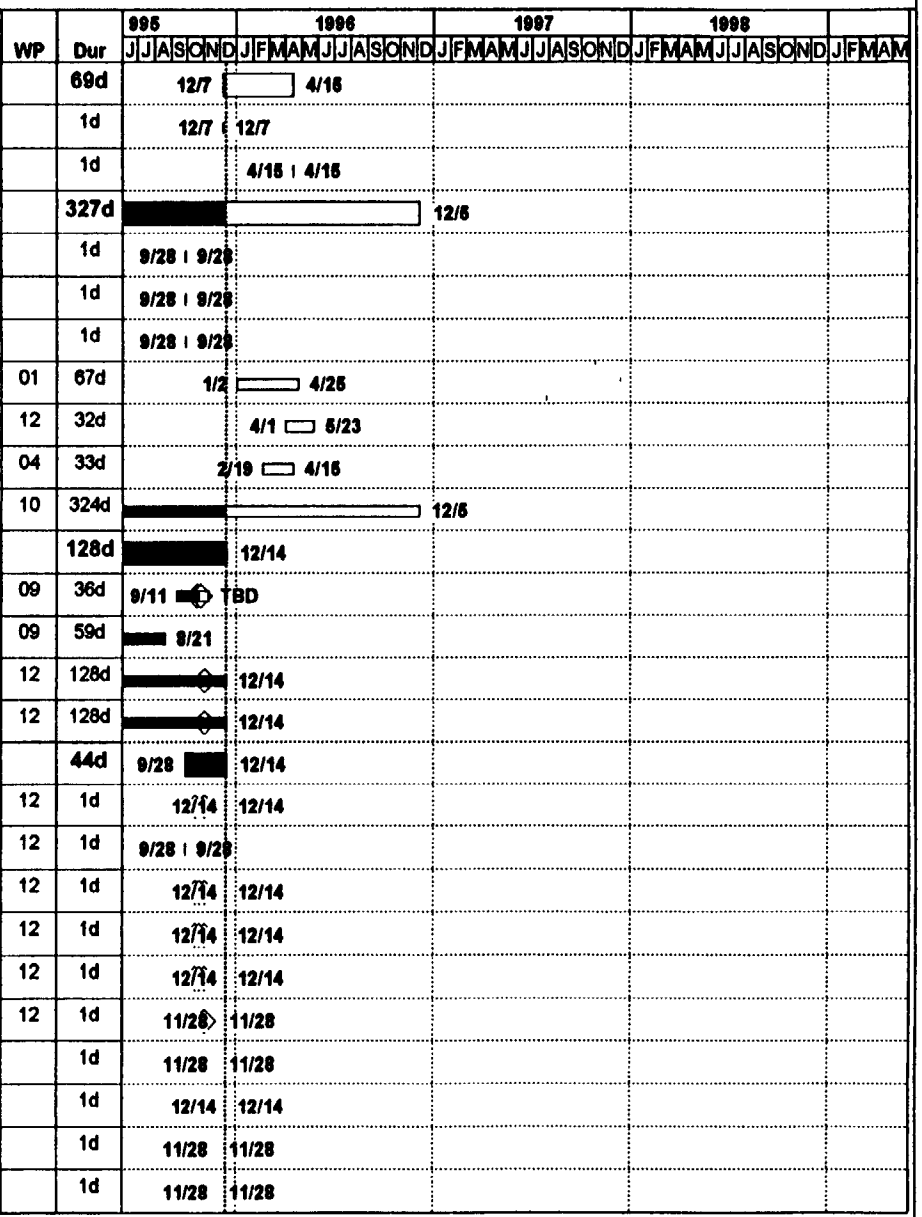
APPENDIX C

ENGINEERING AND DESIGN PHASE SCHEDULE

AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
1	**DESIGN REVIEWS**			69d
2	SUBSYSTEMS CDR			1d
3	CDR - CRITICAL DESIGN REVIEW			1d
4	**RECEIVER SUBSYSTEM**			327d
5	RELEASE A1-2 RECEIVER ASSY DWG 1356409-1	03-5200		1d
6	RELEASE A1-1 RECEIVER ASSY DWG 1356429-1	03-5200		1d
7	RELEASE A2 RECEIVER ASSY DWG 1356441-1	03-5200		1d
8	RECEIVER TEST PLAN, TEST PROCS(AE26002/6,26606), DRY R	02-2200	01	67d
9	FAB RECEIVER TEST EQUIP & TEST FIXTURES (P/Ns TBD)	03-5200	12	32d
10	PREP FOR & SUPPORT CDR	02-2200	04	33d
11	RECEIVER ENGR PROCUREMENT SUPPORT (MRRs, PDRs,CD	03-5200	10	324d
12	**PLO DOCUMENTATION TO INCORPORATE NASA REQ'TS**			128d
13	THERMAL VACUUM TESTS & REPORT	02-2300	09	36d
14	ENGINEERING ANALYSIS UPDATES	02-2300	09	59d
15	MECHANICAL DRAWING CHECK	03-5300	12	128d
16	ELECTRICAL DRAWING CHECK	03-5300	12	128d
17	**PLO DRAWING RELEASES**			44d
18	PLO ASSY 1348360-1	03-5300	12	1d
19	TUNING DISK, DRO ASSY 1348387-1	03-5300	12	1d
20	CABLE ASSY 1348430-X	03-5300	12	1d
21	CABLE ASSY 1348435-X	03-5300	12	1d
22	CABLE ASSY 1348436-1	03-5300	12	1d
23	FACE PLATE, PLO 1348364-1	03-5300	12	1d
24	HOUSING 1348365-1			1d
25	HOUSING ASSY 1348366-1			1d
26	VCGDO SUPPORT 1348367-1			1d
27	CABLE ADAPTER 1348370-1			1d



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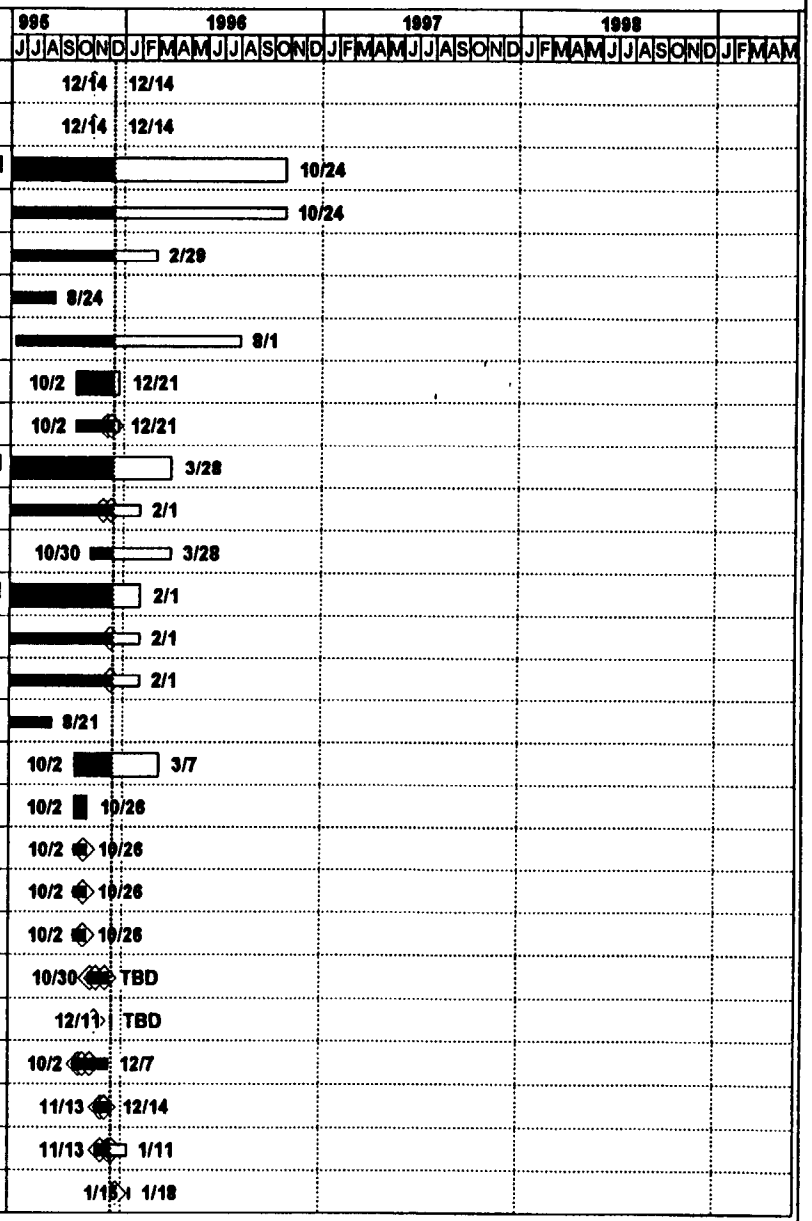
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur	1995 J J A S O N D	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D	J F M A M
28	DRO ASSY 1348400-1	03-5300	12	1d	12/14	12/14			
29	SCHEMATIC, DRO ASSY 1348401	03-5300	12	1d	12/14	12/14			
30	DRO HOUSING 1348405-1			1d	12/14	12/14			
31	RESONATOR, STANDOFF 1348406-1			1d	11/28	11/28			
32	COVER, DRO ASSY 1348388-1,-2	03-5300	12	1d	11/28	11/28			
33	6875 MHZ DRO CCA 1348410-1	03-5300	12	1d	12/14	12/14			
34	PWB, 6875 MHZ DRO CCA 1348411-1	03-5300	12	1d	12/14	12/14			
35	DRO CCA SCHEMATIC 1348413			1d	12/14	12/14			
36	TRANSISTOR CARRIER 1348414-1	03-5300	12	1d	12/14	12/14			
37	LOOP AMPLIFIER CCA 1348440-1	03-5300	12	1d	12/14	12/14			
38	SCHEMATIC, LOOP AMP 1348441	03-5300	12	1d	12/14	12/14			
39	PWB, LOOP AMP 1348442-1	03-5300	12	1d	12/14	12/14			
40	573 MHZ AMPLIFIER CCA 1348450-1	03-5300	12	1d	12/14	12/14			
41	SCHEMATIC, 573 MHZ AMP 1348451	03-5300	12	1d	12/14	12/14			
42	PWB, 573 MHZ AMP 1348452-1	03-5300	12	1d	12/14	12/14			
43	REGULATOR CCA 1348420-1	03-5300	12	1d	12/14	12/14			
44	SCHEMATIC, REGULATOR 1348421	03-5300	12	1d	12/14	12/14			
45	PWB, REGULATOR CCA 1348422-1	03-5300	12	1d	12/14	12/14			
46	HEATSINK 1348424-1			1d	11/28	11/28			
47	INSULATOR, REGULATOR 1348425-1	03-5300	12	1d	12/14	12/14			
48	RESISTOR ASSORTMENT, REGULATOR 1348426	03-5300	12	1d	12/14	12/14			
49	INSULATOR, HEATSINK, REGULATOR 1348508-1	03-5300	12	1d	12/14	12/14			
50	PLL ASSEMBLY 1348500-1	03-5300	12	1d	12/14	12/14			
51	SCHEMATIC, PLL 1348501	03-5300	12	1d	12/14	12/14			
52	ENCLOSURE, PLL 1348504-1			1d	11/28	11/28			
53	COVER, PLL 1348505-1			1d	11/29	11/29			
54	PLL CCA 1348520-1	03-5300	12	1d	12/14	12/14			

AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
55	PWB, PLL 1348502-1	03-5300	12	1d
56	INDUCTOR, PLL 1348506-1	03-5300	12	1d
57	**PLO PROCUREMENT**			304d
58	PROCURE VCGDOs	03-5100	03	304d
59	PROCURE FLIGHT TCXOs	03-5100	03	171d
60	GENERATE MRs FOR LONG LEAD PLO PIECE PARTS	03-5100	03	58d
61	PROCURE LONG LEAD PLO PIECE PARTS	03-5100	03	230d
62	**PLO MANUFACTURING**			47d
63	UPDATE PLO MANUFACTURING PLAN	02-2300	05	47d
64	**PLO TESTING**			191d
65	PLO MASTER TEST PLAN	02-2300	05	159d
66	PERFORMANCE TEST PROCEDURES (CDRL 409) (AE P/N TBD)	02-2300	01	82d
67	**PLO PERFORMANCE ASSURANCE**			234d
68	DESIGN ASSURANCE - PARTS & MATERIAL			234d
69	DESIGN ASSURANCE NSPARS			234d
70	RELIABILITY ANALYSES - (ELECT STRESS,RELIAB,WORST CAS			99d
71	**PLO SMT QUALIFICATION**			86d
72	**QA DOCUMENTATION**			16d
73	ACCEPT/REJECT CRITERIA	02-2300	09	16d
74	TRAINING			16d
75	UPDATE SMT PLAN	02-2300	09	16d
76	NASA REVIEW	02-2300	09	23d
77	FINAL UPDATE TO PLAN	02-2300	09	4d
78	DESIGN DEMO BOARDS	02-2300	09	39d
79	PROCURE PWB'S/DUMMY COMP	02-2300	09	19d
80	SHOP ORDER FOR DEMO BDS	02-2300	09	30d
81	DEMO (ASSY CCA'S)/SITE SURVEY	02-2300	09	4d



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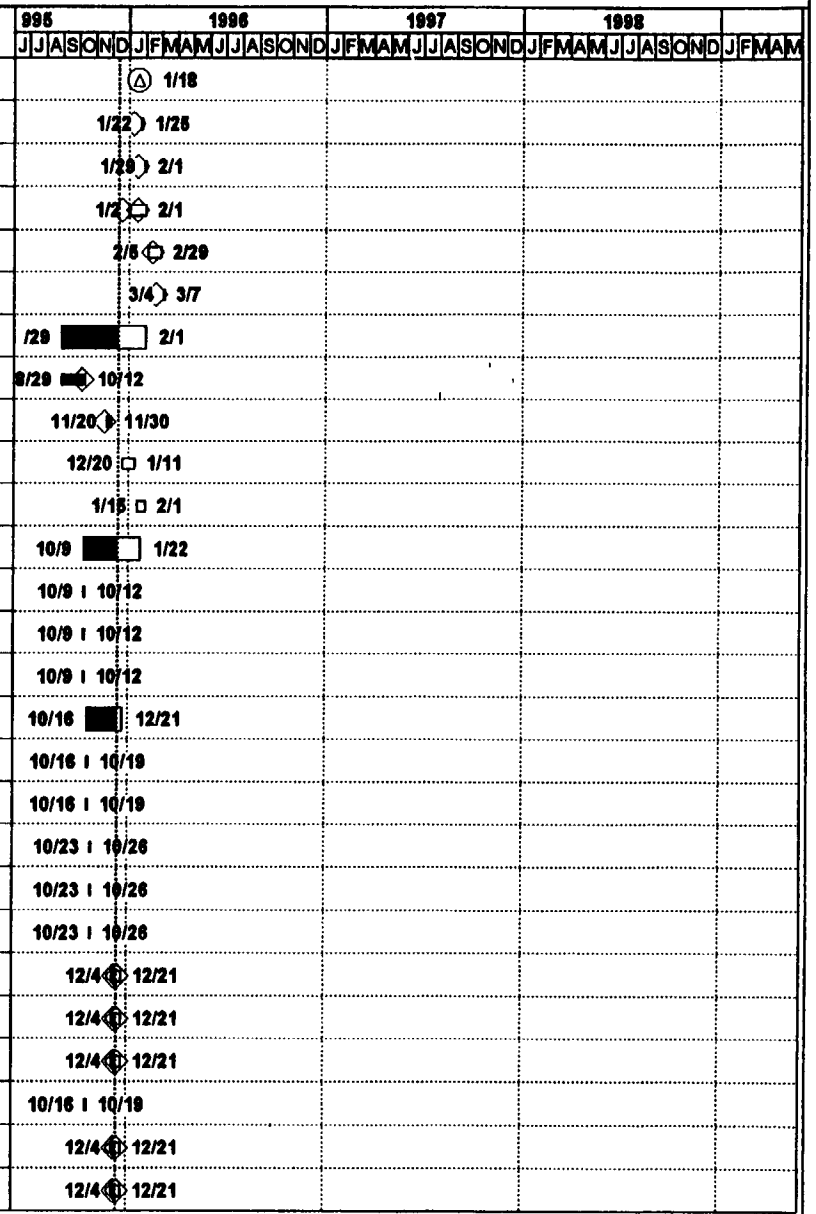
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
82	NASA SMT SITE SURVEY	02-2300	09	0d
83	INITIAL ELEC TEST	02-2300	09	4d
84	VIBRATION TEST	02-2300	09	4d
85	THERMAL CYCLE TEST PREPARATION	02-2300	09	19d
86	THERMAL CYCLE TEST	02-2300	09	16d
87	FINAL REPORT	02-2300	09	4d
88	**EOS ELECTRONICS**	**02-3210**	**1**	**84d**
89	1553 CCA CHECKOUT	02-3210	1	26d
90	1553 PWB LAYOUT MOD	02-3210	1	7d
91	1553 CCA PROTOTYPE - PROCURE, FAB & ASSY	02-3210	1	9d
92	1553 CCA PROTOTYPE - CHECKOUT	02-3210	1	12d
93	**EOS DRAWING RELEASES**	**02-3210**	**2**	**55d**
94	A1-1 RECEIVER ASSY WIRE LIST ECN 1356429	02-3210	2	4d
95	A1-2 RECEIVER ASSY WIRE LIST ECN 1356409	02-3210	2	4d
96	A2 RECEIVER ASSY WIRE LIST ECN 1356441	02-3210	2	4d
97	**EOS CCA Related Drawing Releases**	**02-3210**	**2**	**39d**
98	BRD ASSY, I/O INTERFACE 1356897	02-3210	2	4d
99	CCA, I/O INTERFACE 1356762	02-3210	2	4d
100	PAD, I/O INTERFACE 1356979	02-3210	2	4d
101	PLATE, I/O INTERFACE 1356980	02-3210	2	4d
102	ASSY, POWER CONTR & MONITOR 1356760	02-3210	2	4d
103	CCA, POWER CONTR & MONITOR 1356002	02-3210	2	12d
104	SCHEMATIC, POWER CONTR & MONITOR 1356001	02-3210	2	12d
105	PWB, POWER CONTR & MONITOR 1356422	02-3210	2	12d
106	ENCL, FILTER, POWER CONTR & MONITOR 1356761	02-3210	2	4d
107	HEATSINK, POWER CONTRL & MONITOR 1356867	02-3210	2	12d
108	CCA MIL-STD-1553, INTRFCE 1355998	02-3210	2	12d



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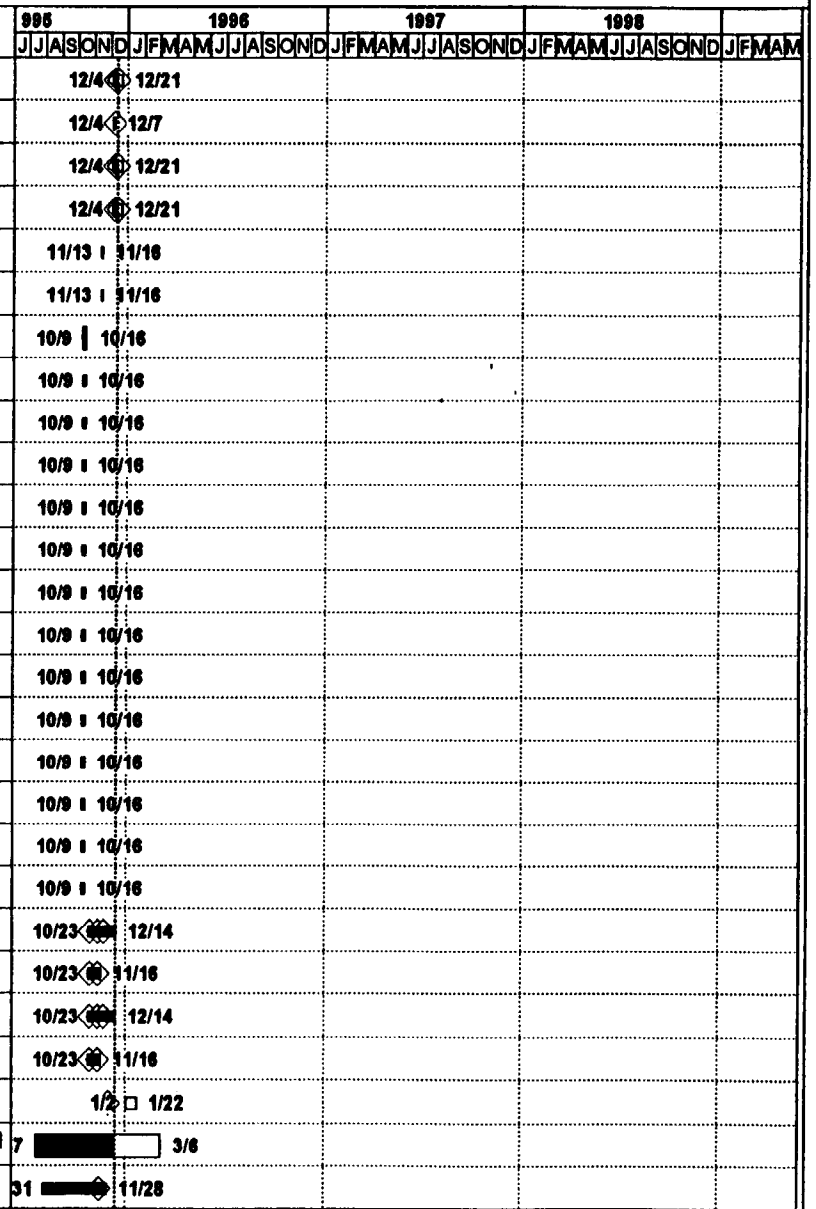
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
109	HEATSINK MIL-STD-1553, INTRFCE 1356857	02-3210	2	12d
110	PWB MIL-STD-1553, INTRFCE 1356416	02-3210	2	4d
111	SCHEMATIC MIL-STD-1553, INTRFCE 1355997	02-3210	2	12d
112	CCA, MUX RELAY 1356000	02-3210	2	12d
113	SCHEMATIC, MUX RELAY 1355999	02-3210	2	4d
114	PWB, MUX RELAY 1356417	02-3210	2	4d
115	**EOS Cable Drawing Releases**	**02-3210**	**2**	**5d**
116	CABLE ASSY, A2W1 SPACECRAFT PWR 1356431-1	02-3210	2	5d
117	CABLE ASSY, A2W2 POWER DISTRIB 1356432-1	02-3210	2	5d
118	CABLE ASSY, A2W3 SCAN DRIVE 1356433-1	02-3210	2	5d
119	CABLE ASSY, A2W4 SPACECRAFT I/O 1356434-1	02-3210	2	5d
120	CABLE ASSY, A2W5 TEMP & ANALOG 1356816-1	02-3210	2	5d
121	CABLE ASSY, A2W6 POWER DISTRIBUTION 1356817	02-3210	2	5d
122	CABLE ASSY, A2W7 CLOCK & PRT 1356818	02-3210	2	5d
123	CABLE ASSY, A2W8 POWER IN 1356819	02-3210	2	5d
124	CABLE ASSY, A1W1 SPACECRAFT PWR 1356428-1	02-3210	2	5d
125	CABLE ASSY, A1W2 POWER DISTRIB 1356427-1	02-3210	2	5d
126	CABLE ASSY, A1W3 SCAN DRIVE 1356424-1	02-3210	2	5d
127	CABLE ASSY, A1W4 SPACECRAFT I/O 1356425-1	02-3210	2	5d
128	CABLE ASSY, A1W5 TEMP MONITOR 1356426-1	02-3210	2	5d
129	A1 SIGNAL PROCESSOR ASSY WIRE LIST WL1356412	02-3210	2	31d
130	A1 SIGNAL PROCESSOR ASSY 1356412-1	02-3210	2	16d
131	A2 SIGNAL PROCESSOR ASSY WIRE LIST WL1356439	02-3210	2	31d
132	A2 SIGNAL PROCESSOR ASSY 1356439-1	02-3210	2	16d
133	ECN CABLE ASSYS FOR PRT CALLOUT	03-2313	3	12d
134	**METSAT ELECTRONICS**			**128d**
135	DESIGN DISCRETE CABLE SYSTEM	02-3312	2	68d



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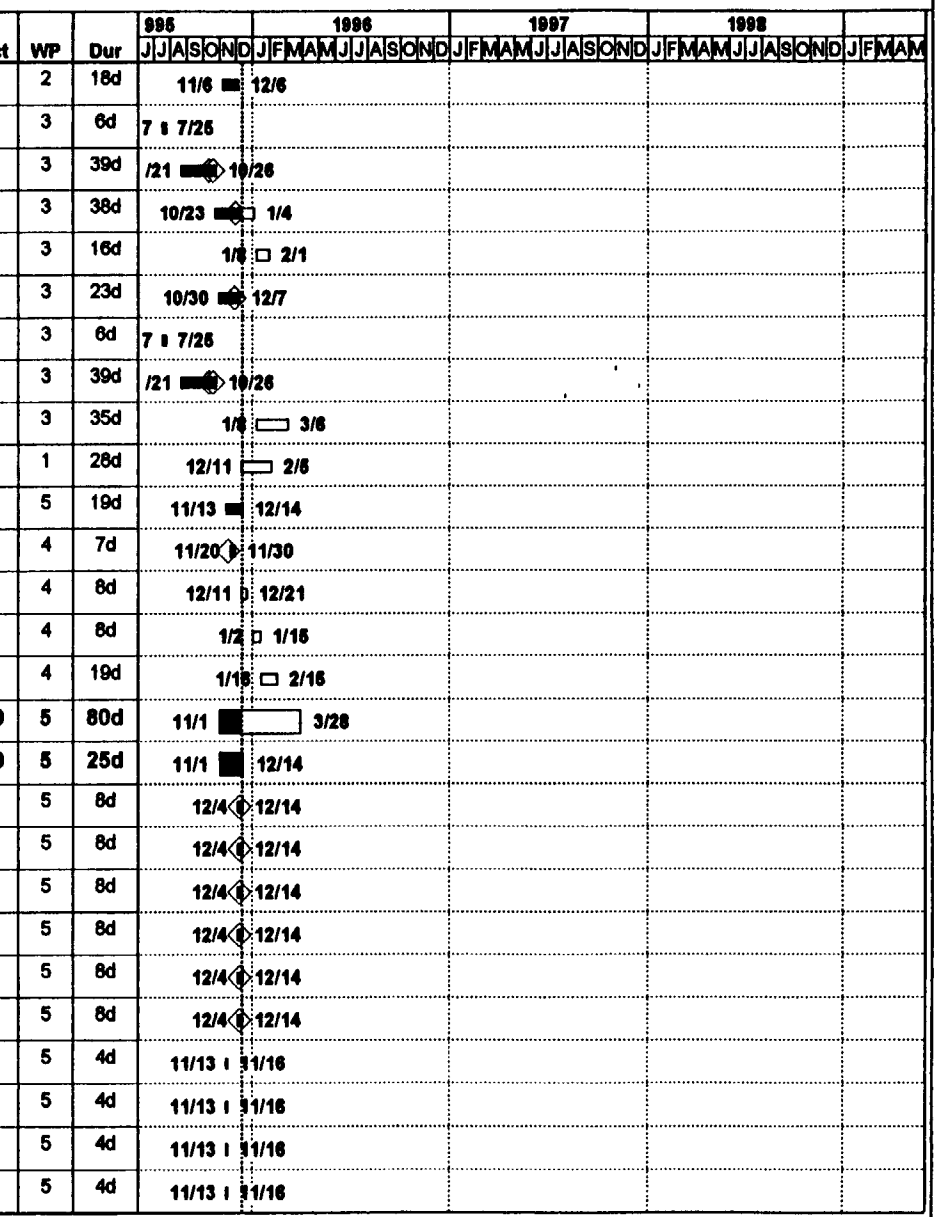
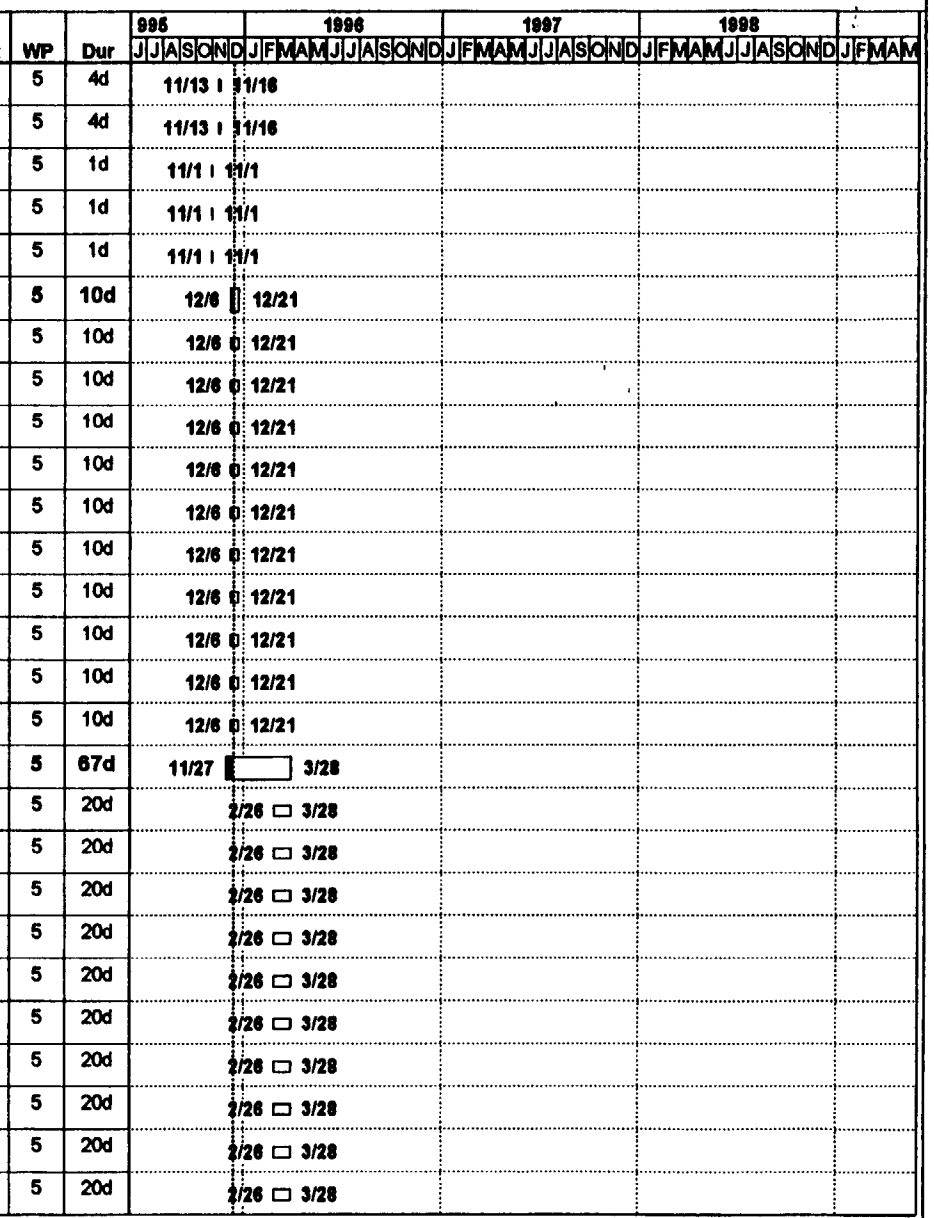
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
136	COMPLETE CABLE DRAWINGS	02-3312	2	18d
137	POWER RELAY CCA - DESIGN & RELEASE ADVANCED PARTS	02-3313	3	6d
138	POWER RELAY CCA - COMPLETE SCHEMATIC & LAYOUT DWG	02-3313	3	39d
139	BUY PARTS FOR PROTO PWR RELAY & RELAY DRIVER CCAs	02-3313	3	38d
140	POWER RELAY CCA - PROTOTYPE FAB & TEST	02-3313	3	16d
141	POWER RELAY ASSEMBLY DWG COMPLETE	02-3313	3	23d
142	RELAY DRIVER CCA - DESIGN & RELEASE ADVANCED PARTS L	02-3314	3	6d
143	RELAY DRIVER CCA - COMPLETE SCHEMATIC & LAYOUT DWG	02-3314	3	39d
144	RELAY DRIVER CCA - PROTOTYPE FAB & TEST	02-3314	3	35d
145	BACKPLANE A1 & A2 WIRE LIST COMPLETE	02-3310	1	28d
146	A1 & A2 SIGNAL PROCESSOR ASSY DWG COMPLETE	02-3310	5	19d
147	TRU DESIGN	02-3310	4	7d
148	TRU CHASSIS FAB	02-3310	4	8d
149	#1 TRU CHECKOUT	02-3310	4	8d
150	#2 TRU CHECKOUT	02-3310	4	19d
151	**METSAT DRAWING RELEASES**	**02-3310**	**5**	**80d**
152	**METSAT CCA RELATED DRAWING RELEASES**	**02-3310**	**5**	**25d**
153	ASSY, POWER RELAY & HSKP 1356962	02-3310	5	8d
154	CCA, POWER RELAY & HSKP 1356908	02-3310	5	8d
155	BRACKET, FILTER, POWER RELAY & HSKP 1356970	02-3310	5	8d
156	PWB, POWER RELAY & HSKP 1356910	02-3310	5	8d
157	SCHEMATIC, POWER RELAY & HSKP 1356909	02-3310	5	8d
158	HEATSINK, POWER RELAY & HSKP TBD	02-3310	5	8d
159	CCA, ANALOG MUX/ A/D CONV 1356418	02-3310	5	4d
160	PWB, ANALOG MUX/ A/D CONV 1356420	02-3310	5	4d
161	SCHEMATIC, ANALOG MUX/ A/D CONV 1356419	02-3310	5	4d
162	CCA, CPU 1356413	02-3310	5	4d



AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
163	PWB, CPU 1356415	02-3310	5	4d
164	SCHEMATIC, CPU 1356414	02-3310	5	4d
165	CCA, RELAY DRIVER & CURRENT MONITOR 1356911-1	02-3310	5	1d
166	PWB, RELAY DRIVER & CURRENT MONITOR 1356913-1	02-3310	5	1d
167	SCHEMATIC, RELAY DRIVER & CURRENT MONITOR 135	02-3310	5	1d
168	**METSAT CABLE DRAWING RELEASES**	**02-3310**	**5**	**10d**
169	CABLE ASSY, A1W1 SPACECRAFT POWER 1356428-2	02-3310	5	10d
170	CABLE ASSY, A1W2 POWER DISTRIBUTION 1356427-2	02-3310	5	10d
171	CABLE ASSY, A1W3 SCAN DRIVE 1356941	02-3310	5	10d
172	CABLE ASSY, A1W4 SPACECRAFT I/O 1356942	02-3310	5	10d
173	CABLE ASSY, A1W5 TEMP MONITOR 1356943	02-3310	5	10d
174	CABLE ASSY, A2W1 SPACECRAFT POWER 1356431-2	02-3310	5	10d
175	CABLE ASSY, A2W2 POWER DISTRIBUTION 1356432-2	02-3310	5	10d
176	CABLE ASSY, A2W3 SCAN DRIVE 1356946	02-3310	5	10d
177	CABLE ASSY, A2W4 SPACECRAFT I/O 1356947	02-3310	5	10d
178	CABLE ASSY, A2W5 TEMP & ANALOG 1356948	02-3310	5	10d
179	**METSAT SIGNAL PROCESSOR & MISC DWG RELEASE**	**02-3310**	**5**	**67d**
180	BACKPLANE, CARD CAGE 1331605	02-3310	5	20d
181	RETAINER, CARD CAGE 1331603	02-3310	5	20d
182	SIDE PANEL, CARD CAGE 1331602	02-3310	5	20d
183	BRACKET, I/O INTERFACE 1356789	02-3310	5	20d
184	TERM BD, I/O INTERFACE 1356790	02-3310	5	20d
185	TRANS ASSY, I/O INTERFACE 1356784	02-3310	5	20d
186	A2 CARD CAGE 1331330	02-3310	5	20d
187	A1 SIGNAL PROCESSOR ASSY 1331670-2	02-3310	5	20d
188	A1 SIGNAL PROCESSOR ASSY WIRE LIST WL1331670-2	02-3310	5	20d
189	A2 SIGNAL PROCESSOR ASSY 1331120	02-3310	5	20d



AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur	Schedule (1995–1999)
190	A2 SIGNAL PROCESSOR ASSY WIRE LIST WL1331120	02-3310	5	20d	2/26 – 3/28
191	ECN MOTOR DRIVER CCA	03-2313	3	12d	11/27 – 12/14
192	ECN CPU CCA			12d	11/27 – 12/14
193	**ELECTRONICS DESIGN - COMMON**	**02-3410**		**198d**	6/27
194	FAB EOS A1 & A2 BREADBOARD CARD CAGES	02-3410	1	19d	11/13 – 12/14
195	WIREWRAP EOS PROTOTYPE BACKPLANE	02-3410	1	8d	1/22 – 2/1
196	PROCURE BREADBOARD PARTS	02-3410	1	27d	11/13 – 1/8
197	REFURBISH BREADBOARD CCAs	02-3410	1	3d	11/20 – 11/22
198	DESIGN & FAB BREADBOARD TEST HARNESS	02-3410	1	19d	12/18 – 1/25
199	ASSEMBLE & CHECKOUT EOS BREADBOARDS	02-3410	1	9d	2/1 – 2/16
200	**TEST EQUIP AVAILABLE FOR SIG PROC BB TESTS**	**02-3410**	**2**	**104d**	1/16
201	EOS TRU, METSAT STE, S/P TEST SET AVAILABLE	02-3410	2	0d	7/3
202	METSAT TRU AVAILABLE	02-3410	2	1d	1/16
203	TEST EOS A1 SIG PROC BREADBOARD (AE-26659)	02-3410	2	9d	2/8 – 2/19
204	TEST EOS A2 SIG PROC BREADBOARD (AE-26659)	02-3410	2	9d	2/12 – 2/26
205	FAB PROTOFLIGHT EOS & METSAT CABLE ASSYS	03-2210	12	20d	4/1 – 5/2
206	CABLE ASSY TEST BOX DESIGN & FAB	02-3410	9	71d	1/2 – 5/2
207	FIT CHECK CABLE ASSYS IN MOCK-UP	02-3410	10	8d	5/6 – 5/16
208	ECN CABLES FROM FIT CHECK	02-3310	5	8d	5/20 – 6/3
209	RECEIVE DC/DC CONV ENGR MODEL	03-2113	4	1d	5/30 – 5/30
210	CHECK OUT DC/DC CONV ENGR MODEL	02-3410	6	16d	6/3 – 6/27
211	DC/DC CONVERTER INTERNAL DESIGN REVIEW	02-3410	6	8d	2/6 – 2/16
212	DC/DC CONVERTER CDR	02-3410	6	1d	3/13 – 3/13
213	UNIVERSAL SCAN DRIVE CCA TEST FIXTURES UPGRADE	02-3410	8	19d	1/2 – 2/1
214	CCA EXTENDER CARD DESIGN & FAB	02-3410	8	35d	1/2 – 2/29
215	RADIOMETRIC I/O BOX UPGRADE	02-3410	8	71d	1/2 – 5/2
216	TEMP A/B/MUX CCA FIXTURE UPGRADE	02-3410	8	27d	11/6 – 12/21

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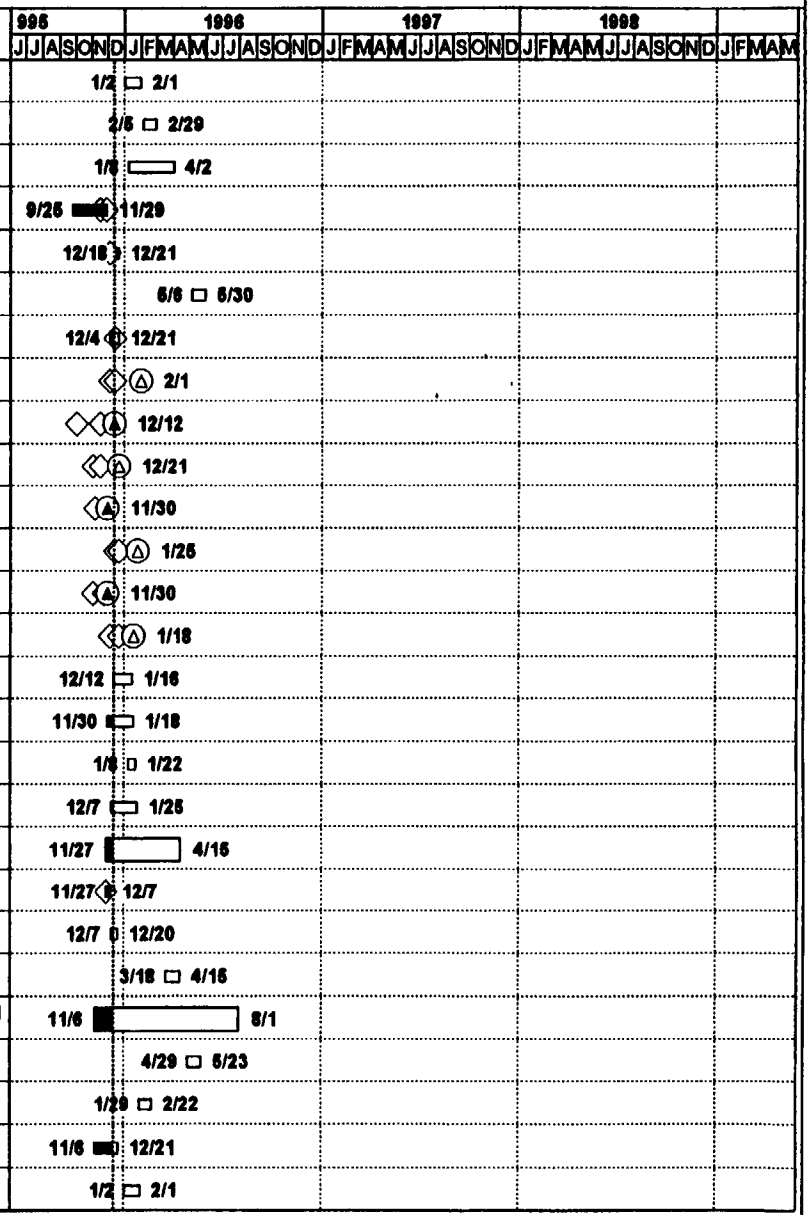
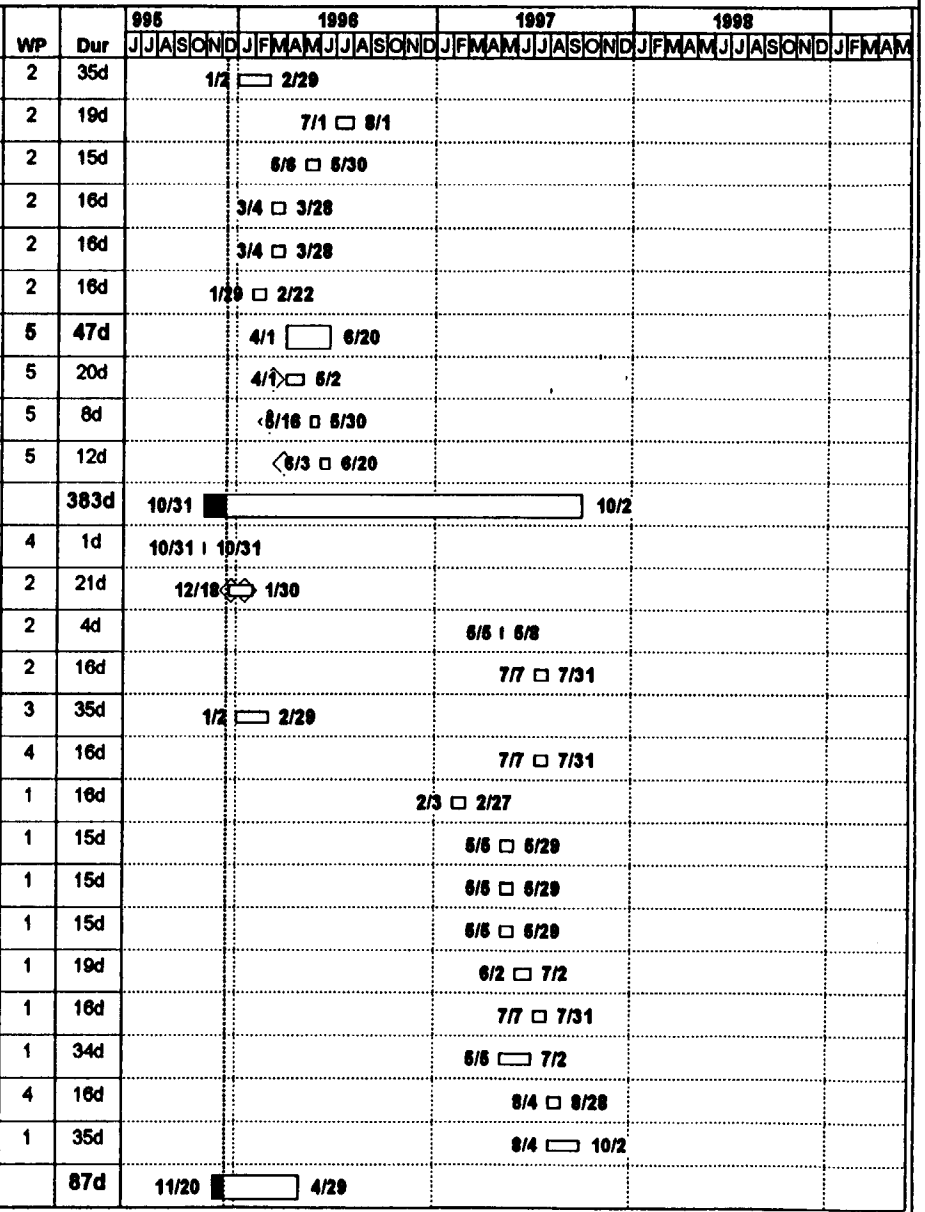
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
217	R/D CCA FIXTURE UPGRADE	02-3410	8	19d
218	ALL TEST BOXES CERTIFIED FOR FLIGHT HARDWARE	02-3410	8	16d
219	DESIGN, FAB & CHECK OUT RECEIVER TEST BOXES	02-2200	28	50d
220	RF DETECTOR MOISTURE EVALUATION & REPORT	02-3410	4	38d
221	RF DETECTOR RESIDUAL STOCK TESTING #1	02-3410	5	4d
222	RF DETECTOR RESIDUAL STOCK TESTING #2	02-3410	5	15d
223	RF DETECTOR SOURCE SELECTION	03-2113	4	12d
224	RF DETECTORS ON ORDER	03-2113	4	0d
225	PRTs ON ORDER	03-2113	4	1d
226	ALL LONG LEAD EEE PARTS ON ORDER	03-2113	4	0d
227	ALL SHORT LEAD EEE PARTS RTPs ISSUED	03-2113	4	0d
228	ALL SHORT LEAD EEE PARTS ON ORDER	03-2113	4	0d
229	HERITAGE PWBs ON ORDER	03-2113	4	0d
230	NEW PWBs ON ORDER	03-2113	4	0d
231	WIRE WRAP VENDOR SELECTION	03-2113	4	16d
232	R/D CONVERTER TECHNICAL EVALUATION	03-2113	4	24d
233	R/D CONVERTER RESCREENING	03-2113	4	9d
234	R/D CONVERTERS ON ORDER	03-2113	4	24d
235	**PROGRAM REVIEW SUPPORT**	02-3110	3	76d
236	PREP FOR & SUPPORT SUBSYSTEM CDR	02-3110	3	8d
237	ANSWER SUBSYSTEM CDR ACTION ITEMS	02-3110	3	8d
238	PREP FOR & SUPPORT SYSTEM CDR	02-3110	3	17d
239	**TEST PROCEDURES**	03-2110	2	148d
240	UPDATE SIG PROC TEST PROCEDURES (AE-26659)	03-2110	2	16d
241	UPDATE HERITAGE CCA TEST PROCEDURES	03-2110	2	16d
242	DRAFT CCA TEST PROCEDURES DOCUMENT (AE 26693)	03-2110	2	27d
243	RELEASE TEST PROCEDURE DOCUMENT AE 26693	03-2110	2	19d



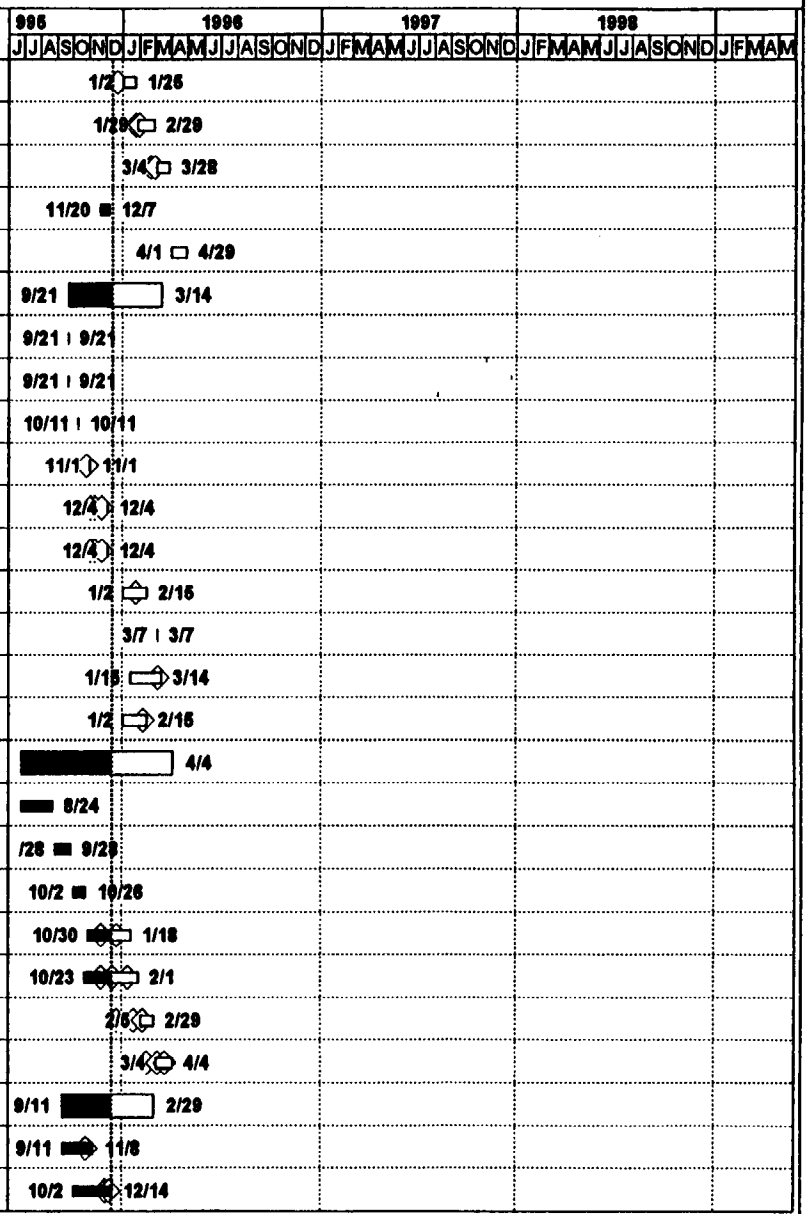
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
244	PREPARE SPECIAL TEST EQUIP CONFIG & CALIB PROCEDURE	03-2110	2	35d
245	RELEASE DETECTOR/PREAMP TEST PROCEDURE (AE-26664)	03-2110	2	19d
246	PREPARE CABLE ASSY CHECK OUT PROCEDURE	03-2110	2	15d
247	PREPARE POWR CONTRL MONITOR ASSY TEST PROCEDURE	03-2110	2	16d
248	PREPARE POWR RELAY ASSY TEST PROCEDURE	03-2110	2	16d
249	UPDATE SCAN DRIVE TEST PROCEDURE (26002/1, /2)	03-2110	2	16d
250	**TOOLING**	**03-2310**	**5**	**47d**
251	UPGRADE A1 CABLE MOCK-UP FIXTURE	03-2310	5	20d
252	DESIGN CABLE HARNESS BDS (TOOLING)	03-2310	5	8d
253	FAB & C/O CABLE HARNESS BDS (TOOLING)	03-2310	5	12d
254	**FIRMWARE DESIGN**	**02-3510**		**383d**
255	EOS FIRMWARE CDR	02-3510	4	1d
256	COMMAND & DATA HANDLING FIRMWARE/EOS MODIFIED	02-3510	2	21d
257	COMMAND & DATA HANDLING FIRMWARE TRR	02-3510	2	4d
258	COMMAND & DATA HANDLING FIRMWARE FQT	02-3510	2	16d
259	CODE & TEST MODIFIED EOS AMSU-A FIRMWARE	02-3510	3	35d
260	AMSU-A FIRMWARE FQT	02-3510	4	16d
261	DRAFT CDRL 415 - FIRMWARE T.P.	02-3510	1	16d
262	UPDATE CDRL 306-5b - FIRMWARE DETAILED DESIGN DOCUM	02-3510	1	15d
263	UPDATE CDRL 306-2b - FIRMWARE REQUIREMENTS	02-3510	1	15d
264	DRAFT CDRL 306-8 - FIRMWARE VERSION DESCRIPTION	02-3510	1	15d
265	DRAFT CDRL 217a - C&DH FIRMWARE TEST REPORT	02-3510	1	19d
266	DRAFT CDRL 217b - INSTRUMENT CTRL FIRMWARE TEST REP	02-3510	1	16d
267	COMPLETE CDRL 26 - TRR	02-3510	1	34d
268	SOFTWARE ACCEPTANCE REVIEW	02-3510	4	16d
269	COMPLETE CDRL 28 - SOFTWARE ACCEPTANCE REVIEW	02-3510	1	35d
270	**EOS MECHANICAL DESIGN**			**87d**



AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
271	UPDATE EOS A2 NASTRAN MODEL			15d
272	FINAL NASTRAN MODEL (CDRL 102) - A2			20d
273	FINAL STRESS REPORT (CDRL 113) - A2			16d
274	PREP FOR & SUPPORT SUBSYSTEM CDR			11d
275	PREP FOR & SUPPORT CDR			17d
276	**EOS MECHANICAL DRAWING RELEASES**			95d
277	A1 BASEPLATE, UPPER 1331356-3			1d
278	A1 PANEL, SUPPORT, RIGHT FRONT, UPPER 1331390-3			1d
279	A1 PANEL, AFT, UPPER 1331642-2			1d
280	A1 ANTENNA SUBASSY, (MACHINED) 1356404-1			1d
281	A1 PANEL, CONNECTOR 1356410-1			1d
282	A1 PANEL, CONNECTOR 1356411-1			1d
283	A2 ANTENNA SUBASSY (MACHINED) 1331303-2			27d
284	A2 COVER, ALIGNMENT CUBE 1356421-1			1d
285	A1 BLANKET ASSY 1331626-X			36d
286	A2 BLANKET ASSY 1331253-X			27d
287	**METSAT MECH DESIGN (4510-02-4310)**	02-4310		156d
288	UPDATE A2 NASTRAN MODEL	02-4310		35d
289	UPDATE A2 NASTRAN MODEL WITH NEW A2 BASEPLATE	02-4310		19d
290	FINAL A2 NASTRAN MODEL (CDRL 102)	02-4310		16d
291	FINAL A2 STRESS REPORT (CDRL 113)	02-4310		42d
292	UPDATE A1 NASTRAN MODEL	02-4310		54d
293	FINAL A1 NASTRAN MODEL (CDRL 102)	02-4310		16d
294	FINAL A1 STRESS REPORT (CDRL 113)	02-4310		20d
295	**METSAT MECHANICAL DRAWING RELEASES**			94d
296	A2 PANEL, FRONT 1331214-3			35d
297	A2 PANEL, SIDE SHELF SUPPORT 1331217-3			43d



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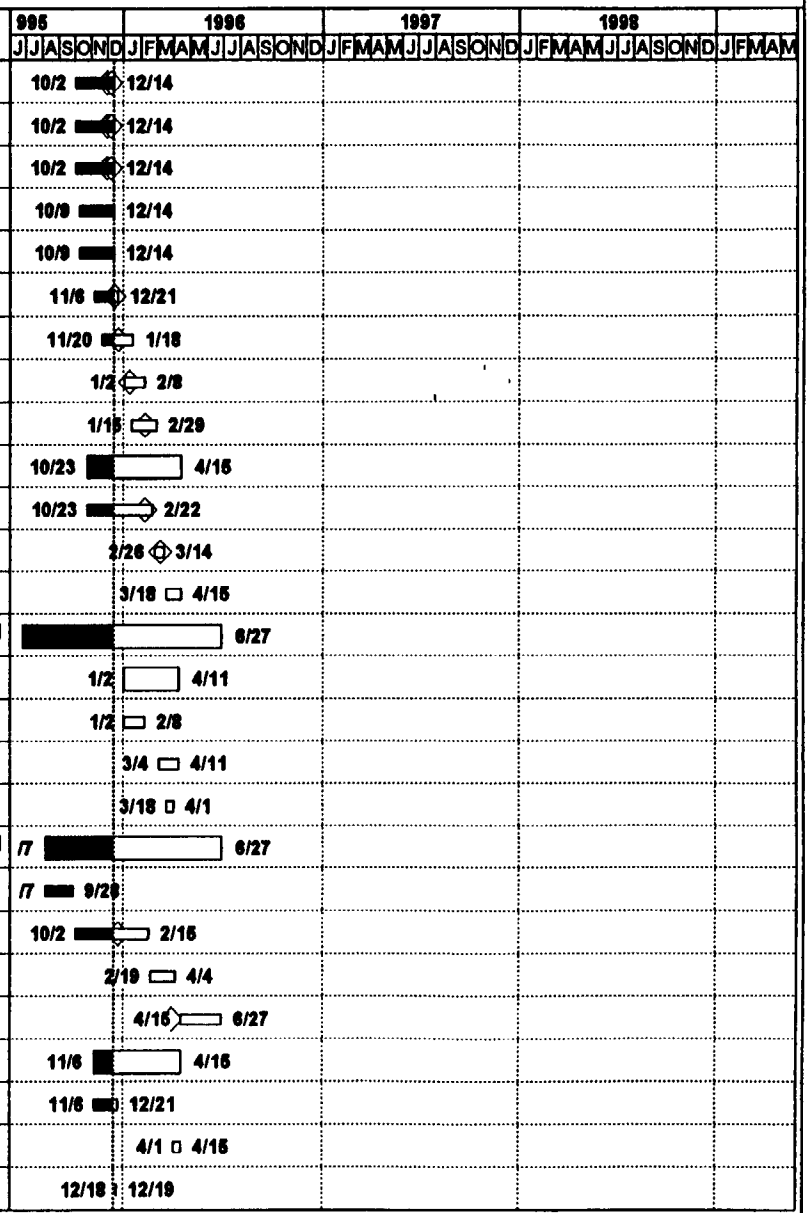
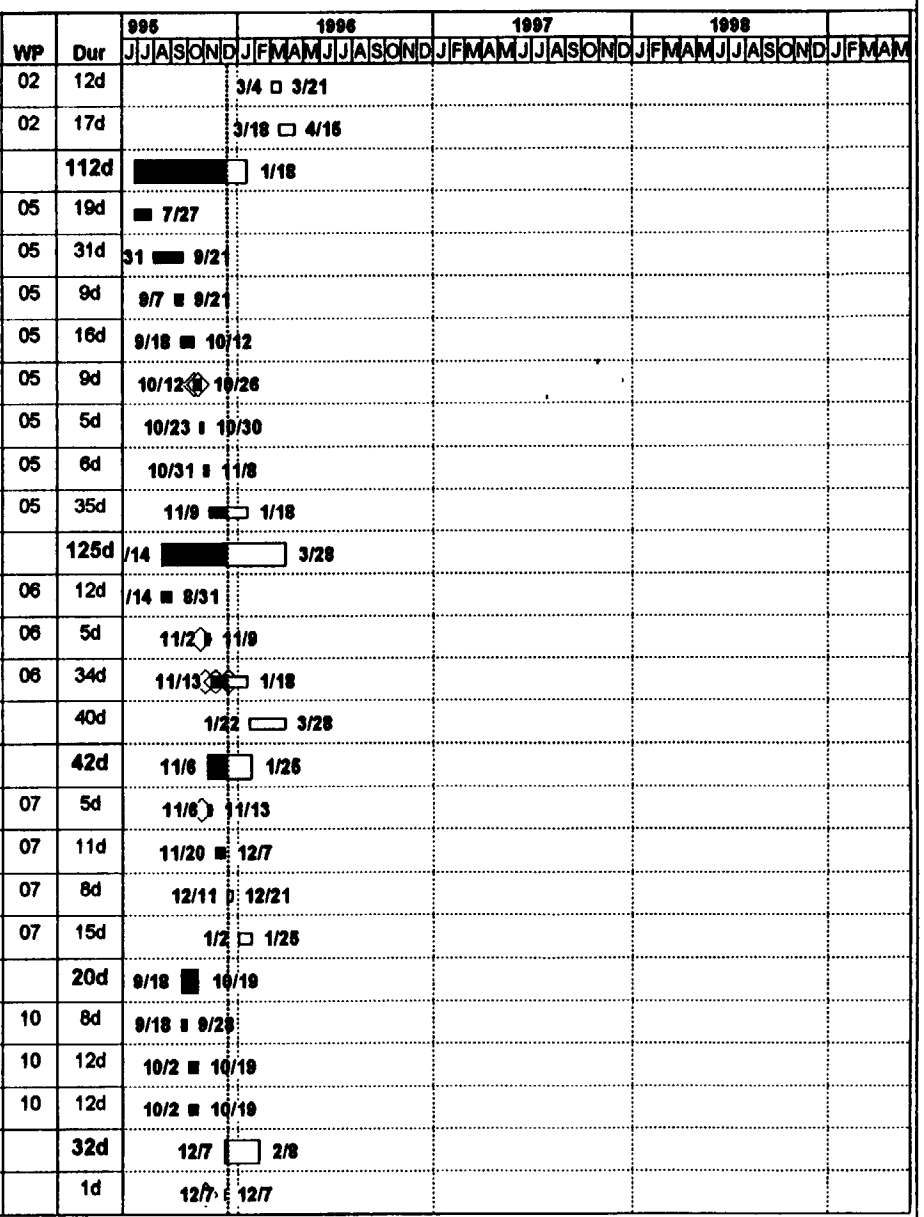
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
298	A2 PANEL, SIDE SHELF SUPPORT 1331218-3			43d
299	A2 PANEL, SIDE SHELF SUPPORT 1331245-4			43d
300	A2 PANEL, SIDE SHELF SUPPORT 1333379-3			43d
301	A2 PANEL, FEEDHORN SUPPORT 1331216-1			39d
302	A2 BASEPLATE ASSY 1356949-1			39d
303	A2 ANTENNA SUBASSY (MACHINED) 1331303-X			27d
304	A2 ANTENNA SUBASSY 1331210-2			30d
305	A1 ANTENNA SUBASSY (MACHINED) 1331351-X			23d
306	A1 ANTENNA SUBASSY 1331400-2			28d
307	**THERMAL ANALYSIS**			95d
308	UPDATE A1 & A2 THERMAL MATH MODELS			66d
309	PREP & PUBLISH THERMAL MATH MODELS (CDRL 103)			12d
310	PREP FOR & SUPPORT CDR			17d
311	**ANTENNA SUBSYSTEM DESIGN**			203d
312	**DWGS, SPECS & PROCEDURES REVIEW & UPDATE**			59d
313	UPDATE TEST PROCS- ANT SUBSYS (CDRL 409)(26002/1,2,	02-6310	12	23d
314	INCORPORATE TEST PROCEDURE CHANGES & RELEASE	02-6310	12	24d
315	REVIEW ANTENNA DRAWINGS - FINAL			9d
316	**TEST FIXTURE DESIGN & FAB**			180d
317	COMPLETE TEST FIXTURE DESIGN CONCEPT	02-6310	08	31d
318	COMPLETE TEST FIXTURE MECH DESIGN & DRAWINGS	02-6310	08	74d
319	RELEASE TEST FIXTURE DRAWINGS			28d
320	FABRICATE & PROOF TEST FIXTURES	02-6310	08	43d
321	**TECHNICAL REVIEW SUPPORT**			87d
322	PREP FOR & SUPPORT MPDDBR REVIEW	02-6110	02	27d
323	PREP FOR & SUPPORT CAL PEER REVIEW	02-6110	02	9d
324	PREP FOR & SUPPORT INTERNAL DESIGN REVIEW #2	02-6110	02	2d



AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
325	PREP FOR & SUPPORT PMS COMPLIANCE REVIEW	02-6110	02	12d
326	PREP FOR & SUPPORT CDR	02-6110	02	17d
327	**BEAMWIDTH CLUSTERING**			112d
328	FEEDHORN REDESIGN	02-6310	05	19d
329	MEC TEST FEEDHORN/REFLECTOR ASSEMBLY	02-6310	05	31d
330	AEROJET TEST A1-2 FEEDHORN/REFLECTOR ASSY	02-6310	05	9d
331	MEC FAB MODIFIED A1-1 & A1-2 HORNS	02-6310	05	16d
332	AEROJET TEST MODIFIED A1-2 HORN/REFLECTOR	02-6310	05	9d
333	AEROJET TEST MODIFIED A1-1 HORN/REFLECTOR	02-6310	05	5d
334	DOCUMENT FEEDHORN DESIGN CHANGES	02-6310	05	6d
335	RELEASE FEEDHORN ASSY A1-2 DWG 1331361-1	02-6310	05	35d
336	**A1 REFLECTOR FAB IMPROVEMENT**			125d
337	DEVELOP SURFACE MEASURE TECHNIQUE	02-6310	06	12d
338	TEST PROTOTYPE	02-6310	06	5d
339	COMPLETE MAKE/BUY TRADE	02-6310	06	34d
340	PREP PO FOR BACKUP A1 REFLECTOR (IF NEEDED)			40d
341	**A2 REFLECTOR EARLY TEST**			42d
342	INSTALL A2 REFLECT IN ENG MODEL	02-6310	07	5d
343	PRE-VIB PATTERN TESTS	02-6310	07	11d
344	RANDOM VIB TESTS (3 AXES)	02-6310	07	8d
345	POST-VIB PATTERN TESTS	02-6310	07	15d
346	**A1 MOTOR HOUSING REDESIGN**			20d
347	REDESIGN A1 MOTOR HOUSING COVER	02-6310	10	8d
348	RELEASE A1 MOTOR HOUSING COVER DWG 1333642-1	02-6310	10	12d
349	RELEASE A1 DRIVE ASSY, REFLECTOR DWG 1333640-1	02-6310	10	12d
350	**DRAWING RELEASES**			32d
351	RELEASE A1 EOS ANTENNA SUBASSY DWG 1356403-1			1d



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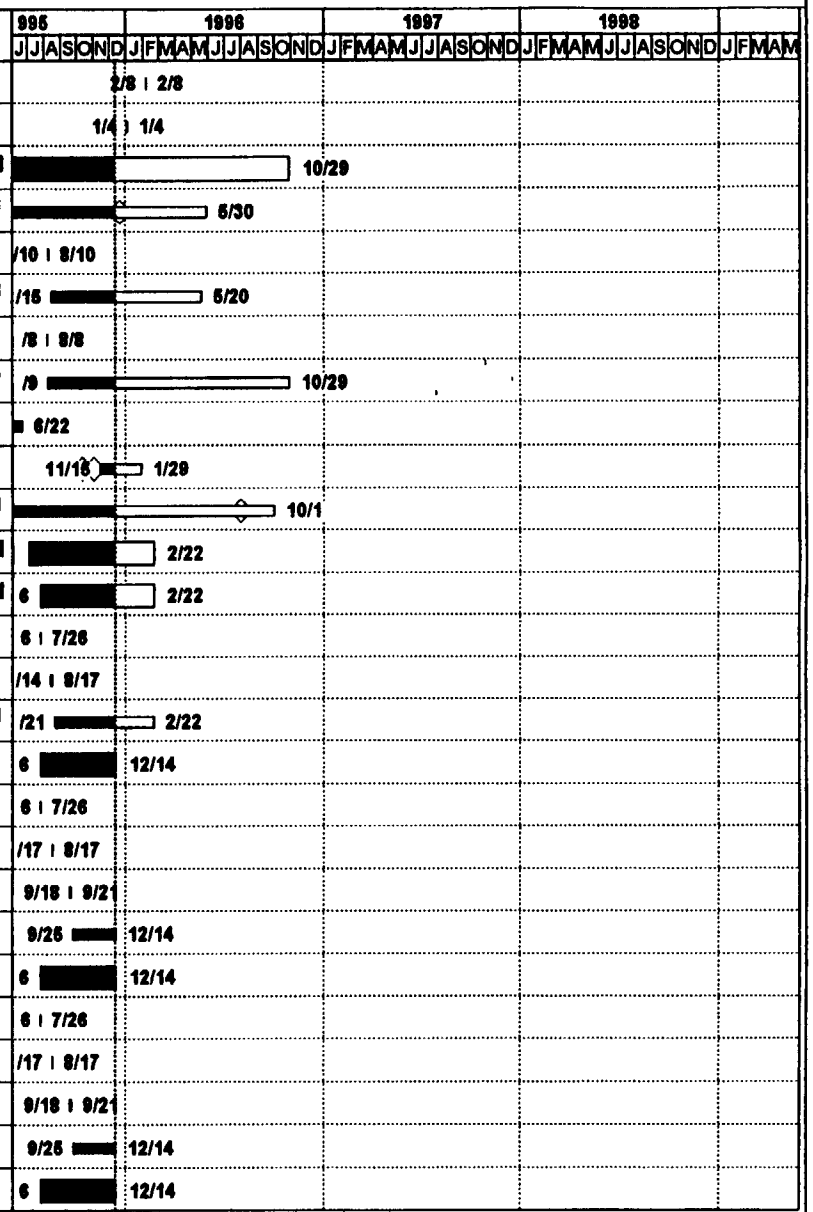
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
352	REL A1 METSAT ANTENNA SUBASSY DWG 1331400-2			1d
353	REL A2 COMMON ANTENNA SUBASSY DWG 1331210-2			1d
354	**ANTENNA SYS PROCUREMENT SUPPORT**	03-3100	10	342d
355	BEARINGS- PROCUREMENT SUPPORT (PP)	03-3100	10	224d
356	MOTORS/RESOLVERS - ATP	03-3100	10	1d
357	MOTORS/RESOLVERS - PROCUREMENT SUPPORT (PP)	03-3100	10	153d
358	MULTI/DI/FEEDHORN - ATP	03-3100	10	1d
359	MULTI/DI/FEEDHORN - PROCUREMENT SUPPORT (PP)	03-3100	10	246d
360	REFLECTOR - SUPPORT & REVIEW CDR	03-3100	10	23d
361	REFLECTOR - ACCEPTANCE DATA REVIEW	03-3100	10	37d
362	REFLECTOR PROCUREMENT SUPPORT (BI-MONTHLY REVIEW	03-3100	10	326d
363	**EARLY ANTENNA PURCHASE & FAB**			128d
364	**1331382-1 A1, 1331237-1 A2 CORES, WARM LOAD**			115d
365	TABLE TOP CDR/ MRR	03-3200	11	1d
366	ISSUE P.O.	03-3200	12	4d
367	PROCURE CORES	03-3100	9	101d
368	**1333390-1 A2 SHAFT, COMPENSATOR**			80d
369	TABLE TOP CDR/ MRR	03-3200	11	1d
370	RTP	03-3200	12	1d
371	ISSUE P.O.	03-3100	9	4d
372	PROCURE SHAFTS	03-3100	9	47d
373	**1333645-1 A1 SHAFT, MOTOR ROTOR**			80d
374	TABLE TOP CDR/ MRR	03-3200	11	1d
375	RTP	03-3200	12	1d
376	ISSUE P.O.	03-3100	9	4d
377	PROCURE SHAFTS	03-3100	9	47d
378	**1333654-1 A2 DRIVE SHAFT**			80d



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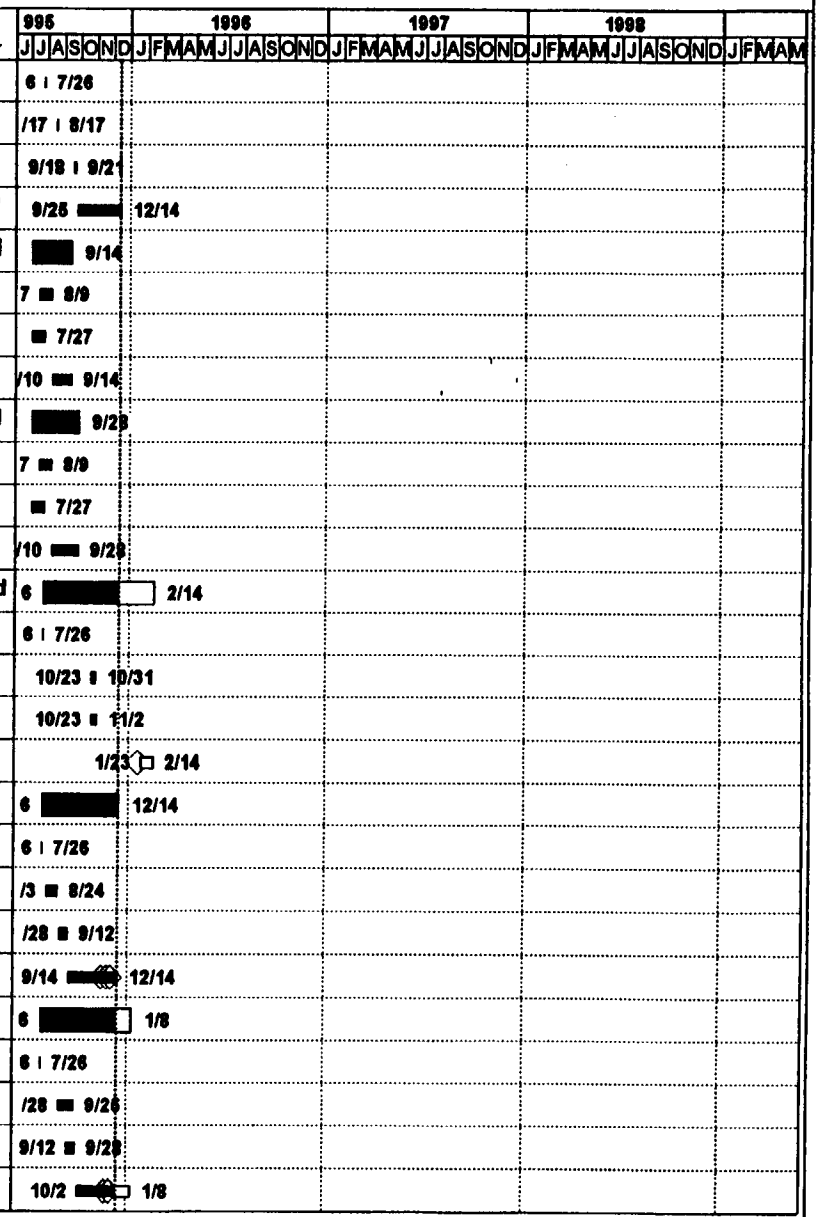
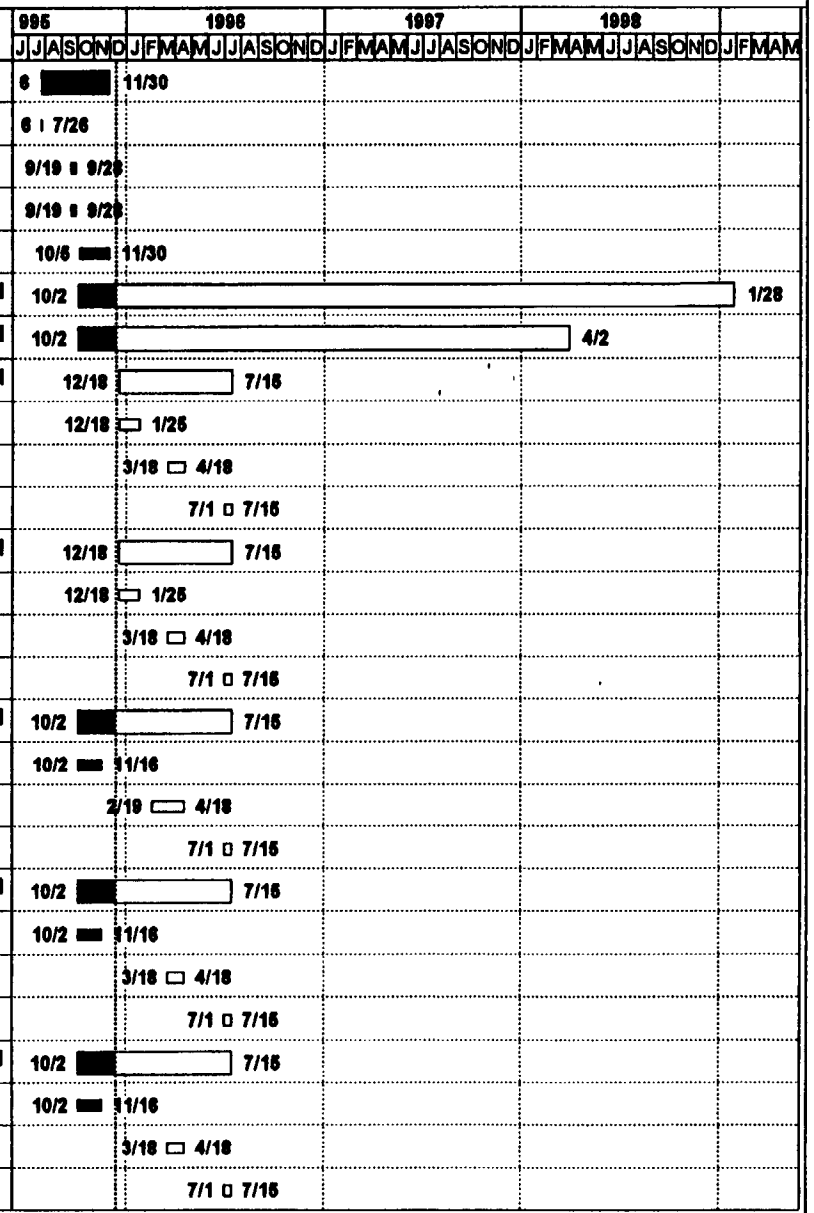
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
379	TABLE TOP CDR/ MRR	03-3200	11	1d
380	RTP	03-3200	12	1d
381	ISSUE P.O.	03-3100	9	4d
382	PROCURE SHAFTS	03-3100	9	47d
383	**1331383-1 A1 ENCLOSURE, WARM LOAD**	**03-3200**		**42d**
384	SHOP ORDER PREP	03-3200	11	15d
385	PROCURE MATERIAL	03-3200	12	15d
386	FAB 10 PIECES	03-3200	02	20d
387	**1331238-1 A2 ENCLOSURE, WARM LOAD**	**03-3200**		**50d**
388	SHOP ORDER PREP	03-3200	11	15d
389	PROCURE MATERIAL	03-3200	12	15d
390	FAB 5 PIECES	03-3200	02	28d
391	**1333999-1 A2 HOUSING SUBASSEMBLY**	**03-3200**		**110d**
392	TABLE TOP CDR/ MRR	03-3200	11	1d
393	SHOP ORDER PREP	03-3200	11	6d
394	PROCURE MATERIAL	03-3200	12	8d
395	FAB 5 PIECES	03-3200	02	14d
396	**1333653-1 A2 HOUSING, REFLECTOR DRIVE**	**03-3200**		**80d**
397	TABLE TOP CDR/ MRR	03-3200	11	1d
398	SHOP ORDER PREP	03-3200	11	13d
399	PROCURE MATERIAL	03-3200	12	9d
400	FAB 5 PIECES	03-3200	02	52d
401	**1333658-1 A2 HOUSING, MOTOR COMPENSATOR**	**03-3200**		**88d**
402	TABLE TOP CDR/ MRR	03-3200	11	1d
403	SHOP ORDER PREP	03-3200	11	16d
404	PROCURE MATERIAL	03-3200	12	11d
405	FAB 5 PIECES	03-3200	02	51d



AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
406	1333649-1 A2 COVER, HOUSING	03-3200		72d
407	TABLE TOP CDR/ MRR	03-3200	11	1d
408	SHOP ORDER PREP	03-3200	11	7d
409	PROCURE MATERIAL	03-3200	12	7d
410	FAB 5 PIECES	03-3200	02	32d
411	SYSTEMS ENGINEERING & INTEGRATION TEAM			660d
412	COMMON SYSTEMS PLANS, PROCEDURES & SPECS	02-1200		497d
413	PERFORMANCE VERIF PLAN (CDRL 022)	02-1200	1	114d
414	PRELIMINARY			19d
415	FINAL			20d
416	UPDATE			8d
417	PERFORMANCE VERIF SPEC (CDRL 308)	02-1200	2	114d
418	PRELIMINARY			19d
419	FINAL			20d
420	UPDATE			8d
421	ANTENNA SUBSYSTEM SPECS (CDRL 301-1)	02-1200	4	157d
422	PRELIMINARY			28d
423	FINAL			36d
424	UPDATE			8d
425	RECEIVER SUBSYSTEM SPECS (CDRL 301-2)	02-1200	5	157d
426	PRELIMINARY			28d
427	FINAL			20d
428	UPDATE			8d
429	SIGNAL PROCESSOR SUBSYS SPECS (CDRL 301-	02-1200	6	157d
430	PRELIMINARY			28d
431	FINAL			20d
432	UPDATE			8d



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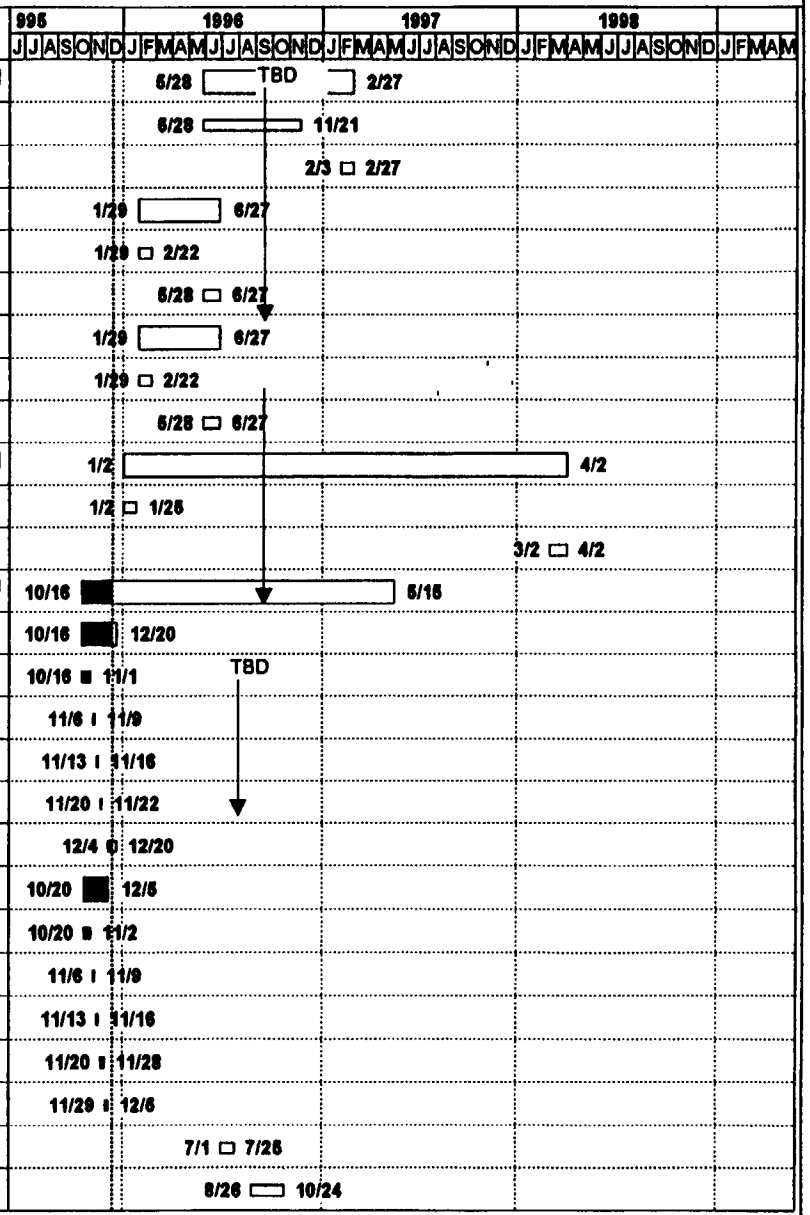
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
433	**HANDLING PROCEDURE - AE26357**	02-1200	15	149d
434	DRAFT			101d
435	FINAL			16d
436	**STORAGE PLAN (CDRL 024)**	02-1200	16	87d
437	DRAFT			16d
438	INCORPORATE NASA COMMENTS			19d
439	**STORAGE PROCEDURE (CDRL 407)**	02-1200	17	87d
440	DRAFT			16d
441	INCORPORATE NASA COMMENTS			19d
442	**TRANSPORTATION & HANDLING PROC (CDRL 406)**	02-1200	18	450d
443	PRELIMINARY			15d
444	FINAL			20d
445	**SYSTEMS ENGINEERING COMMON**	02-1600		315d
446	**SYSTEM LEVEL SHOP ORDER REVIEW**	02-1600	1	38d
447	ID SHOP ORDERS			11d
448	REVIEW SHIPPING SHOP ORDERS			4d
449	REVIEW A1 SYSTEM SHOP ORDERS			4d
450	REVIEW A2 SYSTEM SHOP ORDERS			3d
451	PREPARE FINAL REPORT			11d
452	**ENVIRONMENTAL TEST SHOP ORDER REVIEW**	02-1600	1	25d
453	ID SHOP ORDERS & COORDINATE WITH MFG			8d
454	REVIEW CALIBRATION SHOP ORDERS & SPECS			4d
455	REVIEW THERMAL CYCLE SHOP ORDERS & SPECS			4d
456	REVIEW WEIGHT & CG SHOP ORDERS & SPECS			5d
457	REVIEW VIBRATION SHOP ORDERS & SPECS			4d
458	REVIEW A1 & A2 SYSTEM LEVEL ICDs	02-1600	2	15d
459	UPDATE A1 & A2 SYSTEM LEVEL ICDs	02-1600	2	35d



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AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

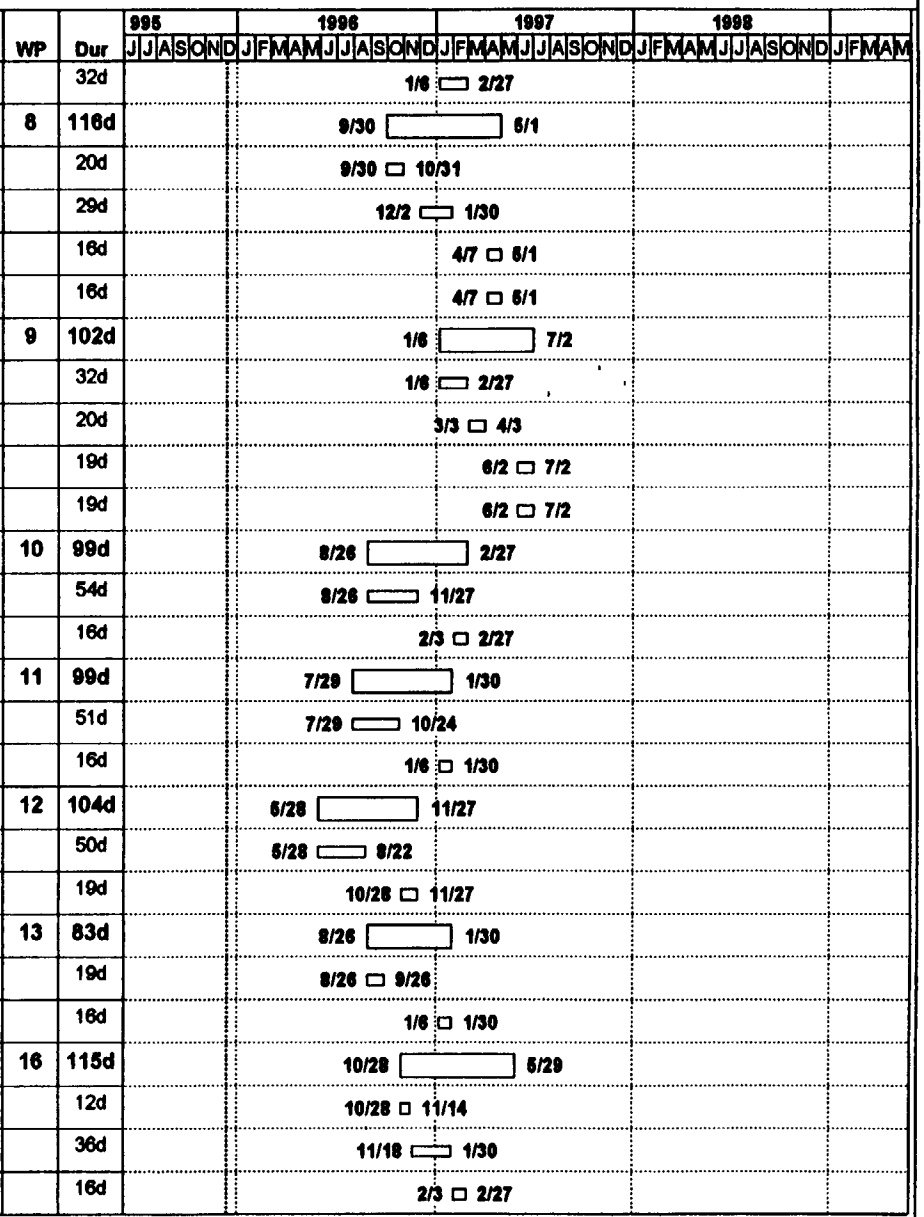
ID	Name	Cost Acct	WP	Dur	1996 J J A S O N D	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D	J F M A M
460	REVIEW A1 & A2 SYSTEM LEVEL DRAWINGS	02-1600	2	31d		7/1 – 8/22			
461	UPDATE A1 & A2 SYSTEM LEVEL DRAWINGS	02-1600	2	19d		8/26 – 9/26			
462	REVIEW SYSTEM LEVEL TEST PROCEDURES (CDRL ____)	02-1600	3	47d		6/3 – 8/22			
463	**IMIPT (CDRL 023)**	**02-1600**	**4**	**67d**		1/2 – 4/25			
464	1ST DRAFT			15d		1/2 – 1/26			
465	2ND DRAFT			16d		1/29 – 2/22			
466	3RD DRAFT			20d		2/26 – 3/28			
467	FINAL UPDATE			16d		4/1 – 4/25			
468	**CDR & CDR ACTION ITEMS (CDRL 020)**	**02-1600**	**6**	**102d**		1/2 – 6/27			
469	REQUIREMENTS, DESCRIPTION & BLOCK DIAGRAM			19d		1/2 – 2/1			
470	DATA, ANALYSIS, TEST PLANS & DRAFT COPY			32d		2/5 – 3/28			
471	CDR			0d		◬ 4/15			
472	CDR ACTION ITEMS - REVIEW & ANALYSIS			39d		4/22 – 6/27			
473	**MRR & MRR ACTION ITEMS (CDRL 037)**	**02-1600**	**7**	**101d**		4/29 – 10/24			
474	MRR DRAFT			50d		4/29 – 7/26			
475	PREP FOR & SUPPORT FINAL MRR			16d		7/29 – 8/22			
476	MRR ACTION ITEMS			35d		8/26 – 10/24			
477	**RADIOMETRIC BUDGET (CDRL ____)**	**02-1600**	**9**	**124d**		9/30 – 5/15			
478	INITIAL RECEIVER			16d		9/30 – 10/24			
479	FINAL RECEIVER			8d			5/5 – 5/15		
480	INITIAL ELECTRONICS			13d		12/2 – 12/23			
481	FINAL ELECTRONICS			20d			3/3 – 4/3		
482	INITIAL ANTENNA			8d		1/6 – 1/16			
483	FINAL ANTENNA			16d			4/7 – 5/1		
484	**SHOP ORDER PREPARATION**	**02-1600**	**11**	**195d**		1/2 – 12/12			
485	MACHINE SHOP S/Os			117d		1/2 – 7/25			
486	A1 TOP LEVEL INTEGRATION & TEST S/Os			86d		3/26 – 8/22			

AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur	1995 J J A S O N D	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D J F M A M
487	A1 SHIPPING S/Os			65d		5/20 — 9/12		
488	A2 TOP LEVEL INTEGRATION & TEST S/Os			55d		7/15 — 10/17		
489	A2 SHIPPING S/Os			66d		8/19 — 12/12		
490	**EOS SYSTEMS ENGINEERING**	02-1700		349d	10/2		7/2	
491	**EOS DRAWING RELEASES**	02-1700	1	141d	10/2	6/13		
492	AMSU A1 INTERCONNECT DIAGRAM 1356009			47d	10/2	12/21		
493	AMSU A1 ASSY 1356008-1			34d	1/3	2/29		
494	AMSU A2 INTERCONNECT DIAGRAM 1356007			47d	10/2	12/21		
495	AMSU A2 ASSY 1356006-1			25d		3/4 — 4/15		
496	A1 SHIPPING CONFIGURATION 1356037-1			36d		3/18 — 5/16		
497	A2 SHIPPING CONFIGURATION 1356038-1			35d		4/15 — 6/13		
498	REVIEW SUBSYSTEMS DESIGN	02-1700	3	4d	12/18	12/21		
499	EOS RADIOMETRIC MATH MODEL (CDRL 101)	02-1700	4	52d		2/26 — 5/23		
500	PREP OPERATIONAL IN-FLT CHECK OUT PLANS (CDRL 02	02-1700	5	12d		2/5 — 2/22		
501	**PREP EOS ASSEMBLY PROCEDURES (CDRL 413)**	02-1700	6	102d		1/6	7/2	
502	DRAFT EOS A2 TOP LEVEL S/Os			16d		1/6 — 1/30		
503	DRAFT EOS A1 TOP LEVEL S/Os			16d		2/3 — 2/27		
504	DRAFT EOS A2 SHIPPING S/O			20d		3/3 — 4/3		
505	DRAFT EOS A1 SHIPPING S/O			20d		3/3 — 4/3		
506	UPDATE EOS A2 TOP LEVEL S/Os			19d			6/2 — 7/2	
507	UPDATE EOS A1 TOP LEVEL S/Os			19d			6/2 — 7/2	
508	UPDATE EOS A2 SHIPPING S/O			19d			6/2 — 7/2	
509	UPDATE EOS A1 SHIPPING S/O			19d			6/2 — 7/2	
510	**PREP SYSTEM INTEG PROCEDURE- AE26156/6,7**	02-1700	7	99d		8/26	2/27	
511	DRAFT AE26156/7			19d		8/26 — 9/26		
512	DRAFT AE26156/6			35d		9/30 — 11/27		
513	INCORPORATE NASA COMMENTS - AE26156/7			32d		1/6 — 2/27		

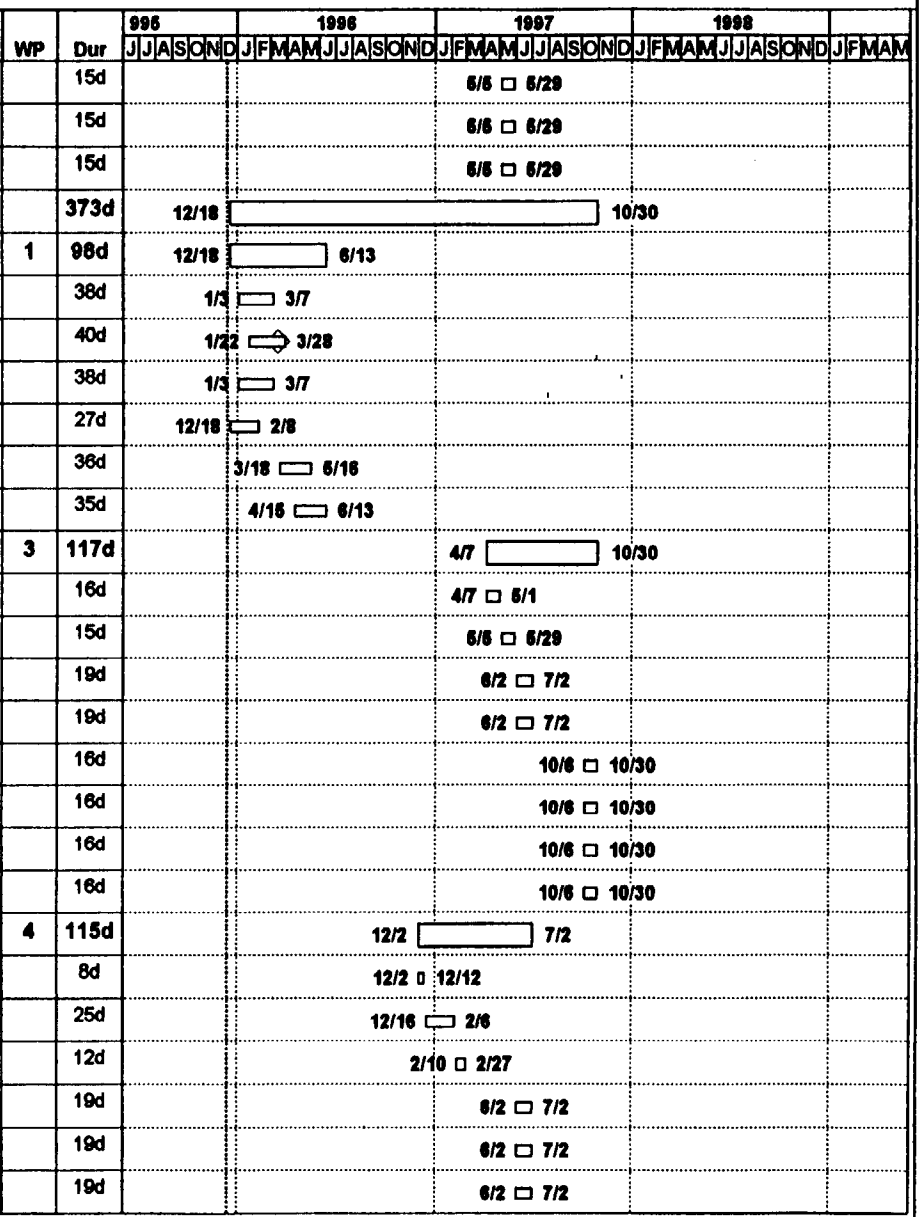
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
514	INCORPORATE NASA COMMENTS - AE26156/6			32d
515	PREP SYSTEM CPT/LPT PROCEDURE - AE26156/8,	02-1700	8	116d
516	DRAFT AE26156/8			20d
517	DRAFT AE26156/9			29d
518	INCORPORATE NASA COMMENTS - AE26156/8			16d
519	INCORPORATE NASA COMMENTS - AE26156/9			16d
520	PREP SYS CALIB PROC - 26156/10,11 - (CDRL 440)	02-1700	9	102d
521	DRAFT AE26156/10			32d
522	DRAFT AE26156/11			20d
523	INCORPORATE NASA COMMENTS - AE26156/10			19d
524	INCORPORATE NASA COMMENTS - AE26156/11			19d
525	PREP SYSTEM EMI TEST PROCEDURE - AE26151/8	02-1700	10	99d
526	DRAFT AE26151/8			54d
527	INCORPORATE NASA COMMENTS - AE26151/8			16d
528	PREP SYSTEM T/V CYCLE PROCEDURE - AE26151/	02-1700	11	99d
529	DRAFT AE26151/9			51d
530	INCORPORATE NASA COMMENTS - AE26151/9			16d
531	PREP SYSTEM VIB TEST PROCEDURE - AE26151/1	02-1700	12	104d
532	DRAFT AE26151/10			50d
533	INCORPORATE NASA COMMENTS - AE26151/10			19d
534	PREP THERMAL BAL TEST PROC - AE26151/11	02-1700	13	83d
535	DRAFT AE26151/11			19d
536	INCORPORATE NASA COMMENTS - AE26151/11			16d
537	EOS ENVIRONMENTAL SHOP ORDER PREPARATI	02-1700	16	115d
538	DRAFT A1 & A2 VIBRATION			12d
539	DRAFT A1 & A2 T/V CYCLE, CALIBRATION			36d
540	DRAFT A1 & A2 WEIGHT & CG			16d



AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
541	UPDATE A1 & A2 VIBRATION			15d
542	UPDATE A1 & A2 T/V CYCLE, CALIBRATION			15d
543	UPDATE A1 & A2 WEIGHT & CG			15d
544	METSAT SYSTEMS ENGINEERING	02-1800		373d
545	METSAT DRAWING RELEASES	02-1800	1	98d
546	AMSU A1 INTERCONNECT DIAGRAM 1356940			38d
547	AMSU A1 ASSY 1331720-2			40d
548	AMSU A2 INTERCONNECT DIAGRAM 1356945			38d
549	AMSU A2 ASSY 1331200-2			27d
550	A1 SHIPPING CONFIGURATION 1338395-2			36d
551	A2 SHIPPING CONFIGURATION 1338394-2			35d
552	METSAT MFG SHOP ORDER PREPARATION	02-1800	3	117d
553	DRAFT METSAT A2 TOP LEVEL S/Os			16d
554	DRAFT METSAT A1 TOP LEVEL S/Os			15d
555	DRAFT METSAT A2 SHIPPING S/O			19d
556	DRAFT METSAT A1 SHIPPING S/O			19d
557	UPDATE METSAT A2 TOP LEVEL S/Os			16d
558	UPDATE METSAT A1 TOP LEVEL S/Os			16d
559	UPDATE METSAT A2 SHIPPING S/O			16d
560	UPDATE METSAT A1 SHIPPING S/O			16d
561	METSAT ENVIRONMENTAL SHOP ORDER PREP	02-1800	4	115d
562	DRAFT A1 & A2 VIBRATION			8d
563	DRAFT A1 & A2 T/V CYCLE, CALIBRATION			25d
564	DRAFT A1 & A2 WEIGHT & CG			12d
565	UPDATE A1 & A2 VIBRATION			19d
566	UPDATE A1 & A2 T/V CYCLE, CALIBRATION			19d
567	UPDATE A1 & A2 WEIGHT & CG			19d



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AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

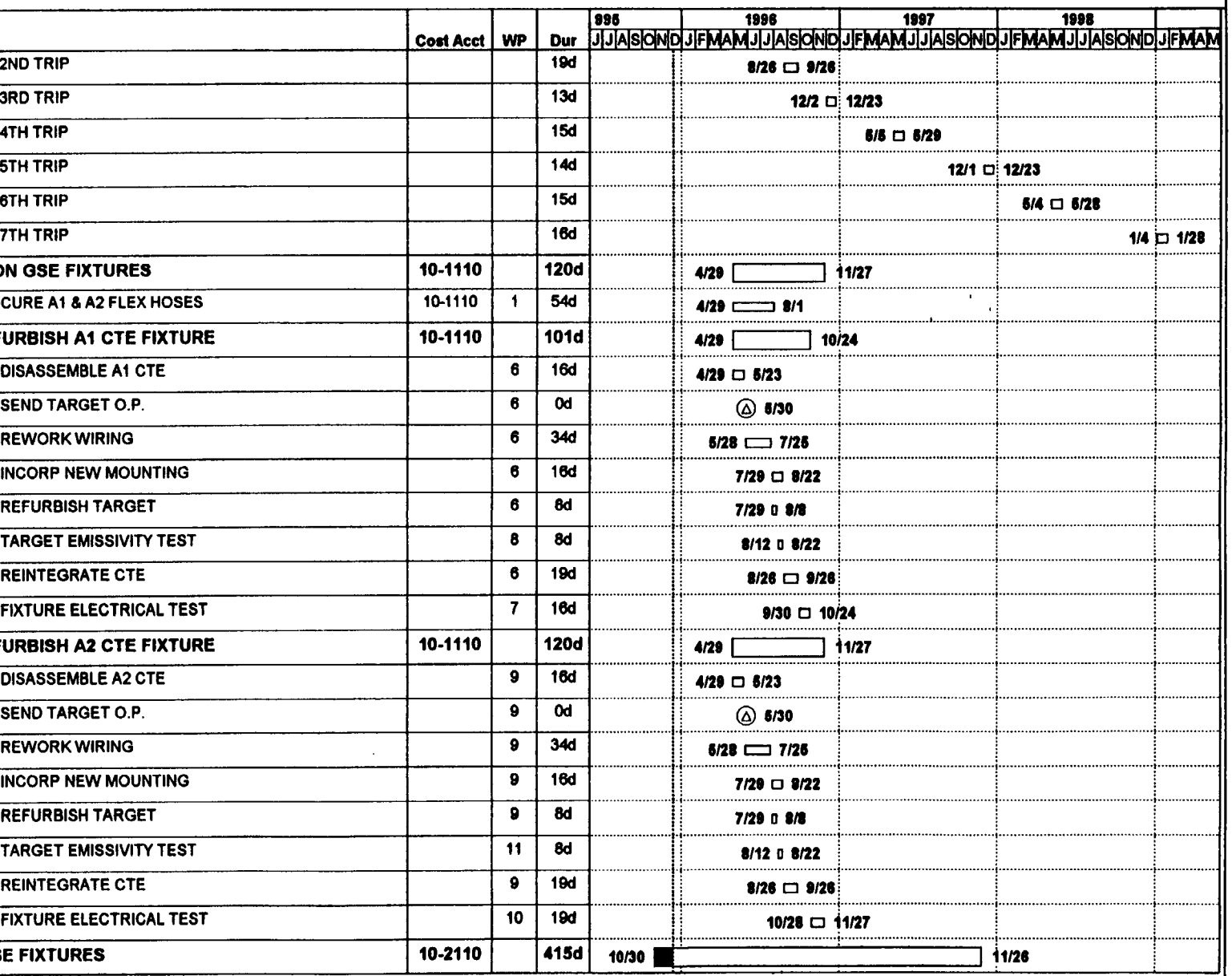
ID	Name	Cost Acct	WP	Dur	1995 J J A S O N D	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D J F M A M
568	**PREP SYSTEM INTEG PROCEDURE- AE26156/1,2**	02-1800	7	99d		8/26 — 2/27		
569	DRAFT AE26156/2			19d		8/26 — 9/26		
570	DRAFT AE26156/1			35d		9/30 — 11/27		
571	INCORPORATE NASA COMMENTS - AE26156/2			32d		1/6 — 2/27		
572	INCORPORATE NASA COMMENTS - AE26156/1			32d		1/6 — 2/27		
573	**PREP SYSTEM CPT/LPT PROCEDURE - AE26156/3,**	02-1800	8	116d		9/30 — 5/1		
574	DRAFT AE26156/3			20d		9/30 — 10/31		
575	DRAFT AE26156/4			29d		12/2 — 1/30		
576	INCORPORATE NASA COMMENTS - AE26156/3			16d		4/7 — 5/1		
577	INCORPORATE NASA COMMENTS - AE26156/4			16d		4/7 — 5/1		
578	**PREP SYS CALIB PROC - 26156/5,6 - (CDRL 440)**	02-1800	9	102d		1/6 — 7/2		
579	DRAFT AE26156/5			32d		1/6 — 2/27		
580	DRAFT AE26156/6			20d		3/3 — 4/3		
581	INCORPORATE NASA COMMENTS - AE26156/5			19d		6/2 — 7/2		
582	INCORPORATE NASA COMMENTS - AE26156/6			19d		6/2 — 7/2		
583	**PREP SYSTEM EMI TEST PROCEDURE - AE26151/5**	02-1800	10	99d		8/26 — 2/27		
584	DRAFT AE26151/5			54d		8/26 — 11/27		
585	INCORPORATE NASA COMMENTS - AE26151/5			16d		2/3 — 2/27		
586	**PREP SYSTEM THERMAL CYCLE PROC - AE26151/**	02-1800	12	83d		7/29 — 12/23		
587	DRAFT AE26151/7			51d		7/29 — 10/24		
588	INCORPORATE NASA COMMENTS - AE26151/7			13d		12/2 — 12/23		
589	**PREP SYSTEM VIB TEST PROCEDURE - AE26151/3**	02-1800	13	99d		8/26 — 2/27		
590	DRAFT AE26151/3			54d		8/26 — 11/27		
591	INCORPORATE NASA COMMENTS - AE26151/3			16d		2/3 — 2/27		
592	**PREP A2 MOMENTUM COMP PROCEDURE - AE261**	02-1800	14	132d		4/29 — 12/19		
593	DRAFT AE26151/X			66d		4/29 — 8/22		
594	INCORPORATE NASA COMMENTS - AE26151/X			12d		12/2 — 12/19		

AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur	1995 J J A S O N D	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D	J F M A M
595	**EOS SPACECRAFT INTERFACE**	02-1400		363d		6/28 — 3/26			
596	UPDATE A2 INSTRUMENT DESCRIPTION DOC (CDRL 519)	02-1400	1	30d			12/1 — 1/29		
597	UPDATE A1 INSTRUMENT DESCRIPTION DOC (CDRL 519)	02-1400	1	32d			1/5 — 2/26		
598	PREP ICD INPUT (CDRL 516)	02-1400	2	67d			2/3 — 5/29		
599	DESIGN/COORDINATE EOS SPACECRAFT INTERFACE	02-1400	3	200d		6/28 — 5/29			
600	**PREP OPERATN/MAINTENANCE MANUALS (CDRL**	02-1400	4	363d		6/28 — 3/26			
601	DRAFT			34d		6/28 — 7/25			
602	FINAL			23d		8/19 — 9/26			
603	UPDATE			24d			2/16 — 3/26		
604	**PREP VERIF PROCEDURE (CDRL 412)**	02-1400	5	115d			6/2 — 12/23		
605	DRAFT			35d			6/2 — 7/31		
606	FINAL			35d			8/4 — 10/2		
607	UPDATE			29d			11/3 — 12/23		
608	**METSAT SPACECRAFT INTERFACE**	02-1500		582d		2/26 — 1/26			
609	REVIEW 3 DOCUMENTS - GIIS	02-1500	1	16d		7/29 — 8/22			
610	REVIEW A1 UIIS	02-1500	1	19d		8/26 — 9/26			
611	REVIEW A2 UIIS	02-1500	1	19d		8/26 — 9/26			
612	**SUPPORT 4 SPACECRAFT INTERFACE MTGS AT A**	02-1500	2	536d		2/26 — 10/29			
613	1ST MEETING			20d		2/26 — 3/28			
614	2ND MEETING			16d		9/30 — 10/24			
615	3RD MEETING			16d			10/6 — 10/30		
616	4TH MEETING			16d				10/5 — 10/29	
617	**SUPPORT 2 S/C INTERFACE MTGS AT CONTRACT**	02-1500	3	150d		7/1 — 4/3			
618	1ST MEETING			15d		7/1 — 7/25			
619	2ND MEETING			20d			3/3 — 4/3		
620	**REVIEW 3 DOCS GICD,A1 ICD,A2 ICD TO FOR 7 TRI**	02-1500	4	546d		4/29 — 1/28			
621	1ST TRIP			16d		4/29 — 5/23			

AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
622	2ND TRIP			19d
623	3RD TRIP			13d
624	4TH TRIP			15d
625	5TH TRIP			14d
626	6TH TRIP			15d
627	7TH TRIP			16d
628	**COMMON GSE FIXTURES**	10-1110		120d
629	PROCURE A1 & A2 FLEX HOSES	10-1110	1	54d
630	**REFURBISH A1 CTE FIXTURE**	10-1110		101d
631	DISASSEMBLE A1 CTE		6	16d
632	SEND TARGET O.P.		6	0d
633	REWORK WIRING		6	34d
634	INCORP NEW MOUNTING		6	16d
635	REFURBISH TARGET		6	8d
636	TARGET EMISSIVITY TEST		8	8d
637	REINTEGRATE CTE		6	19d
638	FIXTURE ELECTRICAL TEST		7	16d
639	**REFURBISH A2 CTE FIXTURE**	10-1110		120d
640	DISASSEMBLE A2 CTE		9	16d
641	SEND TARGET O.P.		9	0d
642	REWORK WIRING		9	34d
643	INCORP NEW MOUNTING		9	16d
644	REFURBISH TARGET		9	8d
645	TARGET EMISSIVITY TEST		11	8d
646	REINTEGRATE CTE		9	19d
647	FIXTURE ELECTRICAL TEST		10	19d
648	**EOS GSE FIXTURES**	10-2110		415d



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AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur	1995 J J A S O N D	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D	J F M A M
649	**EOS BLACK BODY TARGETS & MONITOR**	10-2110		318d	1/2	7/31			
650	**MONITOR CABINET**	10-2110		200d	1/2	12/23			
651	DESIGN		1	16d		4/29 5/23			
652	FAB (INCLUDES S/O PLNG)		3	102d	1/2	6/27			
653	ASSEMBLY (INCLUDES S/O PLNG)		3	66d		4/29 8/22			
654	PROGRAMMING & FINAL CHECK OUT		3	48d		9/30 12/23			
655	**BLACK BODY TARGETS**	10-2110		232d	1/2	2/27			
656	UPDATE BLACK BODY CORE ORDERING DOCUM		2	15d	1/2 1/26				
657	PROCURE BLACK BODY CORE		2	118d	1/29	8/22			
658	BLACK BODY CORE TARGET EMISSIVITY TEST		4	19d		8/26 9/26			
659	FAB TARGETS (INCLUDES S/O PLNG)		2	70d		7/29 11/27			
660	ASSEMBLE TARGETS (INCLUDES S/O PLNG)		2	64d		10/28 2/27			
661	**BLACK BODY TARGET TEST SET**	10-2110	5	166d		9/30 7/31			
662	INITIAL CHECK			16d		9/30 10/24			
663	FINAL TEST			16d			7/7 7/31		
664	CHECK OUT & TEST A1 CYCLING CRYO PLATE	10-2110	6	35d		7/29 9/26			
665	**A1 & A2 CALIBRATION CABLE SET**	10-2110	7	85d		6/28 10/24			
666	DESIGN & DRAWING UPDATE COMPLETED			26d		6/28 7/11			
667	RECEIVE PARTS & MATERIEL			20d		7/15 8/15			
668	FINAL ACCEPTANCE			39d		8/19 10/24			
669	**TQCM VACUUM MEASURING INSTRUMENT**	10-2110	8	117d	1/2	7/25			
670	SPEC REVIEW			31d	1/2 2/22				
671	LAYOUT DESIGN			31d	1/2 2/22				
672	RECEIVE INSTRUMENT			0d		◬ 6/23			
673	FINAL CHECK OUT			34d		6/26 7/25			
674	**SPACECRAFT INSTALLATION FIXTURES**	10-2110	9	87d	1/29	6/27			
675	FABRICATION (INCL S/O PLNG)			16d	1/29 2/22				

AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur	1995 J J A S O N D	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D	J F M A M
676	ASSEMBLY (INCL S/O PLNG)			16d		4/1 □ 4/25			
677	PROOF TESTING & FINAL ACCEPTANCE			35d		4/29 ▭ 6/27			
678	**EOS STE SOFTWARE**	10-2110	10	413d	11/1	▭	11/26		
679	CDR ACTION ITEMS			13d	11/1 ■ 11/22				
680	CDR REVISIONS			12d	12/4 □ 12/21				
681	TEST PROCEDURES			16d		9/30 □ 10/24			
682	REVISED SRS & DESIGN DOCUMENT			19d		10/28 □ 11/27			
683	TEST REPORTS			13d		12/2 □ 12/23			
684	DESIGN, CODE & TEST INPUT MODIFICATIONS			52d	2/19 ▭ 5/16				
685	DESIGN, CODE & TEST COMMAND MODIFICATIONS			38d		5/20 ▭ 7/25			
686	INTEGRATE MODIFICATIONS			20d		7/29 □ 8/29			
687	DRY RUN TESTING			24d		9/16 ▭ 10/24			
688	FORMAL TESTING			23d		11/4 ▭ 12/12			
689	INSTRUMENT TEST - SOFTWARE MODE			20d			10/6 ▭ 11/6		
690	INSTRUMENT TEST - DOCUMENT REVISION			11d			11/10 □ 11/26		
691	**EOS GSE S/C CSTOL WORKSTATION SOFTWARE**	10-2110	11	283d		4/1 ▭	8/28		
692	INSTALL CSTOL/OASIS			32d		4/1 ▭ 5/23			
693	POPULATE OASIS TABLE			50d		5/28 ▭ 8/22			
694	WRITE CSTOL PROCEDURE			102d			1/6 ▭ 7/2		
695	DRY RUN TESTING			16d			7/7 □ 7/31		
696	FORMAL TESTING			16d			8/4 □ 8/28		
697	**EOS STE HARDWARE**	10-2110		243d	10/30	▭	1/23		
698	DESIGN		12	82d	10/30 ▭ 3/28				
699	FABRICATION (INCL S/O PLNG)		13	82d		4/1 ▭ 8/22			
700	ASSEMBLY (INCL S/O PLNG)		13	95d		7/29 ▭ 1/23			
701	**EOS SPACECRAFT WORKSTATION**	10-2110	15	87d	1/29 ▭ 6/27				
702	ORDER PARTS & MATERIEL			16d	1/29 □ 2/22				

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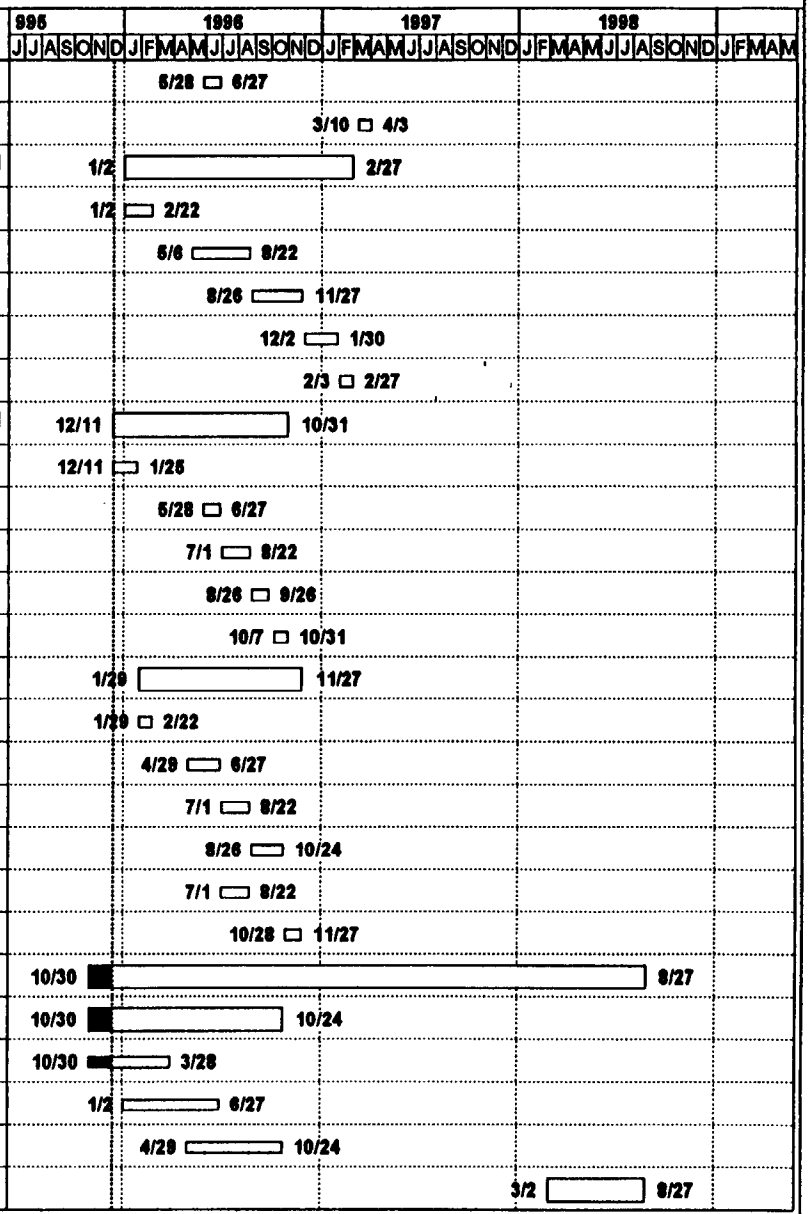
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
703	FAB & ASSEMBLY			19d
704	FIT CHECK EOS SHIPPING/STORAGE CONTAINER	10-2110	16	16d
705	**EOS HANDLING FIXTURE**	**10-2110**		232d
706	FINAL DESIGN		17	31d
707	PROCURE MATERIEL		18	62d
708	FABRICATION		18	54d
709	ASSEMBLY		18	29d
710	TEST		18	16d
711	**EOS A1 CALIBRATION FIXTURE**	**10-2110**		180d
712	FINAL DESIGN		19	23d
713	PROCURE MATERIEL		20	19d
714	FABRICATION		20	31d
715	ASSEMBLY		20	19d
716	FIT CHECK		20	16d
717	**EOS MOUNTING TEMPLATES**	**10-2110**		172d
718	FINAL DESIGN		21	16d
719	PROCURE MATERIEL		22	35d
720	FABRICATION		22	31d
721	ASSEMBLY		22	35d
722	PROCEDURE		22	31d
723	CHECK OUT		22	19d
724	**METSAT GSE & FIXTURES**	**10-3110**		563d
725	**METSAT STE**	**10-3110**		199d
726	FINAL DESIGN		1	82d
727	FABRICATION (INCL S/O PLNG)		2	102d
728	ASSEMBLY (INCL S/O PLNG)		2	101d
729	**METSAT STE MANUAL & PROCEDURE UPDATE**	**10-3110**	3	102d



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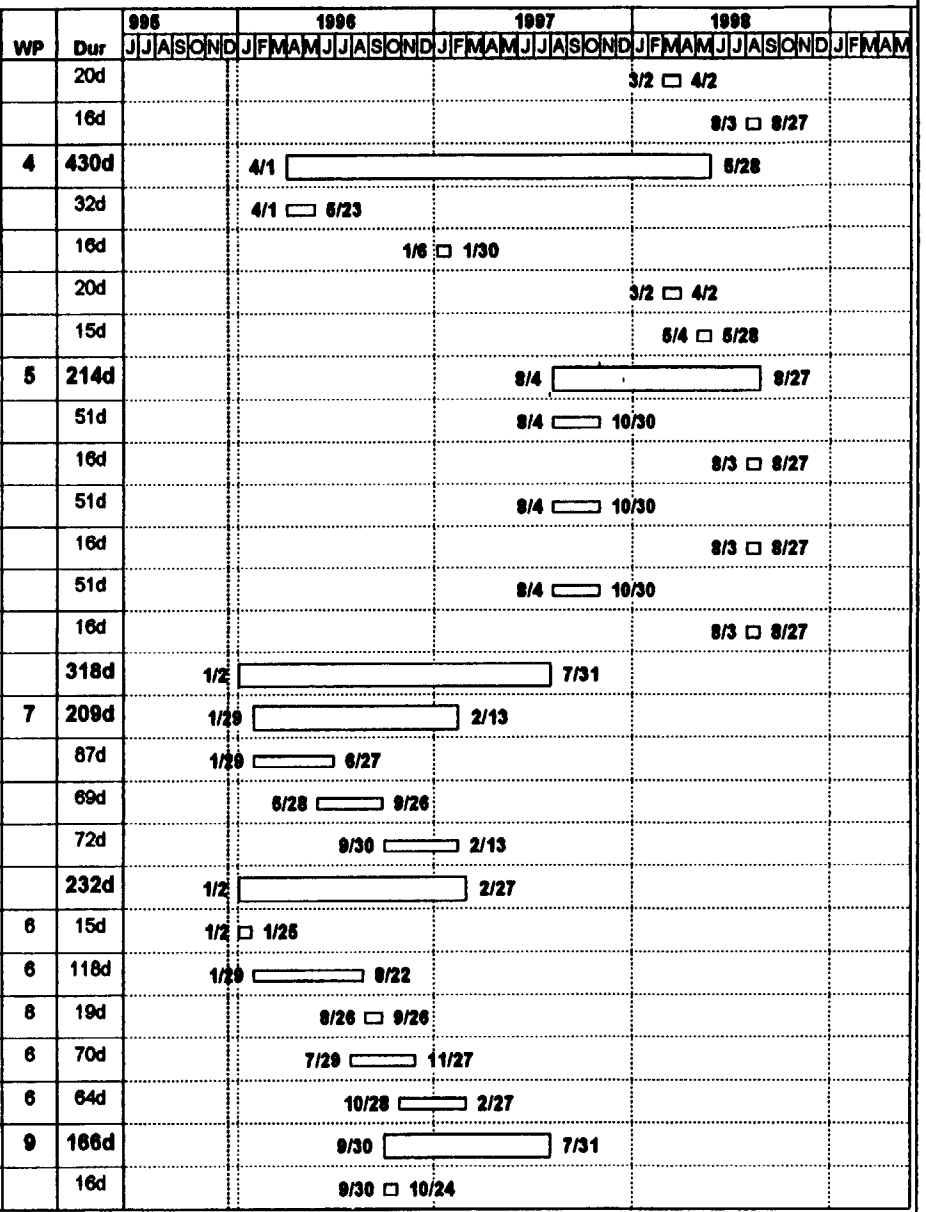
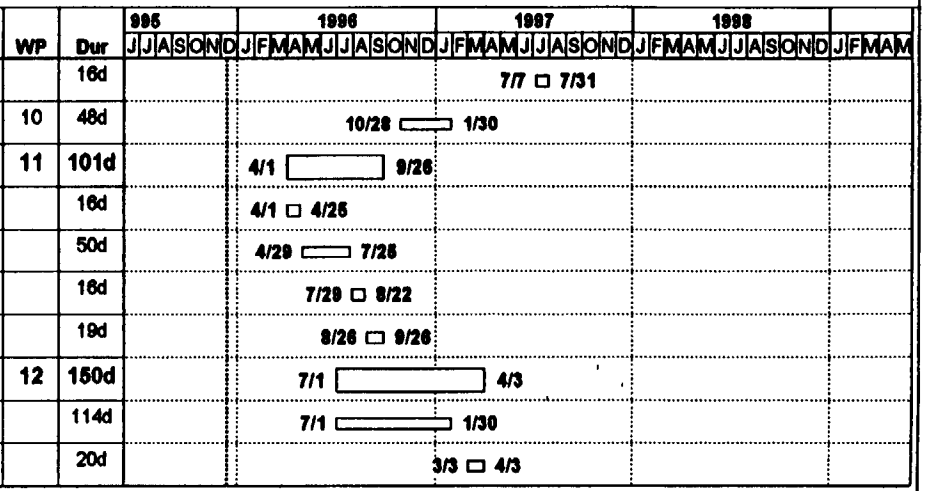
AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
730	DRAFT 0 & M MANUAL - AE26157			20d
731	FINAL 0 & M MANUAL - AE26157			16d
732	**METSAT STE SOFTWARE UPDATES**	10-3110	4	430d
733	1ST SOFTWARE UPDATE			32d
734	2HD SOFTWARE UPDATE			16d
735	3RD SOFTWARE UPDATE			20d
736	4TH SOFTWARE UPDATE			15d
737	**METSAT SOFTWARE & HARDWARE TEST**	10-3110	5	214d
738	STE #1 - PRELIM ELECT TEST WITH S/W			51d
739	STE #1 - FINAL ELECT TEST WITH S/W			16d
740	STE #2 - PRELIM ELECT TEST WITH S/W			51d
741	STE #2 - FINAL ELECT TEST WITH S/W			16d
742	STE #3 - PRELIM ELECT TEST WITH S/W			51d
743	STE #3 - FINAL ELECT TEST WITH S/W			16d
744	**METSAT BLACK BODY TARGETS & MONITOR**	10-3110		318d
745	**MONITOR CABINET**	10-3110	7	209d
746	FAB (INCLUDES S/O PLNG)			87d
747	ASSEMBLY (INCLUDES S/O PLNG)			69d
748	PROGRAMMING & FINAL CHECK OUT			72d
749	**BLACK BODY TARGETS**	10-3110		232d
750	UPDATE BLACK BODY CORE ORDERING DOCUM		6	15d
751	PROCURE BLACK BODY CORE		6	118d
752	BLACK BODY CORE TARGET EMISSIVITY TEST		8	19d
753	FAB TARGETS (INCLUDES S/O PLNG)		6	70d
754	ASSEMBLE TARGETS (INCLUDES S/O PLNG)		6	64d
755	**BLACK BODY TARGET TEST SET**	10-3110	9	166d
756	INITIAL CHECK			16d

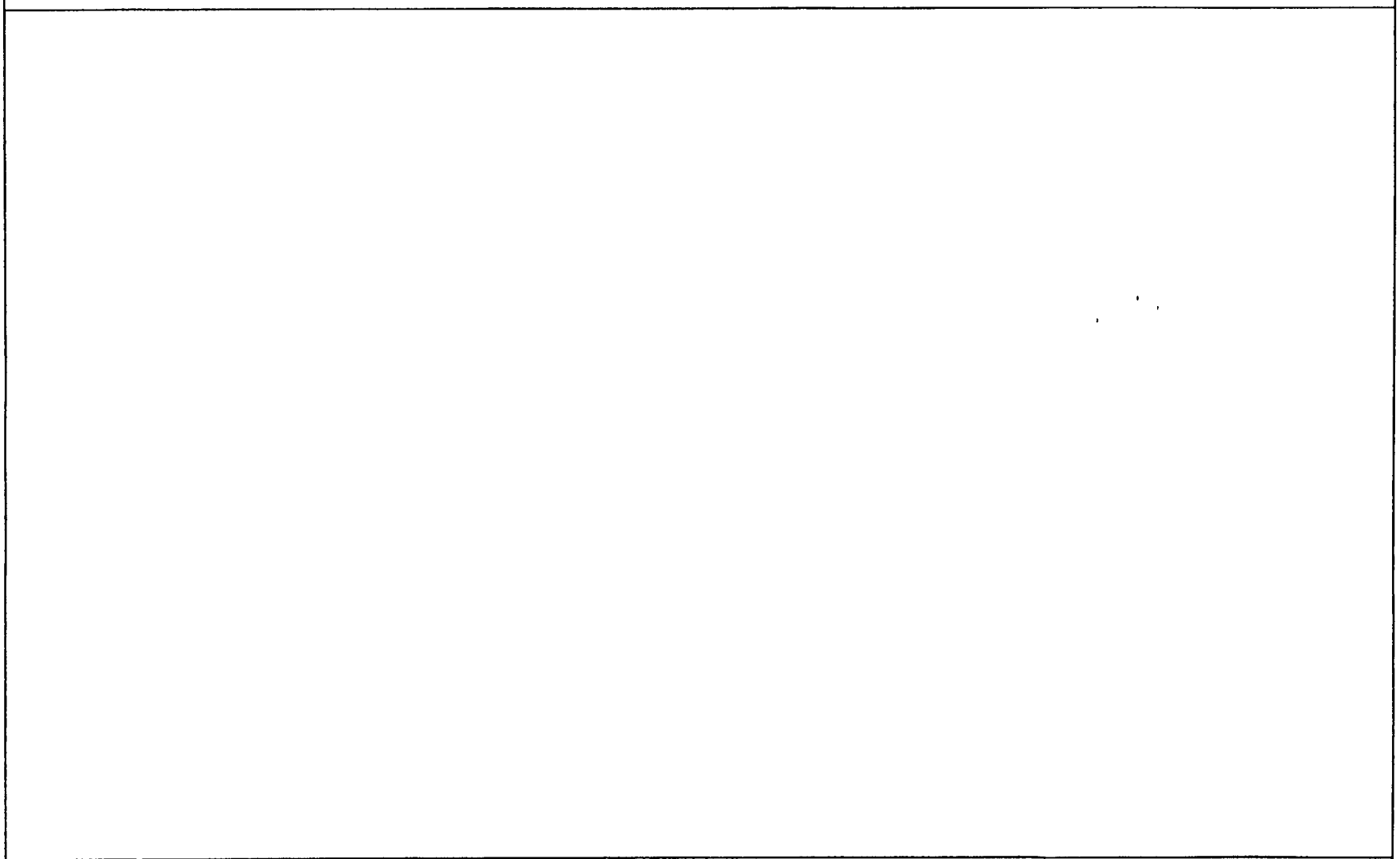


AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID	Name	Cost Acct	WP	Dur
757	FINAL TEST			16d
758	FAB & ASSEMBLE METSAT BREAKOUT BOXES	10-3110	10	48d
759	**METSAT HANDLING PLATES**	10-3110	11	101d
760	PROCUREMENT			16d
761	FABRICATION			50d
762	ASSEMBLY			16d
763	TEST & CHECK OUT			19d
764	**METSAT SHIPPING/STORAGE CONTAINERS**	10-3110	12	150d
765	PROCUREMENT			114d
766	FIT CHECK			20d



AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE



As of 10/30/95	Previous Finish ◇	Previous Finish ◇		Milestone Ⓐ	
	Previous Finish ◇	Baseline ⇧	⇧	Milestone Complete Ⓐ	
	Previous Finish ◇	Task		Summary	
	Previous Finish ◇	Progress		Summary Progress	

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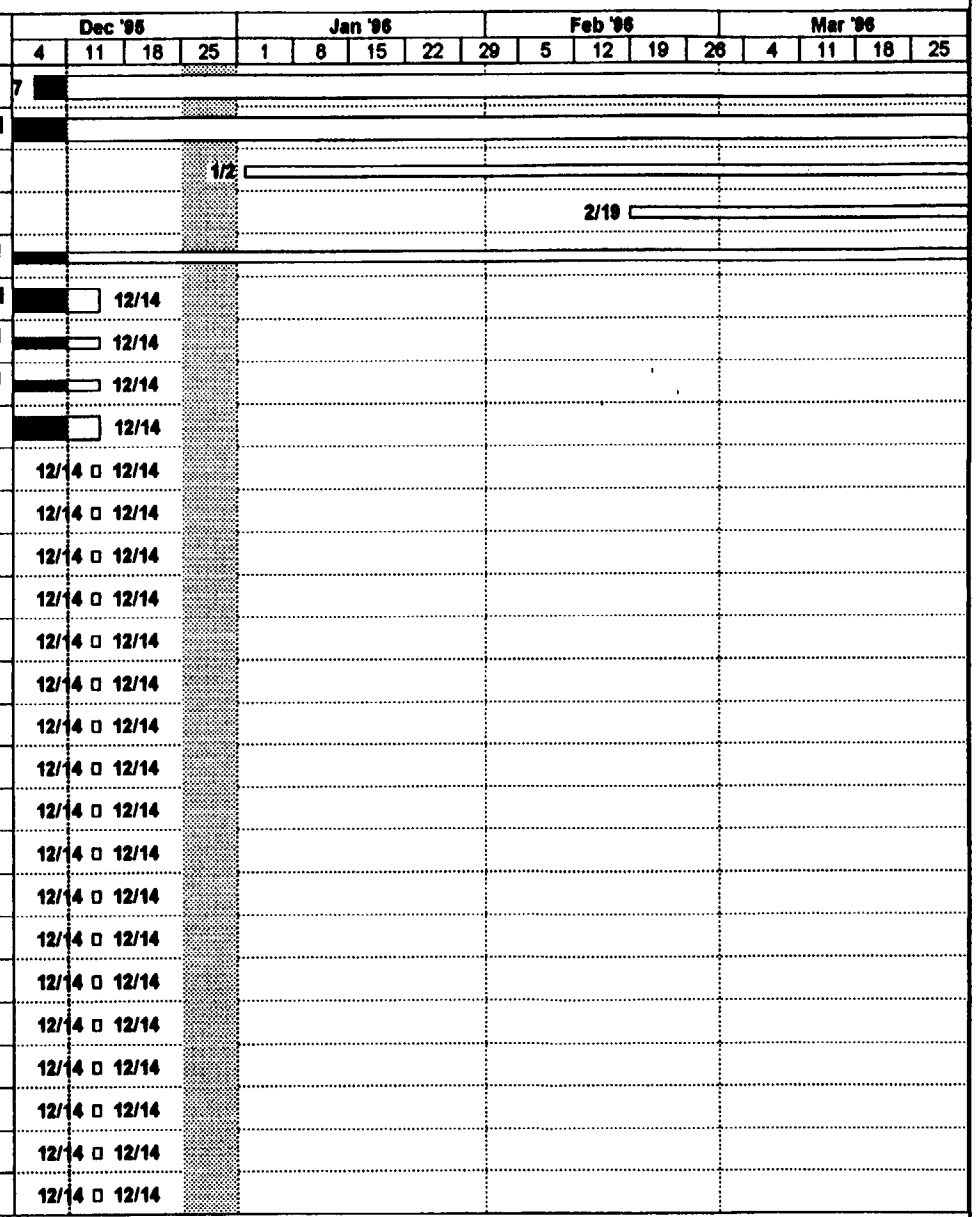
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
1	**DESIGN REVIEWS**	69d
4	**RECEIVER SUBSYSTEM**	327d
8	RECEIVER TEST PLAN, TEST PROCS(AE26002/6,26608), DRY R	67d
10	PREP FOR & SUPPORT CDR	33d
11	RECEIVER ENGR PROCUREMENT SUPPORT (MRRs, PDRs,CD	324d
12	**PLO DOCUMENTATION TO INCORPORATE NASA REQ'TS**	128d
15	MECHANICAL DRAWING CHECK	128d
16	ELECTRICAL DRAWING CHECK	128d
17	**PLO DRAWING RELEASES**	44d
18	PLO ASSY 1348360-1	1d
20	CABLE ASSY 1348430-X	1d
21	CABLE ASSY 1348435-X	1d
22	CABLE ASSY 1348436-1	1d
25	HOUSING ASSY 1348366-1	1d
28	DRO ASSY 1348400-1	1d
29	SCHEMATIC, DRO ASSY 1348401	1d
30	DRO HOUSING 1348405-1	1d
33	6875 MHZ DRO CCA 1348410-1	1d
34	PWB, 6875 MHZ DRO CCA 1348411-1	1d
35	DRO CCA SCHEMATIC 1348413	1d
36	TRANSISTOR CARRIER 1348414-1	1d
37	LOOP AMPLIFIER CCA 1348440-1	1d
38	SCHEMATIC, LOOP AMP 1348441	1d
39	PWB, LOOP AMP 1348442-1	1d
40	573 MHZ AMPLIFIER CCA 1348450-1	1d
41	SCHEMATIC, 573 MHZ AMP 1348451	1d
42	PWB, 573 MHZ AMP 1348452-1	1d



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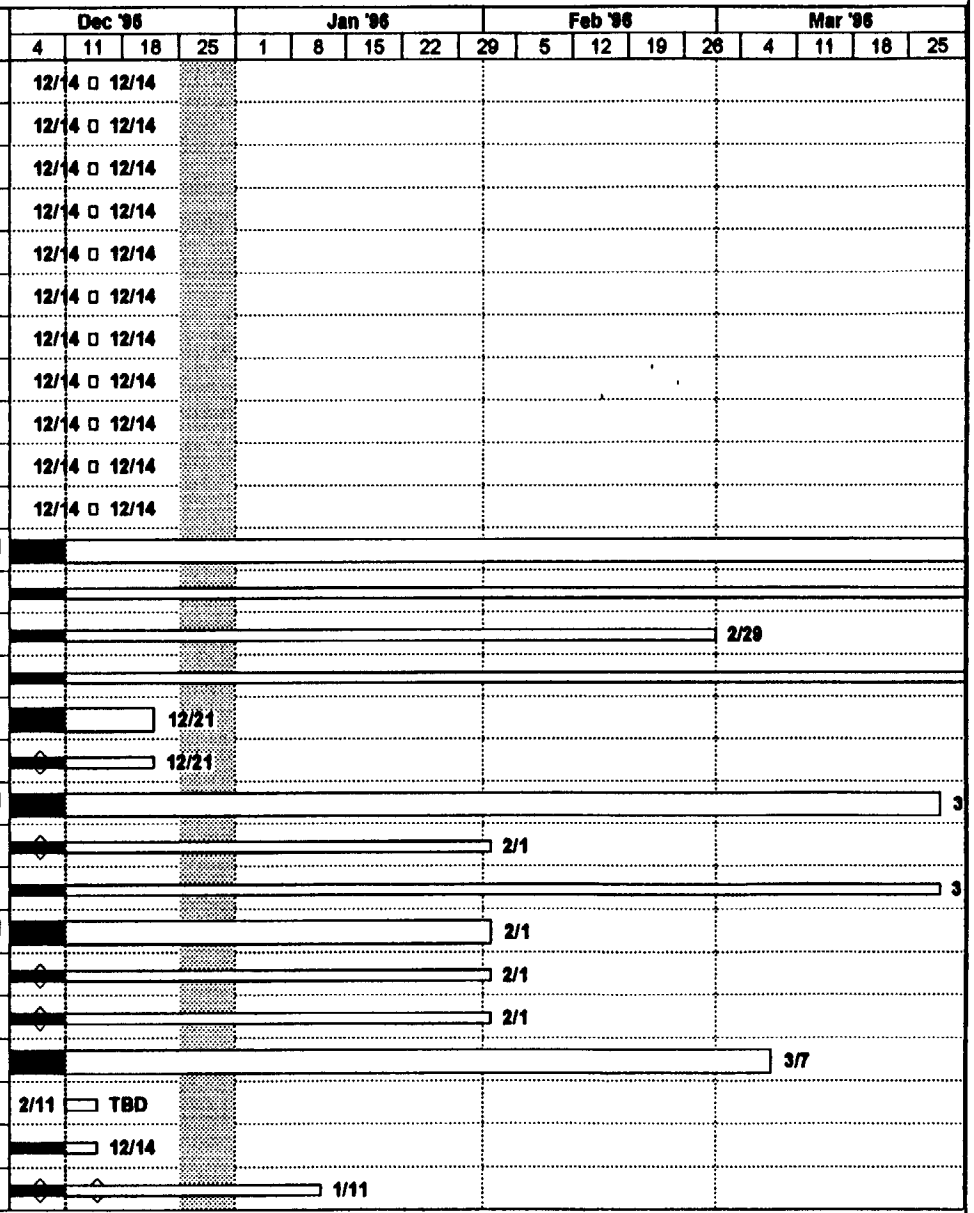
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
43	REGULATOR CCA 1348420-1	1d
44	SCHEMATIC, REGULATOR 1348421	1d
45	PWB, REGULATOR CCA 1348422-1	1d
47	INSULATOR, REGULATOR 1348425-1	1d
48	RESISTOR ASSORTMENT, REGULATOR 1348426	1d
49	INSULATOR, HEATSINK, REGULATOR 1348508-1	1d
50	PLL ASSEMBLY 1348500-1	1d
51	SCHEMATIC, PLL 1348501	1d
54	PLL CCA 1348520-1	1d
55	PWB, PLL 1348502-1	1d
56	INDUCTOR, PLL 1348506-1	1d
57	**PLO PROCUREMENT**	304d
58	PROCURE VCGDOs	304d
59	PROCURE FLIGHT TCXOs	171d
61	PROCURE LONG LEAD PLO PIECE PARTS	230d
62	**PLO MANUFACTURING**	47d
63	UPDATE PLO MANUFACTURING PLAN	47d
64	**PLO TESTING**	191d
65	PLO MASTER TEST PLAN	159d
66	PERFORMANCE TEST PROCEDURES (CDRL 409) (AE P/N TBD)	82d
67	**PLO PERFORMANCE ASSURANCE**	234d
68	DESIGN ASSURANCE - PARTS & MATERIAL	234d
69	DESIGN ASSURANCE NSPARS	234d
71	**PLO SMT QUALIFICATION**	86d
77	FINAL UPDATE TO PLAN	4d
79	PROCURE PWB'S/DUMMY COMP	19d
80	SHOP ORDER FOR DEMO BDS	30d



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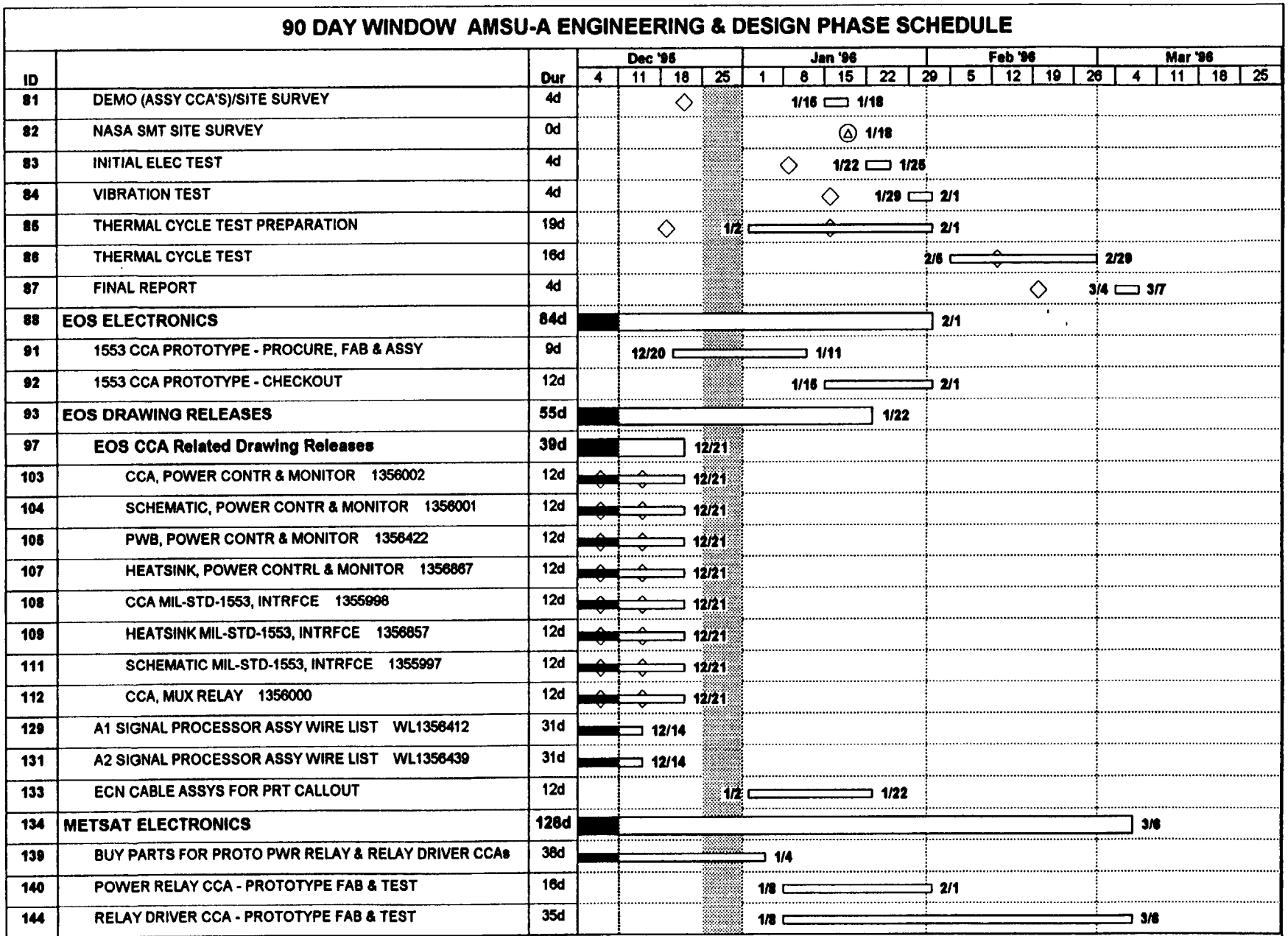
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE



ID		Dur
81	DEMO (ASSY CCA'S)/SITE SURVEY	4d
82	NASA SMT SITE SURVEY	0d
83	INITIAL ELEC TEST	4d
84	VIBRATION TEST	4d
85	THERMAL CYCLE TEST PREPARATION	19d
86	THERMAL CYCLE TEST	16d
87	FINAL REPORT	4d
88	**EOS ELECTRONICS**	84d
91	1553 CCA PROTOTYPE - PROCURE, FAB & ASSY	9d
92	1553 CCA PROTOTYPE - CHECKOUT	12d
93	**EOS DRAWING RELEASES**	55d
97	**EOS CCA Related Drawing Releases**	39d
103	CCA, POWER CONTR & MONITOR 1356002	12d
104	SCHEMATIC, POWER CONTR & MONITOR 1356001	12d
105	PWB, POWER CONTR & MONITOR 1356422	12d
107	HEATSINK, POWER CONTRL & MONITOR 1356867	12d
108	CCA MIL-STD-1553, INTRFCE 1355998	12d
109	HEATSINK MIL-STD-1553, INTRFCE 1356857	12d
111	SCHEMATIC MIL-STD-1553, INTRFCE 1355997	12d
112	CCA, MUX RELAY 1356000	12d
129	A1 SIGNAL PROCESSOR ASSY WIRE LIST WL1356412	31d
131	A2 SIGNAL PROCESSOR ASSY WIRE LIST WL1356439	31d
133	ECN CABLE ASSYS FOR PRT CALLOUT	12d
134	**METSAT ELECTRONICS**	126d
139	BUY PARTS FOR PROTO PWR RELAY & RELAY DRIVER CCAs	36d
140	POWER RELAY CCA - PROTOTYPE FAB & TEST	16d
144	RELAY DRIVER CCA - PROTOTYPE FAB & TEST	35d

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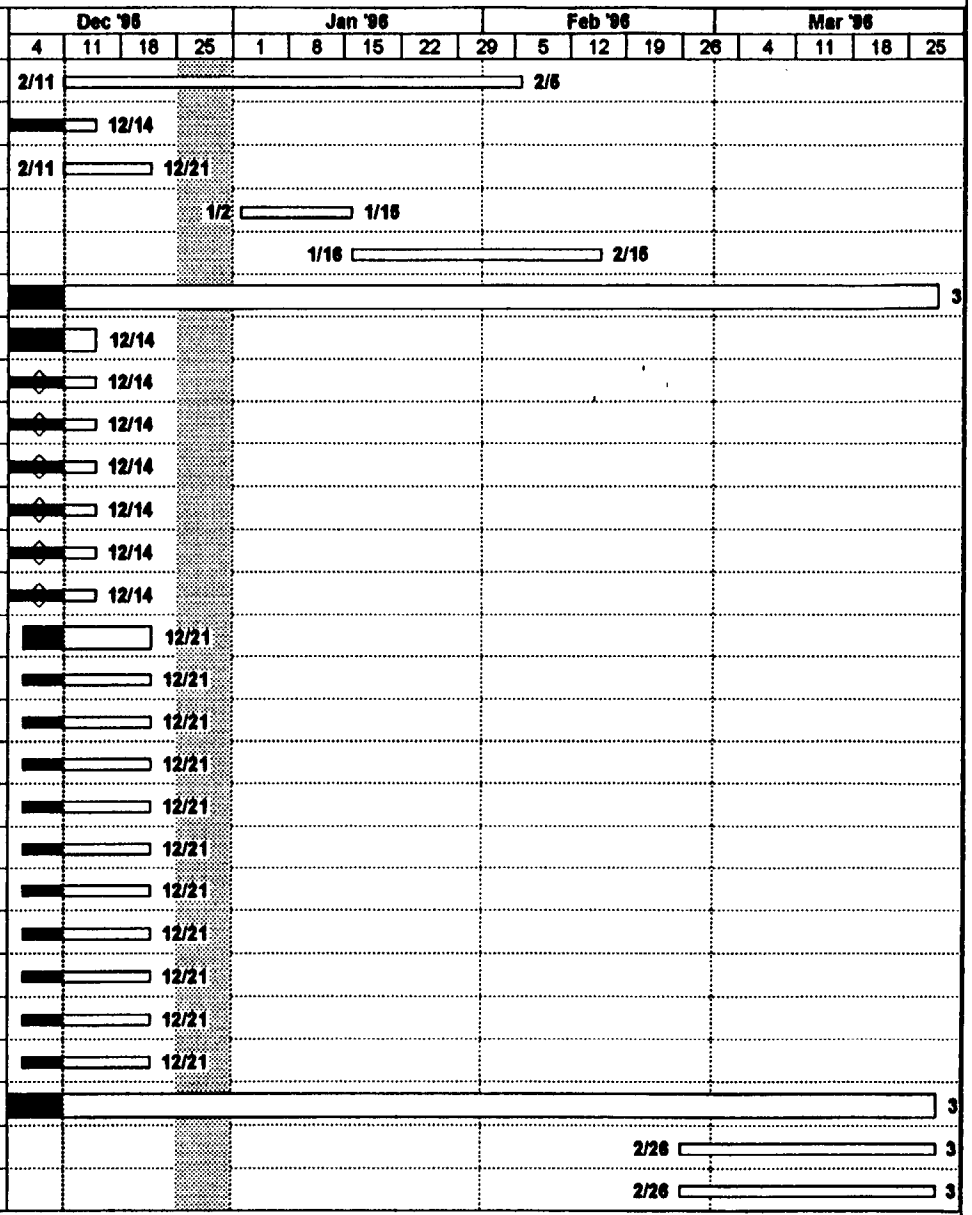
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
145	BACKPLANE A1 & A2 WIRE LIST COMPLETE	28d
146	A1 & A2 SIGNAL PROCESSOR ASSY DWG COMPLETE	19d
148	TRU CHASSIS FAB	8d
149	#1 TRU CHECKOUT	8d
150	#2 TRU CHECKOUT	19d
151	**METSAT DRAWING RELEASES**	80d
152	**METSAT CCA RELATED DRAWING RELEASES**	25d
153	ASSY, POWER RELAY & HSKP 1356962	8d
154	CCA, POWER RELAY & HSKP 1356908	8d
155	BRACKET, FILTER, POWER RELAY & HSKP 1356970	8d
156	PWB, POWER RELAY & HSKP 1356910	8d
157	SCHEMATIC, POWER RELAY & HSKP 1356909	8d
158	HEATSINK, POWER RELAY & HSKP TBD	8d
168	**METSAT CABLE DRAWING RELEASES**	10d
169	CABLE ASSY, A1W1 SPACECRAFT POWER 1356428-2	10d
170	CABLE ASSY, A1W2 POWER DISTRIBUTION 1356427-2	10d
171	CABLE ASSY, A1W3 SCAN DRIVE 1356941	10d
172	CABLE ASSY, A1W4 SPACECRAFT I/O 1356942	10d
173	CABLE ASSY, A1W5 TEMP MONITOR 1356943	10d
174	CABLE ASSY, A2W1 SPACECRAFT POWER 1356431-2	10d
175	CABLE ASSY, A2W2 POWER DISTRIBUTION 1356432-2	10d
176	CABLE ASSY, A2W3 SCAN DRIVE 1356946	10d
177	CABLE ASSY, A2W4 SPACECRAFT I/O 1356947	10d
178	CABLE ASSY, A2W5 TEMP & ANALOG 1356948	10d
179	**METSAT SIGNAL PROCESSOR & MISC DWG RELEASE**	67d
180	BACKPLANE, CARD CAGE 1331605	20d
181	RETAINER, CARD CAGE 1331603	20d



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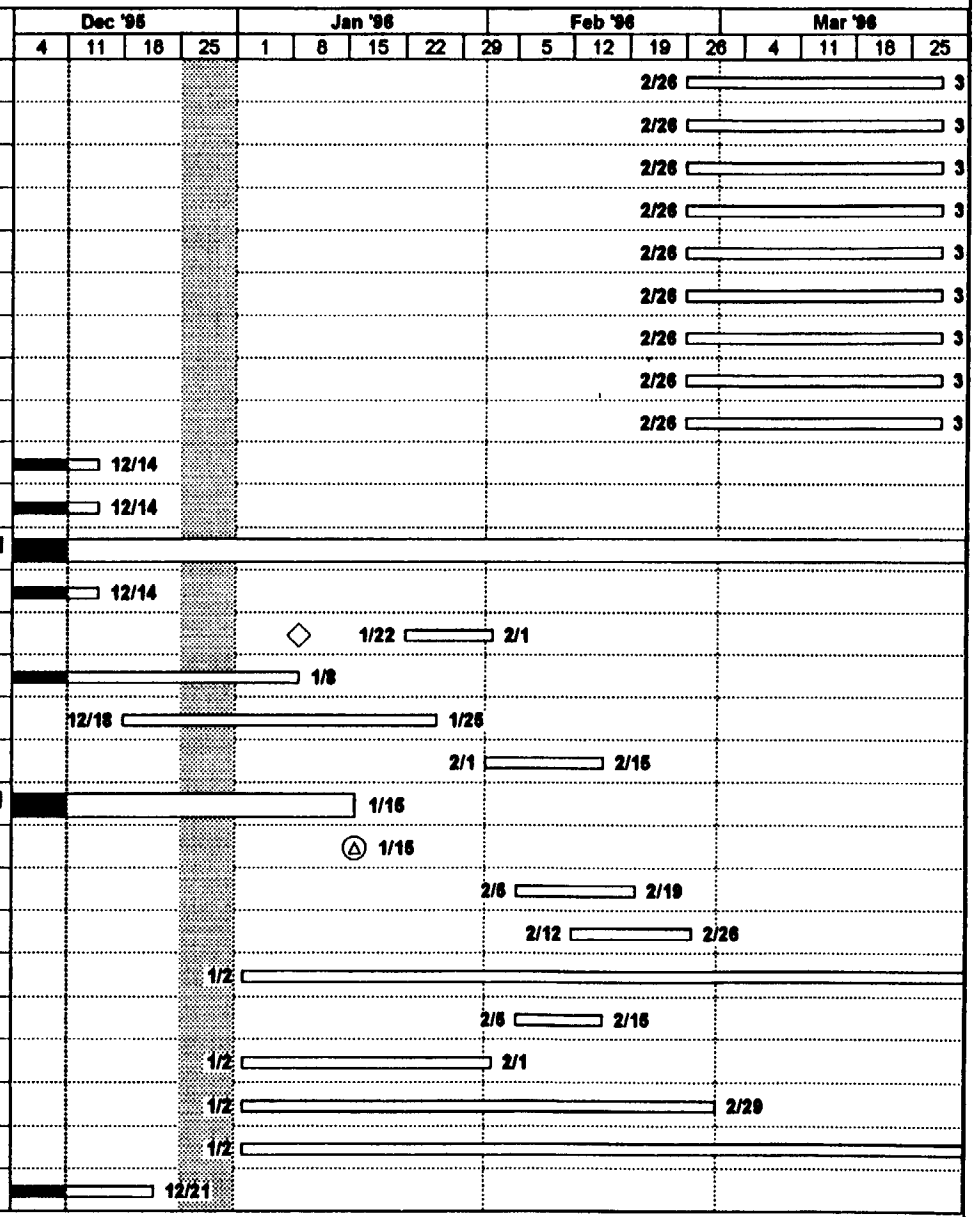
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
182	SIDE PANEL, CARD CAGE 1331602	20d
183	BRACKET, I/O INTERFACE 1356789	20d
184	TERM BD, I/O INTERFACE 1356790	20d
185	TRANS ASSY, I/O INTERFACE 1356784	20d
186	A2 CARD CAGE 1331330	20d
187	A1 SIGNAL PROCESSOR ASSY 1331670-2	20d
188	A1 SIGNAL PROCESSOR ASSY WIRE LIST WL1331670-2	20d
189	A2 SIGNAL PROCESSOR ASSY 1331120	20d
190	A2 SIGNAL PROCESSOR ASSY WIRE LIST WL1331120	20d
191	ECN MOTOR DRIVER CCA	12d
192	ECN CPU CCA	12d
193	**ELECTRONICS DESIGN - COMMON**	198d
194	FAB EOS A1 & A2 BREADBOARD CARD CAGES	19d
195	WIREWRAP EOS PROTOTYPE BACKPLANE	8d
196	PROCURE BREADBOARD PARTS	27d
198	DESIGN & FAB BREADBOARD TEST HARNESS	19d
199	ASSEMBLE & CHECKOUT EOS BREADBOARDS	9d
200	**TEST EQUIP AVAILABLE FOR SIG PROC BB TESTS**	104d
202	METSAT TRU AVAILABLE	1d
203	TEST EOS A1 SIG PROC BREADBOARD (AE-26659)	9d
204	TEST EOS A2 SIG PROC BREADBOARD (AE-26659)	9d
206	CABLE ASSY TEST BOX DESIGN & FAB	71d
211	DC/DC CONVERTER INTERNAL DESIGN REVIEW	8d
213	UNIVERSAL SCAN DRIVE CCA TEST FIXTURES UPGRADE	19d
214	CCA EXTENDER CARD DESIGN & FAB	35d
215	RADIOMETRIC I/O BOX UPGRADE	71d
216	TEMP A/B/MUX CCA FIXTURE UPGRADE	27d



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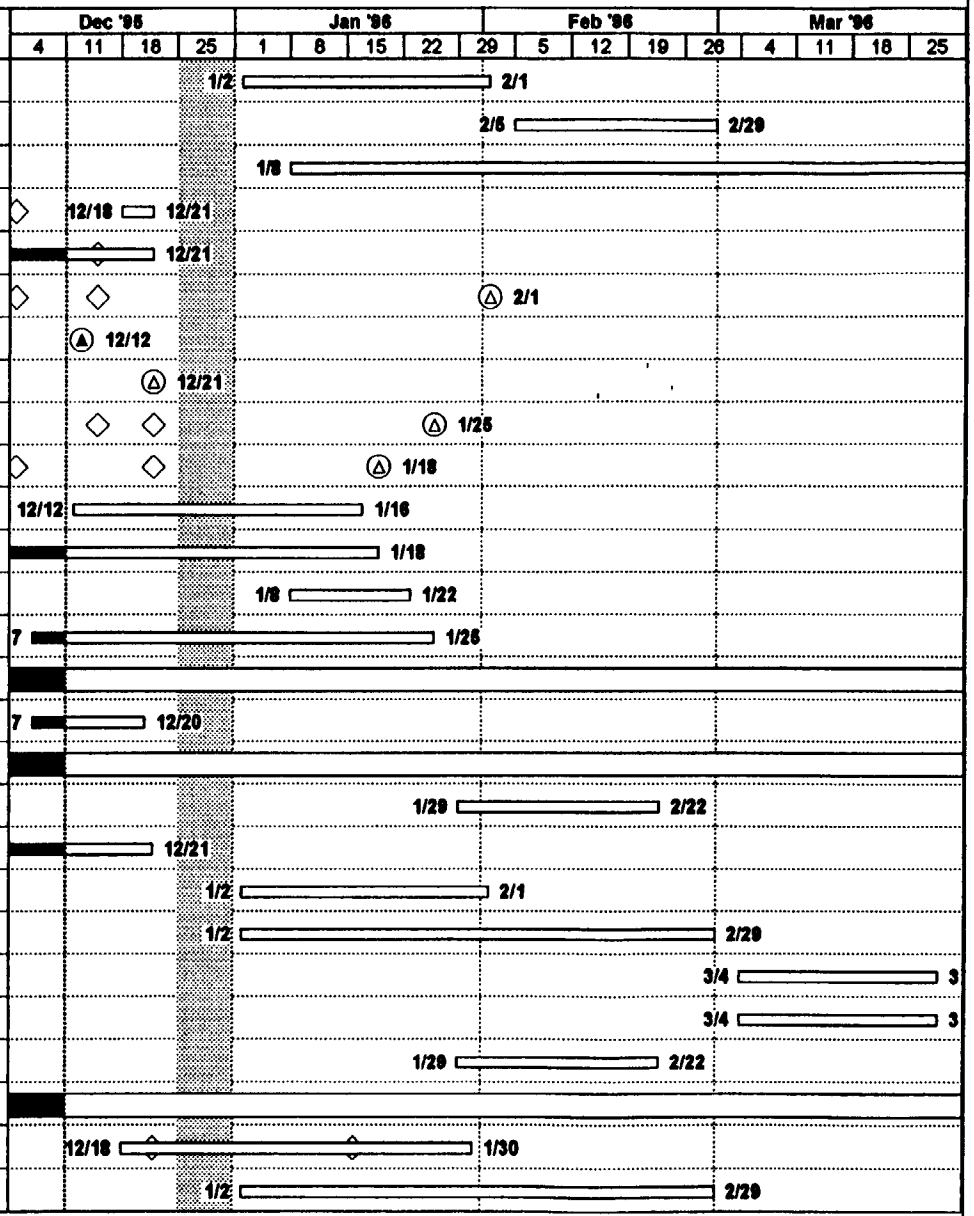
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
217	R/D CCA FIXTURE UPGRADE	19d
218	ALL TEST BOXES CERTIFIED FOR FLIGHT HARDWARE	16d
219	DESIGN, FAB & CHECK OUT RECEIVER TEST BOXES	50d
221	RF DETECTOR RESIDUAL STOCK TESTING #1	4d
223	RF DETECTOR SOURCE SELECTION	12d
224	RF DETECTORS ON ORDER	0d
225	PRTs ON ORDER	1d
226	ALL LONG LEAD EEE PARTS ON ORDER	0d
228	ALL SHORT LEAD EEE PARTS ON ORDER	0d
230	NEW PWBs ON ORDER	0d
231	WIRE WRAP VENDOR SELECTION	16d
232	R/D CONVERTER TECHNICAL EVALUATION	24d
233	R/D CONVERTER RESCREENING	9d
234	R/D CONVERTERS ON ORDER	24d
235	**PROGRAM REVIEW SUPPORT**	76d
237	ANSWER SUBSYSTEM CDR ACTION ITEMS	8d
239	**TEST PROCEDURES**	148d
241	UPDATE HERITAGE CCA TEST PROCEDURES	16d
242	DRAFT CCA TEST PROCEDURES DOCUMENT (AE 26693)	27d
243	RELEASE TEST PROCEDURE DOCUMENT AE 26693	19d
244	PREPARE SPECIAL TEST EQUIP CONFIG & CALIB PROCEDURE	35d
247	PREPARE POWR CONTRL MONITOR ASSY TEST PROCEDURE	16d
248	PREPARE POWR RELAY ASSY TEST PROCEDURE	16d
249	UPDATE SCAN DRIVE TEST PROCEDURE (26002/1, /2)	16d
254	**FIRMWARE DESIGN**	383d
256	COMMAND & DATA HANDLING FIRMWARE/EOS MODIFIED	21d
259	CODE & TEST MODIFIED EOS AMSU-A FIRMWARE	35d



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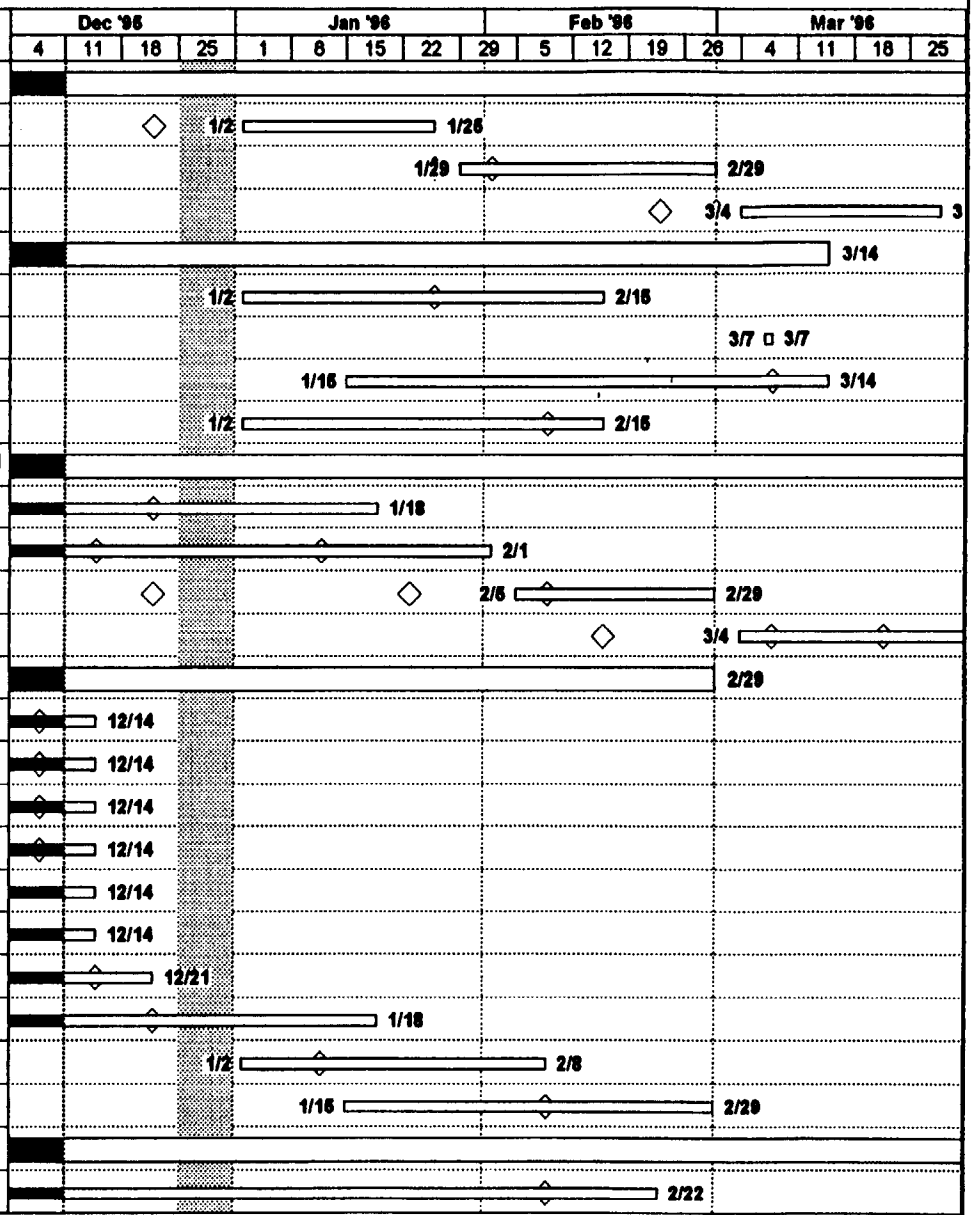
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
270	**EOS MECHANICAL DESIGN**	87d
271	UPDATE EOS A2 NASTRAN MODEL	15d
272	FINAL NASTRAN MODEL (CDRL 102) - A2	20d
273	FINAL STRESS REPORT (CDRL 113) - A2	16d
276	**EOS MECHANICAL DRAWING RELEASES**	95d
283	A2 ANTENNA SUBASSY (MACHINED) 1331303-2	27d
284	A2 COVER, ALIGNMENT CUBE 1356421-1	1d
285	A1 BLANKET ASSY 1331626-X	36d
286	A2 BLANKET ASSY 1331253-X	27d
287	**METSAT MECH DESIGN (4510-02-4310)**	156d
291	FINAL A2 STRESS REPORT (CDRL 113)	42d
292	UPDATE A1 NASTRAN MODEL	54d
293	FINAL A1 NASTRAN MODEL (CDRL 102)	16d
294	FINAL A1 STRESS REPORT (CDRL 113)	20d
295	**METSAT MECHANICAL DRAWING RELEASES**	94d
297	A2 PANEL, SIDE SHELF SUPPORT 1331217-3	43d
298	A2 PANEL, SIDE SHELF SUPPORT 1331218-3	43d
299	A2 PANEL, SIDE SHELF SUPPORT 1331245-4	43d
300	A2 PANEL, SIDE SHELF SUPPORT 1333379-3	43d
301	A2 PANEL, FEEDHORN SUPPORT 1331216-1	39d
302	A2 BASEPLATE ASSY 1356949-1	39d
303	A2 ANTENNA SUBASSY (MACHINED) 1331303-X	27d
304	A2 ANTENNA SUBASSY 1331210-2	30d
305	A1 ANTENNA SUBASSY (MACHINED) 1331351-X	23d
306	A1 ANTENNA SUBASSY 1331400-2	28d
307	**THERMAL ANALYSIS**	95d
308	UPDATE A1 & A2 THERMAL MATH MODELS	66d



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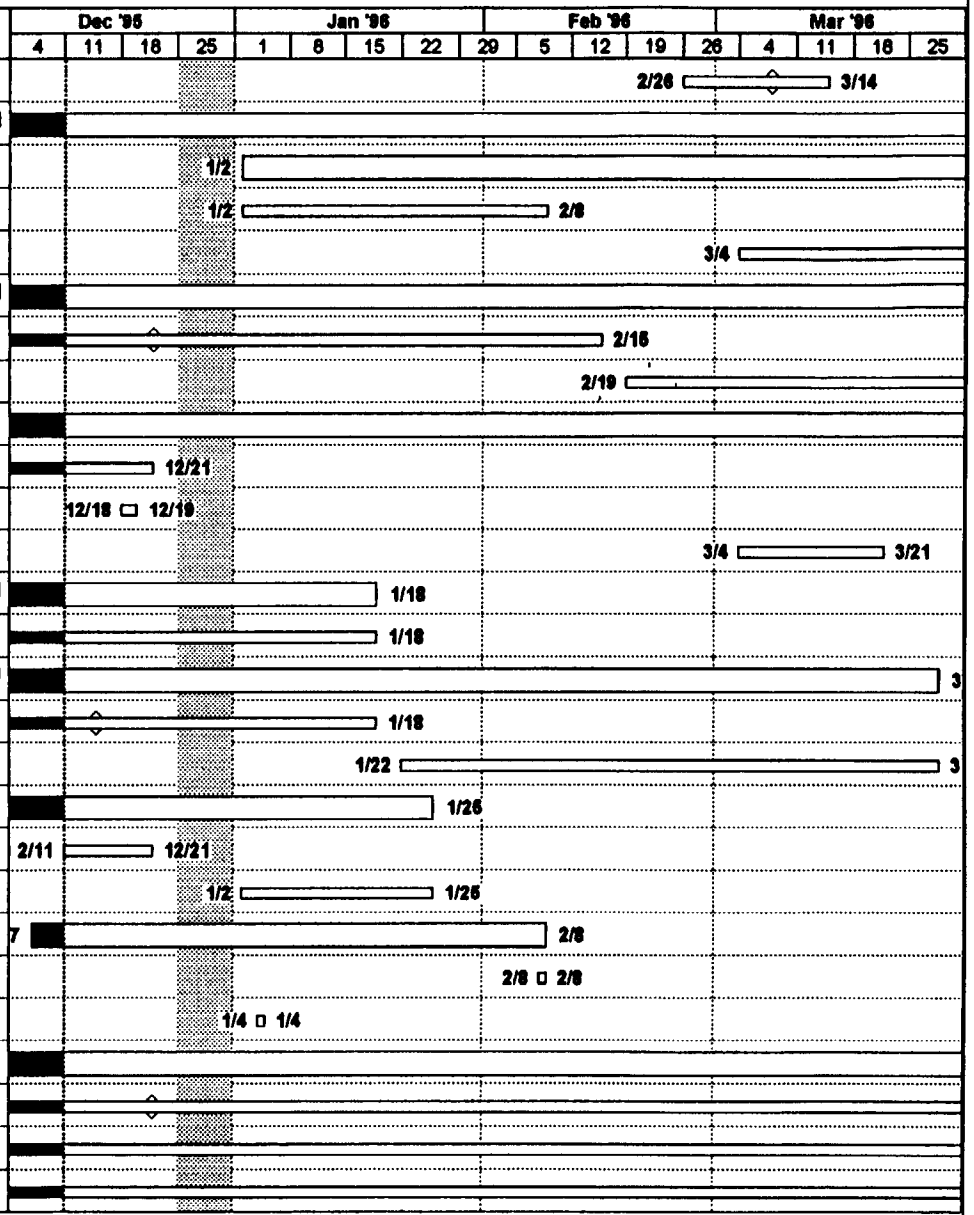
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
309	PREP & PUBLISH THERMAL MATH MODELS (CDRL 103)	12d
311	**ANTENNA SUBSYSTEM DESIGN**	203d
312	**DWGS, SPECS & PROCEDURES REVIEW & UPDATE**	59d
313	UPDATE TEST PROCS- ANT SUBSYS (CDRL 409)(26002/1,2,	23d
314	INCORPORATE TEST PROCEDURE CHANGES & RELEASE	24d
316	**TEST FIXTURE DESIGN & FAB**	180d
318	COMPLETE TEST FIXTURE MECH DESIGN & DRAWINGS	74d
319	RELEASE TEST FIXTURE DRAWINGS	28d
321	**TECHNICAL REVIEW SUPPORT**	87d
322	PREP FOR & SUPPORT MPDDBR REVIEW	27d
324	PREP FOR & SUPPORT INTERNAL DESIGN REVIEW #2	2d
326	PREP FOR & SUPPORT PMS COMPLIANCE REVIEW	12d
327	**BEAMWIDTH CLUSTERING**	112d
335	RELEASE FEEDHORN ASSY A1-2 DWG 1331361-1	35d
336	**A1 REFLECTOR FAB IMPROVEMENT**	125d
339	COMPLETE MAKE/BUY TRADE	34d
340	PREP PO FOR BACKUP A1 REFLECTOR (IF NEEDED)	40d
341	**A2 REFLECTOR EARLY TEST**	42d
344	RANDOM VIB TESTS (3 AXES)	8d
345	POST-VIB PATTERN TESTS	15d
350	**DRAWING RELEASES**	32d
352	REL A1 METSAT ANTENNA SUBASSY DWG 1331400-2	1d
353	REL A2 COMMON ANTENNA SUBASSY DWG 1331210-2	1d
354	**ANTENNA SYS PROCUREMENT SUPPORT**	342d
355	BEARINGS- PROCUREMENT SUPPORT (PP)	224d
357	MOTORS/RESOLVERS - PROCUREMENT SUPPORT (PP)	153d
359	MULTI/DI/FEEDHORN - PROCUREMENT SUPPORT (PP)	246d



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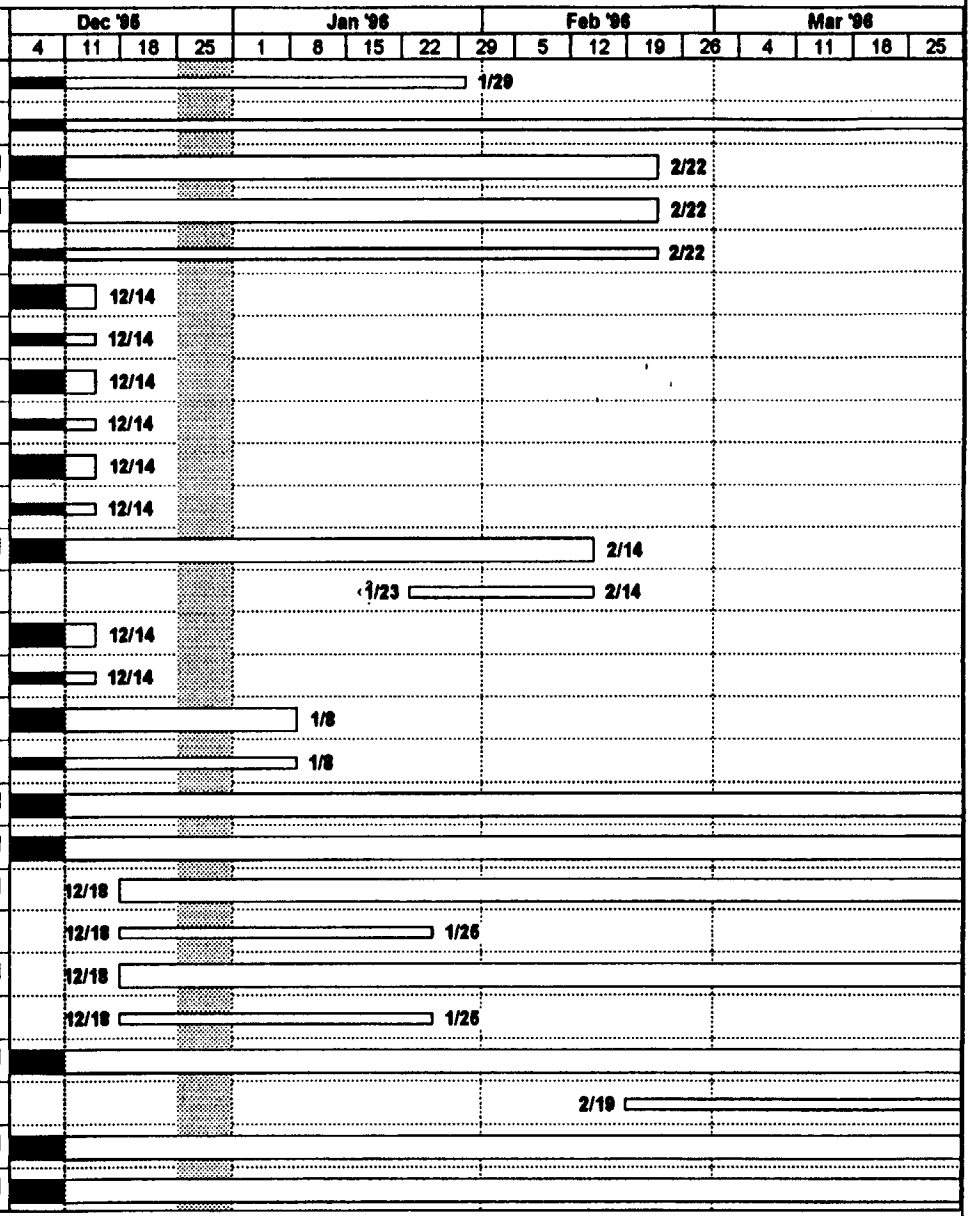
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
361	REFLECTOR - ACCEPTANCE DATA REVIEW	37d
362	REFLECTOR PROCUREMENT SUPPORT (BI-MONTHLY REVIEW	326d
363	EARLY ANTENNA PURCHASE & FAB	128d
364	1331382-1 A1, 1331237-1 A2 CORES, WARM LOAD	115d
367	PROCURE CORES	101d
368	1333390-1 A2 SHAFT, COMPENSATOR	80d
372	PROCURE SHAFTS	47d
373	1333645-1 A1 SHAFT, MOTOR ROTOR	80d
377	PROCURE SHAFTS	47d
378	1333654-1 A2 DRIVE SHAFT	80d
382	PROCURE SHAFTS	47d
391	1333999-1 A2 HOUSING SUBASSEMBLY	110d
395	FAB 5 PIECES	14d
396	1333653-1 A2 HOUSING, REFLECTOR DRIVE	80d
400	FAB 5 PIECES	52d
401	1333658-1 A2 HOUSING, MOTOR COMPENSATOR	88d
405	FAB 5 PIECES	51d
411	SYSTEMS ENGINEERING & INTEGRATION TEAM	660d
412	COMMON SYSTEMS PLANS, PROCEDURES & SPECS	497d
413	PERFORMANCE VERIF PLAN (CDRL 022)	114d
414	PRELIMINARY	19d
417	PERFORMANCE VERIF SPEC (CDRL 308)	114d
418	PRELIMINARY	19d
421	ANTENNA SUBSYSTEM SPECS (CDRL 301-1)	157d
423	FINAL	36d
425	RECEIVER SUBSYSTEM SPECS (CDRL 301-2)	157d
429	SIGNAL PROCESSOR SUBSYS SPECS (CDRL 301-	157d



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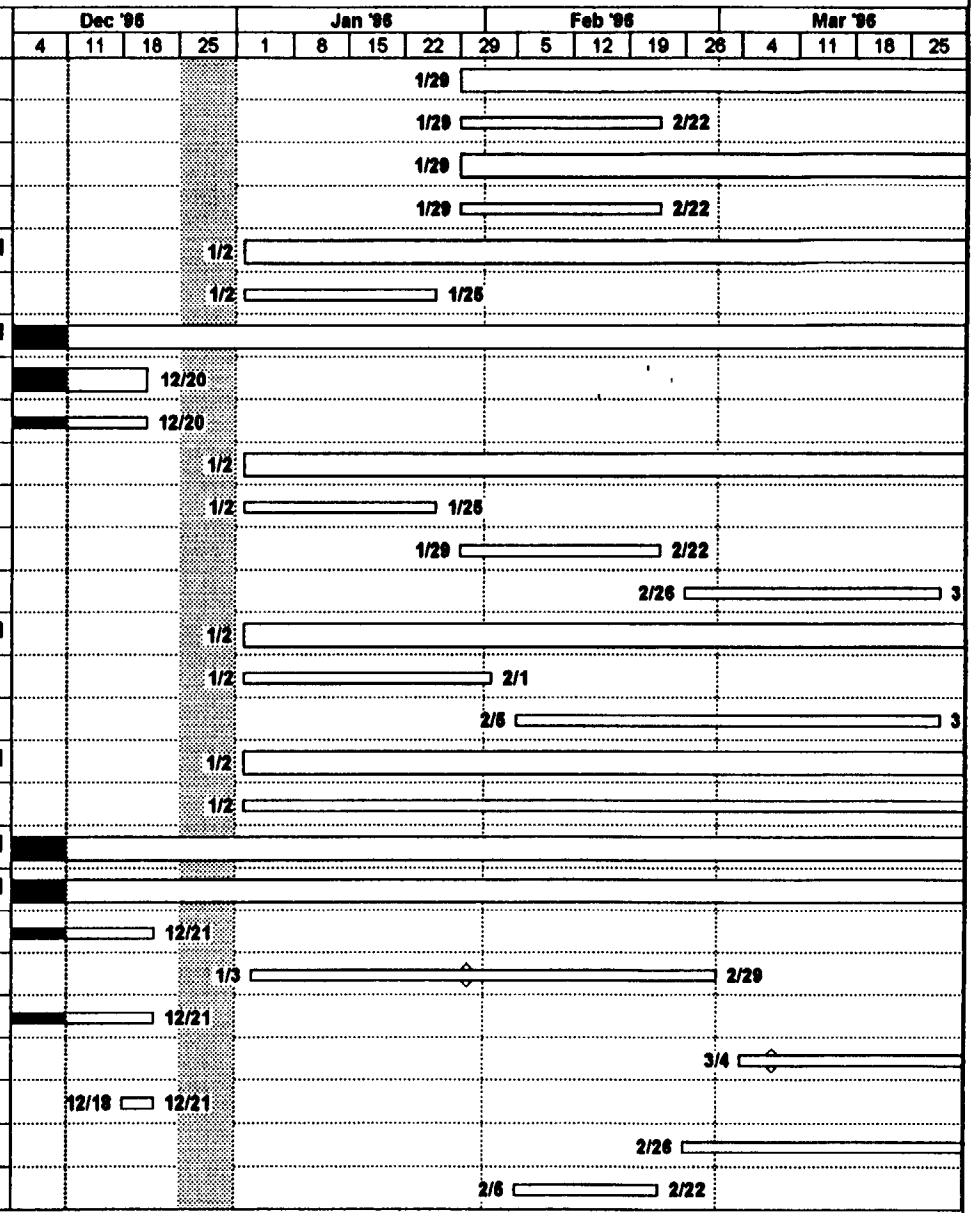
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
436	STORAGE PLAN (CDRL 024)	87d
437	DRAFT	16d
439	STORAGE PROCEDURE (CDRL 407)	87d
440	DRAFT	16d
442	TRANSPORTATION & HANDLING PROC (CDRL 406)	450d
443	PRELIMINARY	15d
445	SYSTEMS ENGINEERING COMMON	315d
446	SYSTEM LEVEL SHOP ORDER REVIEW	38d
451	PREPARE FINAL REPORT	11d
463	IMIPT (CDRL 023)	67d
464	1ST DRAFT	15d
465	2ND DRAFT	16d
466	3RD DRAFT	20d
468	CDR & CDR ACTION ITEMS (CDRL 020)	102d
469	REQUIREMENTS, DESCRIPTION & BLOCK DIAGRAM	19d
470	DATA, ANALYSIS, TEST PLANS & DRAFT COPY	32d
484	SHOP ORDER PREPARATION	195d
486	MACHINE SHOP S/Os	117d
490	EOS SYSTEMS ENGINEERING	349d
491	EOS DRAWING RELEASES	141d
492	AMSU A1 INTERCONNECT DIAGRAM 1356009	47d
493	AMSU A1 ASSY 1356008-1	34d
494	AMSU A2 INTERCONNECT DIAGRAM 1356007	47d
495	AMSU A2 ASSY 1356006-1	25d
498	REVIEW SUBSYSTEMS DESIGN	4d
499	EOS RADIOMETRIC MATH MODEL (CDRL 101)	52d
500	PREP OPERATIONAL IN-FLT CHECK OUT PLANS (CDRL 02	12d



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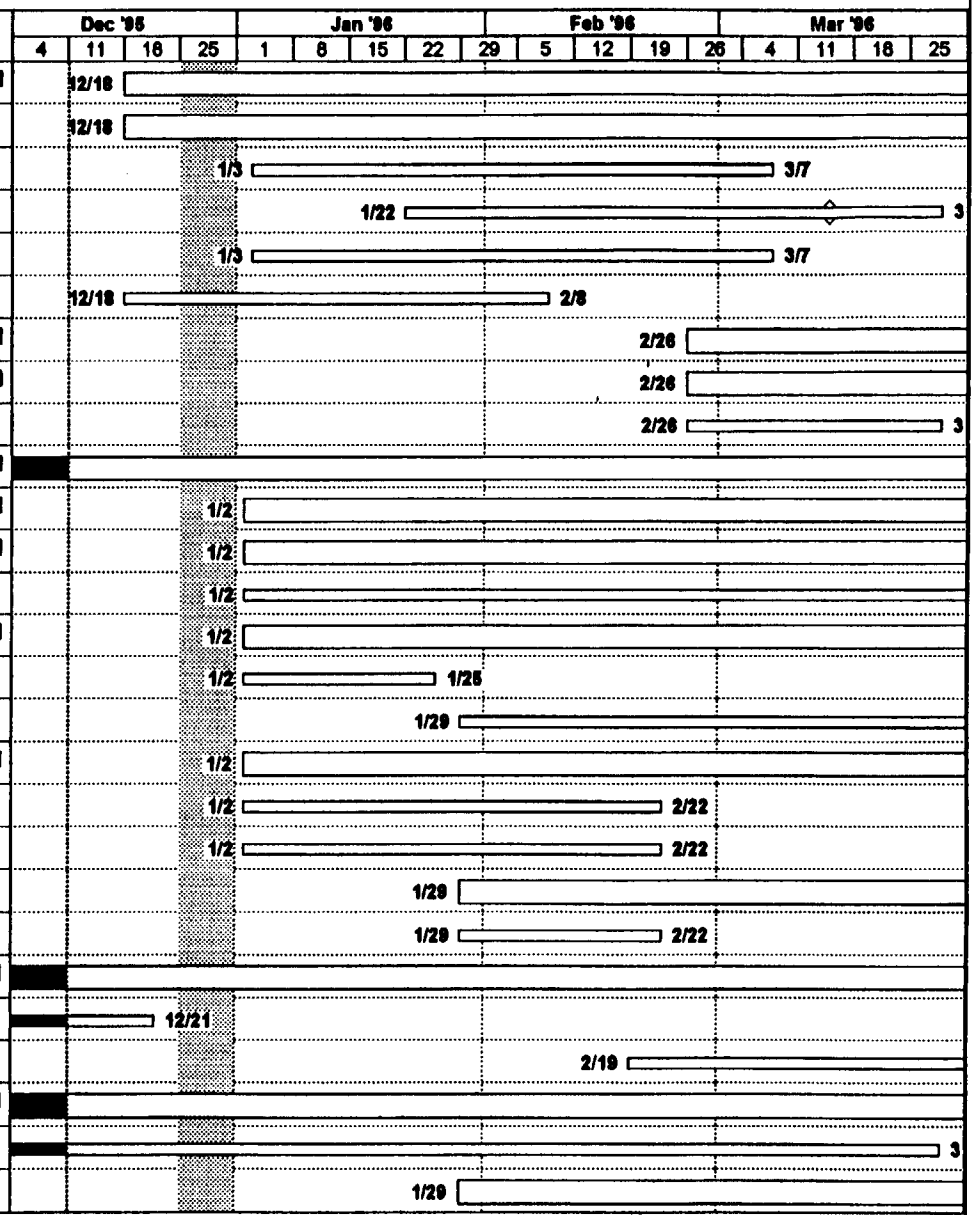
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
544	METSAT SYSTEMS ENGINEERING	373d
545	METSAT DRAWING RELEASES	98d
546	AMSU A1 INTERCONNECT DIAGRAM 1356940	38d
547	AMSU A1 ASSY 1331720-2	40d
548	AMSU A2 INTERCONNECT DIAGRAM 1356945	38d
549	AMSU A2 ASSY 1331200-2	27d
608	METSAT SPACECRAFT INTERFACE	582d
612	SUPPORT 4 SPACECRAFT INTERFACE MTGS AT A	536d
613	1ST MEETING	20d
648	EOS GSE FIXTURES	415d
649	EOS BLACK BODY TARGETS & MONITOR	318d
650	MONITOR CABINET	200d
652	FAB (INCLUDES S/O PLNG)	102d
655	BLACK BODY TARGETS	232d
656	UPDATE BLACK BODY CORE ORDERING DOCUM	15d
657	PROCURE BLACK BODY CORE	118d
669	TQCM VACUUM MEASURING INSTRUMENT	117d
670	SPEC REVIEW	31d
671	LAYOUT DESIGN	31d
674	SPACECRAFT INSTALLATION FIXTURES	87d
675	FABRICATION (INCL S/O PLNG)	16d
678	EOS STE SOFTWARE	413d
680	CDR REVISIONS	12d
684	DESIGN, CODE & TEST INPUT MODIFICATIONS	52d
697	EOS STE HARDWARE	243d
698	DESIGN	82d
701	EOS SPACECRAFT WORKSTATION	87d



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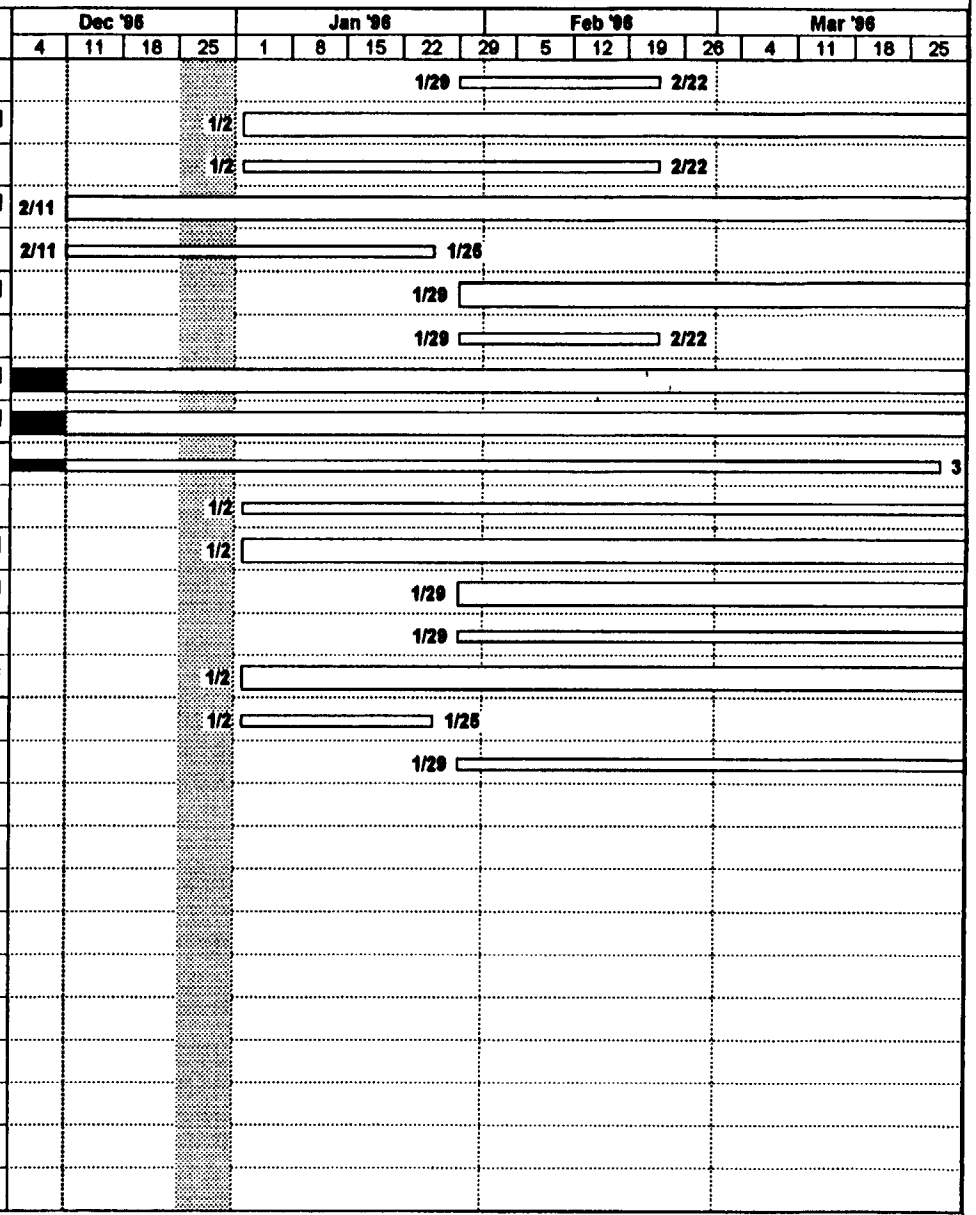
90 DAY WINDOW AMSU-A ENGINEERING & DESIGN PHASE SCHEDULE

ID		Dur
702	ORDER PARTS & MATERIEL	16d
705	EOS HANDLING FIXTURE	232d
706	FINAL DESIGN	31d
711	EOS A1 CALIBRATION FIXTURE	180d
712	FINAL DESIGN	23d
717	EOS MOUNTING TEMPLATES	172d
718	FINAL DESIGN	16d
724	METSAT GSE & FIXTURES	563d
725	METSAT STE	199d
726	FINAL DESIGN	82d
727	FABRICATION (INCL S/O PLNG)	102d
744	METSAT BLACK BODY TARGETS & MONITOR	318d
745	MONITOR CABINET	209d
746	FAB (INCLUDES S/O PLNG)	87d
749	BLACK BODY TARGETS	232d
750	UPDATE BLACK BODY CORE ORDERING DOCUM	15d
751	PROCURE BLACK BODY CORE	118d



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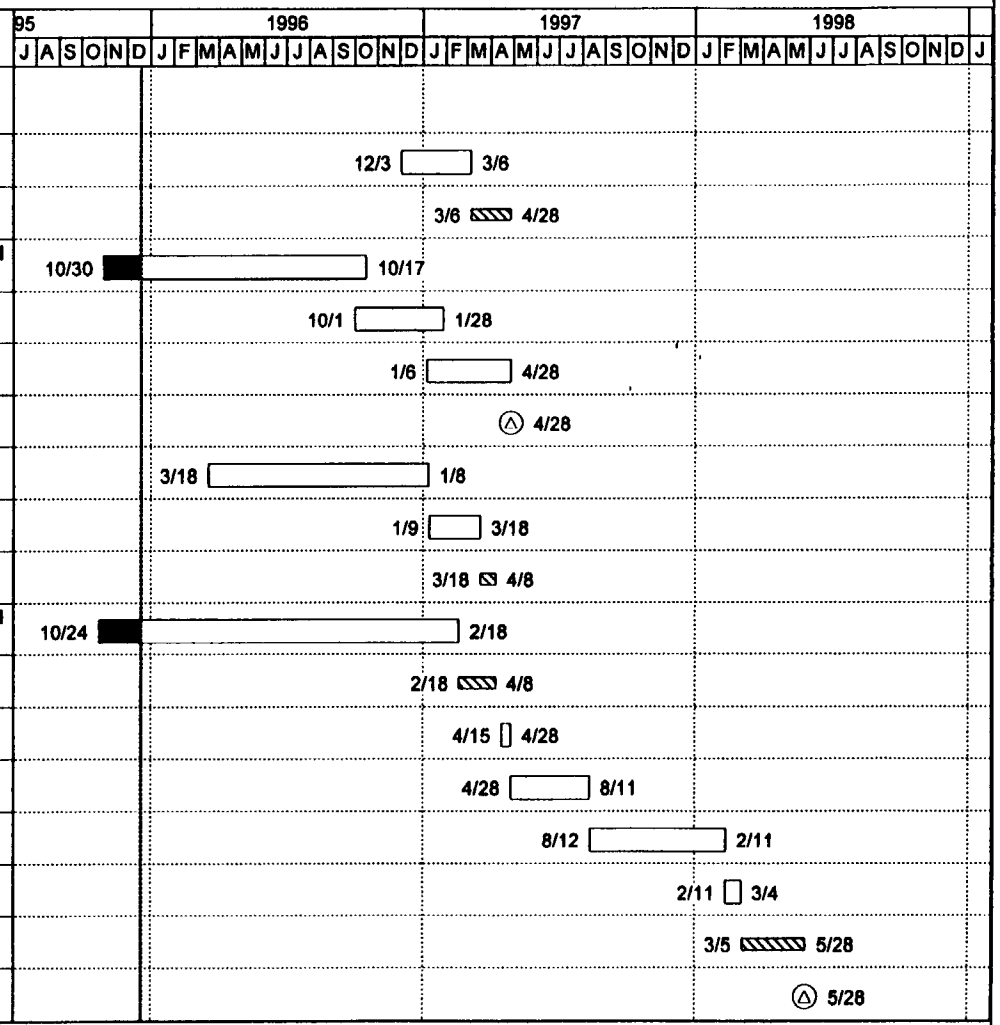
APPENDIX D

INTERMEDIATE LEVEL PRODUCTION PHASE SCHEDULE

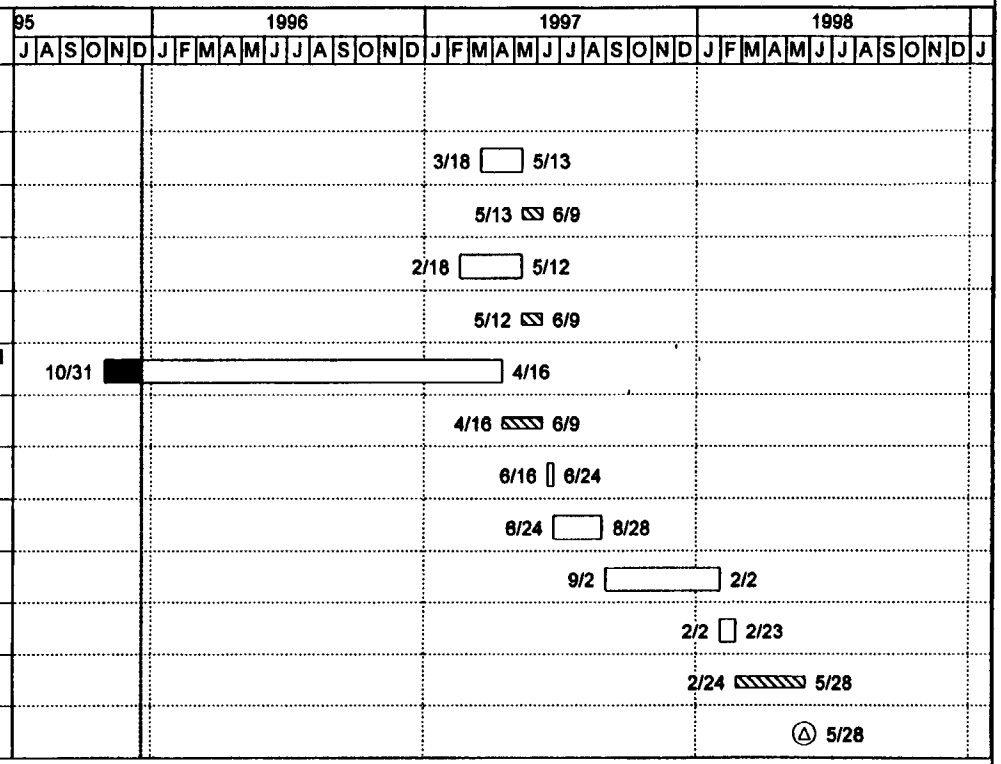
EOS A1 INTERMEDIATE BUILD SCHEDULE

ID		Dur
	EOS A1	615d
33	**Receiver Assy, A1-2**	**47d**
47	Red Time (A1-2 Receiver Assy) (BLT)	29d
48	**PLO CCAs, Subassys & Major Subcontracts**	**194.73d**
93	**PLO Assy (2 each)**	**60d**
148	**Receiver Assy, A1-1**	**64d**
164	Red Time (A1-1 Receiver Assy) (BLT)	0d
166	CCA CONSOLIDATED BUILD	160d
167	**Signal Processing Assy**	**38d**
173	Red Time (A1 Signal Processor Assy) (BLT)	12d
177	**ANTENNA PRODUCT TEAM**	**259.68d**
286	Red Time (A1 Antenna Assy) (BLT)	28d
304	**Prelim Integration (Pre-Receiver/Sig Processor)**	**7.05d**
310	**Instrument Integration & Test**	**58.27d**
345	**Instrument Accept Tests**	**98d**
359	**EOS-A1 Shipping Config**	**13d**
370	Red Time (Ship - Prog Management) (BLT)	48d
371	**SHIP EOS-A1 INSTRUMENT (5/28/98)**	0d



EOS A2 INTERMEDIATE BUILD SCHEDULE

ID		Dur
	EOS A2	615d
33	**Receiver Assy, A2**	**32d**
47	Red Time (A2 Receiver Assy) (BLT)	14d
55	**Signal Processing Assy**	**46.66d**
61	Red Time (A2 Signal Processor Assy) (BLT)	15d
65	**ANTENNA PRODUCT TEAM**	**288.59d**
159	Red Time(A2 Antenna Assy) (BLT)	29d
174	**Prelim Integration (Pre-Receiver/Sig Proc)**	**5.3d**
180	**Instrument Integration & Test**	**37.11d**
214	**Instrument Accept Tests**	**81d**
228	**EOS-A2 Shipping Config**	**13d**
239	Red Time (A2 Top Assy - Prog Mgt) (BLT)	54d
240	**SHIP EOS-A2 INSTRUMENT (5/28/98)**	0d



METSAT1 A1 INTERMEDIATE BUILD SCHEDULE

ID		Dur	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D	1 J F M A M J
	METSAT1 A1	663d				
27	**Receiver Assy, A1-2**	41d		5/6 7/21		
42	Red Time (A1-2 Receiver Assy) (BLT)	45d		7/21 10/8		
51	**PLO Subassys**	27d	1/28 3/17			
54	**PLO Assy (2 each)**	60d		3/17 7/1		
103	**Receiver Assy, A1-1**	63.73d		6/18 10/9		
119	Red Time (A1-1 Receiver Assy) (BLT)	10d		10/9 10/28		
122	**Signal Processing Assy**	31d		7/24 9/18		
127	Red Time (A1 Signal Processor) (BLT)	22d		9/18 10/28		
145	**ANTENNA PRODUCT TEAM**	105d	12/19	7/8		
221	Red Time (A1 Antenna Assy) (BLT)	52d		7/8 10/8		
233	**Prelim Integration (Pre-Receiver/Sig Processor)**	7.05d		10/15 10/28		
239	**Instrument Integration & Test**	58.27d		10/28 2/18		
274	**Instrument Accept Tests**	64d		2/19 6/11		
290	**METSAT-A1 Shipping Config**	13d			6/11 7/6	
301	Red Time (A1 Ship Config) (BLT)	28d			7/7 8/24	
302	**SHIP METSAT1-A1 INSTRUMENT (8/24/98)**	0d			8/24	

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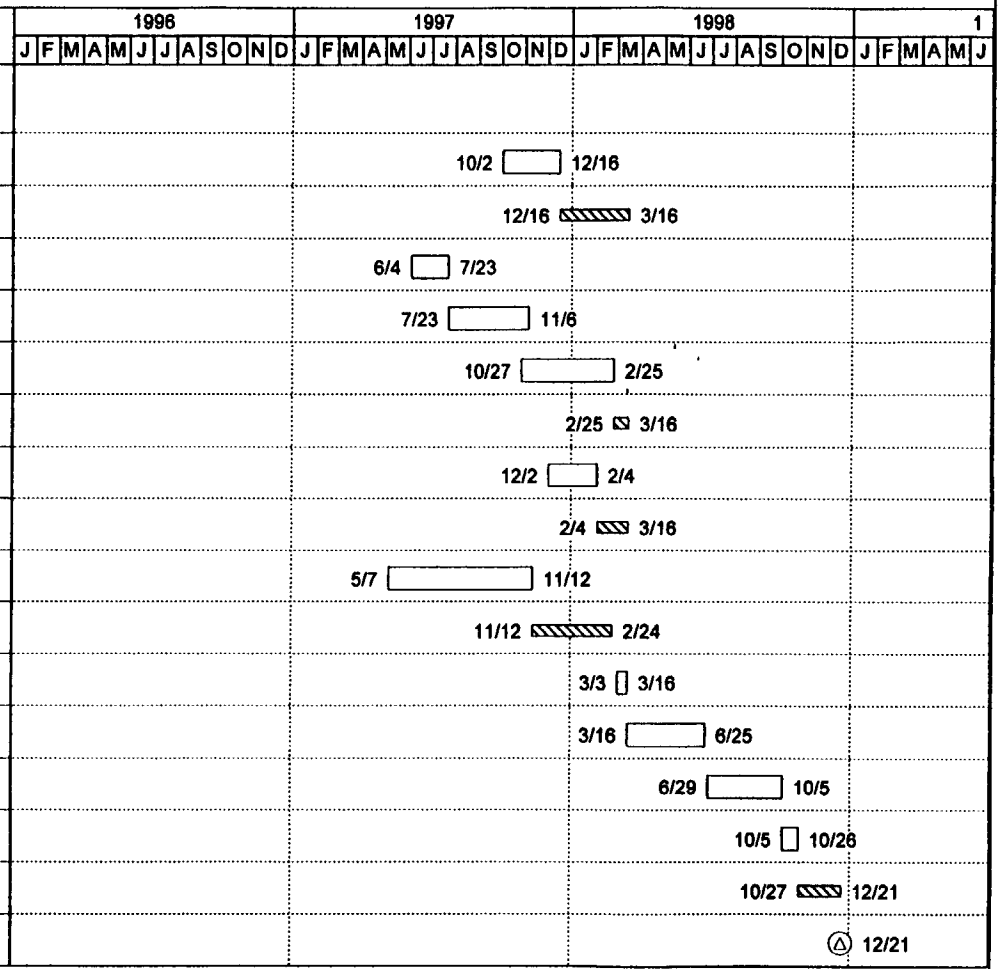
METSAT1 A2 INTERMEDIATE BUILD SCHEDULE

ID		Dur	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D	1 J F M A M J
	METSAT1 A2	663d				
27	**Receiver Assy, A2**	30d		4/22 ▭ 6/16		
41	Red Time (A2 Receiver Assy) (BLT)	56d		6/16 ▨ 9/24		
44	**Signal Processing Assy**	34d		7/2 ▭ 9/3		
49	Red Time (A2 Signal Processor Assy) (BLT)	12d		9/3 ▨ 9/24		
69	**ANTENNA PRODUCT TEAM**	125d	1/14 ▭	8/25		
130	Red Time (A2 Antenna Assy) (BLT)	17d		8/25 ▨ 9/24		
141	**Prelim Integration (Pre-Receiver/Sig Proc)**	5.3d		10/1 ▯ 10/9		
147	**Instrument Integration & Test**	37.11d		10/9 ▭ 12/16		
181	**Instrument Accept Tests**	59d		12/17 ▭ 4/8		
197	**METSAT-A2 Shipping Config**	13d			4/8 ▯ 4/29	
208	Red Time (A2 Ship Config) (BLT)	64d			4/30 ▨ 8/24	
209	**SHIP METSAT1-A2 INSTRUMENT (8/24/98)**	0d			◬ 8/24	

METSAT2 A1 INTERMEDIATE BUILD SCHEDULE

ID		Dur
	METSAT2 A1	729d
27	**Receiver Assy, A1-2**	**41d**
42	Red Time (A1-2 Receiver Assy) (BLT)	45d
51	**PLO Subassys**	**27d**
54	**PLO Assy (2 each)**	**60d**
103	**Receiver Assy, A1-1**	**63d**
119	Red Time (A1-1 Receiver Assy) (BLT)	10d
122	**Signal Processing Assy**	**31d**
127	Red Time (A1 Signal Processor Assy) (BLT)	22d
145	**ANTENNA PRODUCT TEAM**	**105d**
222	Red Time (A1Antenna Assy) (BLT)	52d
234	**Prelim Integration (Pre-Receiver/Sig Processor)**	**7.05d**
240	**Instrument Integration & Test**	**58.27d**
275	**Instrument Accept Tests**	**55d**
290	**METSAT-A1 Shipping Config**	**13d**
301	Red Time (A1 Ship Config) (BLT)	31d
302	**SHIP METSAT2-A1 INSTRUMENT (12/21/98)**	0d



METSAT2 A2 INTERMEDIATE BUILD SCHEDULE

ID		Dur	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D	1 J F M A M J
	METSAT2 A2	729d				
27	**Receiver Assy, A2**	30d		9/2 — 10/23		
41	Red Time (A2 Receiver Assy) (BLT)	56d		10/23 — 2/11		
44	**Signal Processing Assy**	34d		11/11 — 1/21		
49	Red Time (A2 Signal Processor Assy) (BLT)	12d		1/21 — 2/11		
69	**ANTENNA PRODUCT TEAM**	125d		5/21 — 1/13		
130	Red Time (A2 Antenna Assy) (BLT)	17d		1/13 — 2/11		
142	**Prelim Integration (Pre-Receiver/Sig Proc)**	5.3d		2/18 — 2/26		
148	**Instrument Integration & Test**	37.11d		2/26 — 5/4		
182	**Instrument Accept Tests**	50d			5/5 — 8/3	
197	**METSAT-A2 Shipping Config**	13d			8/3 — 8/24	
208	Red Time (A2 Prog Mgt) (BLT)	66d			8/25 — 12/21	
209	**SHIP METSAT2-A2 INSTRUMENT (12/21/98)**	0d				12/21

METSAT3 A1 INTERMEDIATE BUILD SCHEDULE

ID		Dur	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D	1999 J F M A M J J A S O N
	METSAT3 A1	812d				
27	**Receiver Assy, A1-2**	41d			3/4 5/14	
42	Red Time (A1-2 Receiver Assy) (BLT)	45d			5/14 8/5	
51	**PLO Subassys**	27d		10/27 12/15		
54	**PLO Assy (2 each)**	60d		12/15 4/8		
103	**Receiver Assy, A1-1**	63d			3/26 7/20	
119	Red Time (A1-1 Receiver Assy) (BLT)	10d			7/20 8/5	
122	**Signal Processing Assy**	34d			4/27 6/25	
127	Red Time (A1 Signal Processor Assy) (BLT)	22d			6/25 8/5	
145	**ANTENNA PRODUCT TEAM**	127.68d		9/2 4/23		
221	Red Time (A1 Antenna Assy) (BLT)	46d			4/23 7/16	
232	**Prelim Integration (Pre-Receiver/Sig Processor)**	7.05d			7/23 8/5	
238	**Instrument Integration & Test**	58.27d			8/5 11/17	
273	**Instrument Accept Tests**	58d			11/18 3/9	
288	**METSAT-A1 Shipping Config**	13d				3/9 3/30
299	Red Time (A1 Prog Mgt) (BLT)	31d				3/31 5/24
300	**SHIP METSAT3-A1 INSTRUMENT (5/24/99)**	0d				5/24

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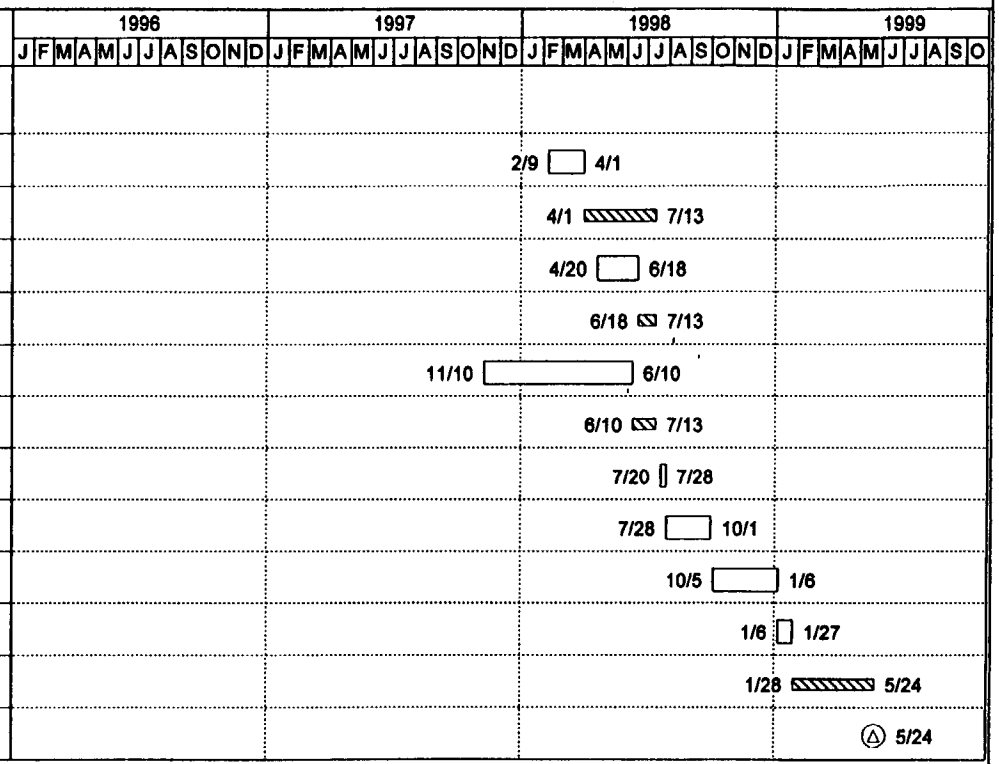
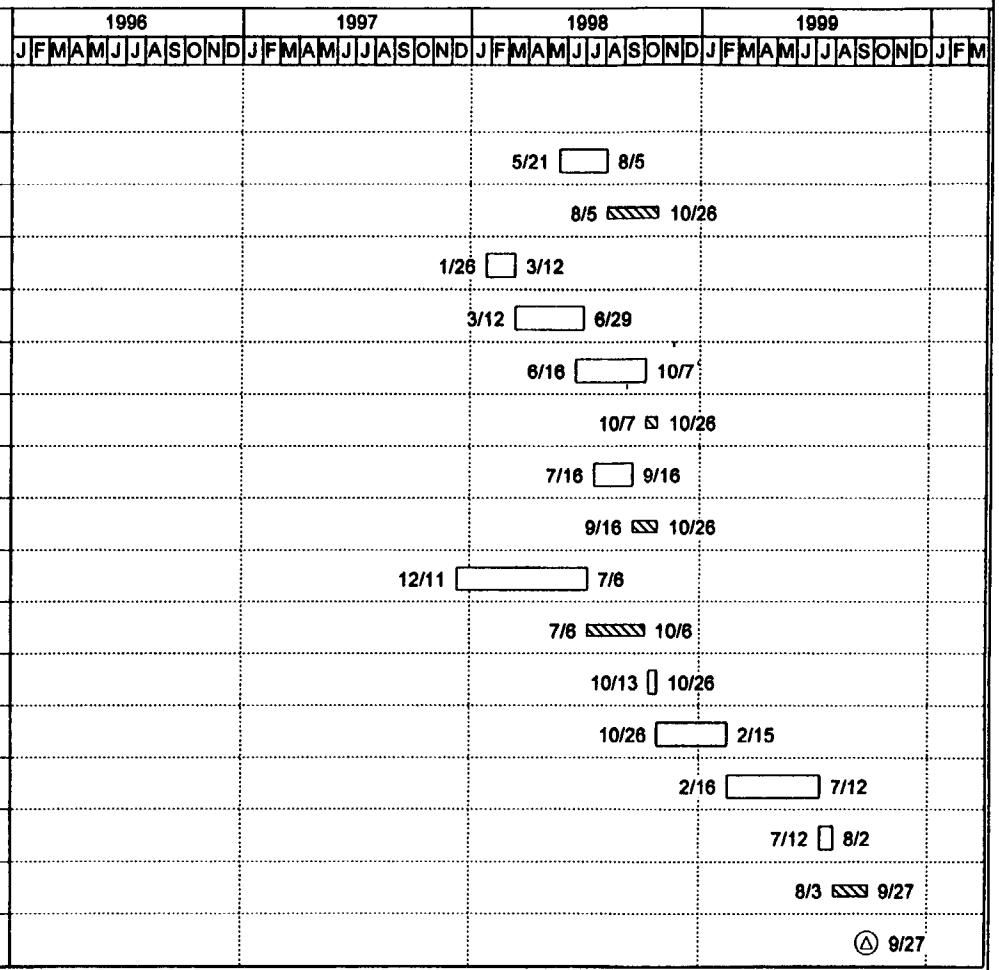
METSAT3 A2 INTERMEDIATE BUILD SCHEDULE

ID		Dur
	METSAT3 A2	812d
27	**Receiver Assy, A2**	30d
41	Red Time (A2 Receiver Assy) (BLT)	56d
44	**Signal Processing Assy**	34d
49	Red Time (A2 Signal Processor Assy) (BLT)	12d
69	**ANTENNA PRODUCT TEAM**	114d
130	Red Time (A2 Antenna Assy) (BLT)	17d
142	**Prelim Integration (Pre-Receiver/Sig Proc)**	5.3d
148	**Instrument Integration & Test**	37.11d
182	**Instrument Accept Tests**	49d
197	**METSAT-A2 Shipping Config**	13d
208	Red Time (A2 Prog Mgt) (BLT)	66d
209	SHIP METSAT3-A2 INSTRUMENT (5/24/99)	0d



METSAT4 A1 INTERMEDIATE BUILD SCHEDULE

ID		Dur
	METSAT4 A1	881d
27	**Receiver Assy, A1-2**	41d
42	Red Time (A1-2 Receiver Assy) (BLT)	45d
51	**PLO Subassys**	27d
54	**PLO Assy (2 each)**	60d
103	**Receiver Assy, A1-1**	63d
119	Red Time (A1-1 Receiver Assy) (BLT)	10d
122	**Signal Processing Assy**	34d
127	Red Time (A1 Signal Processor Assy) (BLT)	22d
145	**ANTENNA PRODUCT TEAM**	109d
221	Red Time (A1 Antenna Assy) (BLT)	52d
233	**Prelim Integration (Pre-Receiver/Sig Processor)**	7.05d
239	**Instrument Integration & Test**	58.27d
274	**Instrument Accept Tests**	82d
289	**METSAT4-A1 Shipping Config**	13d
300	Red Time (A1 Prog Mgt) (BLT)	31d
301	SHIP METSAT4-A1 INSTRUMENT (9/27/99)	0d



METSAT4 A2 INTERMEDIATE BUILD SCHEDULE

ID		Dur	1996 J F M A M J J A S O N D	1997 J F M A M J J A S O N D	1998 J F M A M J J A S O N D	1999 J F M A M J J A S O N D	J F M
	METSAT4 A2	881d					
27	**Receiver Assy, A2**	30d			6/8 ☐ 7/30		
41	Red Time (A2 Receiver Assy) (BLT)	56d			7/30 ▨ 11/9		
44	**Signal Processing Assy**	34d			8/18 ☐ 10/19		
49	Red Time (A2 Signal Processor Assy) (BLT)	12d			10/19 ▨ 11/9		
69	**ANTENNA PRODUCT TEAM**	114d			3/18 ☐ 10/8		
130	Red Time (A2 Antenna Assy) (BLT)	17d			10/8 ▨ 11/9		
142	**Prelim Integration (Pre-Receiver/Sig Proc)**	5.3d			11/16 ▯ 11/24		
148	**Instrument Integration & Test**	37.11d			11/24 ☐ 2/8		
182	**Instrument Accept Tests**	51d			2/9 ☐ 5/6		
197	**METSAT-A2 Shipping Config**	13d			5/6 ▯ 5/27		
208	Red Time (A2 Prog Mgt) (BLT)	66d			6/1 ▨ 9/27		
209	SHIP METSAT4-A2 INSTRUMENT (9/27/99)	0d				◬ 9/27	

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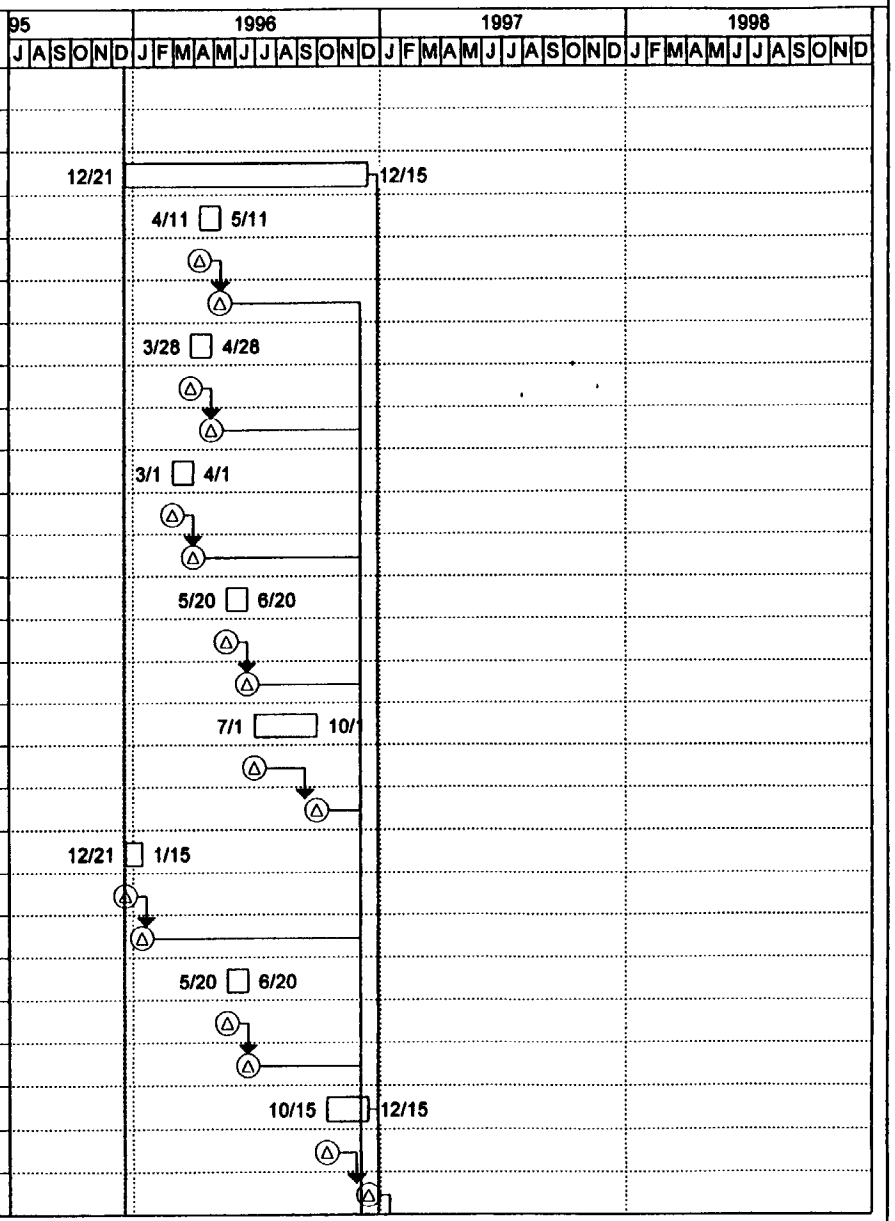
APPENDIX E

DETAILED INSTRUMENT BUILD SCHEDULE

EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
		EOS A1	615d
1		***RECEIVER PRODUCT TEAM***	0d
2		**Major Subcontracts for A1-2 Receiver Assy**	195d
3	1331559-2	**Bandpass Filters**	17d
4		BP Filter Vendor	0d
5		BP Filter Dock-to-Stock	0d
6	1331507	**5-Port Multiplexer**	17d
7		5-Port MUX Vendor	0d
8		5-Port MUX Dock-to-Stock	0d
9	1356680-1,2,	**Isolators**	16d
10		Isolator Vendor	0d
11		Isolator Dock-to-Stock	0d
12	1331516	**IF Attenuator**	18d
13		IF Atten Vendor	0d
14		IF Atten Dock-to-Stock	0d
15	1331562-13,	**Mixer/Amps**	51d
16		Mix/Amp Vendor	0d
17		Mix/Amp Dock-to-Stock	0d
18	1331509-1	**Waveguide Attens**	7d
19		W/G Atten Vendor	0d
20		W/G Atten Dock-to-Stock	0d
21		**Beryllium Shelf**	18d
22		Be Shelf Vendor	0d
23		Be Shelf Dock-to-Stock	0d
24	1356610-3,4,	**DROs**	34d
25		DRO Vendor	0d
26		DRO Dock-to-Stock	0d



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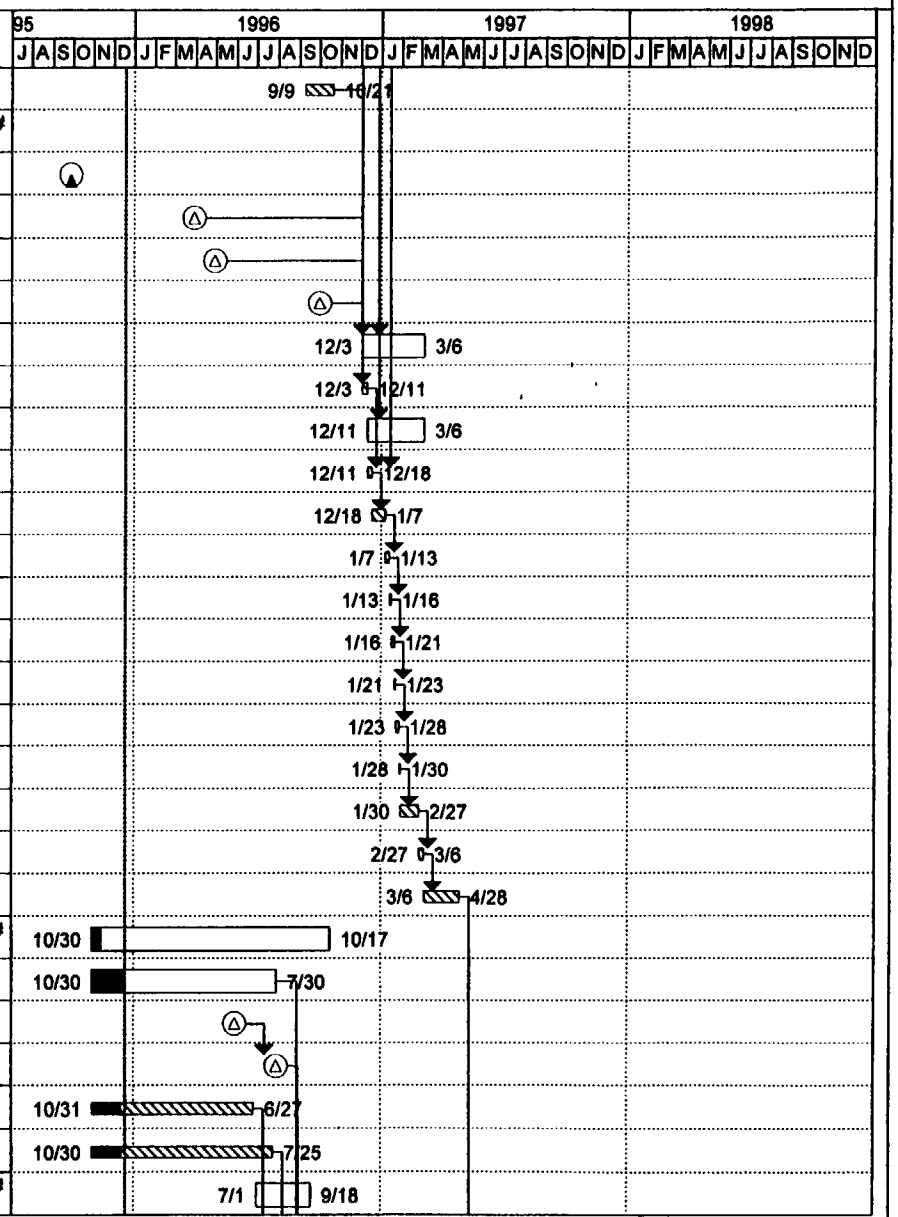
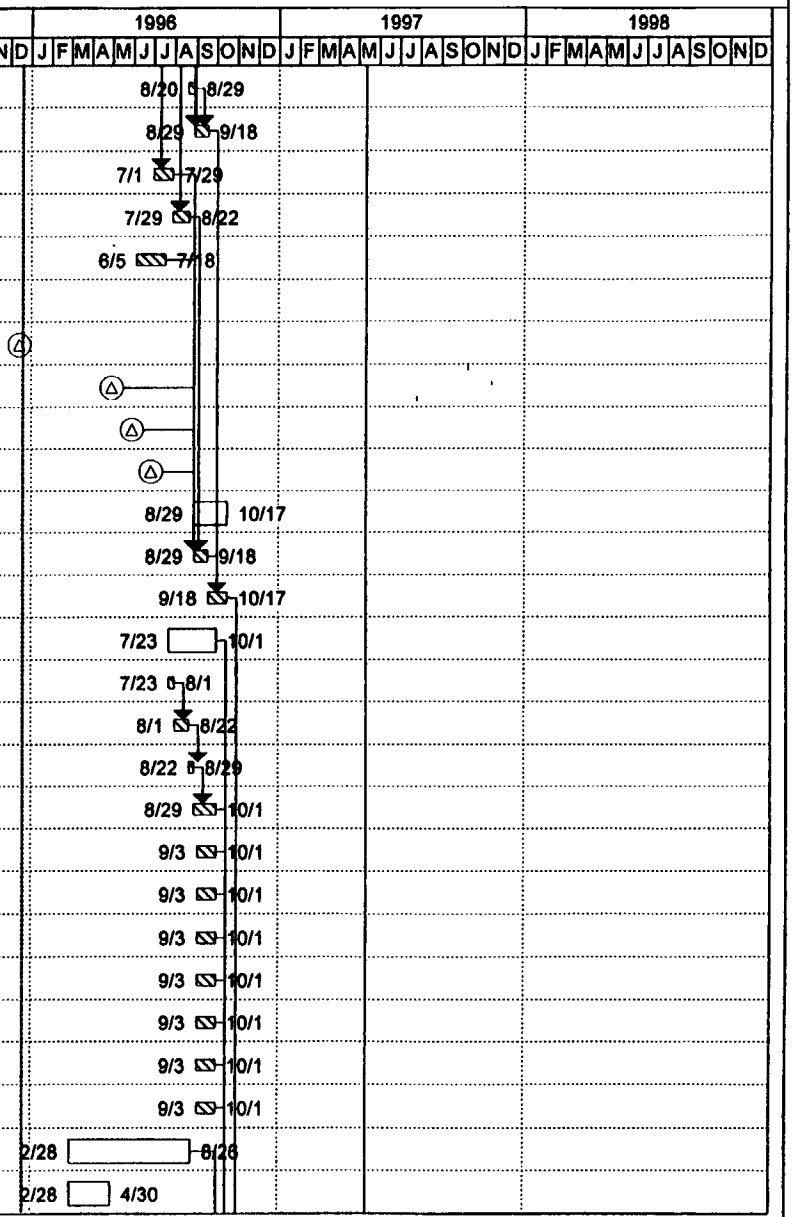
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
27		Machine Shop Parts for A1-2 Receiver Assy	24d
28		**Dwgs, TE, Tooling, S/Os**	#####
29		Drawing	0d
30		TE	0d
31		Tooling	0d
32		Shop Order	0d
33	1356409-1	**Receiver Assy, A1-2**	47d
34		Kit Release (RR - LT)	5d
36		**Final Shelf Assy & Test**	42d
37		DRO/Waveguide Attenuator Test	4d
38		ID and Install RF Components	4d
39		Install Temp Sensor, Term Bd, Wire Mount	3d
40		Wire	3d
41		Insp & NASA Insp	2d
42		Fab SMA Cables	2d
43		VSWR Test	2d
44		Clean & Spot Bond	2d
45		Shelf Test	16d
46		Final Insp & NASA Insp	4d
47		Red Time (A1-2 Receiver Assy) (BLT)	29d
48		**PLO CCAs, Subassys & Major Subcontracts**	#####
49		**PROCURE EEE PARTS (PLO Unique)**	150d
50		NEC Xistor (Prior Grp B) Vendor Commit (to 410-1)	0d
51		NEC Xistor (Prior Grp B) Dock-to-Stock (to 410-1)	0d
52		Transistor AE26673 (into 1348450-1)	133d
53		OPAMP CA3410T (into 1348440-1)	148d
54		**Consolidated Surface Mount CCA Production**	#####



EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
55	1348410-1	Assemble DRO CCA (Prior NEC Xistor)	6d
56	1348410-1	Assemble DRO CCA (Post NEC Xistor)	10d
57	1348450-1	Assemble 573 MHz Amplifier CCA	16d
58	1348440-1	Assemble Loop Amplifier CCA	16d
59		Machine Shop Parts for DRO Assy	24d
60		**Dwgs, TE, Tooling, S/Os**	#####
61		Drawing	0d
62		TE	0d
63		Tooling	0d
64		Shop Order	0d
65		**DRO ASSY**	**27d**
66		Kit Release DRO Assy	10d
67	1348400-1	Assemble DRO Assy	17d
68		**PLL Assembly**	**39d**
69		Kit Release - PLL CCA	6d
70	1348520-1	Assemble PLL CCA	12d
71		Kit Release - PLL Assy	4d
72	1348500-1	Assemble PLL Assy	17d
73	1348420-1	Regulator CCA	16d
74	1348430-1	Assemble PLO Cable	16d
75	1348430-2	Assemble PLO Cable	16d
76	1348430-3	Assemble PLO Cable	16d
77	1348435-1	Assemble PLO Cable	16d
78	1348435-2	Assemble PLO Cable	16d
79	1348435-3	Assemble PLO Cable	16d
80		**Major Subcontracts**	**100d**
81		TXCO	35d



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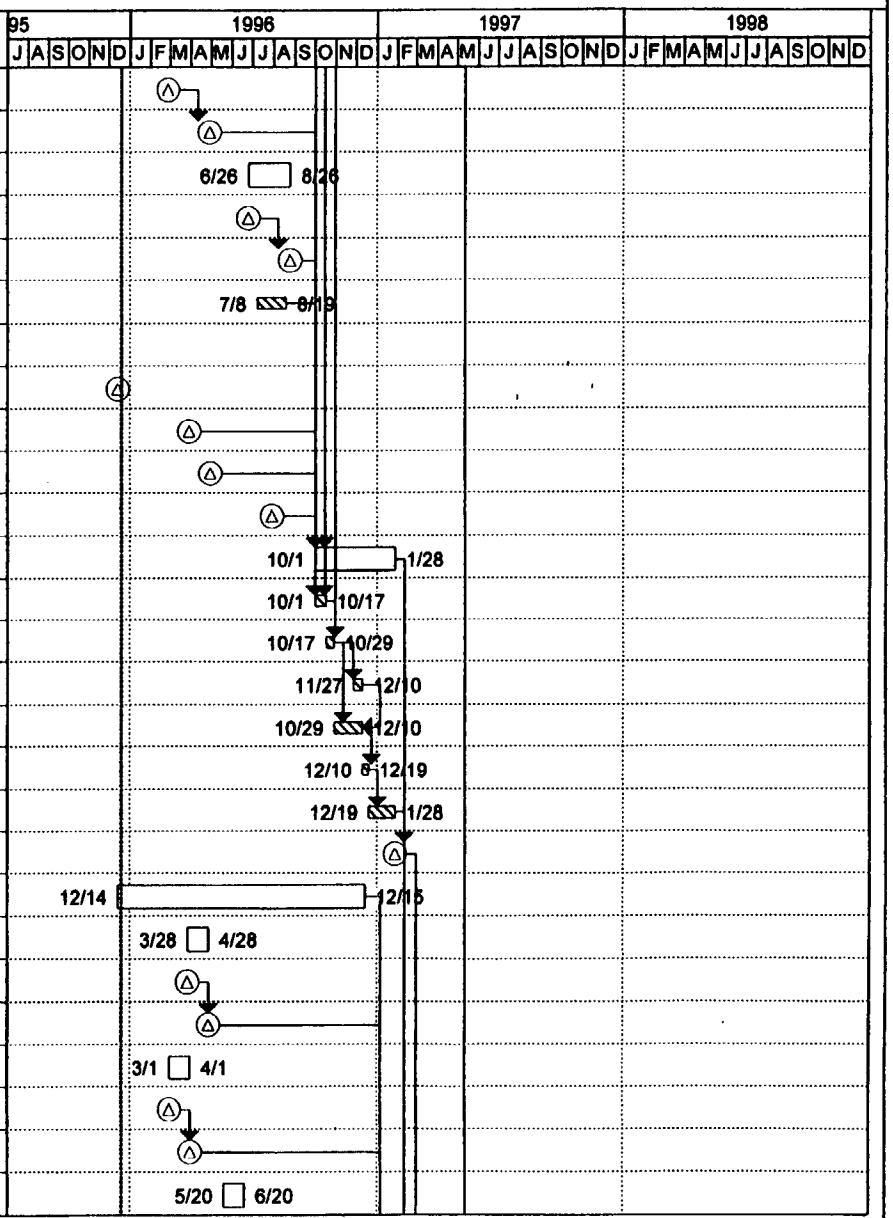
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
82		TCXO Vendor	0d
83		TCXO Dock-to-Stock	0d
84		**VCGDO**	**33d**
85		VCGDO Vendor	0d
86		VCGDO Dock-to-Stock	0d
87		Machine Shop Parts for PLO Assy	24d
88		**Dwgs, TE, Tooling, S/Os**	#####
89		Drawing	0d
90		TE	0d
91		Tooling	0d
92		Shop Order	0d
93	1348360-1	**PLO Assy (2 each)**	**60d**
94		Kit Release (RR - LT)	10d
96		PLO #1 Tune/Align/Assy	6d
97		PLO #2 Tune/Align/Assy	6d
98		PLO Electrical Performance	23d
99		PLO Vibration	6d
100		PLO Thermal/Vacuum Test	15d
101		Red Time (BLT)	0d
102		**Major Subcontracts for A1-1 Receiver Assy**	**199d**
103	1331546-1	**5-Port Multiplexer**	**17d**
104		5-Port MUX Vendor	0d
105		5-Port MUX Dock-to-Stock	0d
106	1356680-4,5,	**Isolators**	**16d**
107		Isolator Vendor	0d
108		Isolator Dock-to-Stock	0d
109	1331516	**IF Attens**	**18d**



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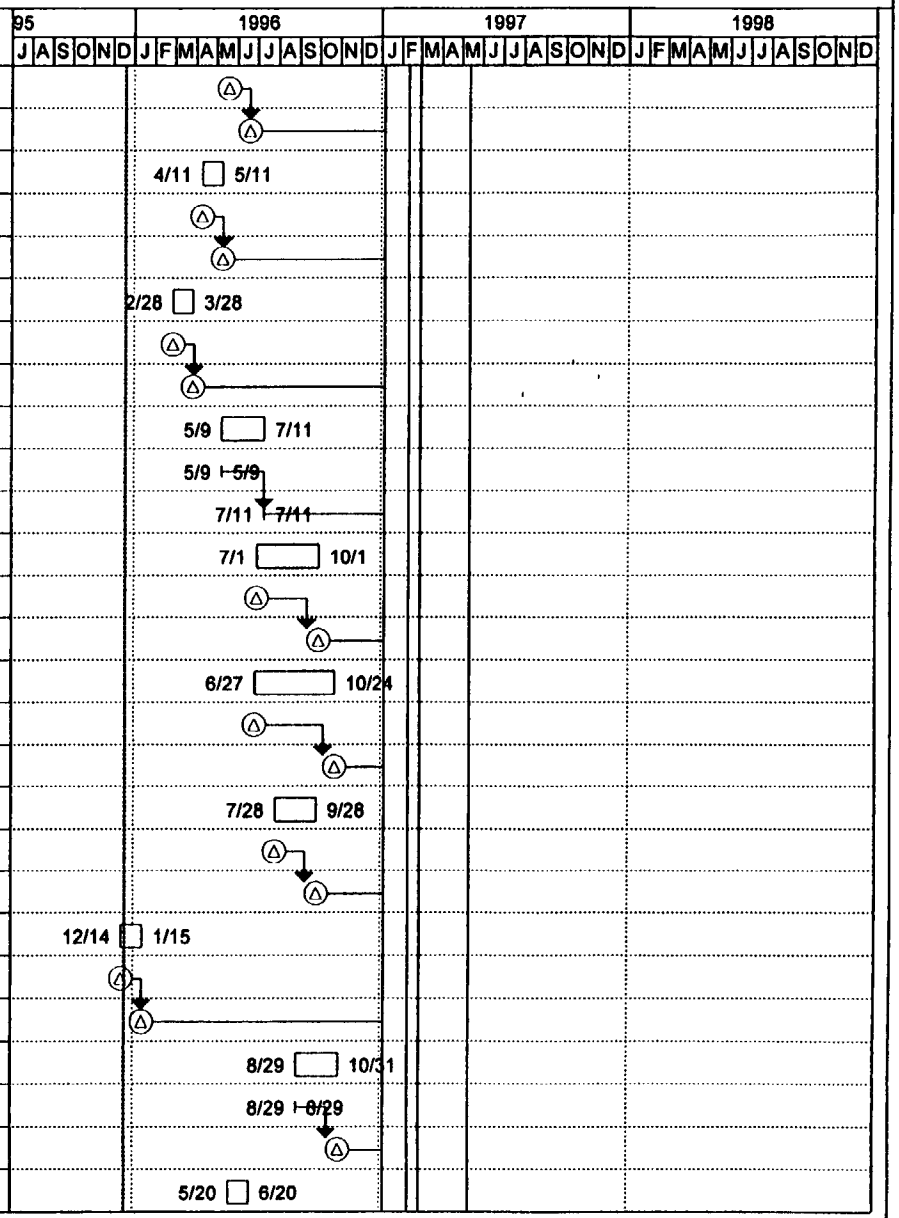
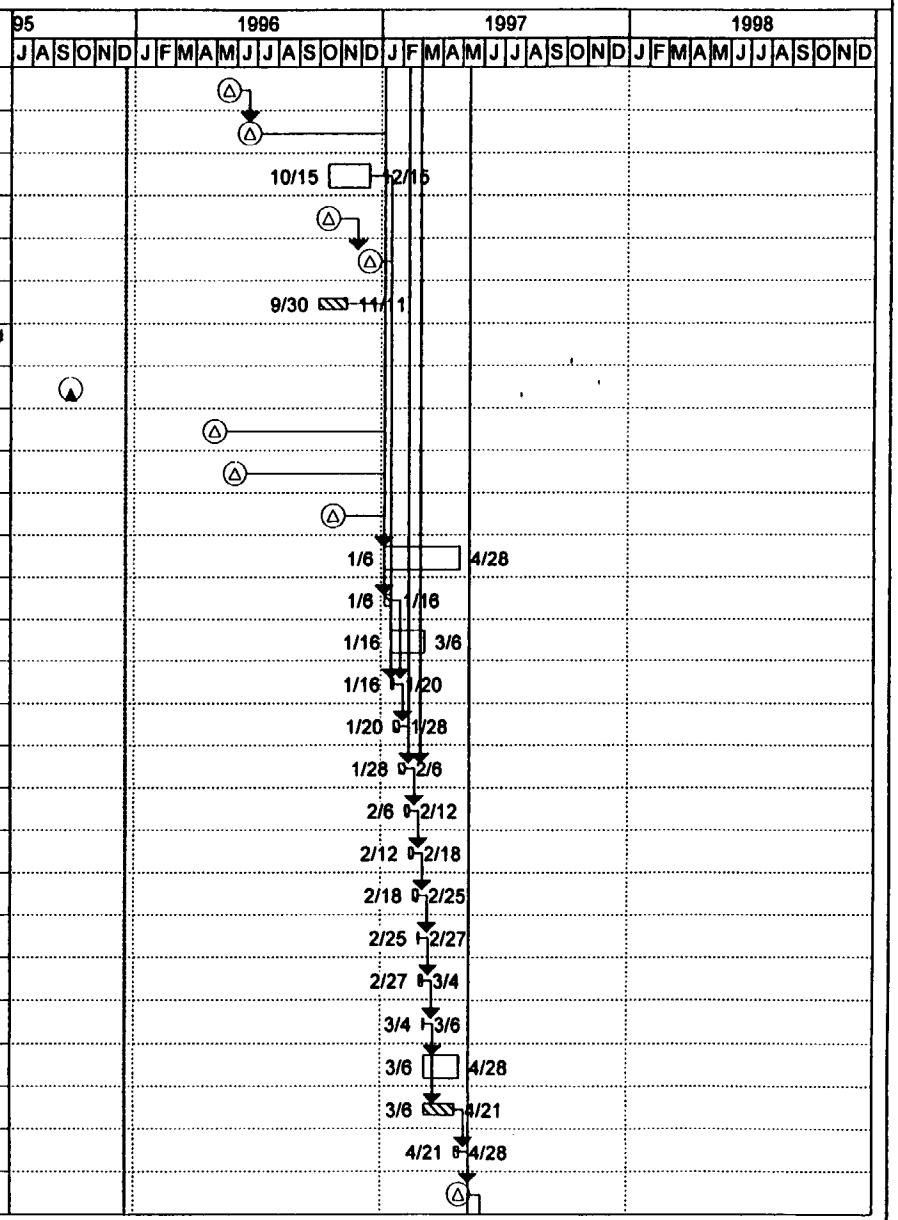
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
110		IF Atten Vendor	0d
111		IF Atten Dock-to-Stock	0d
112	1331559-1	**Bandpass Filters**	17d
113		BP Filter Vendor	0d
114		BP Filter Dock-to-Stock	0d
115	1331554-1	**Hybrid Tee**	17d
116		Hybrid Tee Vendor	0d
117		Hybrid Tee Dock-to-Stock	0d
118	1356669/70	**Power Dividers**	35d
119		Pow Div Vendor	1d
120		Pow Div Dock-to-Stock	1d
121	1331562-16,	**Mixer Amps**	51d
122		Mix/Amp Vendor	0d
123		Mix/Amp Dock-to-Stock	0d
124	1331576-1	**Saw Filters**	66d
125		Saw Filt Vendor	0d
126		Saw Filt Dock-to-Stock	0d
127	1331579-7	**IF Amplifier**	35d
128		IF Amp Vendor	0d
129		IF Amp Dock-to-Stock	0d
130	1331509/10	**Waveguide Atten**	11d
131		W/G Atten Vendor	0d
132		W/G Atten Dock-to-Stock	0d
133		**89GHz GDO (Channel 15)**	35d
134		GDO Vendor0	1d
135		GDO Dock to Stock	0d
136		**Beryllium Shelf**	18d



EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
137		Be Shelf Vendor	0d
138		Be Shelf Dock-to-Stock	0d
139	1356610-6,7,	DRO	34d
140		DRO Vendor	0d
141		DRO Dock-to-Stock	0d
142		Machine Shop Parts for A1-1 Receiver Assy	24d
143		Dwgs, TE, Tooling, S/Os	#####
144		Drawing	0d
145		TE	0d
146		Tooling	0d
147		Shop Order	0d
148	1356429-1	Receiver Assy, A1-1	64d
149		Kit Release (RR - LT)	7d
151		Assemble	28d
152		ID Components & Shelf	1d
153		DRO/Waveguide Attenuator Test	5d
154		Install RF Components	6d
155		Install Temp Sensor, T/B & Wire Mnts	3d
156		Wiring	3d
157		Insp & NASA Insp	4d
158		Fab SMA Cables	2d
159		VSWR Test	2d
160		Clean & Spot Bond	2d
161		Test & Final Assy	29d
162		Test (2 Shifts)	25d
163		Final Insp & NASA Insp	4d
164		Red Time (A1-1 Receiver Assy) (BLT)	0d



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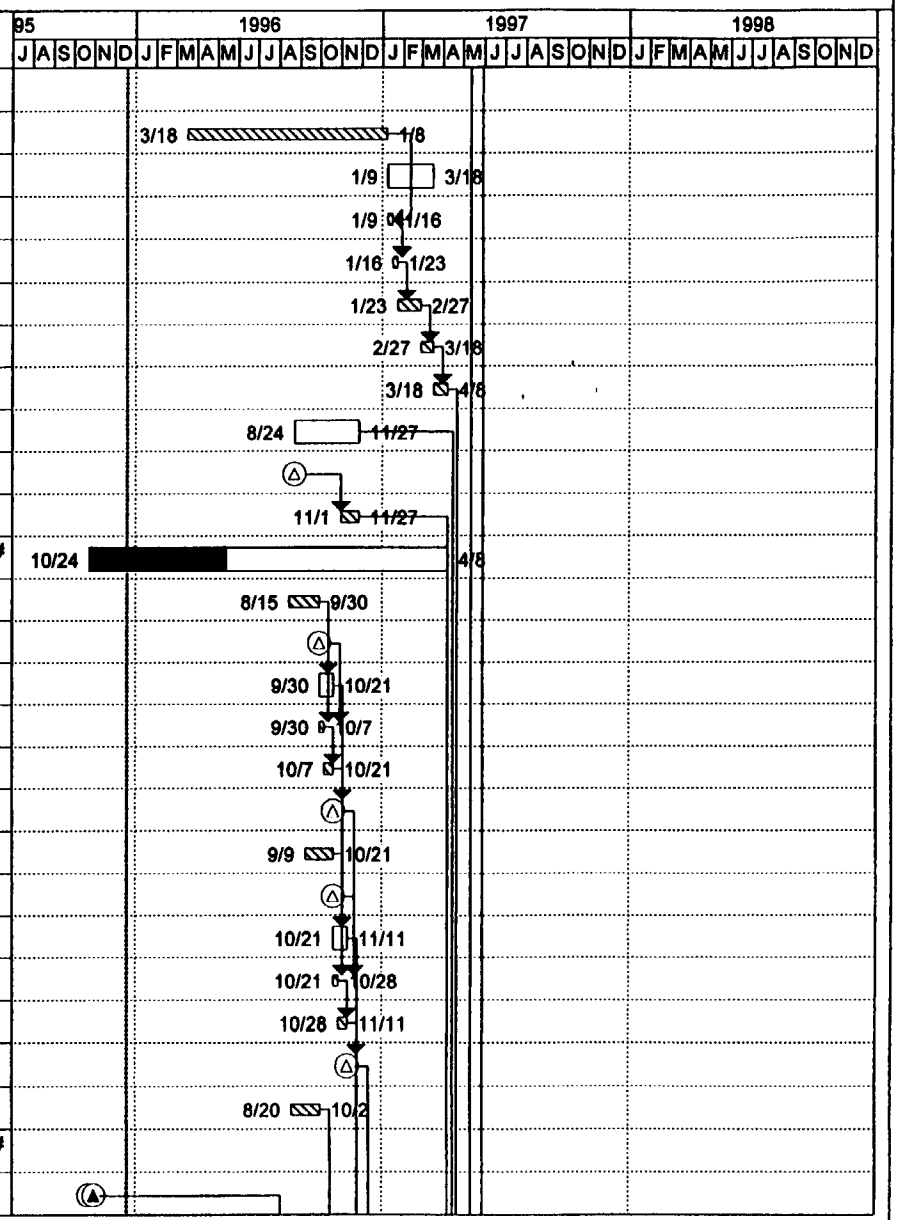
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
165		ELECTRONICS PRODUCT TEAM	0d
166		CCA CONSOLIDATED BUILD	160d
167	1356412-1	**Signal Processing Assy**	38d
168		Kit Parts (RR - LT)	4d
170		Assemble Signal Processor Hardware	4d
171		Integrate & Checkout	20d
172		Test	10d
173		Red Time (A1 Signal Processor Assy) (BLT)	12d
174	1356010-1	**1356010-1 DC/DC Conv**	54d
175		Vendor Commit	0d
176		Dock-Stock	15d
177		**ANTENNA PRODUCT TEAM**	#####
178		Machine Shop Parts for Warmload	24d
179		Shop Orders	0d
180	1331381-1	**Warmload (2)**	12d
181		Kit Parts (RR - LT)	4d
182		Assembly (LT)	8d
183		Red Time (BLT)	0d
184		Machine Shop Parts for Calibration Source	24d
185		Shop Orders	0d
186	1331380-3,4	**Calibration Source (2)**	12d
187		Kit Parts (RR - LT)	4d
188		Assembly (LT)	8d
189		Red Time (BLT)	0d
190		Machine Shop Parts for Antenna Subassy Machined	24d
191		**Dwgs & Shop Orders**	#####
192		Drawings	3d



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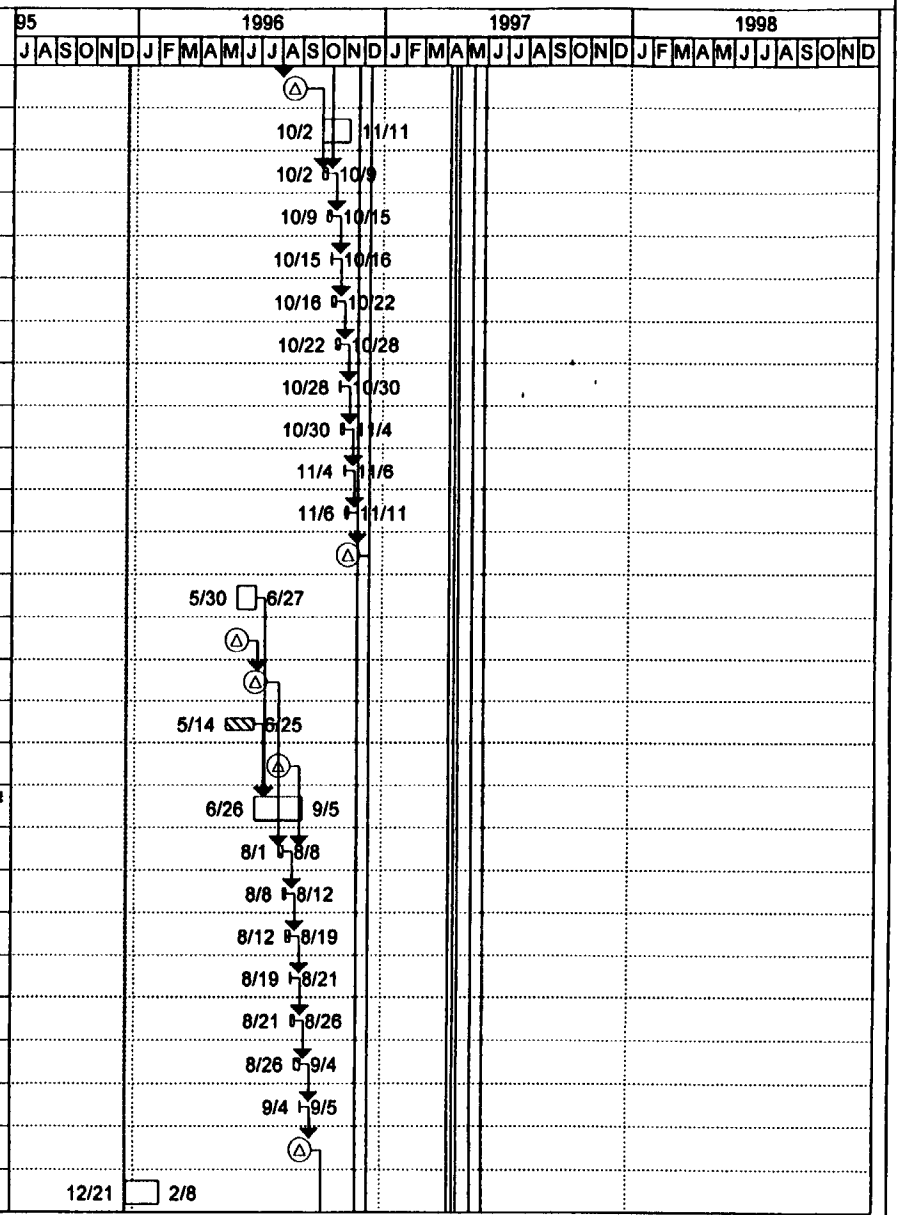
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
193		Shop Orders	0d
194	1356404-1	**Antenna Subassy, Machined**	22d
195		Kit Parts (RR - LT)	4d
197		Assy Up/Low Struct, Square, Torque, Verify	3d
198		Drill & Pin all Panels	1d
199		Install, Machine, & Verify Isolators	3d
200		Machine Upper Motor Mount & Alignment Cube, Insp	3d
201		Machine Low Motor Mount, Touchup w/Alodyne	2d
202		Install Inserts, Clean & Apply Gold Tape	2d
203		ID the Assy	2d
204		Final Inspect/NASA Insp	2d
205		Red Time (BLT)	0d
206	1333667-1	**Bearings**	16d
207		Bearing Vendor LT	0d
208		Bearings Dock-Stock	0d
209		Machine Parts for Rotating Assys	24d
210		Shop Orders	0d
211	1333647-1	**Rotating Assys (2)**	#####
212		Kit Release (RR - LT)	4d
214		Apply Flourad	1d
215		Install & Inspect Bearings	4d
216		Install Dowel Pin In Shaft	2d
217		Apply Flourad & ID the Assy	2d
218		Torque Breakaway Test (Ambient & Cold)	5d
219		Final Inspect	1d
220		Red Time (BLT)	0d
221		**Major Subs**	23d



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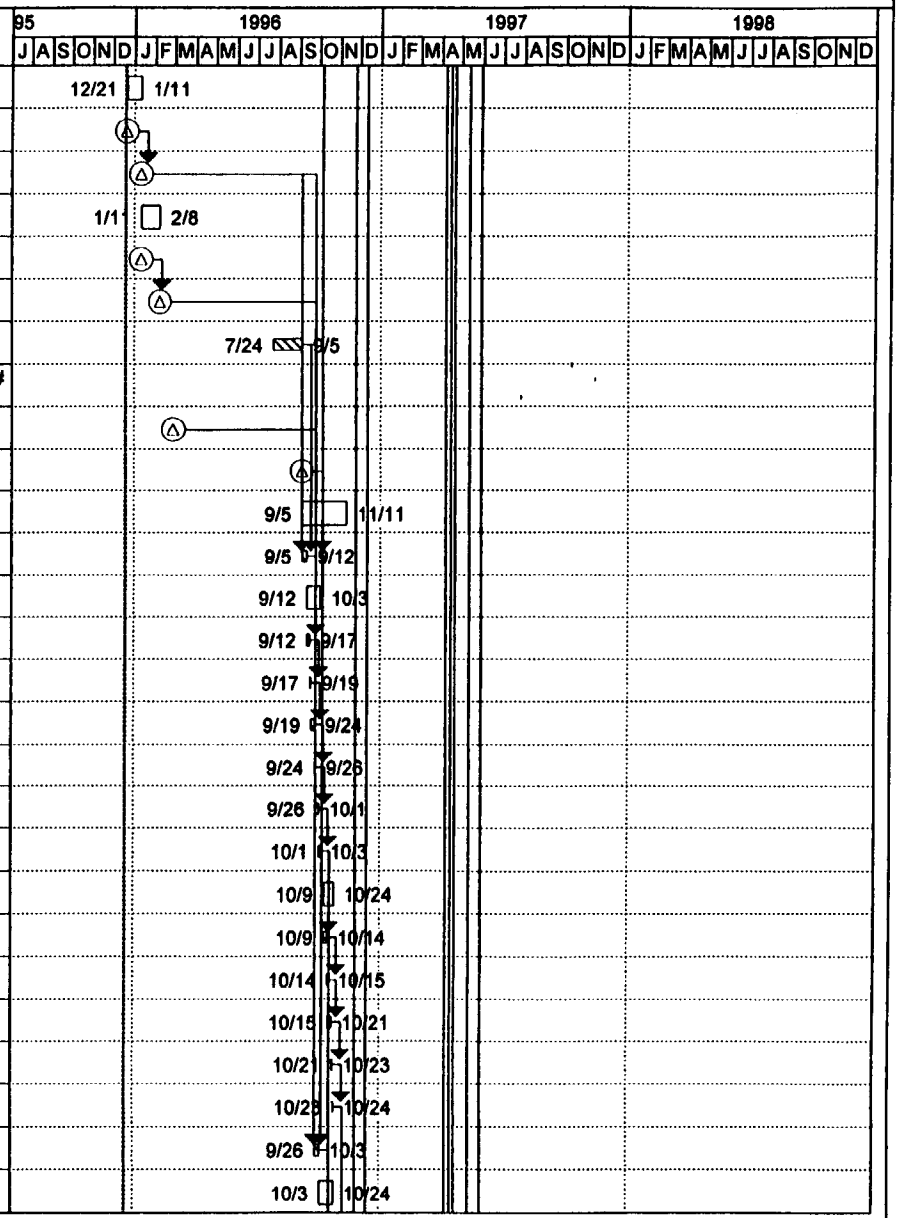
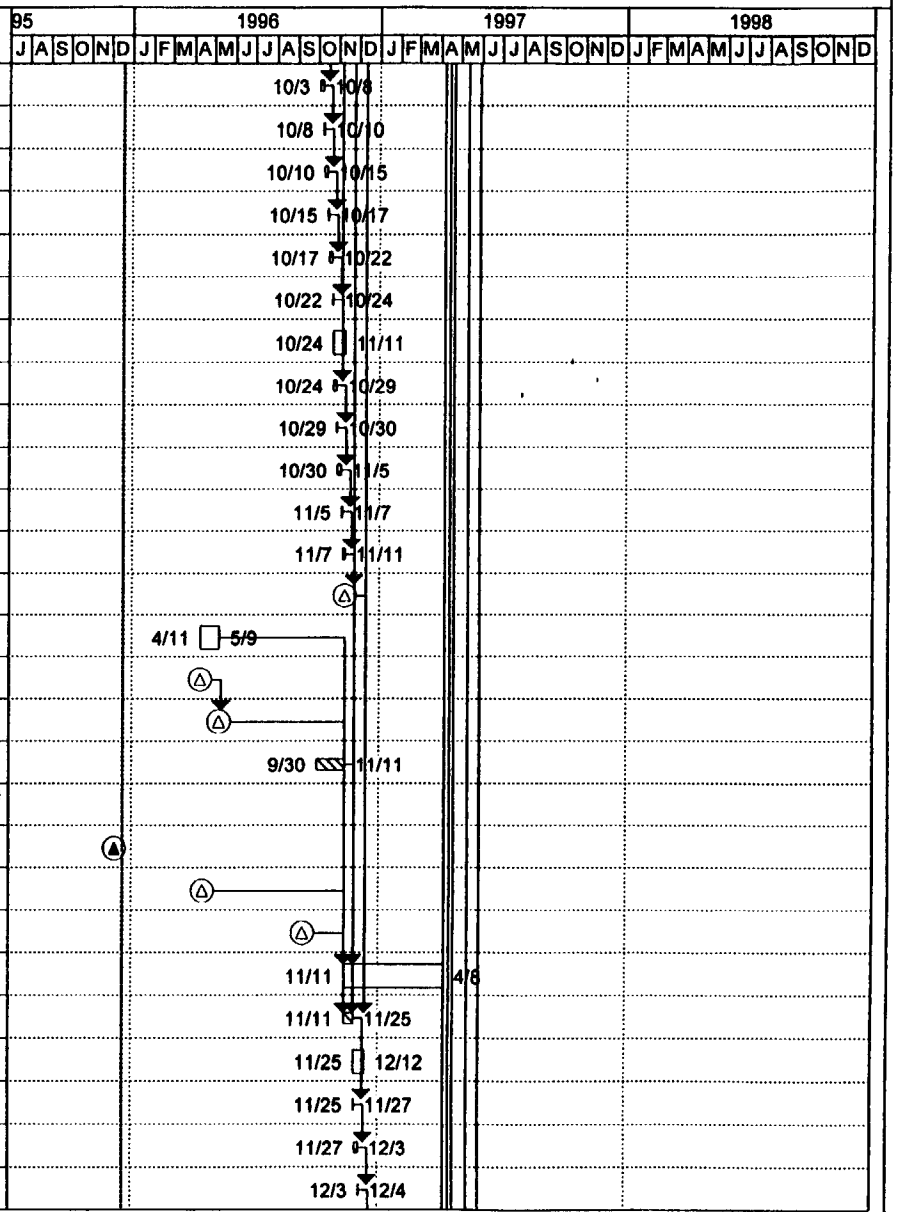
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
222	1331529-1	**Resolvers**	7d
223		Resolver LT	0d
224		Resolver Dock-Stock	0d
225	1331392-1	**Motors**	16d
226		Motor Vendor LT	0d
227		Motor Dock-Stock	0d
228		Machine Shop Parts for Reflector Drive Assys	24d
229		**Test Fixtures, S/Os (Dwgs Released)**	#####
230		Test Fixtures	0d
231		Shop Orders	0d
232	1333640-3/4	**Drive Assy, Reflectors (2)**	37d
233		Kit Release (RR - LT)	4d
235	1333640-3	**Assemble**	12d
236		Install Resolver & Motor, Inspect	2d
237		Bond	2d
238		Wire	2d
239		Inspect & NASA Insp Wiring	2d
240		Install Cover/Torque, ID Assy	2d
241		Inspect/NASA Insp	2d
242	1333640-3	**Test & Final Assy & Inspection**	9d
243		Test Reflector Drive Motor Assy	2d
244		QE/Inspection Verify Test Data	1d
245		Random Vibration Test	3d
246		Verify Motor Operation	2d
247		QE Data Rev, Insp, NASA Insp	1d
248		Kit Release (RR - LT)	4d
250	1333640-4	**Assemble**	12d



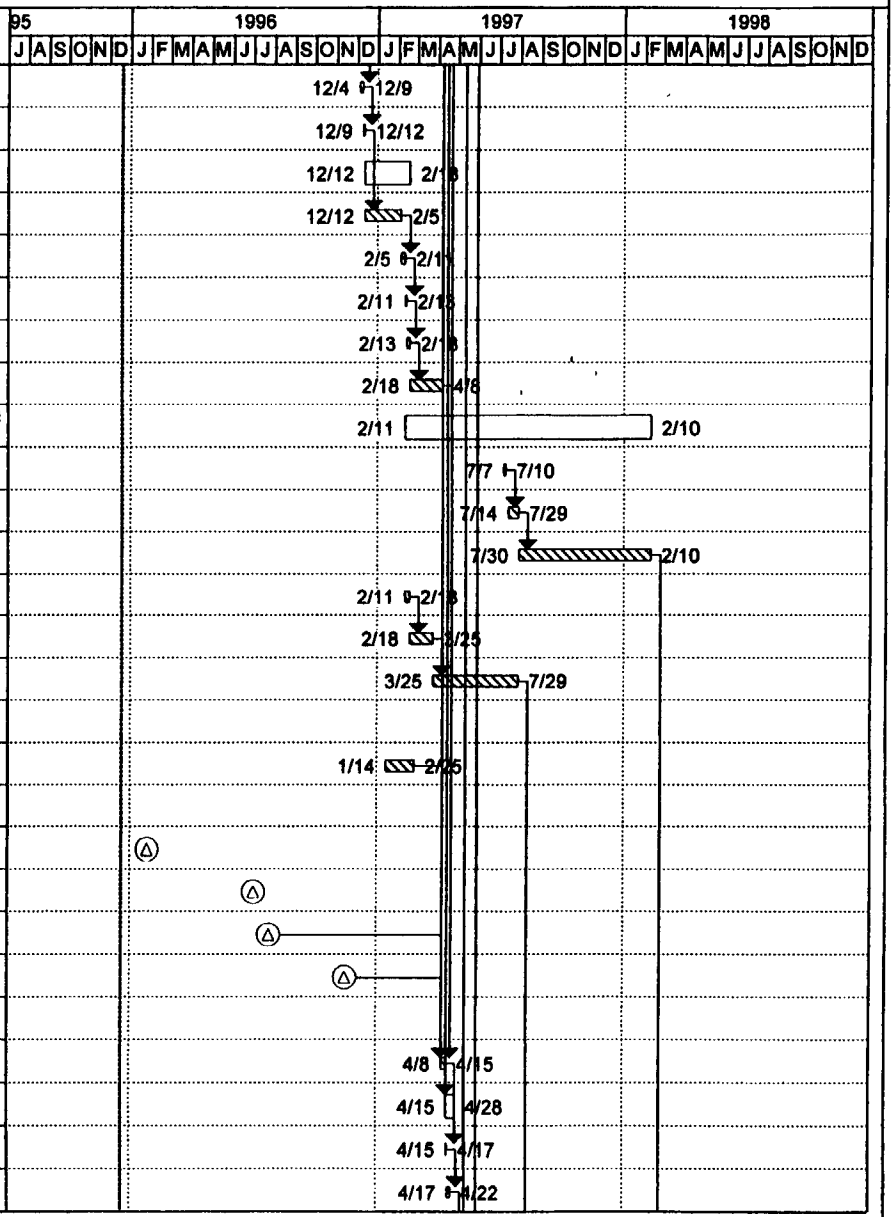
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
251		Install Resolver & Motor, Inspect	2d
252		Bond	2d
253		Wire	2d
254		Inspect & NASA Insp Wiring	2d
255		Install Cover/Torque, ID Assy	2d
256		Inspect/NASA Insp	2d
257	1333640-4	**Test & Final Assy & Inspection**	9d
258		Test Reflector Drive Motor Assy	2d
259		QE/Inspection Verify Test Data	1d
260		Random Vibration Test	3d
261		Verify Motor Operation	2d
262		QE Data Rev, Insp, NASA Insp	1d
263	1333640-3,4	Red Time (BLT)	0d
264		**Feedhorn**	16d
265		Feedhorn Vendor	0d
266		Feedhorn Dock-to-Stock	0d
267		Machine Shop Parts for Antenna Assembly	24d
268		**Dwgs, Test Fixtures, S/Os**	#####
269		Drawings	1d
270		Test Fixtures	0d
271		Shop Order	0d
272	1356403-1	**A1 Antenna Assy**	77d
273		Kit Release (RR - LT)	8d
275		**Assembly**	10d
276		Install Tube Brackets & Align Cube	2d
277		ID Unit & Bond Wire Mounts/Grommets	2d
278		Install Drive Assemblies	1d



EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
279		Install, Align & Pin Feedhorns & Inspect	2d
280		Install/Align Reflectors & Inspect	3d
281		**Antenna Range Testing & Final Assy**	31d
282		Subassy Pattern Test	24d
283		Drill/Pin Drive Motors, Install Warmloads, Inspe	3d
284		Verify all Torque & Add Spot Bonds	2d
285		Final Assy, Insp, NASA Insp	2d
286	1356403-1	Red Time (A1 Antenna Assy) (BLT)	28d
287		**EOS A1 Top Assembly - Blanket & Mirror Assys**	#####
288		Kit Release (RR-LT)	4d
289	1331626-2,9	Assemble Insulating Blanket Assemblies	10d
290		Red Time (A1 Blankets) (BLT)	104d
291		Kit Release (RR-LT)	4d
292	131257-6,7,1	Assemble Mirror Panel Assemblies	20d
293		Red Time (A1 Mirror Panel Assys)) (BLT)	70d
294		SEIT PRODUCT TEAM	1d
295		Machine Shop Parts for Top Assembly (Setback)	24d
296		**Dwgs, STE, Tooling, S/Os**	165d
297		Drawing	0d
298		STE	0d
299		Tooling	0d
300		Shop Order	0d
301	1356008-1	**EOS-A1 Top Assembly - Integration & Test**	5.32d
302		Kit (RR - LT)	4d
304		**Prelim Integration (Pre-Receiver/Sig Processor)**	7.05d
305		Bond Grommet, Temp Sensors, Term Bds, Inspect	1.76d
306		Install Cable Assemblies	2.35d



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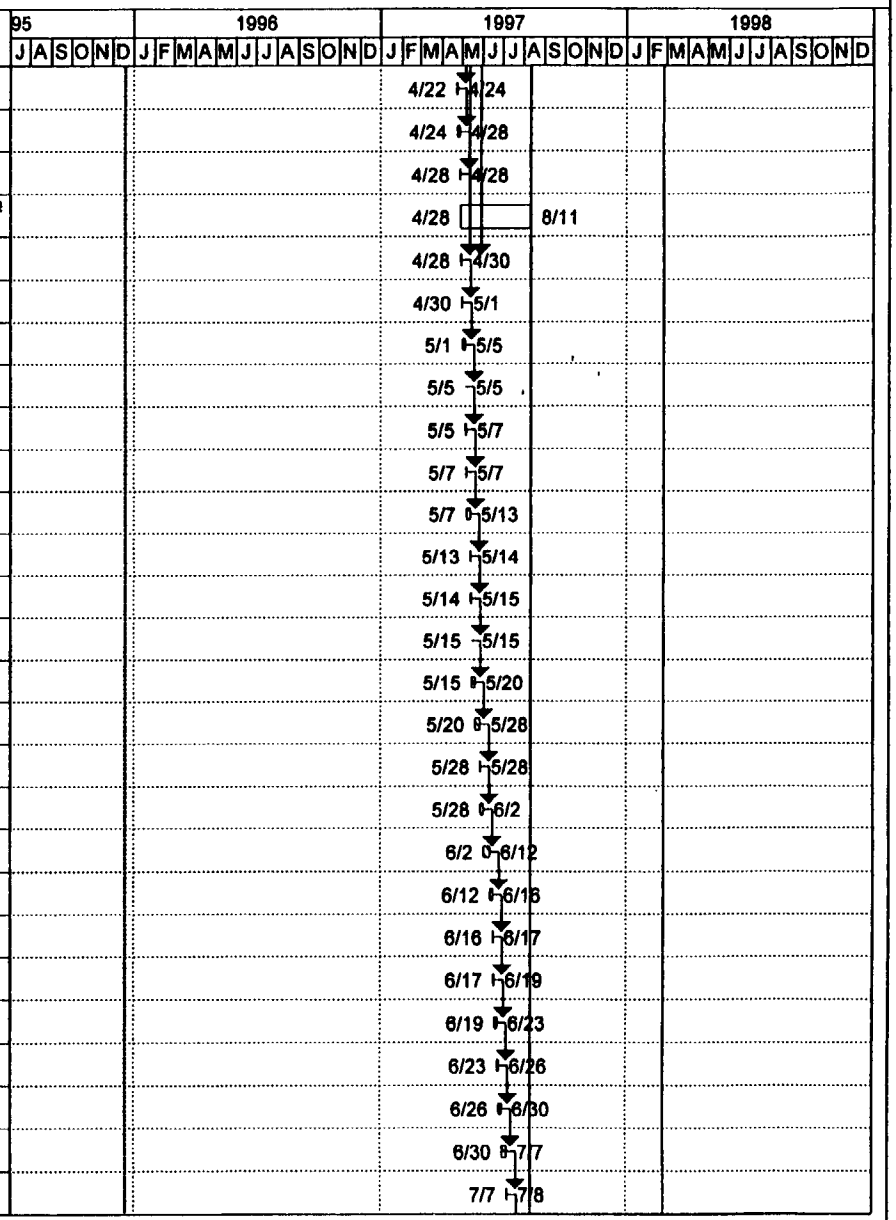
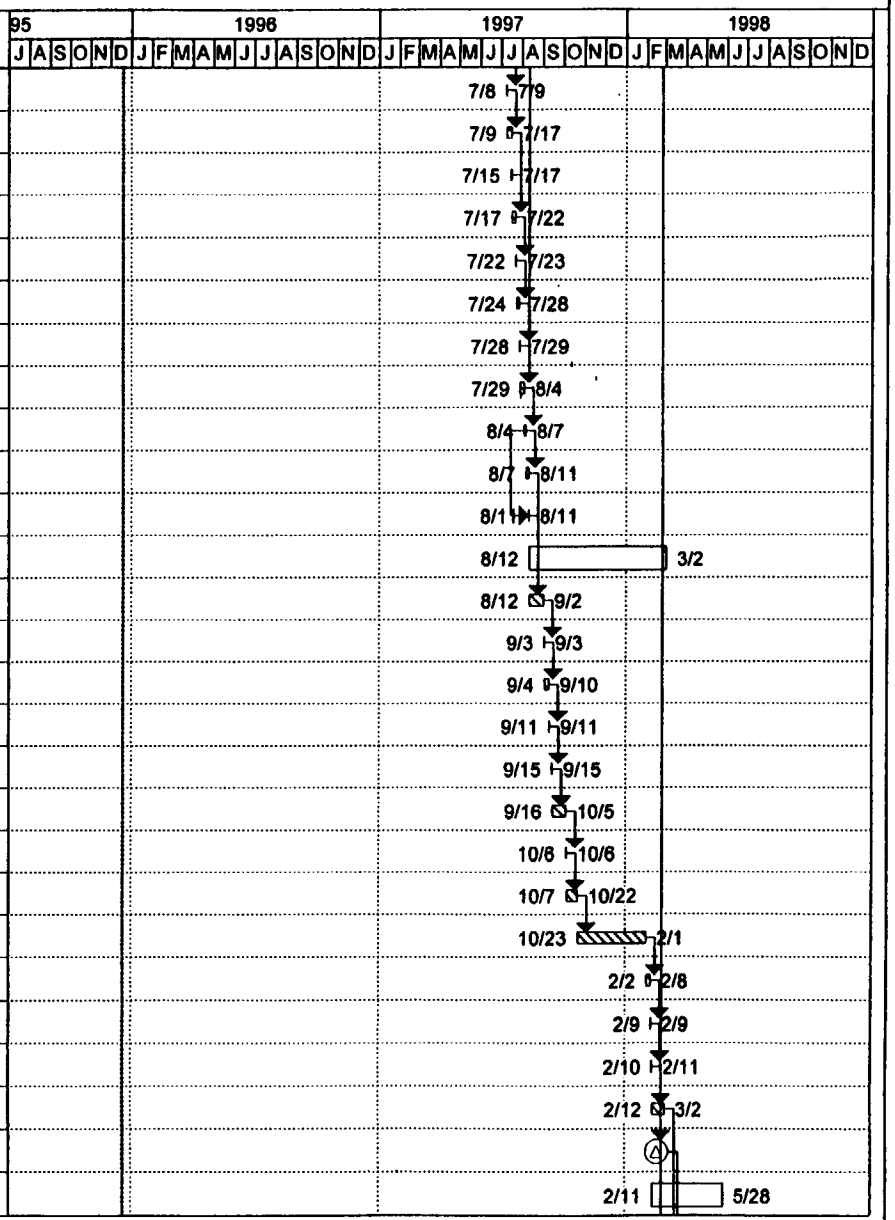
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
307		Install DC/DC Converter & Power Ctrl Assy	1.76d
308		Continuity Test	0.59d
309		Inspect/NASA Inspect Workmanship	0.59d
310		**Instrument Integration & Test**	#####
311		Align Rivet A1-1 Receiver & Inspect	1.76d
312		Wire A1-1 & A1-2 Receivers	1.18d
313		Continuity Test	0.59d
314		Inspect/NASA Inspect Receiver Wiring	0.59d
315		Align/Rivet A1-2 Receiver & Inspect	1.18d
316		Install Test Panels	0.59d
317		Fab, Condition, Test, Inspect Coax Cables	2.94d
318		Install "Clamshell"	0.59d
319		Crit Wiring Isol (Continuity) Test	1.18d
320		QE Data Rev, Insp/NASA Insp (Crit Wiring Isol)	0.59d
321		System Integration (Ambient) Test	1.76d
322		DRO Bias/Frequency & Bandpass Test	3.53d
323		QE Data Rev, Insp/NASA Insp (DRO Bias Tests)	0.59d
324		System Integration (Ambient) Tests	1.76d
325		Drive Subsystem Test	7.06d
326		Inspect/NASA Inspect CCAs	1.18d
327		Signal Processor CPT	1.18d
328		QE Data Rev, Inspect/NASA Insp (DRV/S/P Tests)	1.18d
329		Temp Connect Preamp/Coax, Bond Wiring	1.18d
330		Gain & Offset Tests	2.94d
331		QE Data Rev, Insp/NASA Insp (Gain & Offset Tests)	1.18d
332		PRT Calibration Tests	3.53d
333		QE Data Review (PRT Calibration)	0.59d



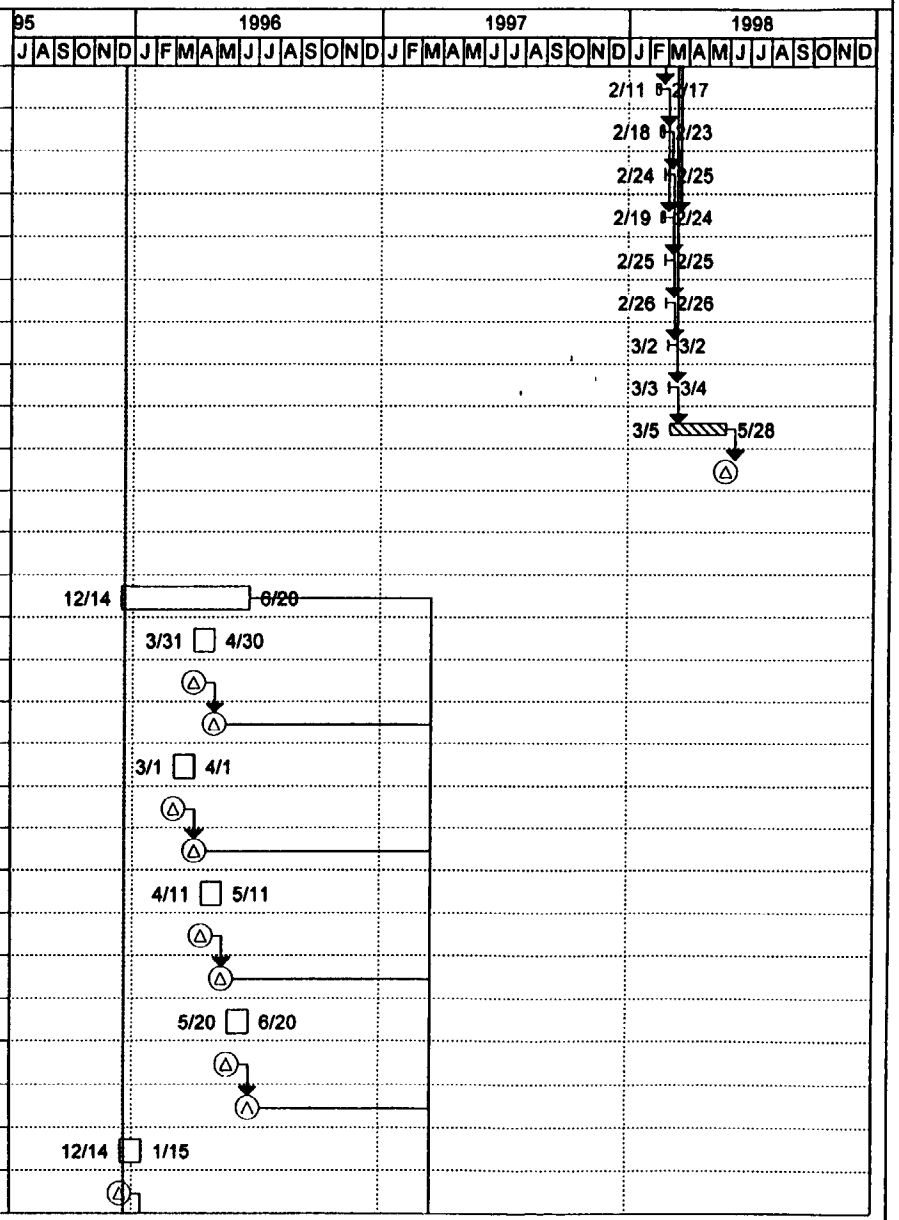
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
334		Reassemble for Evaluation CPT	1.18d
335		Evaluation CPT	4.71d
336		Sub Shop Order Prep	2.35d
337		Sub Touch-Up Conformal Coat CCAs	2.35d
338		Sub Inspect/NASA Inspect CCAs	1.18d
339		Sub Install CCAs & Inspect Subassys	1.18d
340		Sub Final Inspection & Final NASA Buyoff	1.18d
341		Reassemble for Baseline CPT	3.53d
342		Comprehensive Perf Test (Baseline)	2.35d
343		QE Data Rev, Insp/NASA Insp (Baseline)	1.76d
344		PER	1d
345		**Instrument Accept Tests**	**108d**
346		EMI/RFI & Mag Field Tests	12d
347		Data Review (EMI Tests)	1d
348		Random Vib/LPT	4d
349		Data Review (Random Vib Tests)	1d
350		Sub CPT, Post-Vib Inspect & NASA Inspect	1d
351		Thermal Cycle (Vacuum - Incl 10d Setup)	20d
352		Data Review (Thermal Cycle)	1d
353		Thermal Balance Test	16d
354		Primary Calibration (Turbo)	90d
355		Final CPT (Primary Calibration)	7d
356		Data Review (Calibration)	1d
357		Weight & CG	2d
358		Ship PSR Data Package	10d
359		Red Time (A2 Top Assy) (BLT)	0d
360	1356037-1	**EOS-A1 Shipping Config**	**61d**



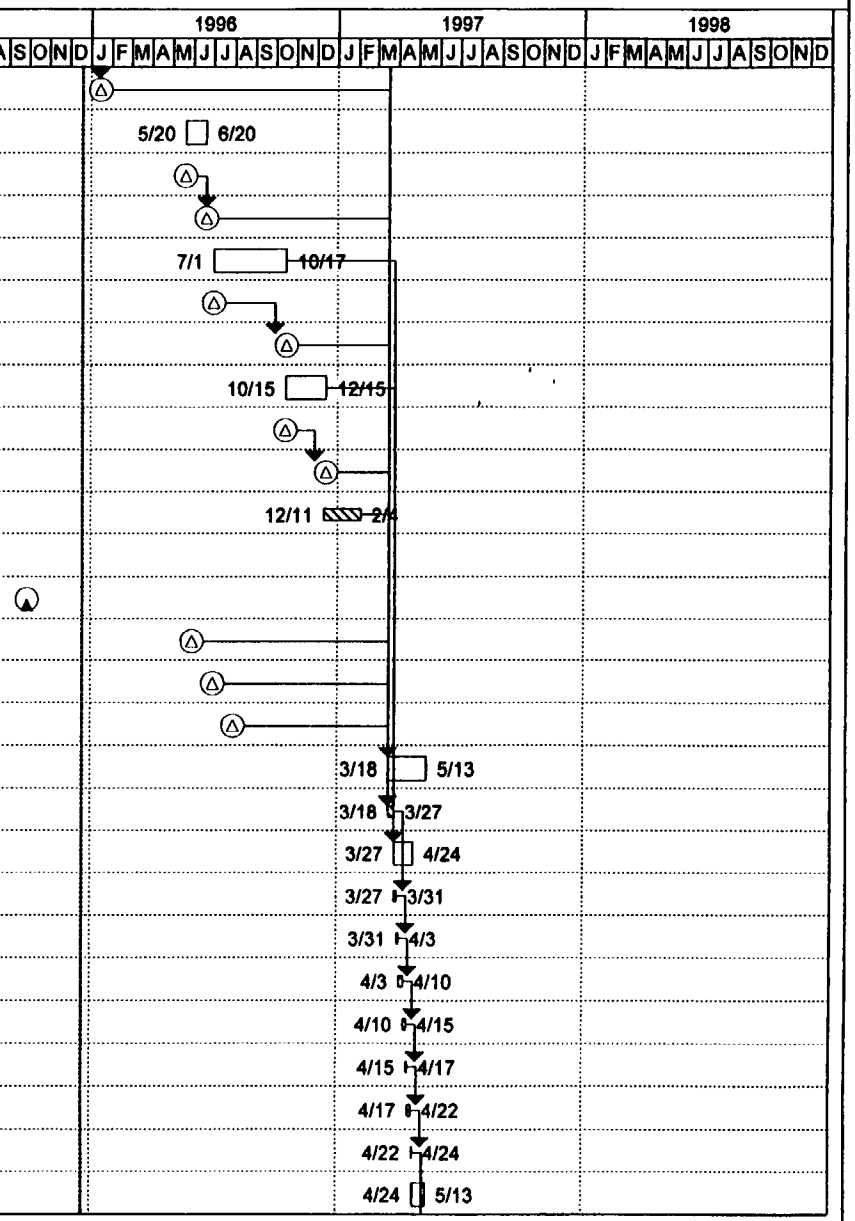
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
361		Kit Release (RR - LT)	4d
363		Clean Shipping Container	3d
364		Inspect & Purge Shipping Container	2d
365		Clean Instrument	3d
366		Inspect Instrument for Cleanliness	1d
367		Load Unit In Shipping Container (Witness)	1d
368		Seal & Inspect Shipping Container	1d
369		PSR	2d
370		Red Time (Ship - Prog Management) (BLT)	48d
371		SHIP EOS-A1 INSTRUMENT (5/28/98)	0d
		EOS A2	615d
1		RECEIVER PRODUCT TEAM	1d
2	Various	**Major Subs**	102d
3	1331084	**Diplexer**	18d
4		Diplexer Vendor	0d
5		Diplexer Dock-to-Stock	0d
6	1331111-2/2-	**Isolators**	17d
7		Isolator Vendor	0d
8		Isolator Dock-to-Stock	0d
9	1331559-3,6	**Bandpass Filters**	16d
10		BP Filter Vendor	0d
11		BP Filter Dock-to-Stock	0d
12	1331516	**IF Attenuators**	18d
13		IF Atten Vendor	0d
14		IF Atten Dock-to-Stock	0d
15	1331100-1,2	**Waveguide Atten**	12d
16		W/G Atten Vendor	0d



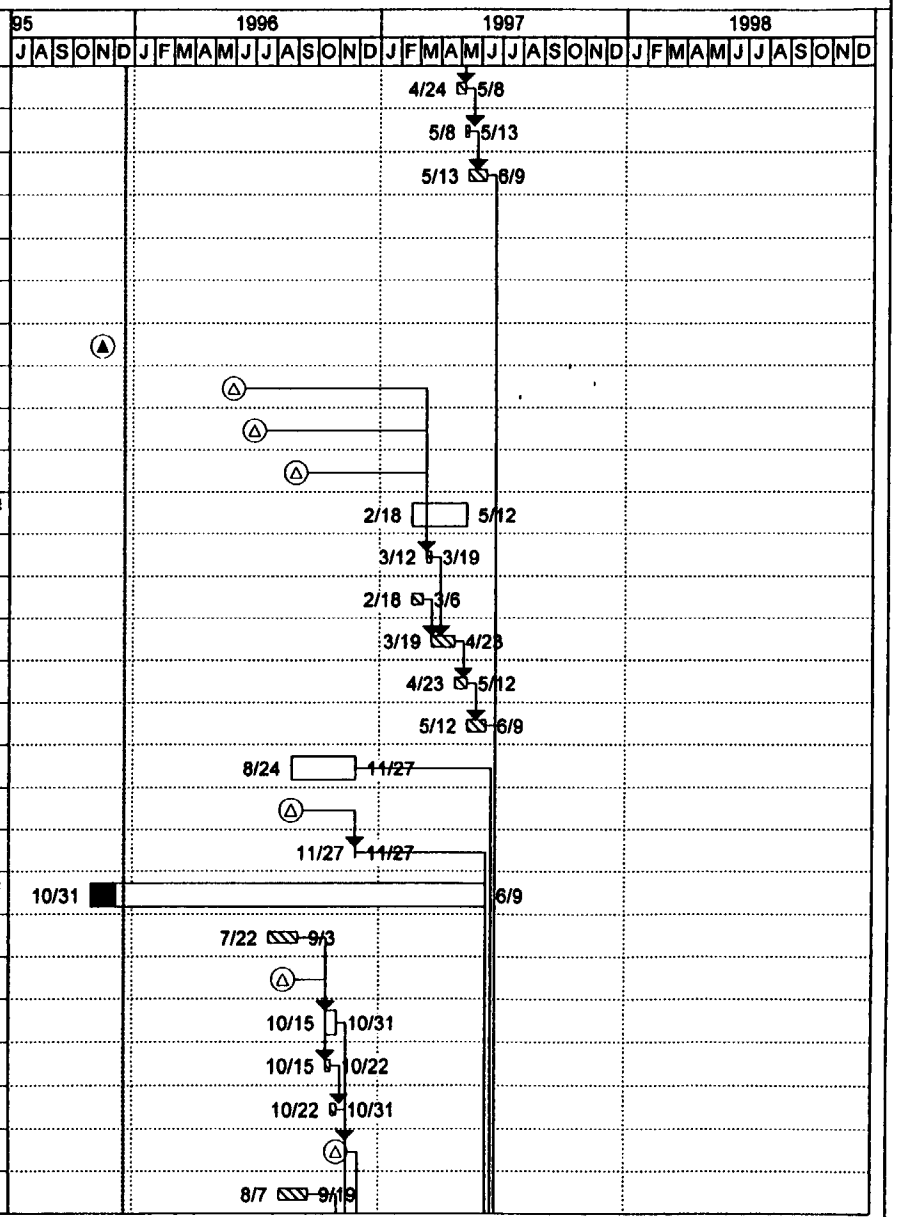
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
17		W/G Atten Dock-to-Stock	0d
18		**Beryllium Shelf**	18d
19		Be Shelf Vendor	0d
20		Be Shelf Dock-to-Stock	0d
21	1331562-11/	**Mixer Amps**	61d
22		Mix/Amp Vendor	0d
23		Mix/Amp Dock-to-Stock	0d
24	1336610-1/2	**DRO**	33d
25		DRO Vendor	0d
26		DRO Dock-to-Stock	0d
27		Machine Shop Parts for A2 Receiver	24d
28		**Dwgs, STE, Tooling, S/Os**	166d
29		Drawing	0d
30		STE	0d
31		Tooling	0d
32		Shop Order	0d
33	1356441-1	**Receiver Assy, A2**	32d
34		Kit Release (RR - LT)	6d
36		**Final Assemble**	16d
37		ID Components & Shelf	1d
38		DRO/Waveguide Attenuator Test	3d
39		Install RF Components	4d
40		Install Temp Sensor, T/B & Wire Mnts	2d
41		Wiring	2d
42		VSWR Test	2d
43		Clean & Spot Bond	2d
44		**Test & Final Inspection**	10d



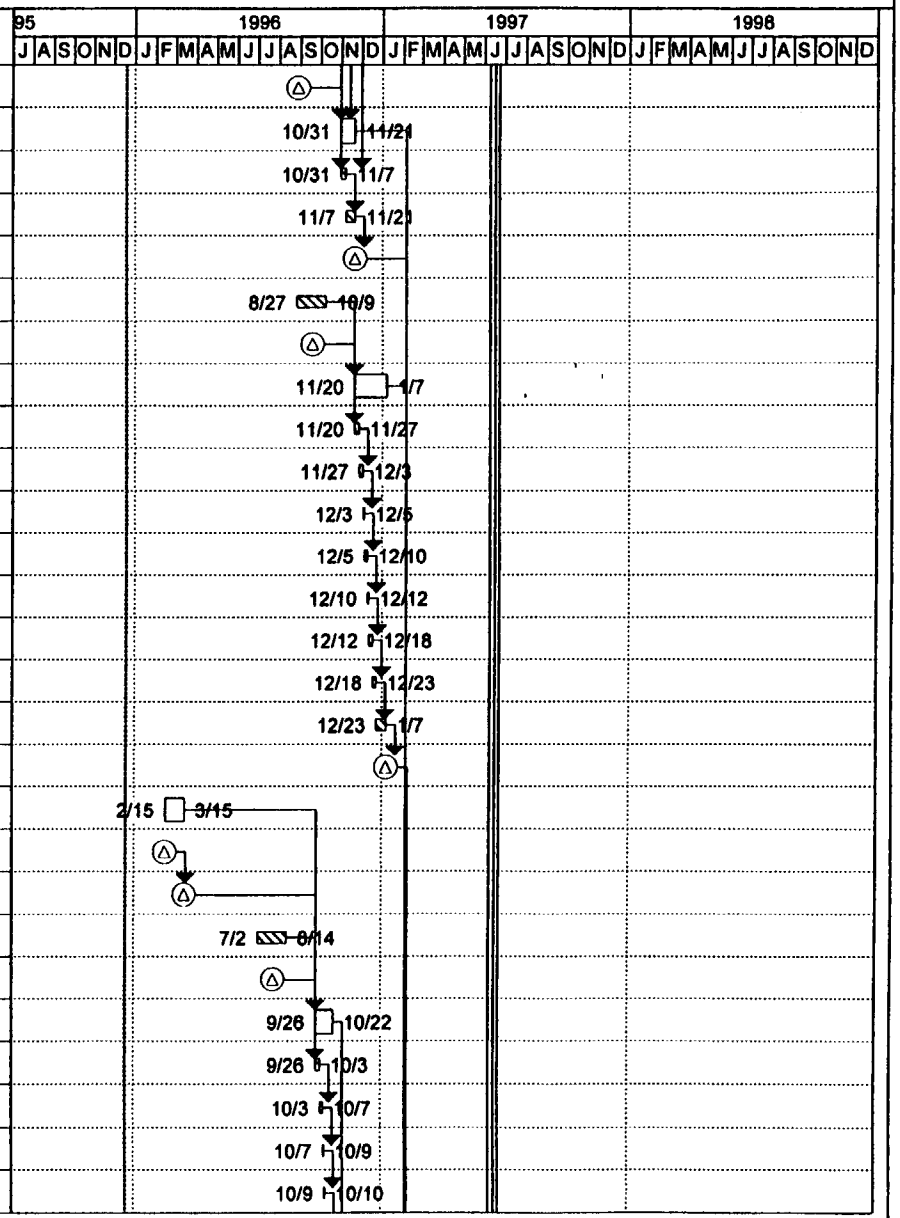
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
45		Test	8d
46		Final Insp & NASA Insp	2d
47		Red Time (A2 Receiver Assy) (BLT)	14d
48		ELECTRONICS PRODUCT TEAM	1d
49		Signal Processor Assy	1d
50		**Dwgs, STE, Tooling, S/Os**	**157d**
51		Drawing	1d
52		STE	0d
53		Tooling	0d
54		Shop Order	0d
55	1356439-1	**Signal Processing Assy**	#####
56		Kit Parts (RR - LT)	4d
58		LINK FROM EOS A1 S/P TEST	10d
59		1356439-1 INTEG & CHKOUT EOS A2 SIG PROC ASS	20d
60		1356439-1 TEST EOS A2 SIGNAL PROCESSOR ASSY	10d
61		Red Time (A2 Signal Processor Assy) (BLT)	15d
62	1356010-1	**DC/DC Converter**	**54d**
63		Vendor Commit	0d
64		Dock-Stock	1d
65		**ANTENNA PRODUCT TEAM**	#####
66		Machine Shop Parts for Warmload	24d
67		Shop Orders	0d
68	1331236-1	**Warmload**	**10d**
69		Kit Parts (RR - LT)	4d
70		Assembly (LT)	6d
71		Red Time (A2 Warmload) (BLT)	0d
72		Machine Shop Parts for Calibration Source	24d



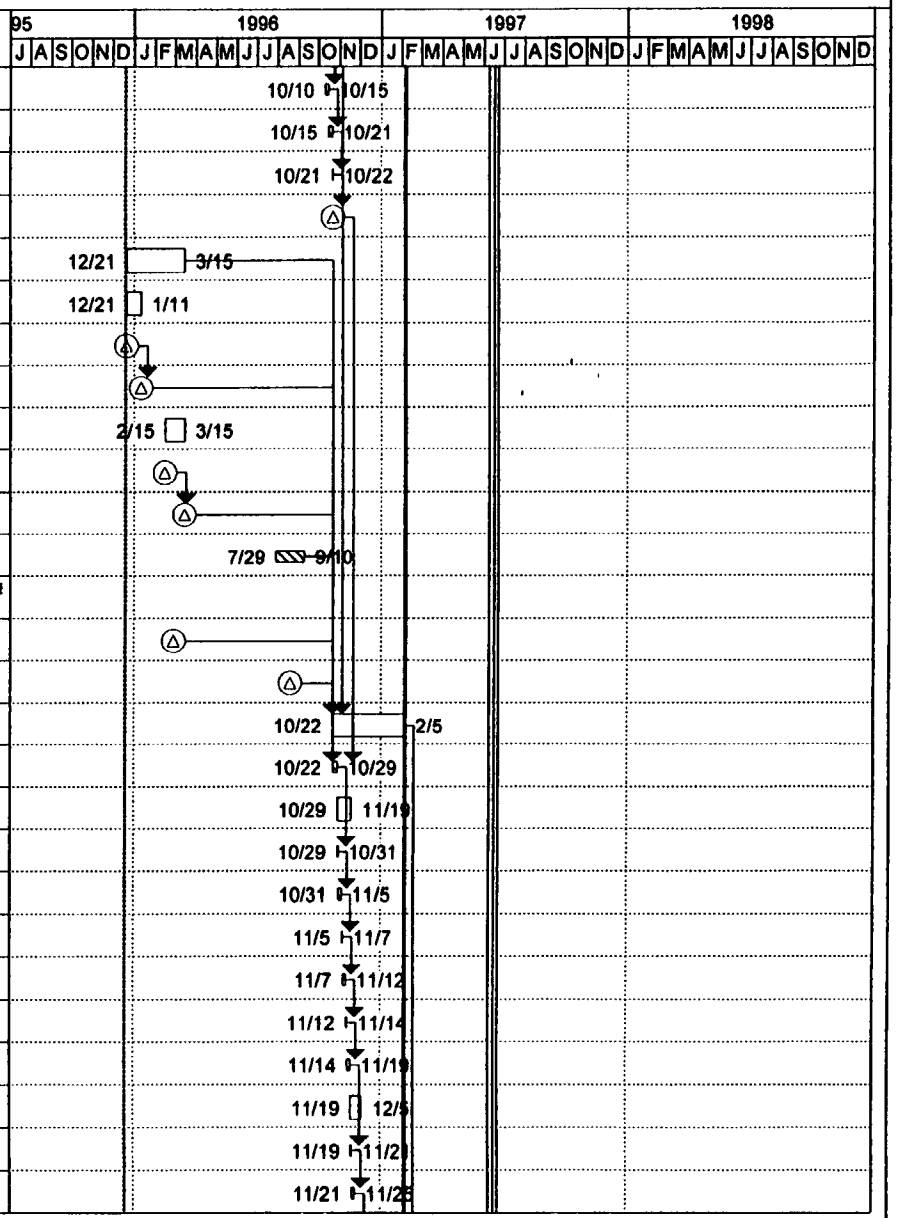
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
73		Shop Orders	0d
74	1331235-2	**Calibration Source**	12d
75		Kit Parts (RR - LT)	4d
76		Assembly (LT)	8d
77		Red Time (A2 Calibration Source) (BLT)	0d
78		Machine Shop Parts for Antenna Subassy, Machined	24d
79		Shop Orders	0d
80	1331303-2	**Antenna Subassy, Machined**	19d
81		Kit Parts (RR - LT)	4d
83		Assemble & Pin Structure	2d
84		Install & Machine Item 14 Spacer & Inspect	2d
85		Machine Item 13 Spacers & Verify	2d
86		Machine Item 15 Spacers & Verify	2d
87		Final Machine Structure & Inspect	3d
88		Touch-up w/Alodyne and Install Inserts	2d
89		ID the Assembly	2d
90		Red Time (A2 Antenna Subassy, Mach) (BLT)	0d
91	1333667-1	**Bearings**	16d
92		Bearing Vendor LT	0d
93		Bearings Dock-Stock	0d
94		Machine Shop Parts for Rotating Assy	24d
95		Shop Orders	0d
96	1333651-1	**Rotating Assy**	14d
97		Kit Parts (RR - LT)	4d
99		Apply Flourad	1d
100		Install & Inspect Bearings	2d
101		Install Dowel Pin in Shaft	1d



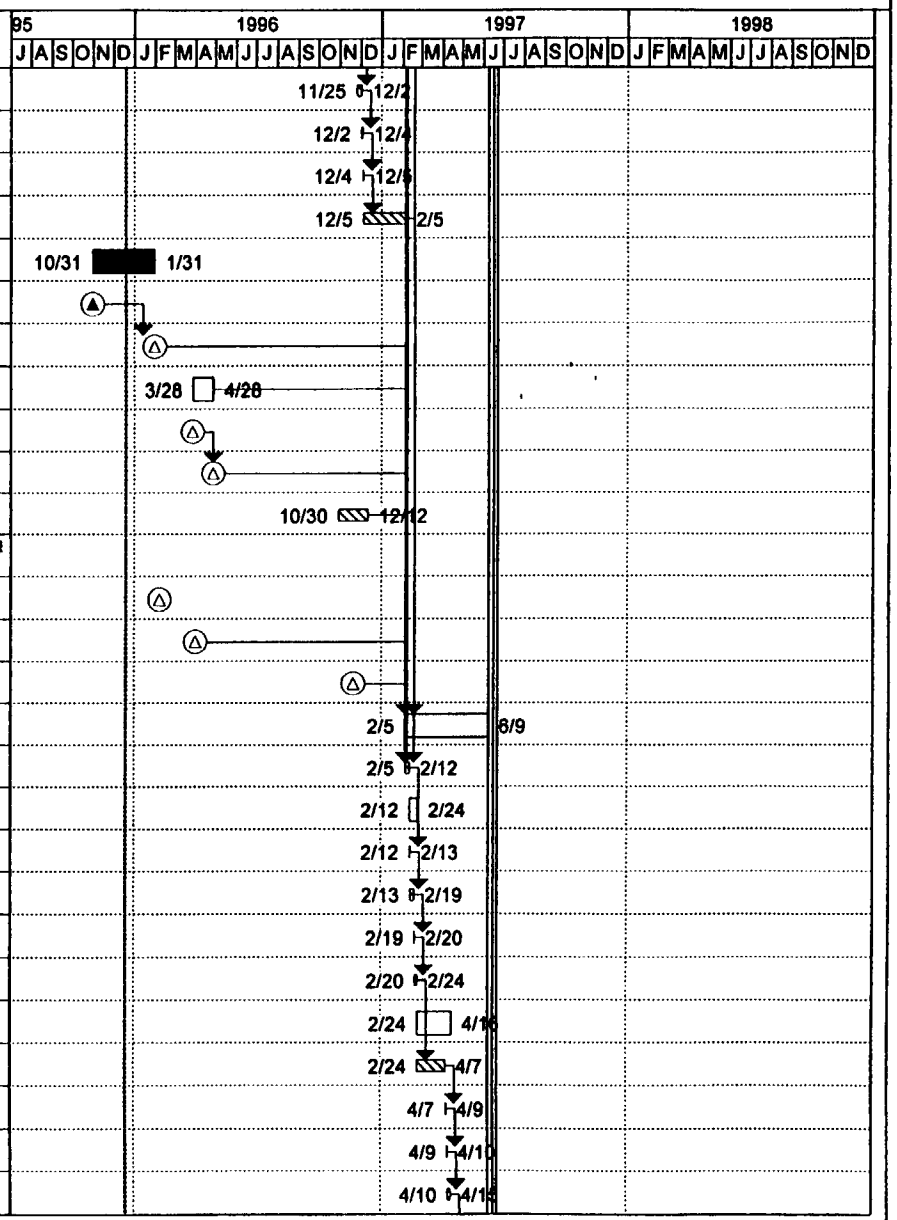
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
102		Apply Flourad & ID the Assemble	2d
103		Torque Breakaway Test (Ambient & Cold)	3d
104		Final Inspect	1d
105		Red Time (A2 Rotating Assy) (BLT)	0d
106	Various	**Major Subs**	43d
107	1331529-1	**Resolvers**	7d
108		Resolver LT	0d
109		Resolver Dock-Stock	0d
110	1333648-1	**Motors**	16d
111		Motor Vendor LT	0d
112		Motor Dock-Stock	0d
113		Machine Shop Parts for Reflector Drive Assy	24d
114		**Test Fixt, S/Os (Dwgs Released)**	#####
115		Test Fixtures	0d
116		Shop Order	0d
117	1333650-2	**Drive Assy, Reflector**	53d
118		Kit Release (RR - LT)	4d
120		**Assemble**	12d
121		Install Resolver & Motor & Inspect	2d
122		Bond Components	2d
123		Wire Components	2d
124		Inspect & NASA Insp Wiring	2d
125		Install Cover/Torque	2d
126		Inspect & NASA Insp	2d
127		**Test**	9d
128		Test Reflector Drive Motor Assy	2d
129		QE Data Review	1d



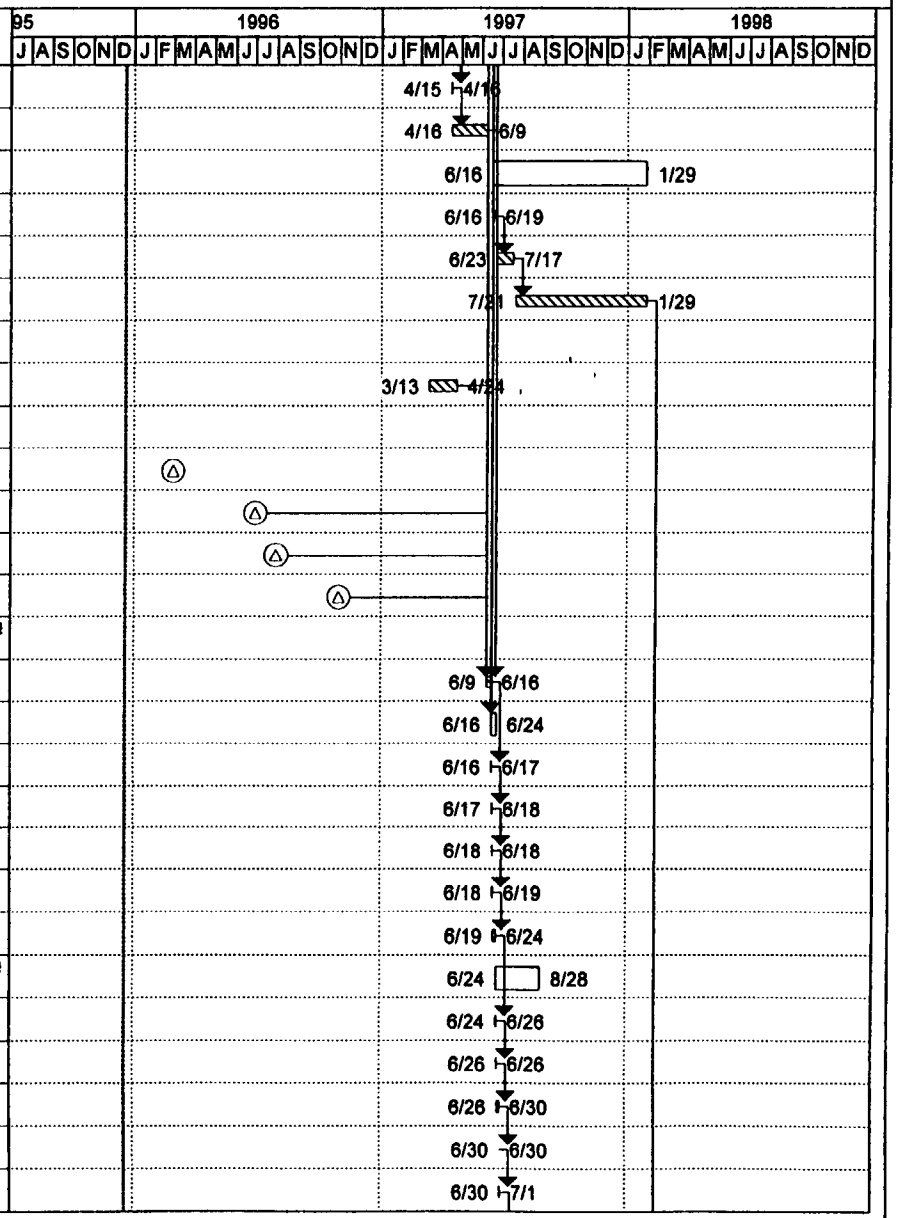
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
130		Random Vibration Test	3d
131		Verify Motor Operation	2d
132		Final Insp, NASA Insp	1d
133		Red Time (A2 Drive Assy, Reflector) (BLT)	28d
134	1355835-1	**Composite Reflector**	48d
135		Vendor LT	1d
136		Dock-to-Stock	0d
137		**Feedhorn Assembly**	16d
138		Feedhorn Vendor	0d
139		Feedhorn Dock-to-Stock	0d
140		Machine Shop Parts for Antenna Assy	24d
141		**Dwgs, Test Fixtures, S/Os**	#####
142		Drawing	0d
143		Test Fixtures	0d
144		Shop Order	0d
145	1331210-2	**A2 Antenna Assy**	69d
146		Kit Release (RR - LT)	4d
148		**Assembly**	6d
149		Install Cube, Feedhorn & Sec Reflector	1d
150		Optical Alignment & Inspection	3d
151		Drill/Pin Secondary Reflector & Feedhorn	1d
152		Install Drive Motor, Reflector, Diplexer	1d
153		**Antenna Range Testing & Final Assy**	30d
154		Subassy Pattern Test	24d
155		Pin Drive Motor & Install Warmload	2d
156		Inspect Antenna Assy	1d
157		Bond Wiremounts & Identify	2d



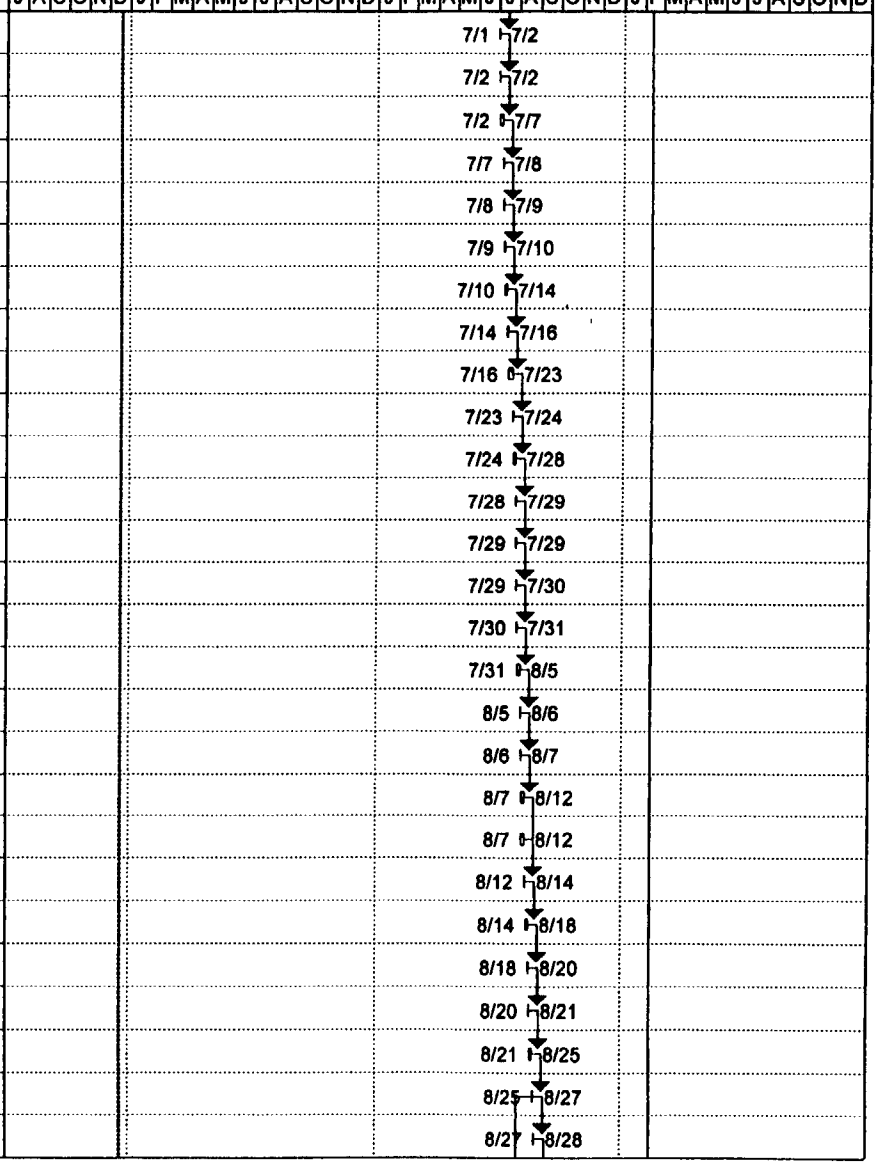
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
158		Final Assy, Insp, NASA Insp	1d
159		Red Time(A2 Antenna Assy) (BLT)	29d
160		**EOS A2 Top Assy - Blanket Assys**	**123d**
161		Kit Release (RR-LT)	4d
162	1331253-2/-5	Assemble Insulating Blanket Assemblies	15d
163	1331253-2/-5	Red Time (A2 Blanket Assy) (BLT)	104d
164		SEIT PRODUCT TEAM	1d
165		Machine Shop Parts for Top Assembly	24d
166		**Dwgs, STE, Tooling, S/Os**	**136d**
167		Drawing	0d
168		STE	0d
169		Tooling	0d
170		Shop Order	0d
171	1356006-1	**EOS-A2 Top Assembly - Integration & Test**	#####
172		Kit Parts (RR - LT)	4d
174		**Prelim Integration (Pre-Receiver/Sig Proc)**	**5.3d**
175		Install Cable Assys	1.18d
176		Continuity Check	0.59d
177		Install DC/DC Conv & Power Ctrl Assy	0.59d
178		Continuity Test	0.59d
179		Instl Wrmld, Bond Grommts, T.B., Temp Sensors	2.35d
180		**Instrument Integration & Test**	#####
181		Install, Align/Rivet Receiver	1.18d
182		Inspect Riveting, Shim Block	0.59d
183		Solder Temp Sensor Leads	0.59d
184		Receiver Continuity Test	0.59d
185		Inspect/NASA Inspect Receiver Wiring	0.59d



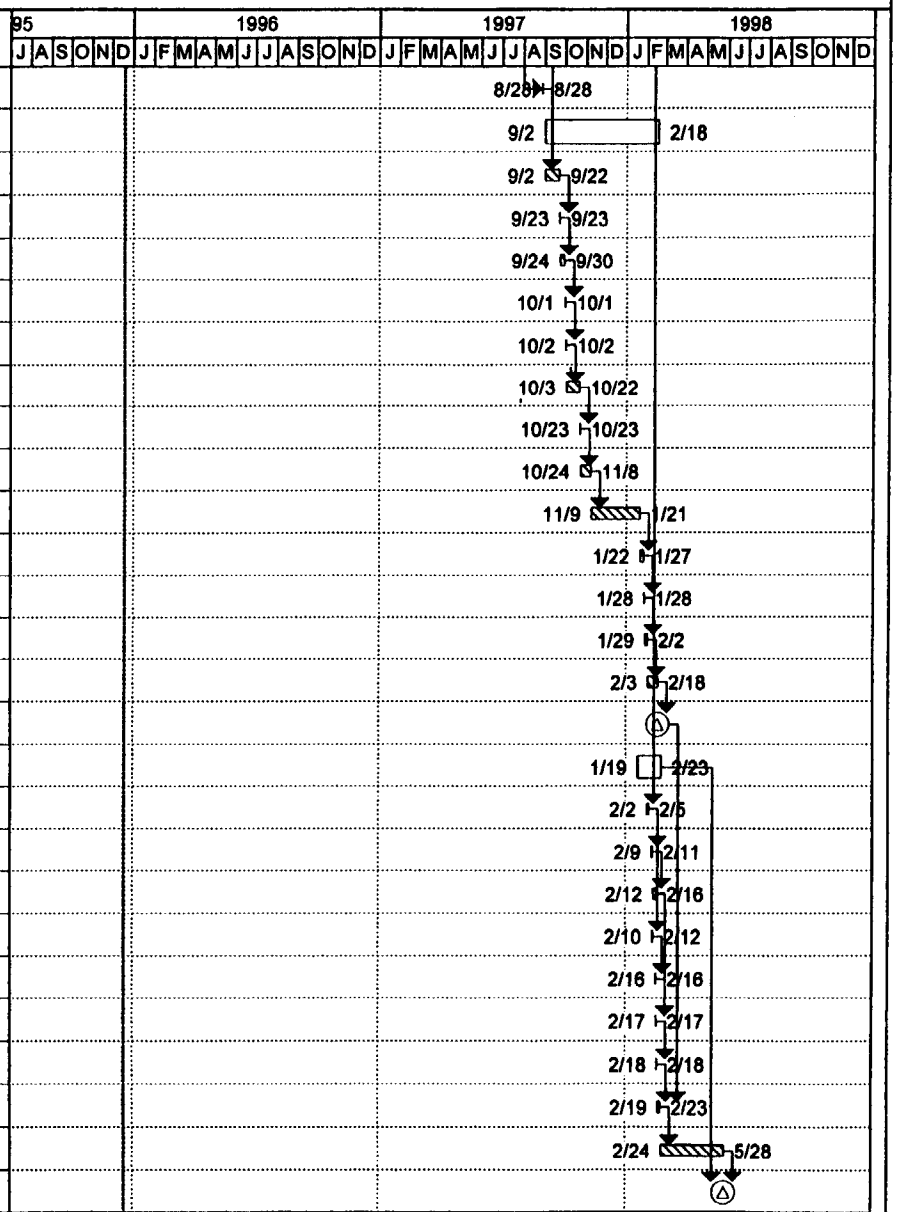
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
186		Fab, Condition, Test, Inspect Coax Cables	0.59d
187		Antenna & Receiver Isol Test	0.59d
188		DC/DC Test, Crit Wiring Isol (Continuity) Test	1.18d
189		QE Data Rev, Insp/NASA Insp (Crit Wiring Isol)	0.59d
190		System Integration (Ambient) Test	1.18d
191		DRO Bias/Frequency & Bandpass Test	1.18d
192		QE Data Rev, Insp/NASA Insp (DRO Bias Tests)	0.59d
193		System Integration (Ambient) Tests	1.76d
194		Drive Subsystem Test	4.71d
195		Inspect/NASA Inspect CCAs	0.59d
196		Signal Processor CPT	1.18d
197		QE Data Rev, Inspect/NASA Insp (DRV/S/P Tests)	0.59d
198		Temp Connect Preamp/Coax, Bond Wiring	0.59d
199		Gain & Offset Tests	0.59d
200		QE Data Rev, Insp/NASA Insp (Gain & Offset Tests)	1.18d
201		PRT Calibration Tests (2 Shifts)	2.35d
202		QE Data Review (PRT Calibration)	0.59d
203		Reassemble for Evaluation CPT	0.59d
204		Evaluation CPT	2.35d
205		Sub Shop Order Prep	2.35d
206		Sub Touch-Up Conformal Coat CCAs	2.35d
207		Sub Inspect/NASA Inspect CCAs	1.18d
208		Sub Install CCAs & Inspect Subassys	1.18d
209		Sub Final Inspection & Final NASA Buyoff	1.18d
210		Reassemble for Baseline CPT	1.18d
211		Comprehensive Perf Test (Baseline)	2.35d
212		QE Data Rev, Insp/NASA Insp (Baseline)	1.18d



EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
213		PER	1d
214		**Instrument Accept Tests**	**91d**
215		EMI/RFI & Mag Field Tests	12d
216		Data Review (EMI Tests)	1d
217		Random Vib/LPT	4d
218		Data Review (Random Vib Tests)	1d
219		Sub CPT, Post-Vib Inspect & NASA Inspect	1d
220		Thermal Cycle (Vacuum - Incl 10d Setup)	20d
221		Data Review (Thermal Cycle)	1d
222		Thermal Balance Test	16d
223		Primary Calibration (VC2)	62d
224		Final CPT (Primary Calibration)	6d
225		Data Review (Calibration)	1d
226		Weight & CG	2d
227		Ship PSR Data Package	10d
228		Red Time (A2 Top Assy) (BLT)	0d
229	1356038-1	**EOS-A2 Shipping Config**	**21d**
230		Kit Release (RR - LT)	4d
232		Clean Shipping Container	3d
233		Inspect & Purge Shipping Container	2d
234		Clean Instrument	3d
235		Inspect Instrument for Cleanliness	1d
236		Load Unit In Shipping Container (Witness)	1d
237		Seal & Inspect Shipping Container	1d
238		PSR	2d
239		Red Time (A2 Top Assy - Prog Mgt) (BLT)	54d
240		SHIP EOS-A2 INSTRUMENT (5/28/98)	0d



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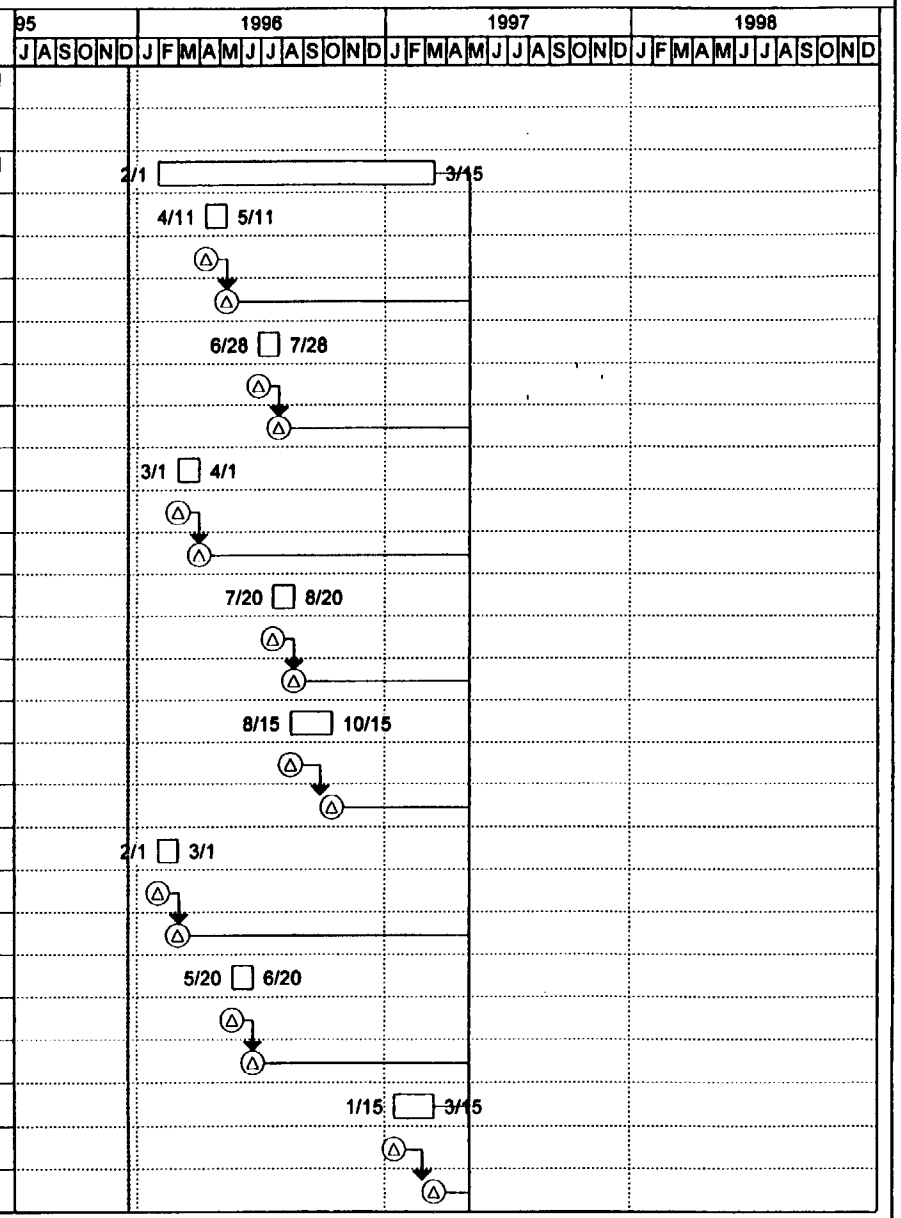
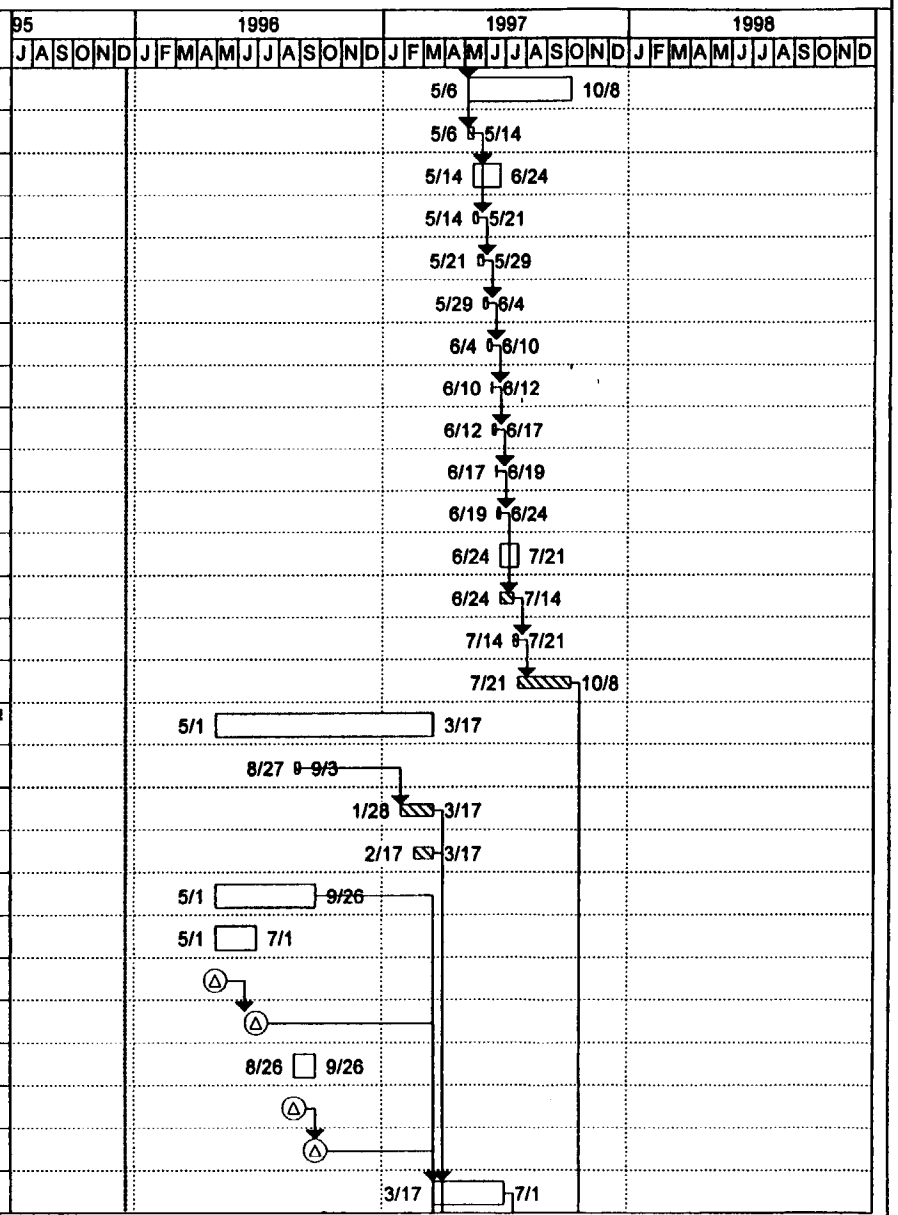
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
		METSAT1 A1	663d
1		RECEIVER PRODUCT TEAM	1d
2		**Major Subs for A1-2 Receiver Assy**	221d
3	1331559-2	**Bandpass Filters**	16d
4		BP Filter Vendor	0d
5		BP Filter Dock-to-Stock	0d
6	1331507	**5-Port Multiplexer**	16d
7		5-Port MUX Vendor	0d
8		5-Port MUX Dock-to-Stock	0d
9	1356680-1,2,	**Isolators**	17d
10		Isolator Vendor	0d
11		Isolator Dock-to-Stock	0d
12	1331516	**IF Attens**	18d
13		IF Atten Vendor	0d
14		IF Atten Dock-to-Stock	0d
15	1331562-13,	**Mixer/Amps**	33d
16		Mix/Amp Vendor	0d
17		Mix/Amp Dock-to-Stock	0d
18	1331509-1	**Waveguide Attens**	16d
19		W/G Atten Vendor	0d
20		W/G Atten Dock-to-Stock	0d
21		**Beryllium Shelf**	18d
22		Be Shelf Vendor	0d
23		Be Shelf Dock-to-Stock	0d
24	1356610-3,4,	**DROs**	33d
25		DRO Vendor	0d
26		DRO Dock-to-Stock	0d



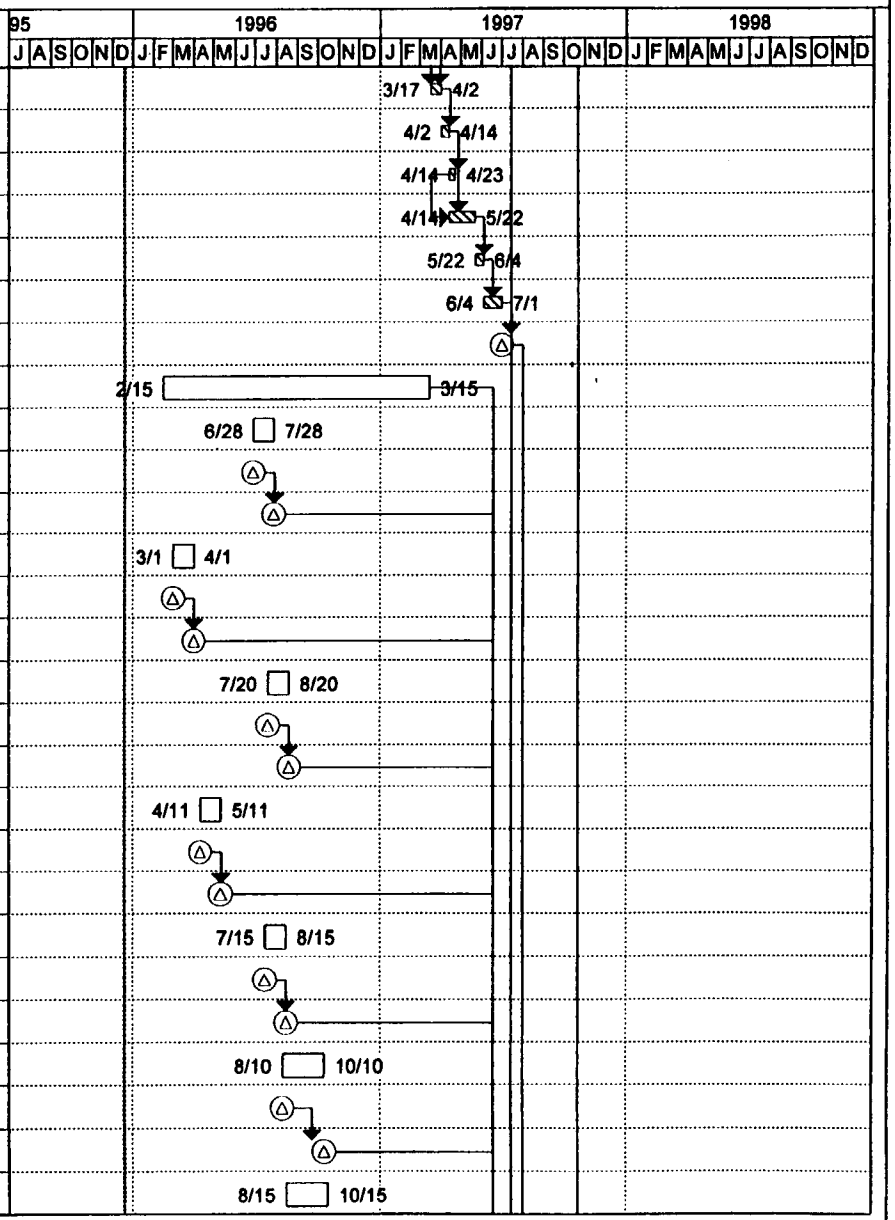
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
27	1356409-1	**Receiver Assy, A1-2**	86d
28		Kit Release (RR - LT)	5d
30		**Final Shelf Assy**	22d
31		DRO/Waveguide Attenuator Test	4d
32		ID and Install RF Components	4d
33		Install Temp Sensor, Term Bd, Wire Mount	3d
34		Wire	3d
35		Insp & NASA Insp	2d
36		Fab SMA Cables	2d
37		VSWR Test	2d
38		Clean & Spot Bond	2d
39		**Test & Final Inspection**	14d
40		Shelf Test	10d
41		Final Insp & NASA Insp	4d
42		Red Time (A1-2 Receiver Assy) (BLT)	45d
43		**PLO Subassys & Subcontracts**	#####
44		Draw SMT CCAs from Stock (see EOS-A1 Build)	4d
45	1348400-1	DRO Assy	27d
46	1348420-1	Regulator CCA	16d
47		**Major Subs**	82d
48		**TCXO**	33d
49		TCXO Vendor	0d
50		TCXO Dock-to-Stock	0d
51		**VCGDO**	18d
52		VCGDO Vendor	0d
53		VCGDO Dock-to-Stock	0d
54	1348360-1	**PLO Assy (2 each)**	60d



EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
55		Kit Release (RR - LT)	10d
57		PLO #2 Tune/Align/Assy	6d
58		PLO #1 Tune/Align/Assy	6d
59		PLO Electrical Performance	23d
60		PLO Vibration	6d
61		PLO Thermal/Vacuum Test	15d
62		Red Time (PLO Assy) (BLT)	0d
63		**Major Subs for A1-1 Receiver Assy**	213d
64	1331546-1	**5-Port Multiplexer**	15d
65		5-Port MUX Vendor	0d
66		5-Port MUX Dock-to-Stock	0d
67	1356680-4,5,	**Isolators**	17d
68		Isolator Vendor	0d
69		Isolator Dock-to-Stock	0d
70	1331516	**IF Attenuators**	18d
71		IF Atten Vendor	0d
72		IF Atten Dock-to-Stock	0d
73	1331559-1	**Bandpass Filters**	16d
74		BP Filter Vendor	0d
75		BP Filter Dock-to-Stock	0d
76	1331554-1	**Hybrid Tee**	19d
77		Hybrid Tee Vendor	0d
78		Hybrid Tee Dock-to-Stock	0d
79	1356669/70	**Power Dividers**	35d
80		Pow Div Vendor	0d
81		Pow Div Dock-to-Stock	0d
82	1331562-16,	**Mixer Amps**	33d



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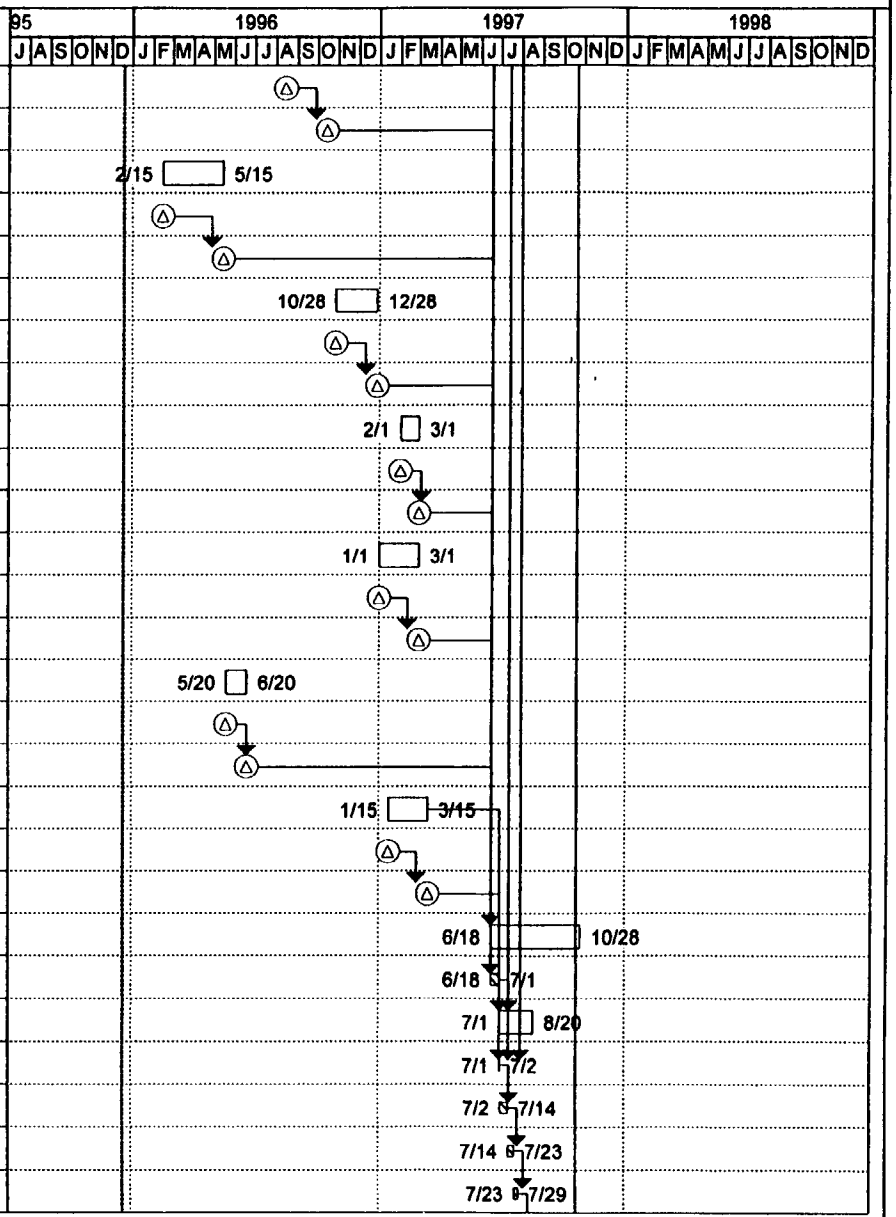
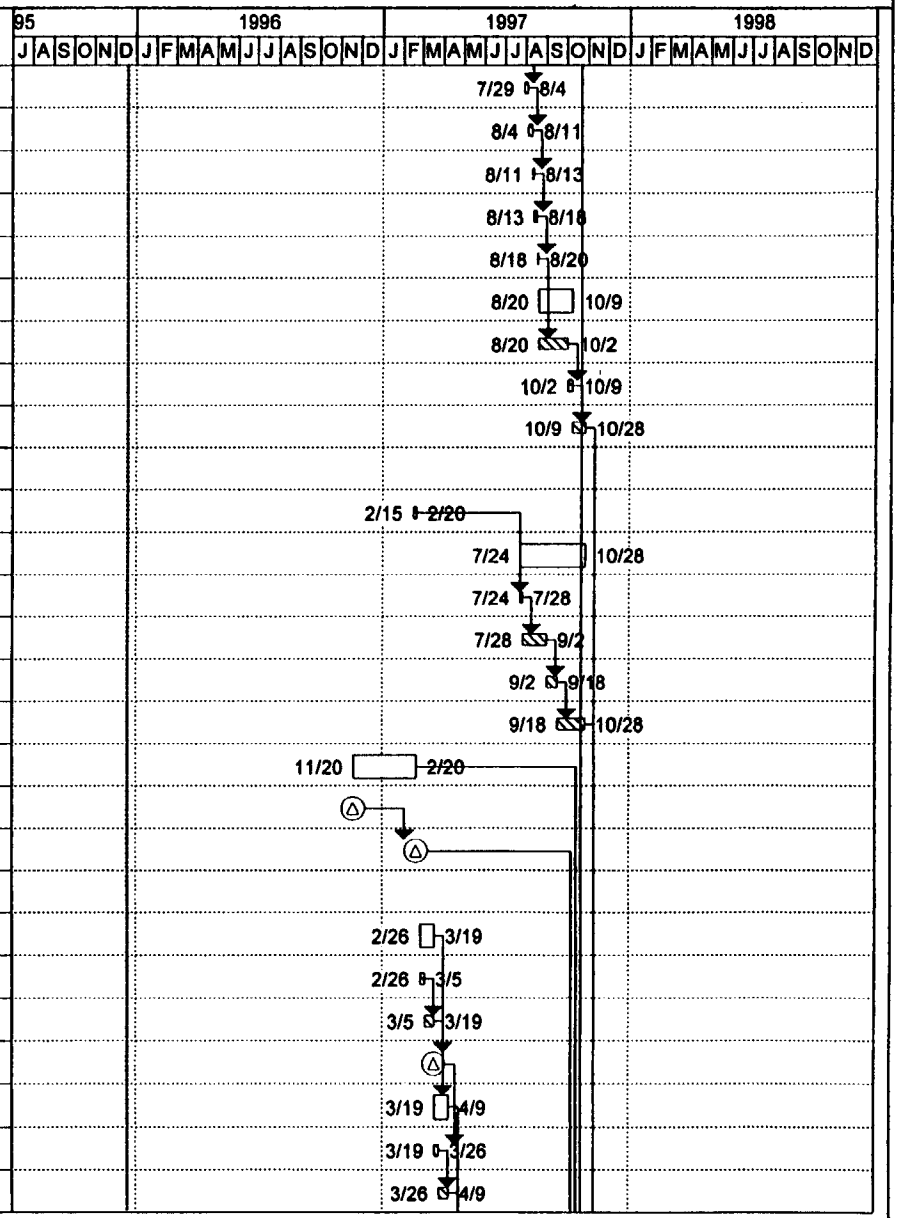
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
83		Mix/Amp Vendor	0d
84		Mix/Amp Dock-to-Stock	0d
85	1331576-1	**Saw Filters**	51d
86		Saw Filt Vendor	0d
87		Saw Filt Dock-to-Stock	0d
88	1331579-7	**IF Amplifier**	31d
89		IF Amp Vendor	0d
90		IF Amp Dock-to-Stock	0d
91	1331509/10	**Waveguide Atten**	16d
92		W/G Atten Vendor	0d
93		W/G Atten Dock-to-Stock	0d
94		**89GHz GDO (Channel 15)**	32d
95		GDO Vendor	0d
96		GDO Dock to Stock	0d
97		**Beryllium Shelf**	18d
98		Be Shelf Vendor	0d
99		Be Shelf Dock-to-Stock	0d
100	1356610-6,7,	**DRO**	33d
101		DRO Vendor	0d
102		DRO Dock-to-Stock	0d
103	1356429-1	**Receiver Assy, A1-1**	#####
104		Kit Release (RR - LT)	7d
106		**Final Assemble**	28d
107		ID Components & Shelf	1d
108		DRO/Waveguide Attenuator Test	5d
109		Install RF Components	6d
110		Install Temp Sensor, T/B & Wire Mnts	3d



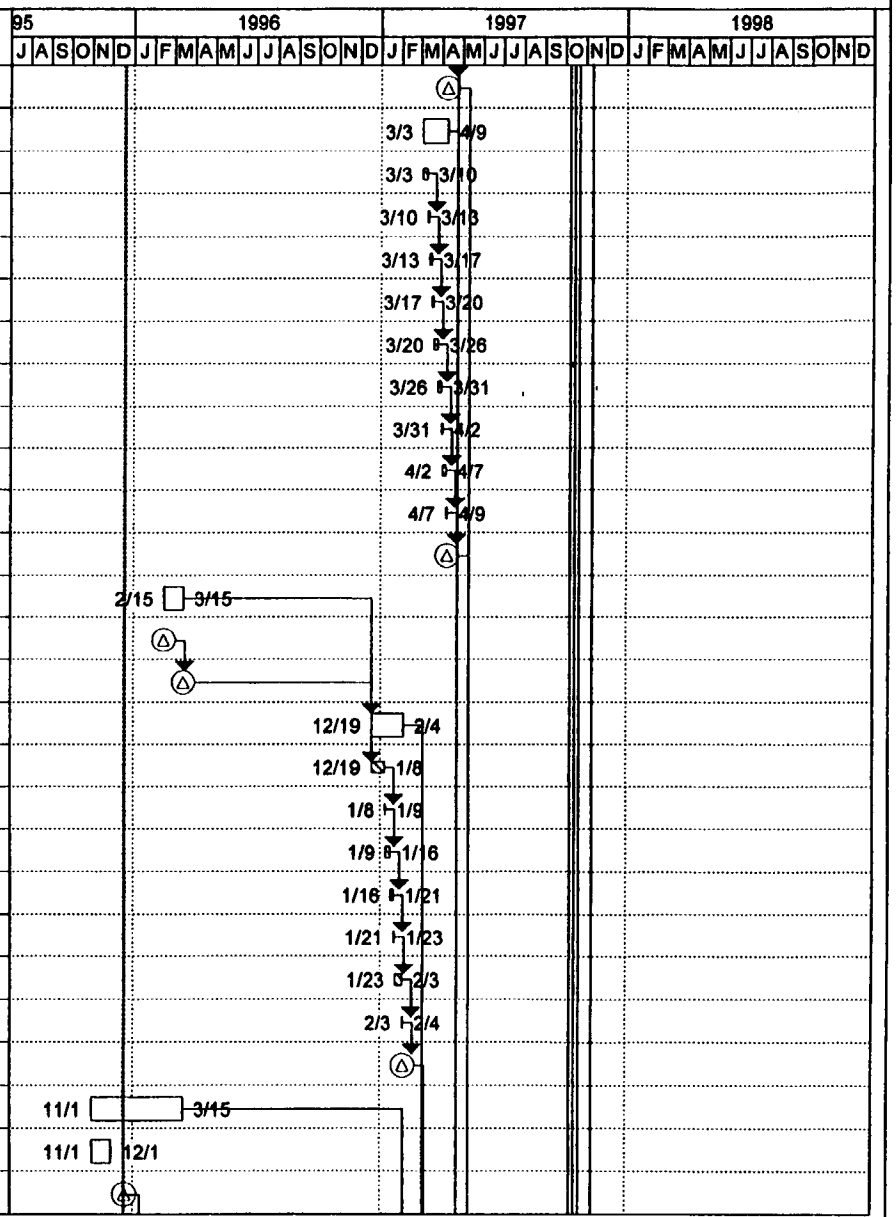
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
111		Wiring	3d
112		Insp & NASA Insp	4d
113		Fab SMA Cables	2d
114		VSWR Test	2d
115		Clean & Spot Bond	2d
116		**Test & Final Inspection**	**28d**
117		Test	24d
118		Final Insp & NASA Insp	4d
119		Red Time (A1-1 Receiver Assy) (BLT)	10d
120		ELECTRONIC PRODUCT TEAM	1d
121		Draw all Subsystems from Stock (see EOS-A1 Build)	4d
122	1331670-2	**Signal Processing Assy**	**53d**
123		Kit Parts (RR - LT)	1d
125		Integrate & Checkout	20d
126		Test	10d
127		Red Time (A1 Signal Processor) (BLT)	22d
128	1366010-1	**DC/DC Converter**	**45d**
129		Vendor Commit	0d
130		Dock-Stock	0d
131		ANTENNA PRODUCT TEAM	1d
132	1331381-1	**Warmload (2)**	**12d**
133		Kit Parts (RR - LT)	4d
134		Assembly (LT)	8d
135		Red Time (BLT)	0d
136	1331380-1	**Calibration Source (2)**	**12d**
137		Kit Parts (RR - LT)	4d
138		Assembly (LT)	8d



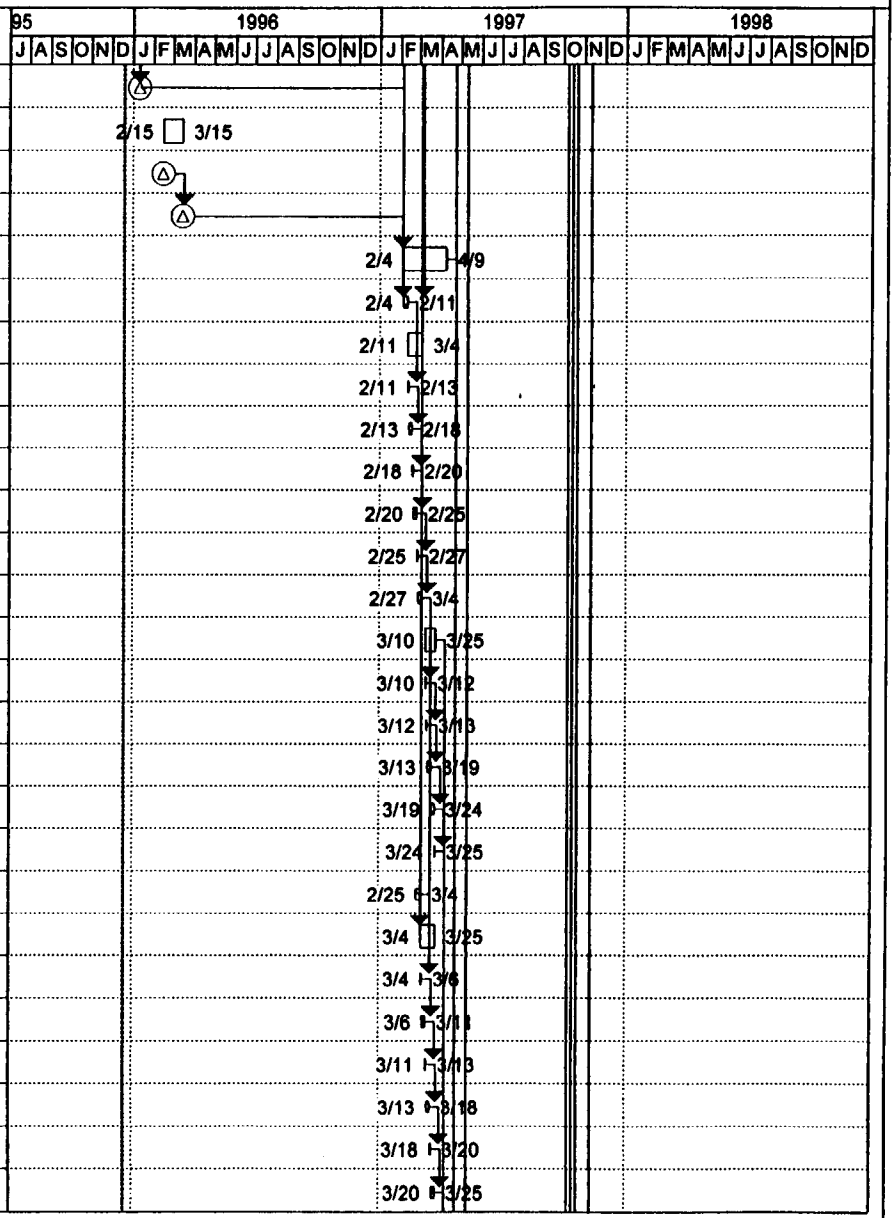
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
139		Red Time (BLT)	0d
140	1331351-1	**Antenna Subassy, Machined**	22d
141		Kit Parts (RR - LT)	4d
143		Assy Up/Low Struct, Square, Torque, Verify	3d
144		Drill & Pin all Panels	1d
145		Install, Machine, & Verify Isolators	3d
146		Machine Upper Motor Mount & Alignment Cube, Inspect	3d
147		Machine Low Motor Mount, Touchup w/Alodyne	2d
148		Install Inserts, Clean & Apply Gold Tape	2d
149		ID the Assy	2d
150		Final Inspect/NASA Insp	2d
151		Red Time (A1 Antenna Subassy, Mach) (BLT)	0d
152	1333667-1	**Bearings**	16d
153		Bearing Vendor LT	0d
154		Bearings Dock-Stock	0d
155	1333647-1	**Rotating Assys (2)**	19d
156		Kit Parts (RR - LT)	4d
157		Apply Flourad	1d
158		Install & Inspect Bearings	4d
159		Install Dowel Pin In Shaft	2d
160		Apply Flourad & ID the Assy	2d
161		Torque Breakaway Test (Ambient & Cold)	5d
162		Final Inspect	1d
163		Red Time (A1 Rotating Assys) (BLT)	0d
164		**Major Subs**	71d
165	1331529-1	**Resolvers**	16d
166		Resolver LT	0d



EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
167		Resolver Dock-Stock	0d
168	1331392-1	**Motors**	16d
169		Motor Vendor LT	0d
170		Motor Dock-Stock	0d
171	1333640-1,2	**Drive Assy, Reflectors (2)**	37d
172		Kit Release (A1-1) (RR - LT)	4d
174		**Assemble (A1-1)**	12d
175		Install Resolver & Motor, Inspect	2d
176		Bond	2d
177		Wire	2d
178		Inspect & NASA Insp Wiring	2d
179		Install Cover/Torque, ID Assy	2d
180		Inspect/NASA Inspect	2d
181		**Test (A1-1)**	9d
182		Test Reflector Drive Motor Assy	2d
183		QE/Inspection Verify Test Data	1d
184		Random Vibration Test	3d
185		Verify Motor Operation	2d
186		QE Data Rev, Insp, NASA Insp	1d
187		Kit Release (A1-2) (RR - LT)	4d
189		**Assemble (A1-2)**	12d
190		Install Resolver & Motor, Inspect	2d
191		Bond	2d
192		Wire	2d
193		Inspect & NASA Insp Wiring	2d
194		Install Cover/Torque, ID Assy	2d
195		Inspect/NASA Insp	2d



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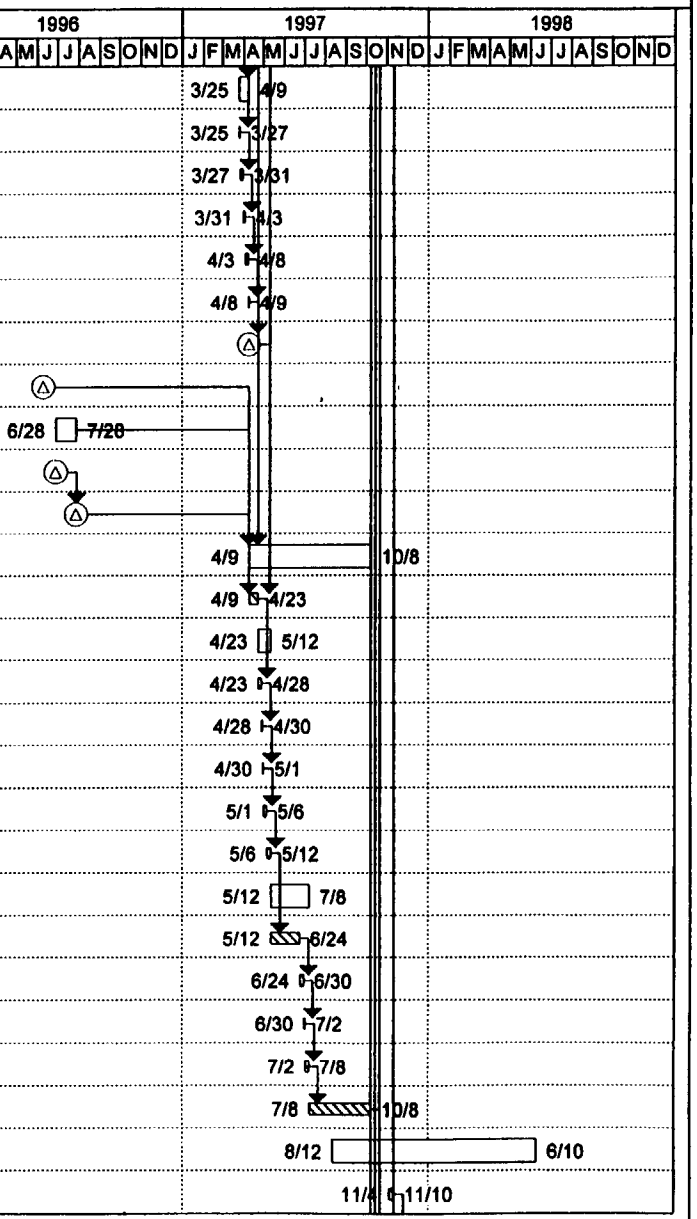
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
196		**Test (A1-2)**	9d
197		Test Reflector Drive Motor Assy	2d
198		QE/Inspection Verify Test Data	1d
199		Random Vibration Test	3d
200		Verify Motor Operation	2d
201		QE Data Rev, Insp, NASA Insp	1d
202		Red Time (A1 Drive Assys, Reflector (BLT)	0d
203		Receive Reflector Assy 1355777-1 From M/S	0d
204		**Feedhorn**	15d
205		Feedhorn Vendor	0d
206		Feedhorn Dock-to-Stock	0d
207	1331400-2	**A1 Antenna Assy**	101d
208		Kit Release (RR - LT)	8d
210		**Assembly**	10d
211		Install Tube Brackets & Align Cube	2d
212		ID Unit & Bond Wire Mounts/Grommets	2d
213		Inst Drive Assemblies	1d
214		Install, Align & Pin Feedhorns & Inspect	2d
215		Install/Align Reflectors & Inspect	3d
216		**Antenna Range Testing & Final Assy**	31d
217		Subassy Pattern Test	24d
218		Drill/Pin Drive Motors, Install Warmloads, Inspect	3d
219		Verify all Torque & Add Wet Bends	2d
220		Final Assy, Insp, NASA Insp	2d
221		Red Time (A1 Antenna Assy) (BLT)	52d
222		**A1 Top Assy - Blanket & Mirror Panel Assys**	#####
223		Kit Release (RR-LT)	4d



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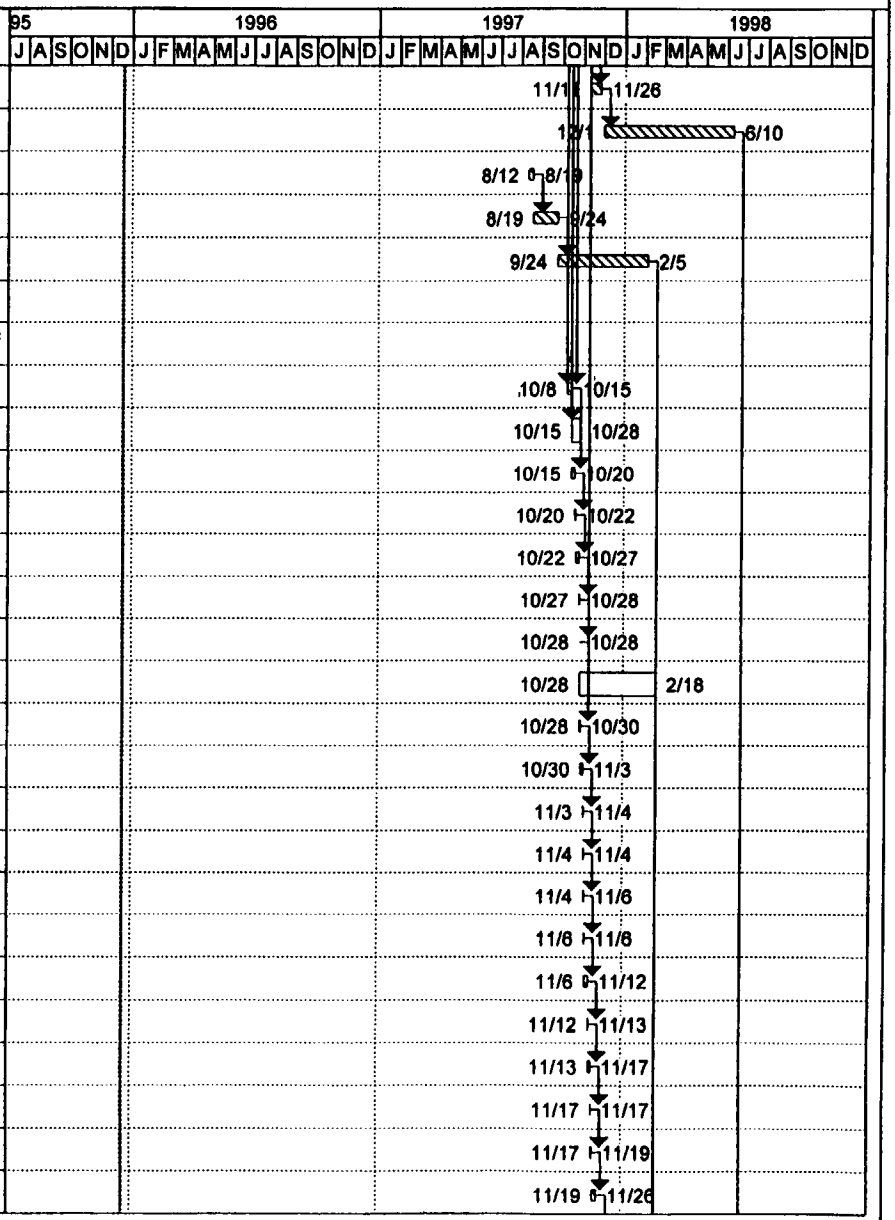
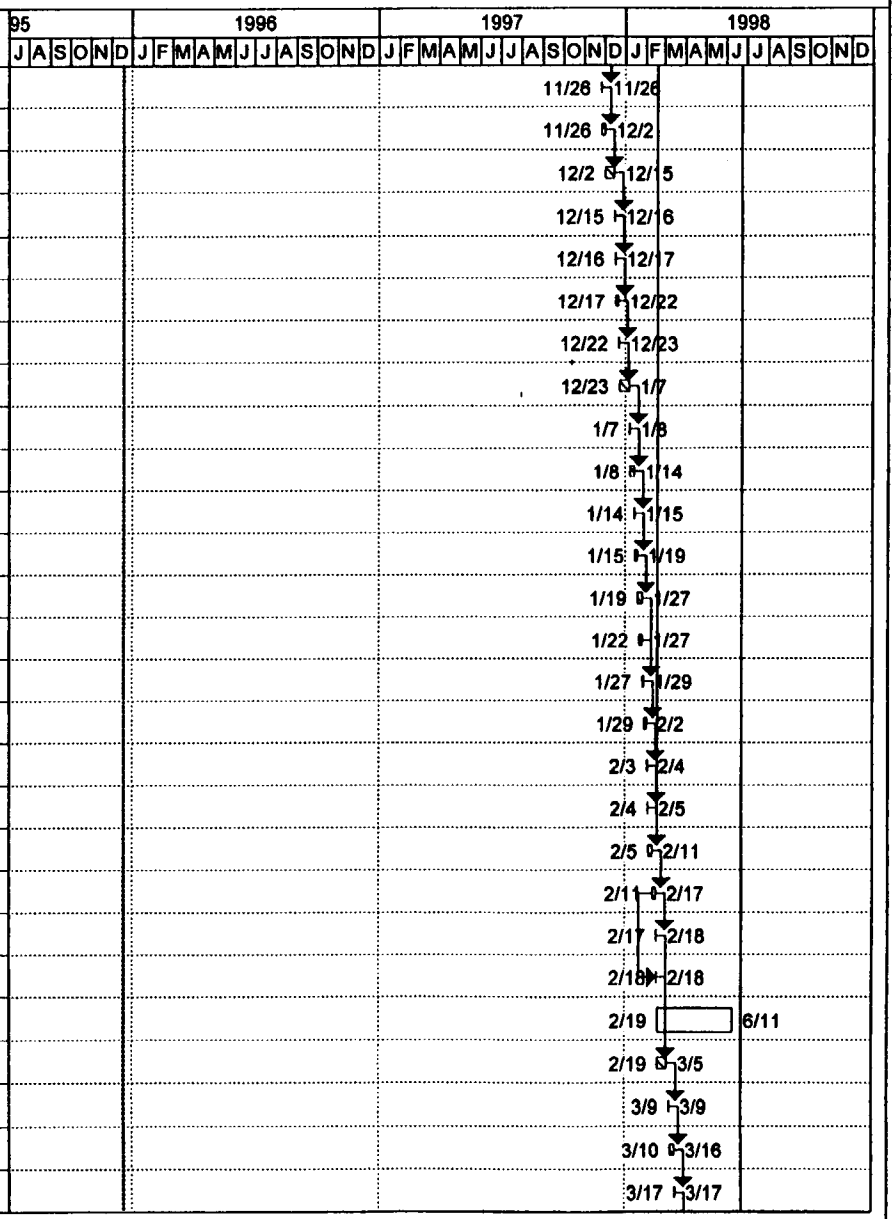
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
224	1331626-2,9	Assemble Insulating Blanket Assemblies	10d
225	1331626-2,9	Red Time (A1 Blanket Assys) (BLT)	104d
226		Kit Release (RR-LT)	4d
227	131257-6,7,1	Assemble Mirror Panel Assemblies	20d
228	131257-6,7,1	Red Time (A1 Mirror Panel Assys)) (BLT)	70d
229		SEIT PRODUCT TEAM	1d
230	1331720-2	**METSAT-A1 Top Assembly Integration & Test**	#####
231		Kit Parts (RR - LT)	4d
233		**Prelim Integration (Pre-Receiver/Sig Processor)**	7.05d
234		Bond Grommet, Temp Sensors, Term Bds, Inspect	1.76d
235		Install Cable Assemblies	2.35d
236		Install DC/DC Converter & Power Ctrl Assy	1.76d
237		Continuity Test	0.59d
238		Inspect/NASA Inspect Workmanship	0.59d
239		**Instrument Integration & Test**	#####
240		Align Rivet A1-1 Receivers & Inspect	1.76d
241		Wire A1-1 & A1-2 Receivers	1.18d
242		Continuity Test	0.59d
243		Inspect/NASA Inspect Receiver Wiring	0.59d
244		Align/Rivet A1-2 Receiver & Inspect	1.18d
245		Install Test Panels	0.59d
246		Fab, Condition, Test, Inspect Coax Cables	2.94d
247		Install "Clamshell"	0.59d
248		Crit Wiring Isol (Continuity) Test	1.18d
249		QE Data Rev, Insp/NASA Insp (Crit Wiring Isol)	0.59d
250		System Integration (Ambient) Test	1.76d
251		DRO Bias/Frequency & Bandpass Test	3.53d



EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
252		QE Data Rev, Insp/NASA Insp (DRO Bias Tests)	0.59d
253		System Integration (Ambient) Tests	1.76d
254		Drive Subsystem Test	7.06d
255		Inspect/NASA Inspect CCAs	1.18d
256		Signal Processor CPT	1.18d
257		QE Data Rev, Inspect/NASA Insp (DRV/S/P Tests)	1.18d
258		Temp Connect Preamp/Coax, Bond Wiring	1.18d
259		Gain & Offset Tests	2.94d
260		QE Data Rev, Insp/NASA Insp (Gain & Offset Tests)	1.18d
261		PRT Calibration Tests (2 Shifts)	3.53d
262		QE Data Review (PRT Calibration)	0.59d
263		Reassemble for Evaluation CPT	1.18d
264		Evaluation CPT	4.71d
265		Sub Shop Order Prep	2.35d
266		Sub Touch-Up Conformal Coat CCAs	2.35d
267		Sub Inspect/NASA Inspect CCAs	1.18d
268		Sub Install CCAs & Inspect Subassys	1.18d
269		Sub Final Inspection & Final NASA Buyoff	1.18d
270		Reassemble for Baseline CPT	3.53d
271		Comprehensive Perf Test (Baseline)	2.35d
272		QE Data Rev, Insp/NASA Insp (Baseline)	1.76d
273		PER	1d
274		**Instrument Accept Tests**	64d
275		EMI/RFI & Mag Field Tests	9d
276		Data Review (EMI Tests)	1d
277		Random Vib/LPT	4d
278		Data Review (Random Vib Tests)	1d



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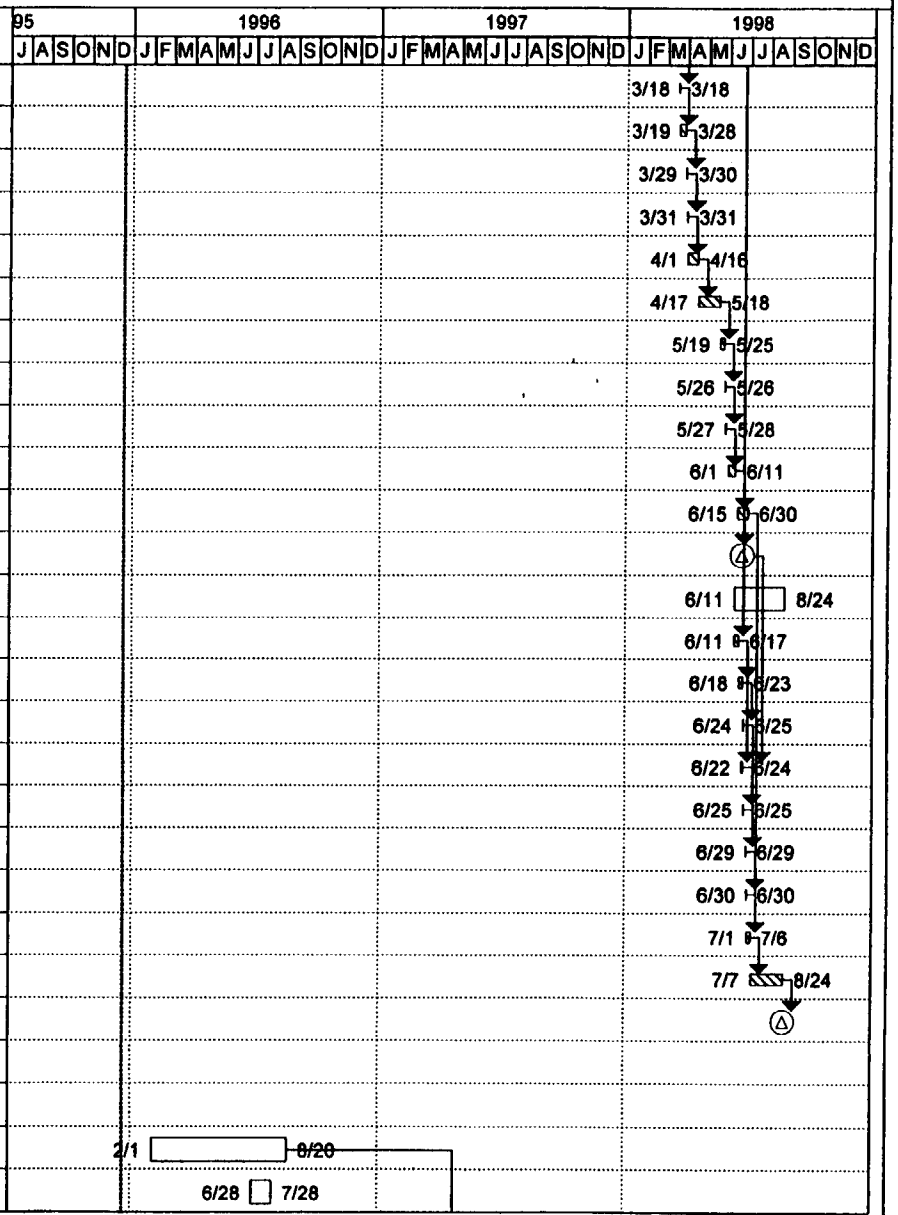
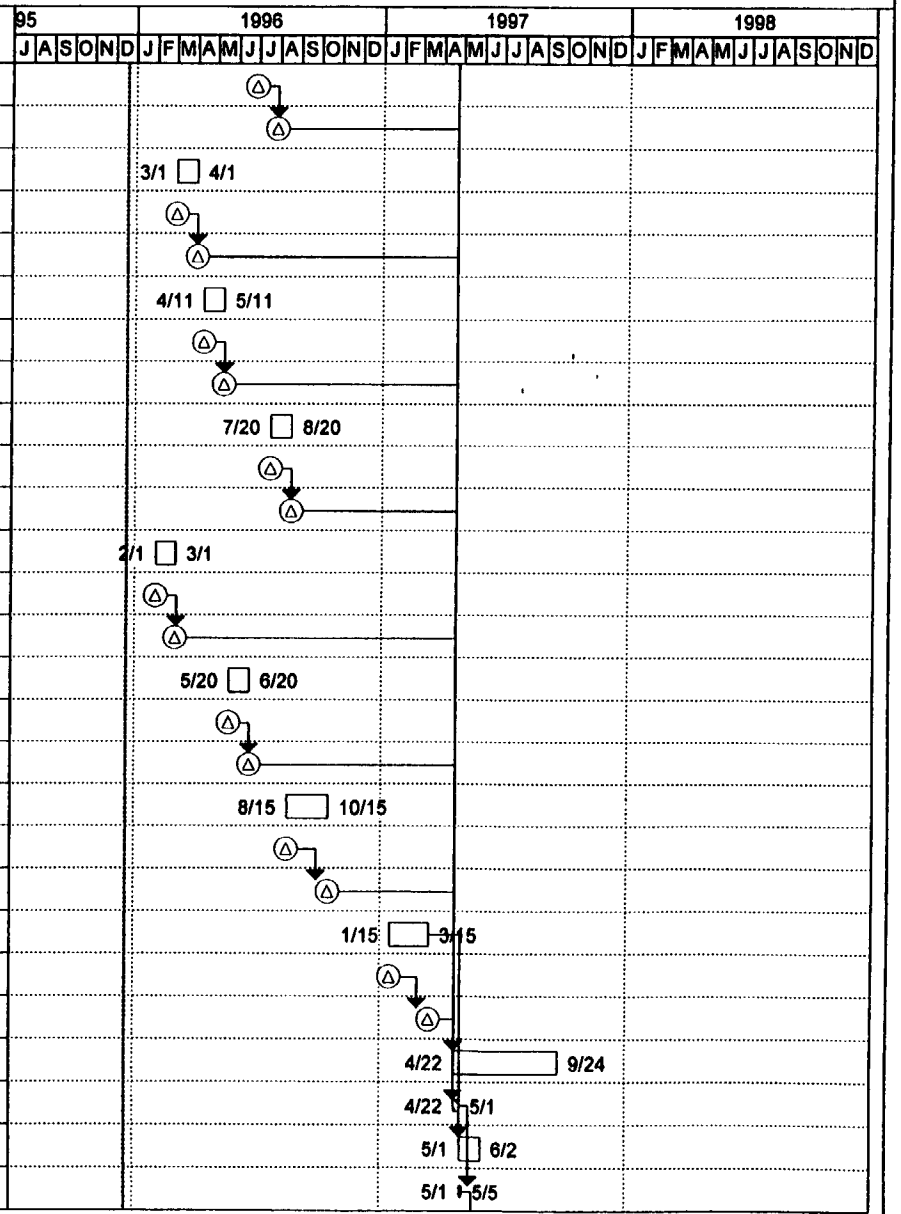
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
279		Sub CPT, Post-Vib Inspect & NASA Inspect	1d
280		Thermal Cycle (Incl Setup)	10d
281		Sub CPT (Thermal Cycle)	2d
282		Data Review (Thermal Cycle)	1d
283		Thermal Balance Test (Incl 8d setup)	16d
284		Primary Calibration (Turbo)	32d
285		Final CPT (Primary Calibration)	7d
286		Data Review (Calibration)	1d
287		Weight & CG	2d
288		Momentum Compensation Test	8d
289		Ship PSR Data Package	10d
290		Red Time (A1 Top Assy - Integ & Test) (BLT)	0d
291	1338395-2	**METSAT-A1 Shipping Config**	**41d**
292		Kit Release (RR - LT)	4d
294		Clean Shipping Container	3d
295		Inspect & Purge Shipping Container	2d
296		Clean Instrument	3d
297		Inspect Instrument for Cleanliness	1d
298		Load Unit In Shipping Container (Witness)	1d
299		Seal & Inspect Shipping Container	1d
300		PSR	2d
301		Red Time (A1 Ship Config) (BLT)	28d
302		SHIP METSAT1-A1 INSTRUMENT (8/24/98)	0d
		METSAT1 A2	663d
1		RECEIVER PRODUCT TEAM	1d
2	Various	**Major Subs**	**112d**
3	1331084	Diplexer	15d



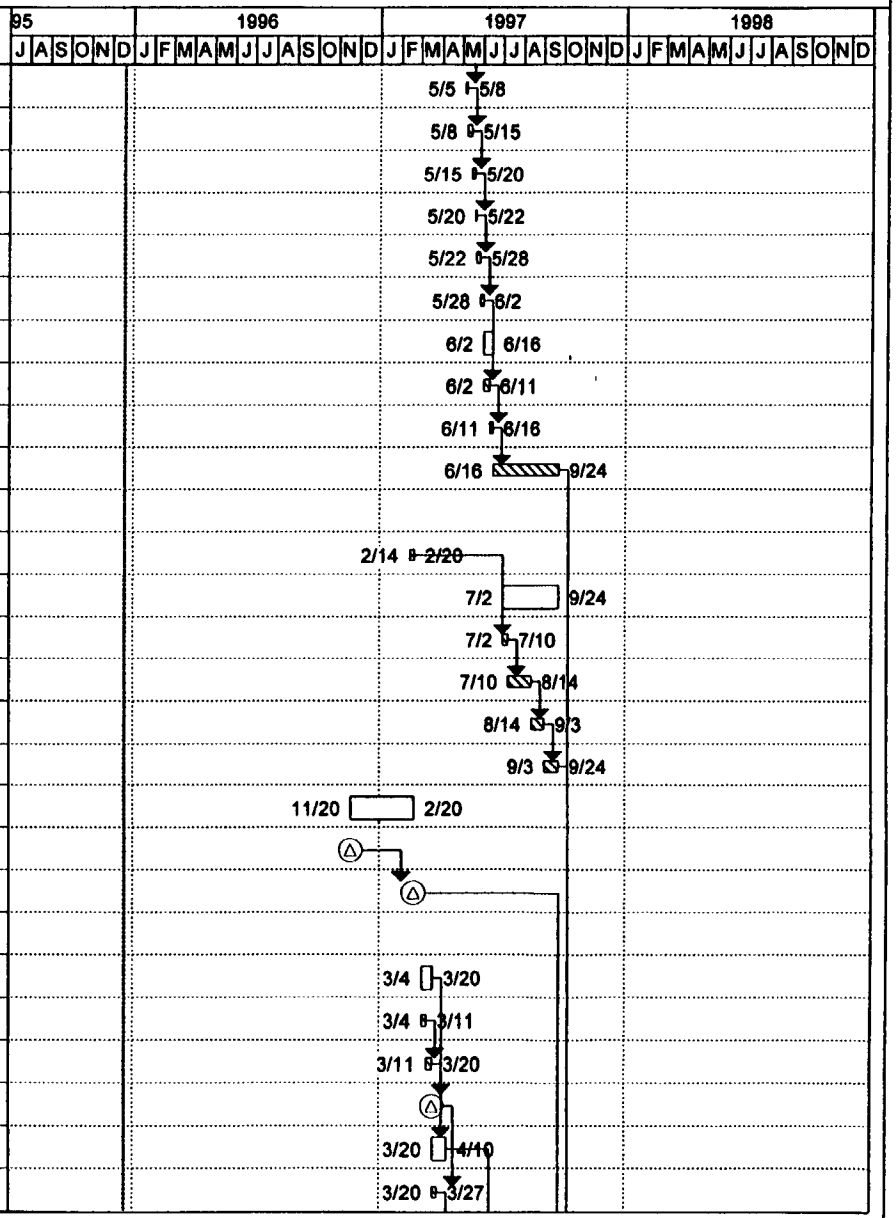
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
4		Diplexer Vendor	0d
5		Diplexer Dock-to-Stock	0d
6	1331111-2,2-	**Isolators**	17d
7		Isolator Vendor	0d
8		Isolator Dock-to-Stock	0d
9	1331559-3,6	**Bandpass Filters**	16d
10		BP Filter Vendor	0d
11		BP Filter Dock-to-Stock	0d
12	1331516	**IF Attenuators**	18d
13		IF Atten Vendor	0d
14		IF Atten Dock-to-Stock	0d
15	1331100-1,2	**Waveguide Atten**	16d
16		W/G Atten Vendor	0d
17		W/G Atten Dock-to-Stock	0d
18		**Beryllium Shelf**	18d
19		Be Shelf Vendor	0d
20		Be Shelf Dock-to-Stock	0d
21	1331562-11,	**Mixer Amps**	33d
22		Mix/Amp Vendor	0d
23		Mix/Amp Dock-to-Stock	0d
24	1336610-1,2	**DRO**	33d
25		DRO Vendor	0d
26		DRO Dock-to-Stock	0d
27	1356441-1	**Receiver Assy, A2**	86d
28		Kit Release (RR - LT)	6d
30		**Final Assemble**	16d
31		ID Components & Shelf	1d



EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
32		DRO/Waveguide Attenuator Test	3d
33		Install RF Components	4d
34		Install Temp Sensor, T/B & Wire Mnts	2d
35		Wiring	2d
36		VSWR Test	2d
37		Clean & Spot Bond	2d
38		**Test & Final Inspection**	8d
39		Test	6d
40		Final Insp & NASA Insp	2d
41		Red Time (A2 Receiver Assy) (BLT)	56d
42		ELECTRONIC PRODUCT TEAM	1d
43		Draw from Stock (See EOS-A1 Build)	4d
44	1356412-1	**Signal Processing Assy**	46d
45		Kit Parts (RR - LT)	4d
47		Integrate & Checkout	20d
48		Test	10d
49		Red Time (A2 Signal Processor Assy) (BLT)	12d
50	1356010-1	**DC/DC Conv**	45d
51		Vendor Commit	0d
52		Dock-Stock	0d
53		ANTENNA PRODUCT TEAM	1d
54	1331236-1	**Warmload**	10d
55		Kit Parts (RR - LT)	4d
56		Assembly (LT)	6d
57		Red Time (BLT)	0d
58	1331235-1	**Calibration Source**	12d
59		Kit Parts (RR - LT)	4d



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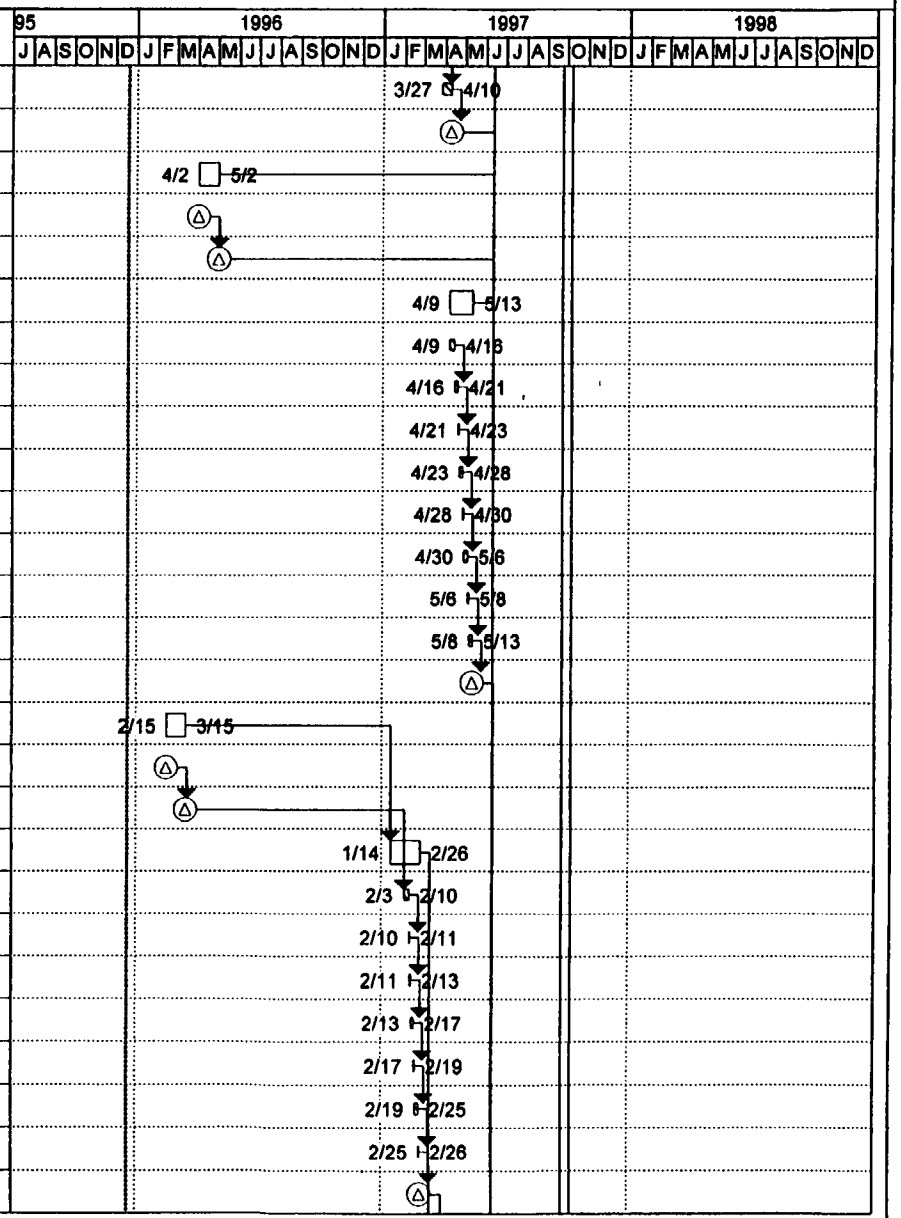
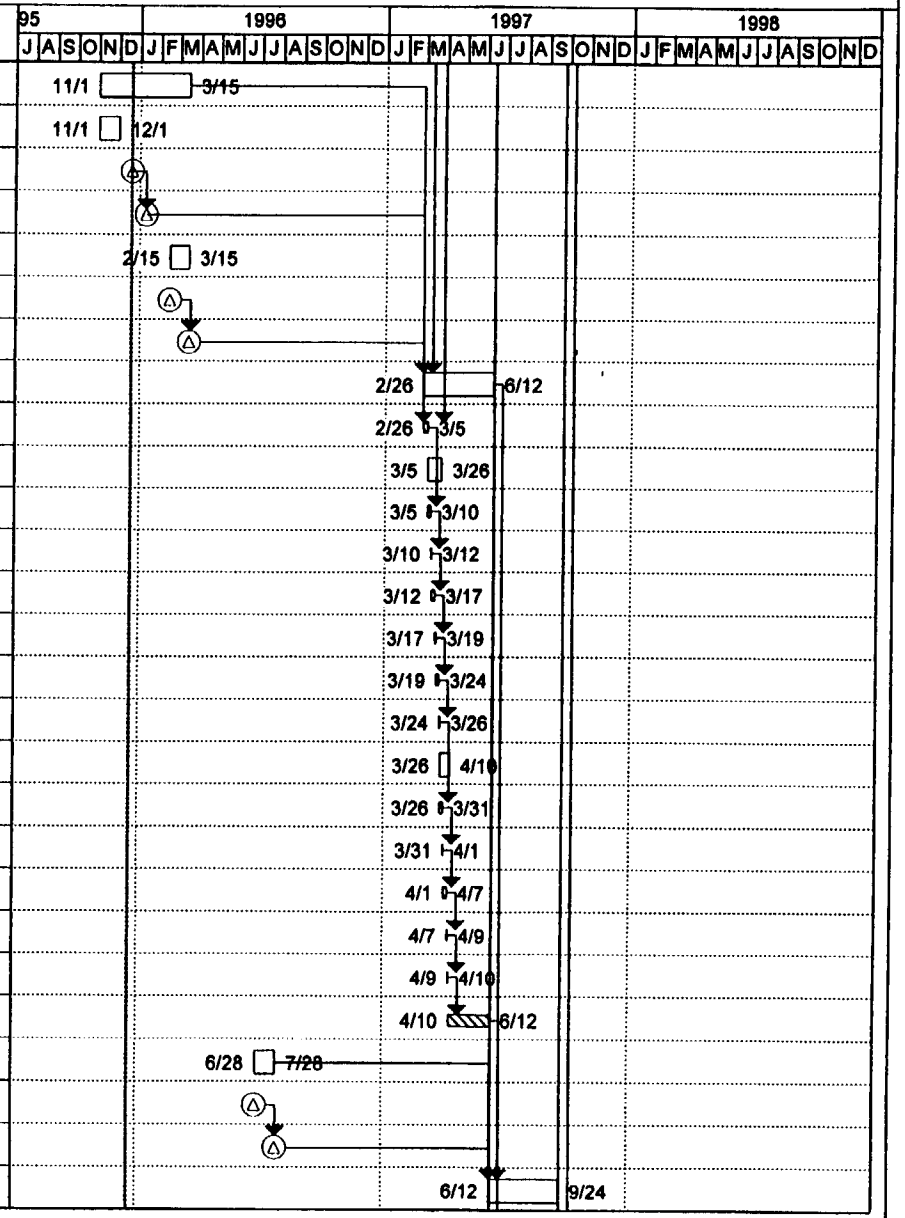
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
60		Assembly (LT)	8d
61		Red Time (BLT)	0d
62	1355835-1	**Composite Reflector**	18d
63		Vendor LT	0d
64		Dock-to-Stock	0d
65	1331303-1	**Antenna Subassy, Machined**	19d
66		Kit Parts (RR - LT)	4d
68		Assemble & Pin Structure	2d
69		Install & Machine Item 14 Spacer & Inspect	2d
70		Machine Item 13 Spacers & Verify	2d
71		Machine Item 15 Spacers & Verify	2d
72		Final Machine Structure & Inspect	3d
73		Touch-up w/Alodyne and Install Inserts	2d
74		ID the Assembly	2d
75		Red Time (A2 Antenna Subassy, Mach) (BLT)	0d
76	1333667-1	**Bearings**	16d
77		Bearing Vendor LT	0d
78		Bearings Dock-Stock	0d
79	1333651-1	**Rotating Assy**	25d
80		Kit Parts (RR - LT)	4d
82		Apply Flourad	1d
83		Install & Inspect Bearings	2d
84		Install Dowel Pin in Shaft	1d
85		Apply Flourad & ID the Assemble	2d
86		Torque Breakaway Test (Ambient & Cold)	3d
87		Final Inspect	1d
88		Red Time (A2 Rotating Assy) (BLT)	0d



EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
89	Various	**Major Subs**	71d
90	1331529-1	**Resolvers**	16d
91		Resolver LT	0d
92		Resolver Dock-Stock	0d
93	1333648-1	**Motors**	16d
94		Motor Vendor LT	0d
95		Motor Dock-Stock	0d
96	1333650-1	**Drive Assy, Reflector**	60d
97		Kit Release (RR - LT)	4d
99		**Assemble**	12d
100		Install Resolver & Motor, Inspect	2d
101		Bond Components	2d
102		Wire Components	2d
103		Inspect & NASA Insp Wiring	2d
104		Install Cover/Torque	2d
105		Inspect & NASA Insp	2d
106		**Test**	9d
107		Test Reflector Drive Motor Assy	2d
108		QE Data Review	1d
109		Random Vibration Test	3d
110		Verify Motor Operation	2d
111		Final Insp, NASA Insp	1d
112		Red Time (A2 Drive Assy, Reflector) (BLT)	35d
113		**Feedhorn Assembly**	15d
114		Feedhorn Vendor	0d
115		Feedhorn Dock-to-Stock	0d
116	1331210-3	**A2 Antenna Assy**	57d



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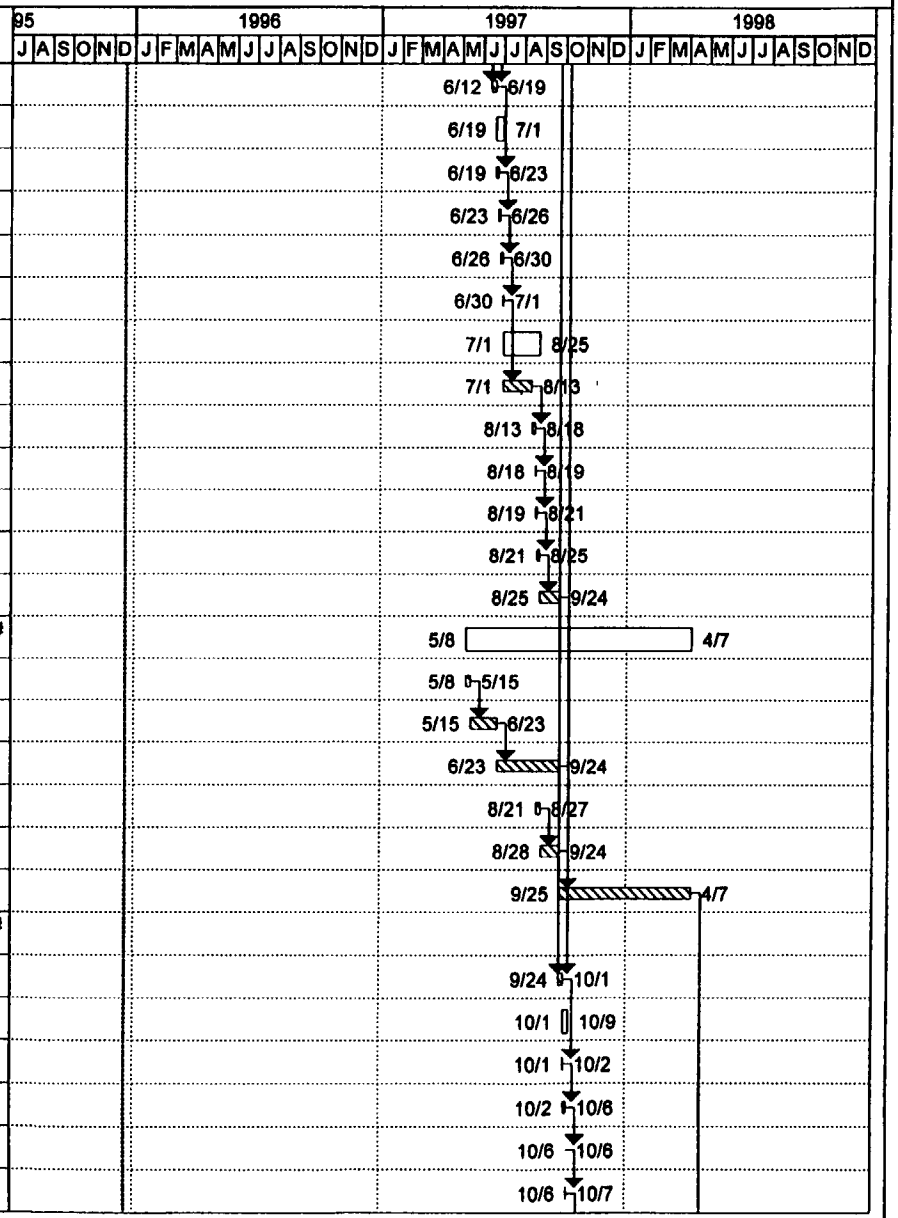
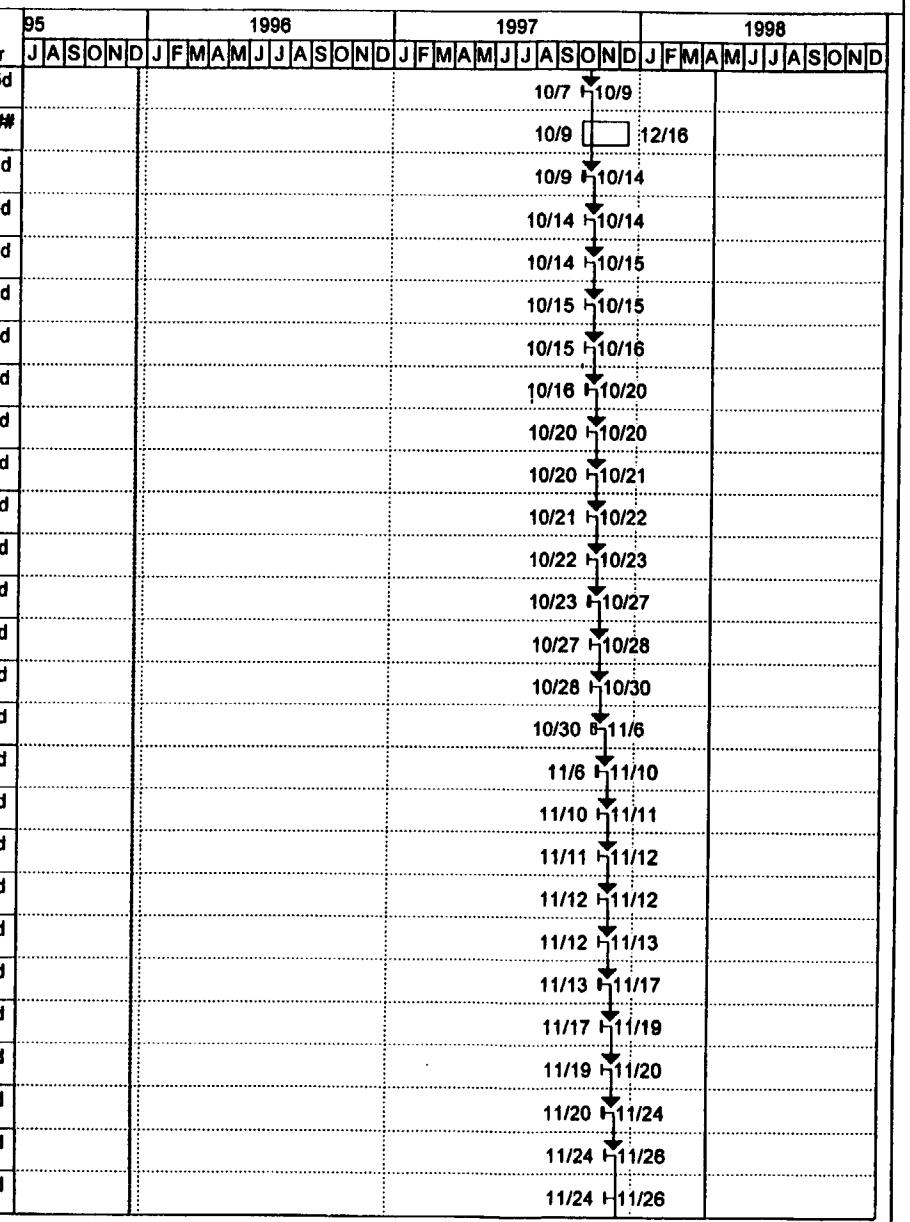
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
117		Kit Release (RR - LT)	4d
119		**Assembly**	**6d**
120		Install Cube, Feedhorn & Sec Reflector	1d
121		Optical Alignment and Inspection	3d
122		Drill/Pin Secondary Reflector	1d
123		Install Drive Motor, Reflector, Diplexer	1d
124		**Antenna Range Testing & Final Assy**	**30d**
125		Subassy Pattern Test	24d
126		Pin Drive Motor & Install Warmload	2d
127		Inspect Antenna Assy	1d
128		Bond Wiremounts & Identify	2d
129		Final Assy, Insp, NASA Insp	1d
130		Red Time (A2 Antenna Assy) (BLT)	17d
131		**A2 Top Assy - Compensator & Blanket Assys**	#####
132		Kit Release (RR-LT)	4d
133	1333660-1	Assemble Compensator Assembly	20d
134	1333660-1	Red Time (A2 Compensator Assy) (BLT)	52d
135		Kit Release (RR-LT)	4d
136	1331253-2/-5	Assemble Insulating Blanket Assemblies	15d
137	1331253-2/-5	Red Time (A2 Blanket Assys) (BLT)	104d
138	1356006-1	**METSAT-A2 Top Assembly - Integration & Test**	#####
139		Kit Parts (RR - LT)	4d
141		**Prelim Integration (Pre-Receiver/Sig Proc)**	**5.3d**
142		Install Cable Assys	1.18d
143		Continuity Check	0.59d
144		Install DC/DC Conv & Power Ctrl Assy	0.59d
145		Continuity Test	0.59d



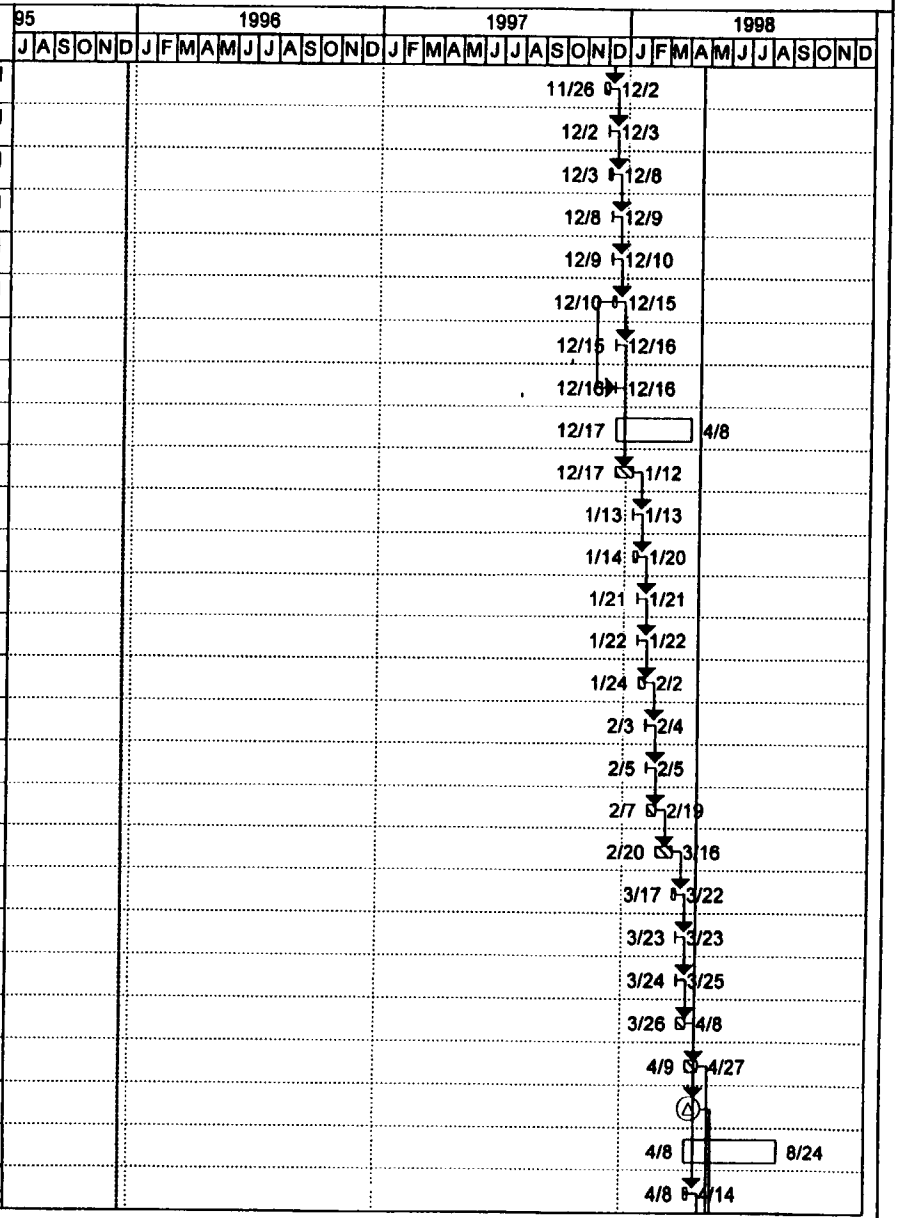
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
146		Instl Wrmld, Bond Grommts, T.B., Temp Sensors	2.35d
147		**Instrument Integration & Test**	#####
148		Install, Align/Rivet Receiver	1.18d
149		Inspect Riveting, Shim Block	0.59d
150		Solder Temp Sensor Leads	0.59d
151		Receiver Continuity Test	0.59d
152		Inspect/NASA Inspect Receiver Wiring	0.59d
153		Fab, Condition, Test, Inspect Coax Cables	0.59d
154		Antenna & Receiver Isol Test	0.59d
155		DC/DC Test, Crit Wiring Isol (Continuity) Test	1.18d
156		QE Data Rev, Insp/NASA Insp (Crit Wiring Isol)	0.59d
157		System Integration (Ambient) Test	1.18d
158		DRO Bias/Frequency & Bandpass Test	1.18d
159		QE Data Rev, Insp/NASA Insp (DRO Bias Tests)	0.59d
160		System Integration (Ambient) Tests	1.76d
161		Drive Subsystem Test	4.71d
162		Inspect/NASA Inspect CCAs	0.59d
163		Signal Processor CPT	1.18d
164		QE Data Rev, Inspect/NASA Insp (DRV/S/P Tests)	0.59d
165		Temp Connect Preamp/Coax, Bond Wiring	0.59d
166		Gain & Offset Tests	0.59d
167		QE Data Rev, Insp/NASA Insp (Gain & Offset Tests)	1.18d
168		PRT Calibration Tests (2 Shifts)	2.35d
169		QE Data Review (PRT Calibration)	0.59d
170		Reassemble for Evaluation CPT	0.59d
171		Evaluation CPT	2.35d
172		Sub Shop Order Prep	2.35d



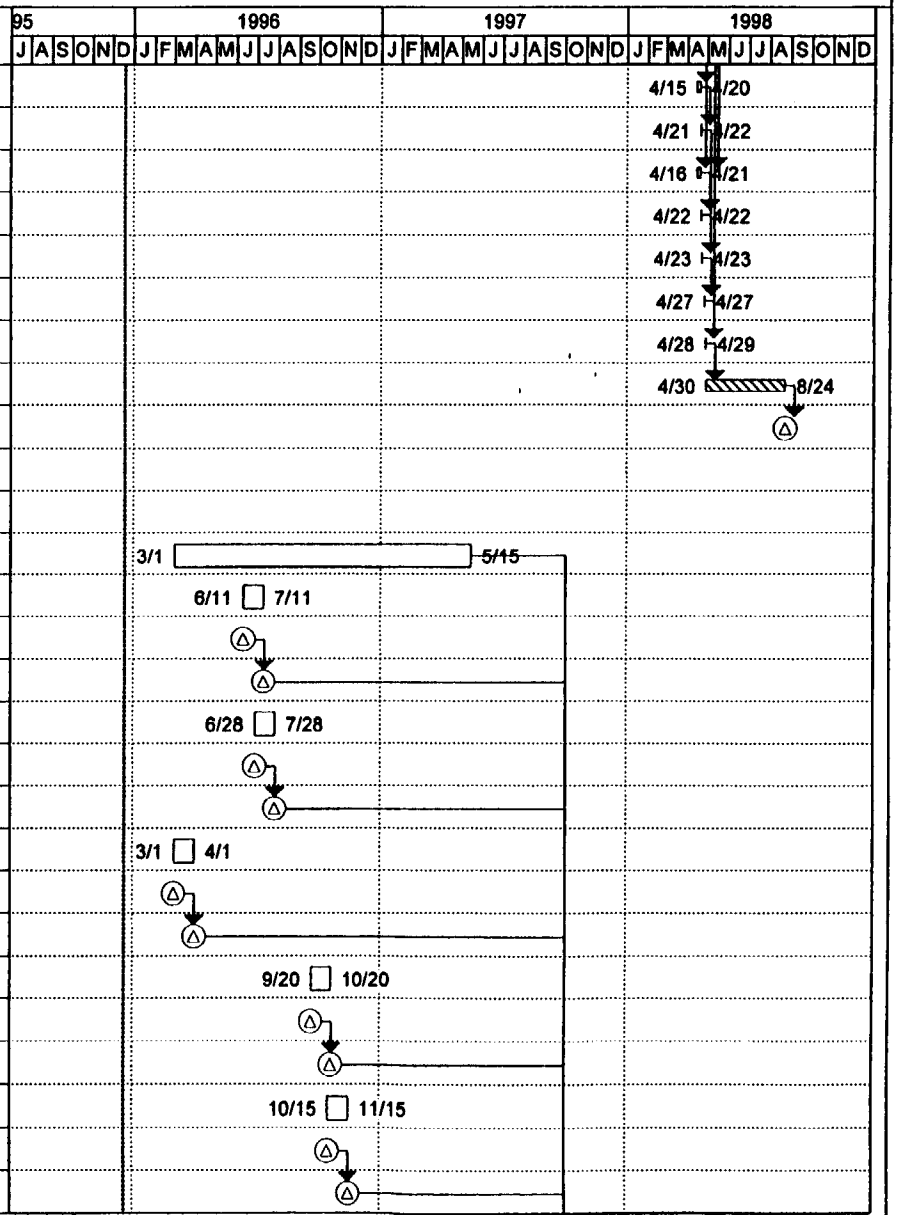
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
173		Sub Touch-Up Conformal Coat CCAs	2.35d
174		Sub Inspect/NASA Inspect CCAs	1.18d
175		Sub Install CCAs & Inspect Subassys	1.18d
176		Sub Final Inspection & Final NASA Buyoff	1.18d
177		Reassemble for Baseline CPT	1.18d
178		Comprehensive Perf Test (Baseline)	2.35d
179		QE Data Rev, Insp/NASA Insp (Baseline)	1.18d
180		PER	1d
181		**Instrument Accept Tests**	59d
182		EMI/RFI & Mag Field Tests	9d
183		Data Review (EMI Tests)	1d
184		Random Vib/LPT	4d
185		Data Review (Random Vib Tests)	1d
186		Sub CPT, Post-Vib Inspect & NASA Inspect	1d
187		Thermal Cycle (Incl Setup)	10d
188		Sub CPT (Thermal Cycle)	2d
189		Data Review (Thermal Cycle)	1d
190		Thermal Balance Test (Incl 5d setup)	13d
191		Primary Calibration (VC2)	25d
192		Final CPT (Primary Calibration)	6d
193		Data Review (Calibration)	1d
194		Weight & CG	2d
195		Momentum Compensation	8d
196		Ship PSR Data Package	10d
197		Red Time (A2 Top Assy - Integ & Test) (BLT)	0d
198	1356038-1	**METSAT-A2 Shipping Config**	77d
199		Kit Release (RR - LT)	4d



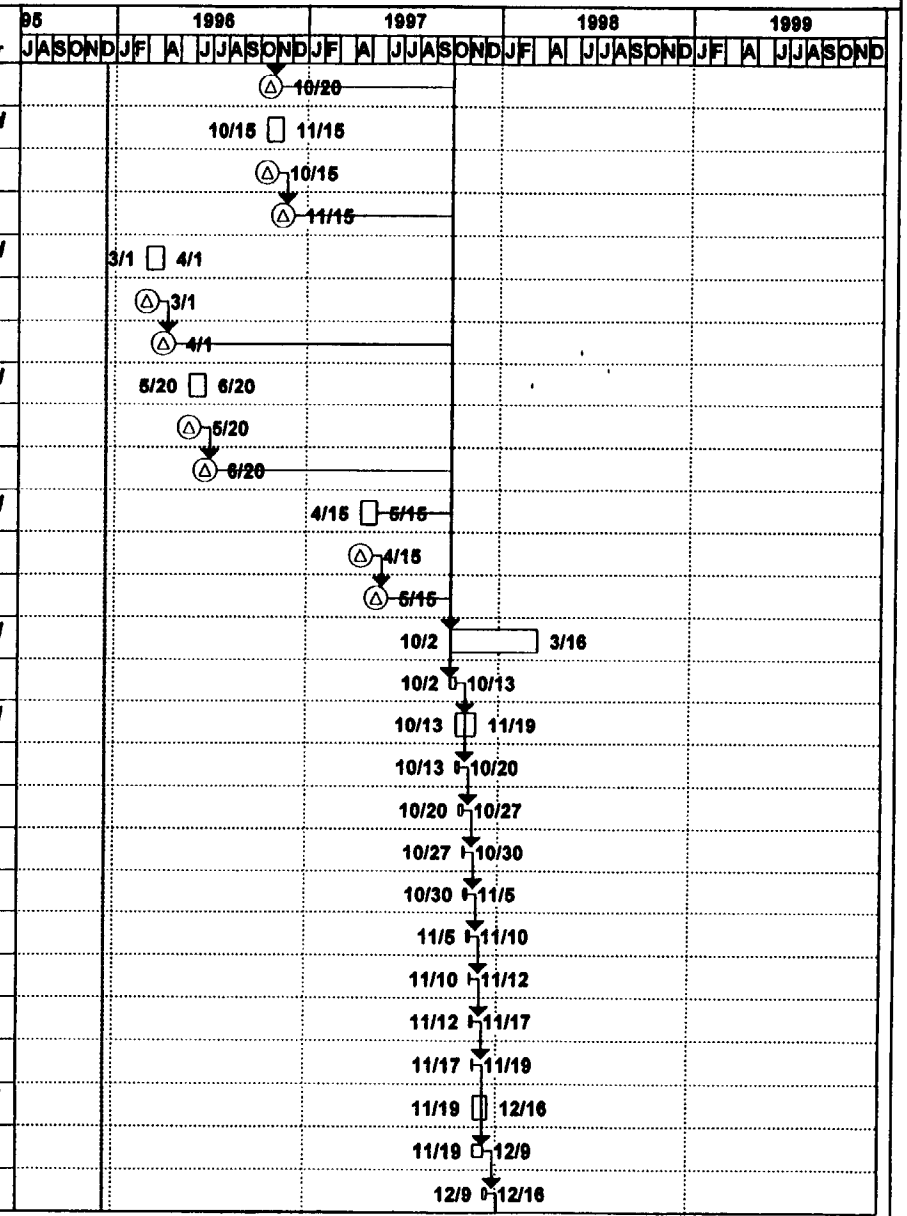
EOS/METSAT BUILD SCHEDULE

ID	Part No	Name	Dur
201		Clean Shipping Container	3d
202		Inspect & Purge Shipping Container	2d
203		Clean Instrument	3d
204		Inspect Instrument for Cleanliness	1d
205		Load Unit In Shipping Container (Witness)	1d
206		Seal & Inspect Shipping Container	1d
207		PSR	2d
208		Red Time (A2 Ship Config) (BLT)	64d
209		SHIP METSAT1-A2 INSTRUMENT (8/24/98)	0d
		METSAT2 A1	729d
1		RECEIVER PRODUCT TEAM	1d
2		**Major Subs for A1-2 Receiver Assy**	241d
3	1331559-2	**Bandpass Filters**	17d
4		BP Filter Vendor	0d
5		BP Filter Dock-to-Stock	0d
6	1331507	**5-Port Multiplexer**	15d
7		5-Port MUX Vendor	0d
8		5-Port MUX Dock-to-Stock	0d
9	1356680-1,2,	**Isolators**	17d
10		Isolator Vendor	0d
11		Isolator Dock-to-Stock	0d
12	1331516	**IF Attenuators**	16d
13		IF Atten Vendor	0d
14		IF Atten Dock-to-Stock	0d
15	1331562-13,	**Mixer/Amps**	18d
16		Mix/Amp Vendor	0d
17		Mix/Amp Dock-to-Stock	0d



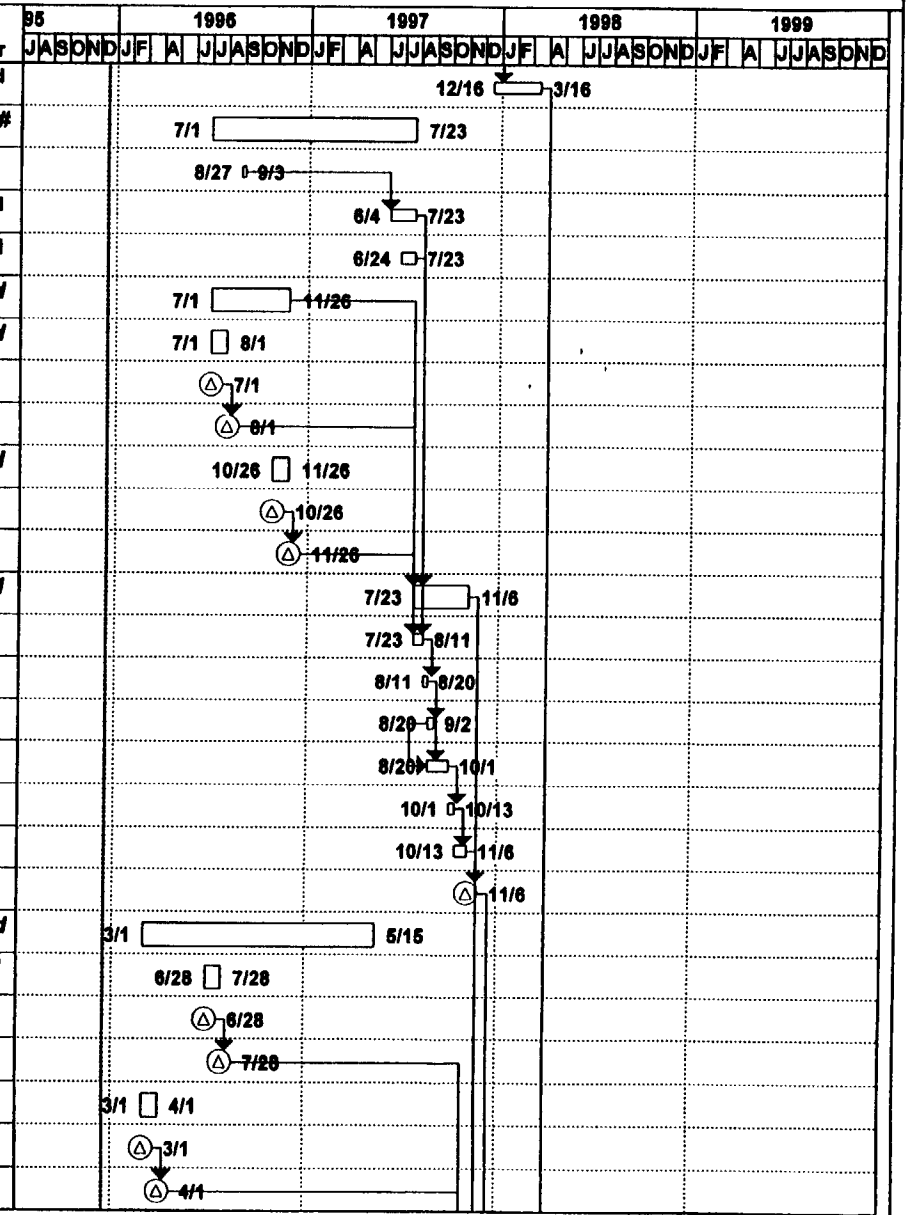
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
14		IF Atten Dock-to-Stock	0d
15	*1331562-13*	*Mixer/Amps*	*18d*
16		Mix/Amp Vendor	0d
17		Mix/Amp Dock-to-Stock	0d
18	*1331509-1*	*Waveguide Attens*	*17d*
19		W/G Atten Vendor	0d
20		W/G Atten Dock-to-Stock	0d
21		*Beryllium Shelf*	*18d*
22		Be Shelf Vendor	0d
23		Be Shelf Dock-to-Stock	0d
24	*1356610-3,*	*DROs*	*18d*
25		DRO Vendor	0d
26		DRO Dock-to-Stock	0d
27	*1356409-1*	*Receiver Assy, A1-2*	*86d*
28		Kit Release (RR - LT)	5d
30		*Final Shelf Assy*	*22d*
31		DRO/Waveguide Attenuator Test	4d
32		ID and Install RF Components	4d
33		Install Temp Sensor, Term Bd, Wire Mount	3d
34		Wire	3d
35		Insp & NASA Insp	2d
36		Fab SMA Cables	2d
37		VSWR Test	2d
38		Clean & Spot Bond	2d
39		*Test & Final Inspection*	*14d*
40		Shelf Test	10d
41		Final Insp & NASA Insp	4d



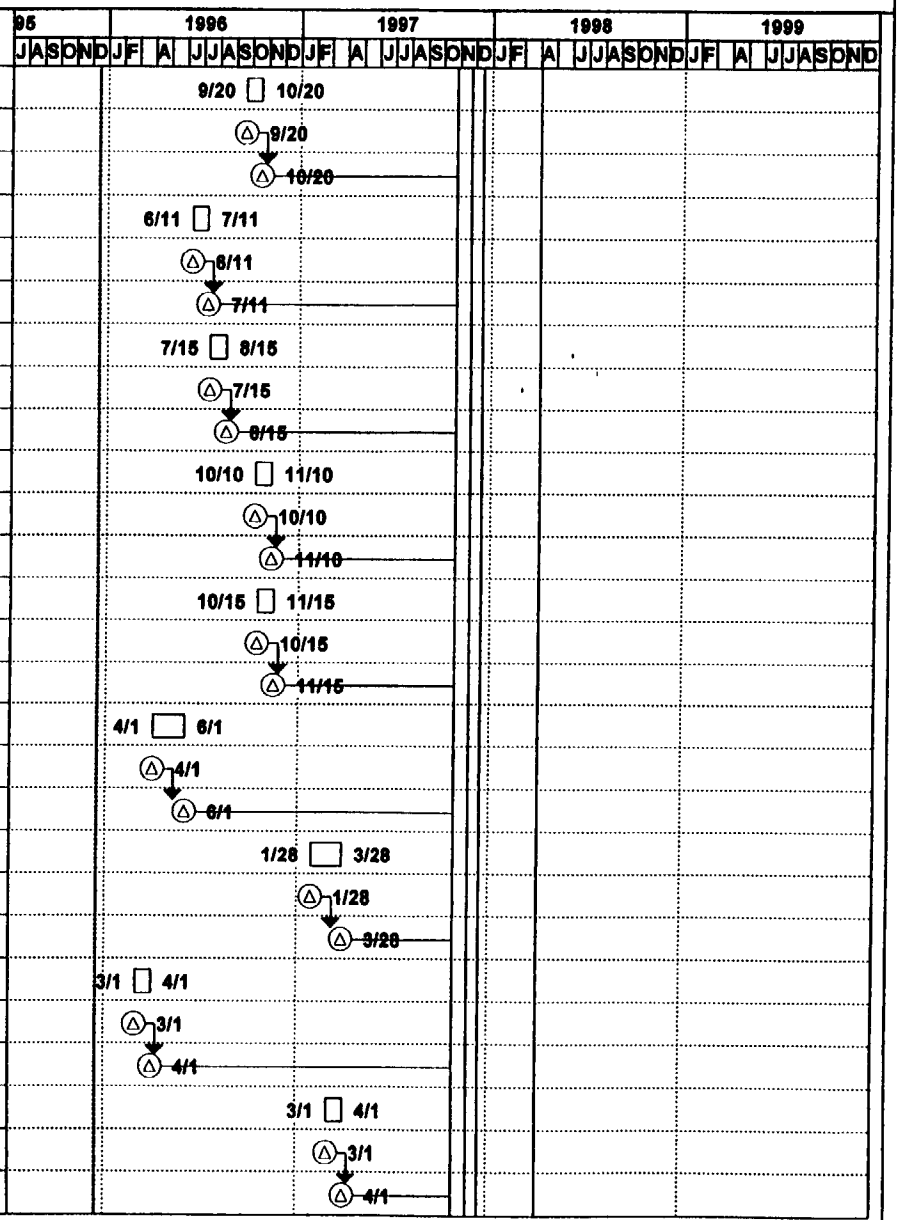
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
42		Red Time (A1-2 Receiver Assy) (BLT)	45d
43		*PLO Subassys & Subcontracts*	#####
44		Draw SMT CCAs from Stock (see EOS-A1 Build)	4d
45	1348400-1	DRO Assy	27d
46	1348420-1	Regulator CCA	16d
47		*Major Subs*	*83d*
48		*TCXO*	*18d*
49		TCXO Vendor	0d
50		TCXO Dock-to-Stock	0d
51		*VCGDO*	*18d*
52		VCGDO Vendor	0d
53		VCGDO Dock-to-Stock	0d
54	*1348360-1*	*PLO Assy (2 each)*	*60d*
55		Kit Release (RR - LT)	10d
57		PLO #2 Tune/Align/Assy	6d
58		PLO #1 Tune/Align/Assy	6d
59		PLO Electrical Performance	23d
60		PLO Vibration	6d
61		PLO Thermal/Vacuum Test	15d
62		Red Time (PLO Assy) (BLT)	0d
63		*Major Subs for A1-1 Receiver Assy*	*241d*
64	*1331546-1*	*5-Port Multiplexer*	*15d*
65		5-Port MUX Vendor	0d
66		5-Port MUX Dock-to-Stock	0d
67	*1356680-4,*	*Isolators*	*17d*
68		Isolator Vendor	0d
69		Isolator Dock-to-Stock	0d



AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
70	*1331516*	*IF Attenuators*	*16d*
71		IF Atten Vendor	0d
72		IF Atten Dock-to-Stock	0d
73	*1331559-1*	*Bandpass Filters*	*17d*
74		BP Filter Vendor	0d
75		BP Filter Dock-to-Stock	0d
76	*1331554-1*	*Hybrid Tee*	*19d*
77		Hybrid Tee Vendor	0d
78		Hybrid Tee Dock-to-Stock	0d
79	*1356669/70*	*Power Dividers*	*16d*
80		Power Divider Vendor	0d
81		Power Divider Dock-to-Stock	0d
82	*1331562-16*	*Mixer Amps*	*18d*
83		Mix/Amp Vendor	0d
84		Mix/Amp Dock-to-Stock	0d
85	*1331576-1*	*Saw Filters*	*34d*
86		Saw Filt Vendor	0d
87		Saw Filt Dock-to-Stock	0d
88	*1331579-7*	*IF Amplifier*	*34d*
89		IF Amp Vendor	0d
90		IF Amp Dock-to-Stock	0d
91	*1331509/10*	*Waveguide Attenuator*	*17d*
92		W/G Atten Vendor	0d
93		W/G Atten Dock-to-Stock	0d
94		*89GHz GDO (Channel 15)*	*18d*
95		GDO Vendor	0d
96		GDO Dock to Stock	0d



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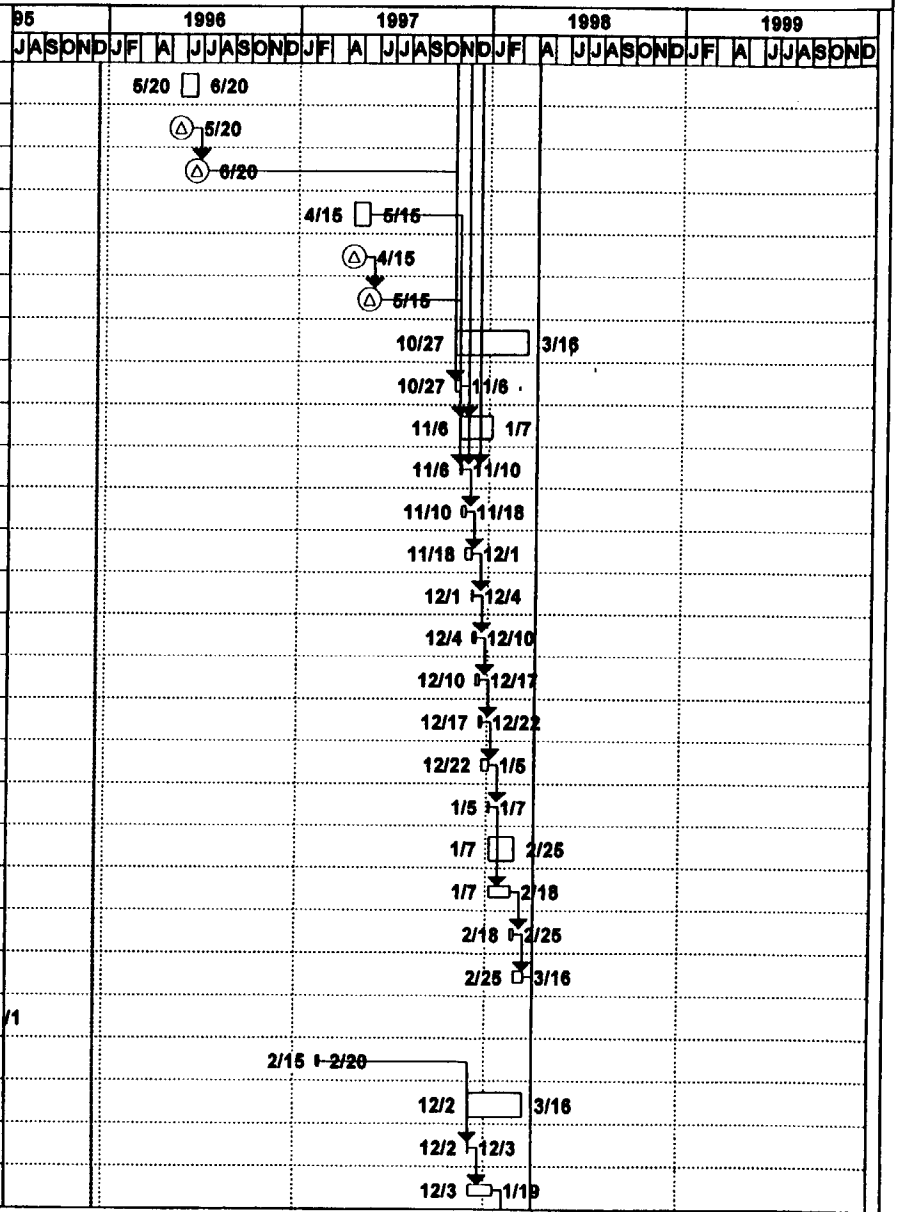
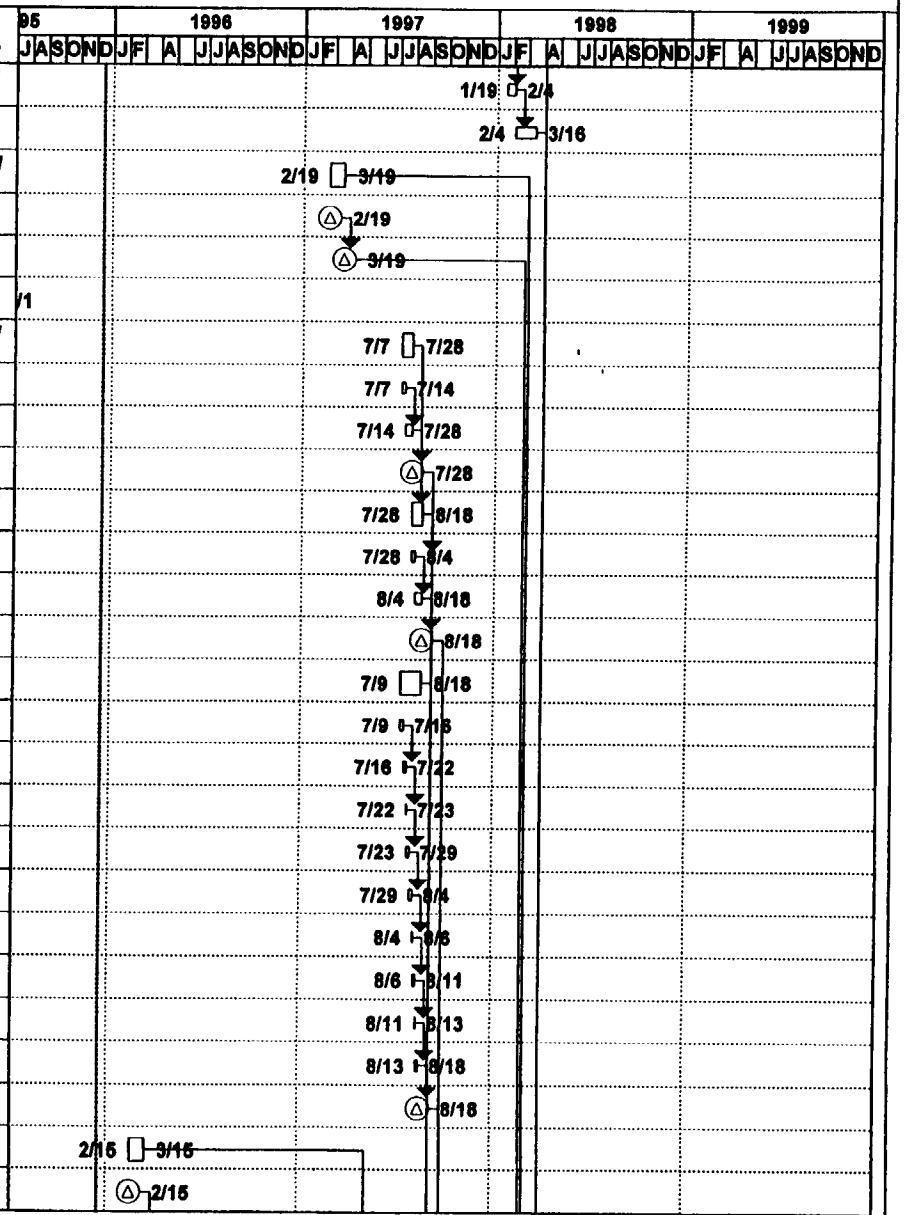
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
97		*Beryllium Shelf*	*18d*
98		Be Shelf Vendor	0d
99		Be Shelf Dock-to-Stock	0d
100	*1356610-6,*	*DRO*	*18d*
101		DRO Vendor	0d
102		DRO Dock-to-Stock	0d
103	*1356429-1*	*Receiver Assy, A1-1*	*73d*
104		Kit Release (RR - LT)	7d
106		*Final Assemble*	*28d*
107		ID Components & Shelf	1d
108		DRO/Waveguide Attenuator Test	5d
109		Install RF Components	6d
110		Install Temp Sensor, T/B & Wire Mnts	3d
111		Wiring	3d
112		Insp & NASA Insp	4d
113		Fab SMA Cables	2d
114		VSWR Test	2d
115		Clean & Spot Bond	2d
116		*Test & Final Inspection*	*28d*
117		Test	24d
118		Final Insp & NASA Insp	4d
119		Red Time (A1-1 Receiver Assy) (BLT)	10d
120		ELECTRONIC PRODUCT TEAM	1d
121		Draw all Subsystems from Stock (see EOS-A1 Build)	4d
122	*1331670-2*	*Signal Processing Assy*	*53d*
123		Kit Parts (RR - LT)	1d
125		Integrate & Checkout	20d



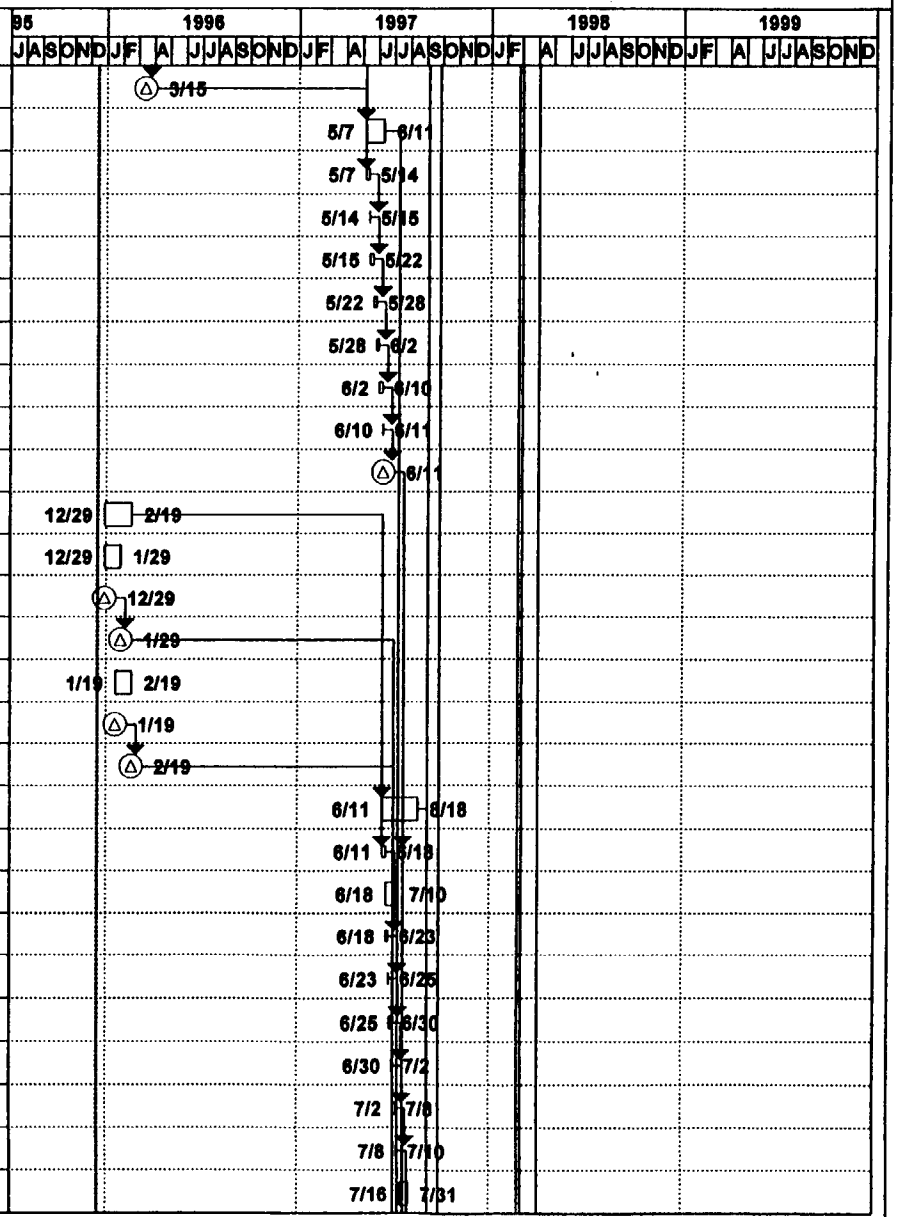
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
126		Test	10d
127		Red Time (A1 Signal Processor Assy) (BLT)	22d
128	*1356010-1*	*DC/DC Conv*	*16d*
129		Vendor Commit	0d
130		Dock-Stock	0d
131		ANTENNA PRODUCT TEAM	1d
132	*1331381-1*	*Warmload (2)*	*12d*
133		Kit Parts (RR - LT)	4d
134		Assembly (LT)	8d
135		Red Time (BLT)	0d
136	*1331380-1*	*Calibration Source (2)*	*12d*
137		Kit Parts (RR - LT)	4d
138		Assembly (LT)	8d
139		Red Time (BLT)	0d
140	*1331351-1*	*Antenna Subassy, Machined*	*22d*
141		Kit Parts (RR - LT)	4d
143		Assy Up/Low Struct, Square, Torque, Verify	3d
144		Drill & Pin all Panels	1d
145		Install, Machine, & Verify Isolators	3d
146		Machine Upper Motor Mount & Alignment Cube, Insp	3d
147		Machine Low Motor Mount, Touchup w/Alodyne	2d
148		Install Inserts, Clean & Apply Gold Tape	2d
149		ID the Assy	2d
150		Final Inspect/NASA Insp	2d
151		Red Time (A1 Antenna Subassy, Mach) (BLT)	0d
152	*1333667-1*	*Bearings*	*16d*
153		Bearing Vendor LT	0d



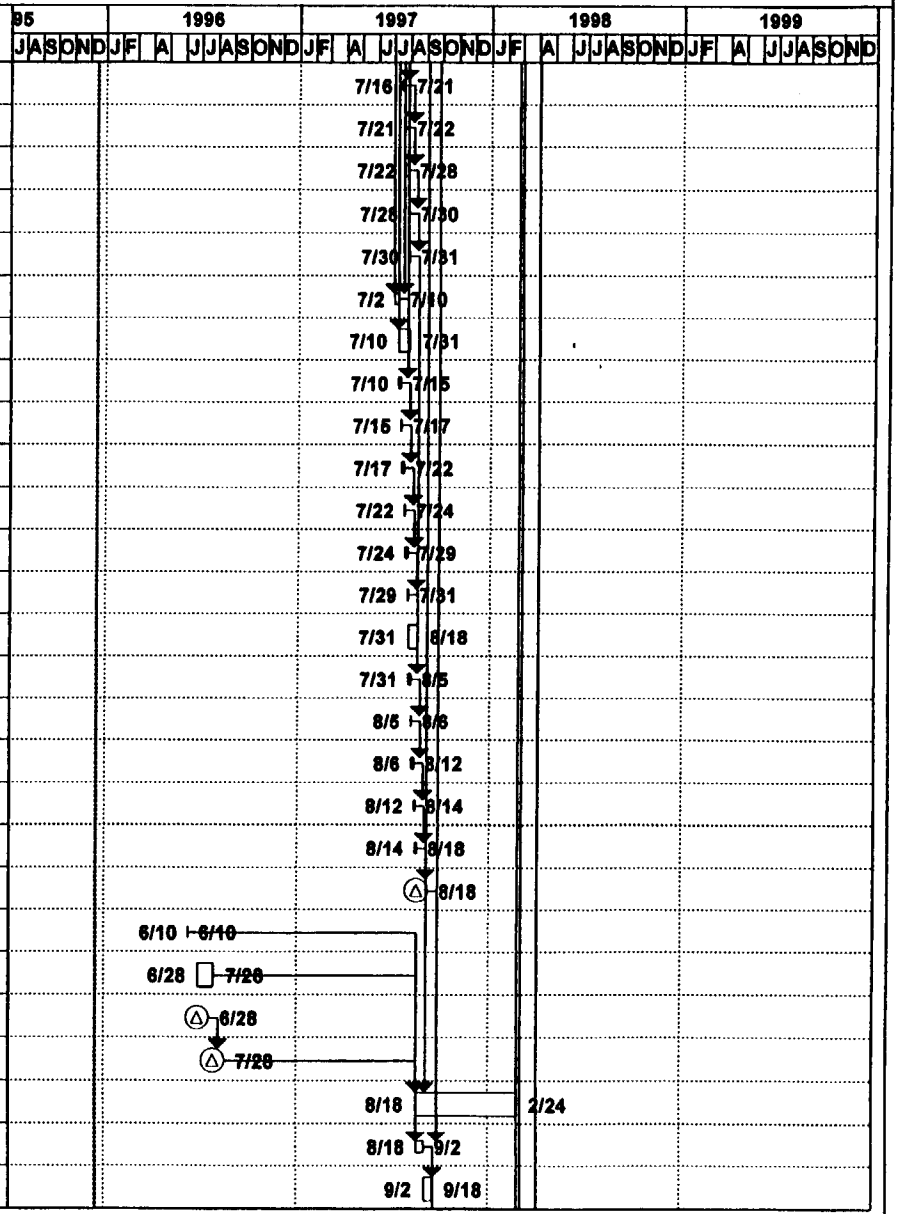
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
154		Bearings Dock-Stock	0d
155	*1333647-1*	*Rotating Assys (2)*	*19d*
156		Kit Parts (RR - LT)	4d
158		Apply Flourad	1d
159		Install & Inspect Bearings	4d
160		Install Dowel Pin in Shaft	2d
161		Apply Flourad & ID the Assy	2d
162		Torque Breakaway Test (Ambient & Cold)	5d
163		Final Inspect	1d
164		Red Time (A1 Rotating Assys) (BLT)	0d
165		*Major Subs*	*28d*
166	*1331529-1*	*Resolvers*	*16d*
167		Resolver LT	0d
168		Resolver Dock-Stock	0d
169	*1333648-1*	*Motors*	*17d*
170		Motor Vendor LT	0d
171		Motor Dock-Stock	0d
172	*1333640-1,*	*Drive Assy, Reflectors (2)*	*37d*
173		Kit Release (RR - LT)	4d
175		*Assemble (A1-1)*	*12d*
176		Install Resolver & Motor, Inspect	2d
177		Bond	2d
178		Wire	2d
179		Inspect & NASA Insp Wiring	2d
180		Install Cover/Torque, ID Assy	2d
181		Inspect/NASA Inspect	2d
182		*Test & Final Inspection (A1-1)*	*9d*



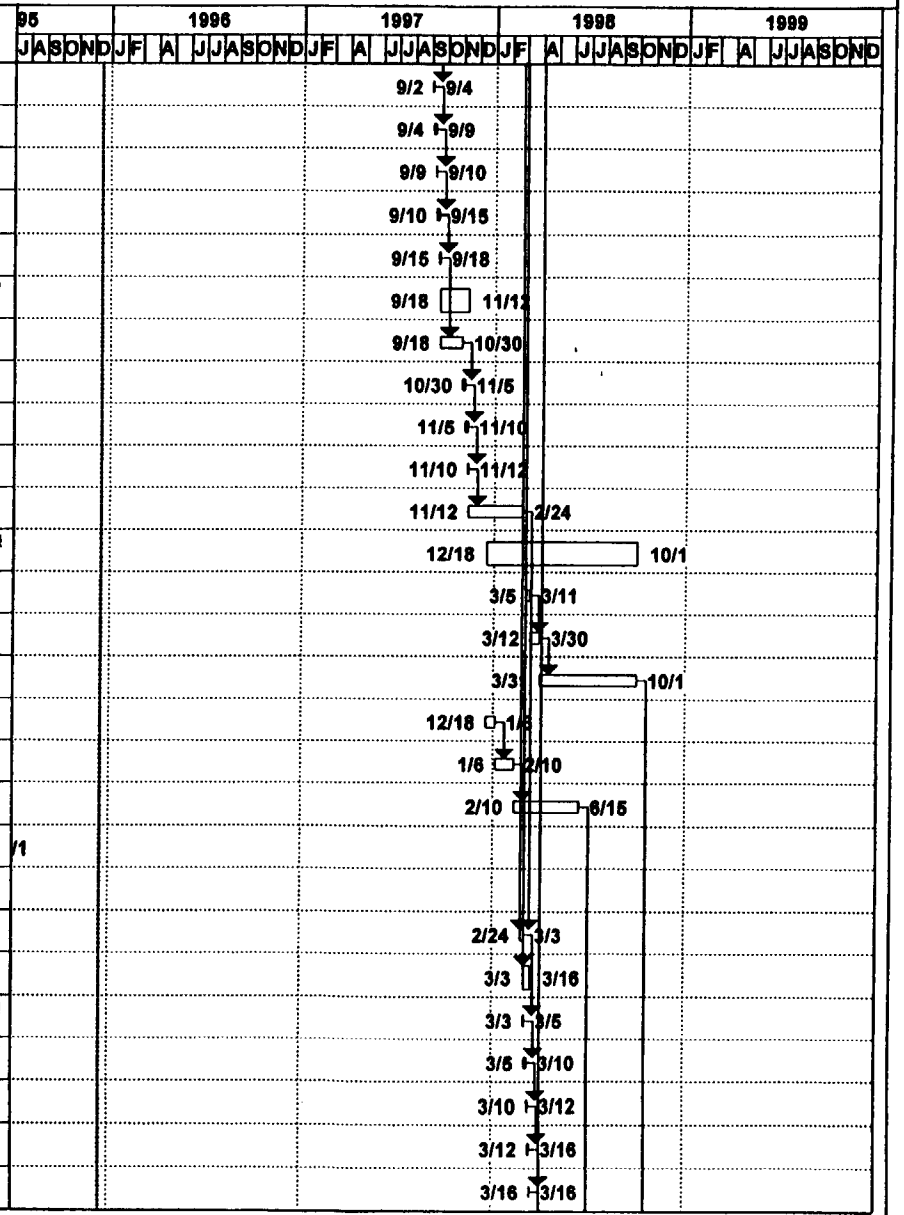
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
183		Test Reflector Drive Motor Assy	2d
184		QE/Inspection Verify Test Data	1d
185		Random Vibration Test	3d
186		Verify Motor Operation	2d
187		QE Data Rev, Insp, NASA Insp	1d
188		Kit Release (RR - LT)	4d
190		*Assemble (A1-2)*	*12d*
191		Install Resolver & Motor, Inspect	2d
192		Bond	2d
193		Wire	2d
194		Inspect & NASA Insp Wiring	2d
195		Install Cover/Torque, ID Assy	2d
196		Inspect/NASA Insp	2d
197		*Test & Final Inspection (A1-2)*	*9d*
198		Test Reflector Drive Motor Assy	2d
199		QE/Inspection Verify Test Data	1d
200		Random Vibration Test	3d
201		Verify Motor Operation	2d
202		QE Data Rev, Insp, NASA Insp	1d
203		Red Time (A1 Drive Assys, Reflct) (BLT)	0d
204		Receive Reflector Assy 1355777-1 From M/S	1d
205		*Feedhorn*	*15d*
206		Feedhorn Vendor	0d
207		Feedhorn Dock-to-Stock	0d
208	*1331400-2*	*A1 Antenna Assy*	*101d*
209		Kit Release (RR - LT)	8d
211		*Assembly*	*10d*



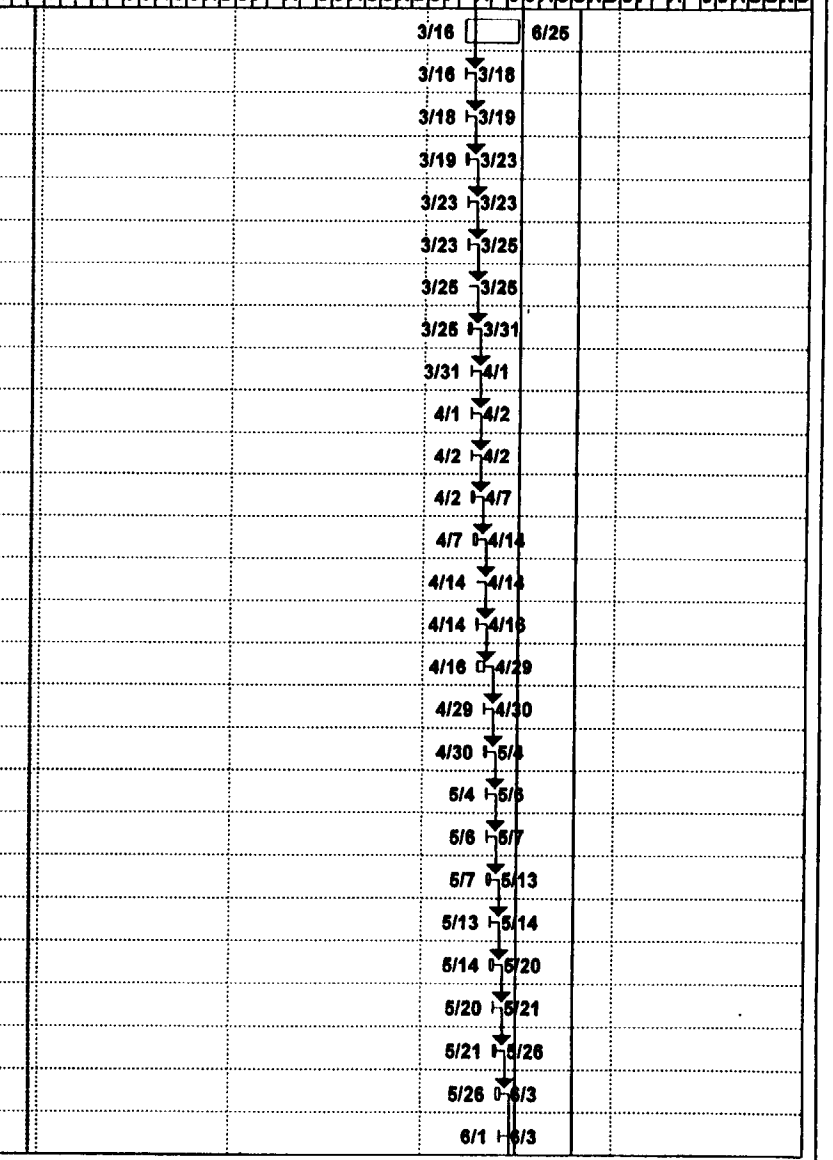
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
212		Install Tube Brackets & Align Cube	2d
213		ID Unit & Bond Wire Mounts/Grommets	2d
214		Inst Drive Assemblies	1d
215		Install, Align & Pin Feedhorns & Inspect	2d
216		Install/Align Reflectors & Inspect	3d
217		*Antenna Range Testing & Final Assy*	*31d*
218		Subassy Pattern Test	24d
219		Drill/Pin Drive Motors, Install Warmloads, Inspect	3d
220		Verify all Torque & Add Wet Bends	2d
221		Final Assy, Insp, NASA Insp	2d
222		Red Time (A1Antenna Assy) (BLT)	52d
223		*A1 Top Assy - Blanket & Mirror Panel Assys*	#####
224		Kit Release (RR-LT)	4d
225	1331626-2,9	Assemble Insulating Blanket Assemblies	10d
226	1331626-2,9	Red Time (A1 Blanket Assys) (BLT)	104d
227		Kit Release (RR-LT)	4d
228	131257-6,7,1	Assemble Mirror Panel Assemblies	20d
229	131257-6,7,1	Red Time (A1 Mirror Panel Assys)) (BLT)	70d
230		SEIT PRODUCT TEAM	0d
231	*1331720-2*	*METSAT-A1 Top Assembly*	#####
232		Kit Parts (RR - LT)	4d
234		*Prelim Integration (Pre-Receiver/Sig Processor)*	#####
235		Bond Grommet, Temp Sensors, Term Bds, Inspe	1.76d
236		Install Cable Assemblies	2.35d
237		Install DC/DC Converter & Power Ctrl Assy	1.76d
238		Continuity Test	0.59d
239		Inspect/NASA Inspect Workmanship	0.59d



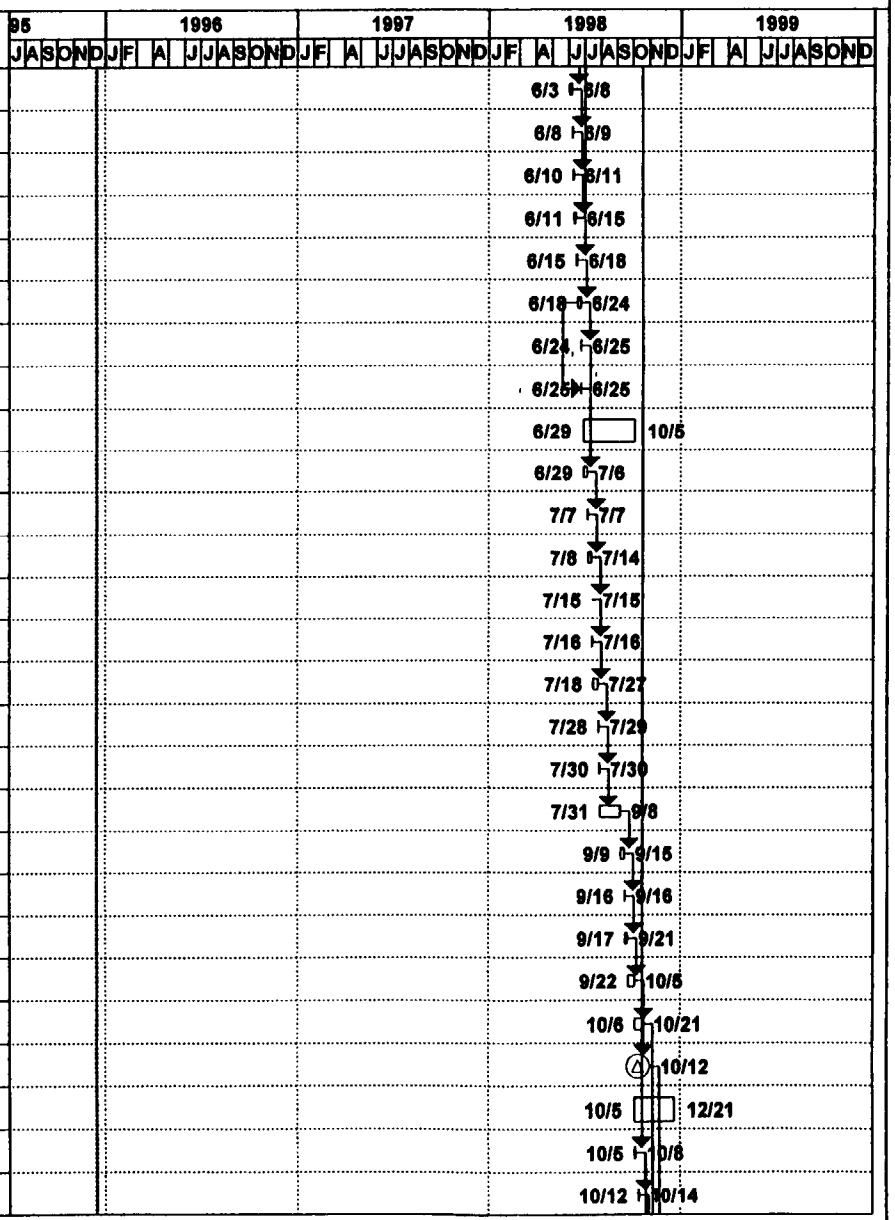
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
240		*Instrument Integration & Test*	#####
241		Align Rivet A1-1 Receivers & Inspect	1.76d
242		Wire A1-1 & A1-2 Receivers	1.18d
243		Continuity Test	0.59d
244		Inspect/NASA Inspect Receiver Wiring	0.59d
245		Align/Rivet A1-2 Receiver & Inspect	1.18d
246		Install Test Panels	0.59d
247		Fab, Condition, Test, Inspect Coax Cables	2.94d
248		Install "Clamshell"	0.59d
249		Crit Wiring Isol (Continuity) Test	1.18d
250		QE Data Rev, Insp/NASA Insp (Crit Wiring Isol)	0.59d
251		System Integration (Ambient) Test	1.76d
252		DRO Bias/Frequency & Bandpass Test	3.53d
253		QE Data Rev, Insp/NASA Insp (DRO Bias Tests)	0.59d
254		System Integration (Ambient) Tests	1.76d
255		Drive Subsystem Test	7.06d
256		Inspect/NASA Inspect CCAs	1.18d
257		Signal Processor CPT	1.18d
258		QE Data Rev, Inspect/NASA Insp (DRV/S/P Tests)	1.18d
259		Temp Connect Preamp/Coax, Bond Wiring	1.18d
260		Gain & Offset Tests	2.94d
261		QE Data Rev, Insp/NASA Insp (Gain & Offset Test	1.18d
262		PRT Calibration Tests (2 Shifts)	3.53d
263		QE Data Review (PRT Calibration)	0.59d
264		Reassemble for Evaluation CPT	1.18d
265		Evaluation CPT	4.71d
266		Sub Shop Order Prep	2.35d



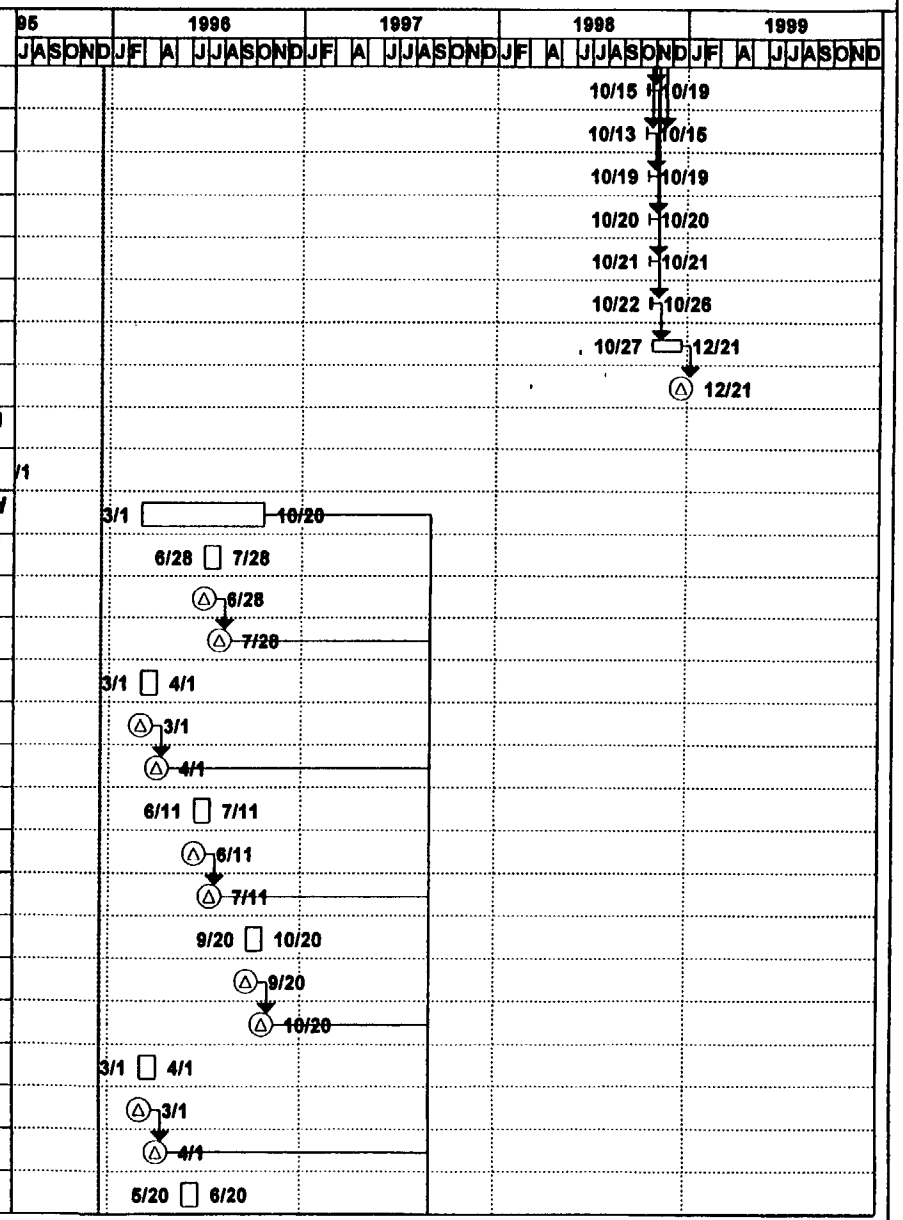
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
267		Sub Touch-Up Conformal Coat CCAs	2.35d
268		Sub Inspect/NASA Inspect CCAs	1.18d
269		Sub Install CCAs & Inspect Subassys	1.18d
270		Sub Final Inspection & Final NASA Buyoff	1.18d
271		Reassemble for Baseline CPT	3.53d
272		Comprehensive Perf Test (Baseline)	2.35d
273		QE Data Rev, Insp/NASA Insp (Baseline)	1.76d
274		PER	1d
275		*Instrument Accept Tests*	*55d*
276		EMI/RFI & Mag Field Tests	4d
277		Data Review (EMI Tests)	1d
278		Random Vib/LPT	4d
279		Data Review (Random Vib Tests)	1d
280		Sub CPT, Post-Vib Inspect & NASA Inspect	1d
281		Thermal Cycle (Incl Setup)	10d
282		Sub CPT (Thermal Cycle)	2d
283		Data Review (Thermal Cycle)	1d
284		Primary Calibration (Including Setup) (Turbo)	40d
285		Final CPT (Primary Calibration)	7d
286		Data Review (Calibration)	1d
287		Weight & CG	2d
288		Momentum Compensation Test	8d
289		Ship PSR Data Package	10d
290		Red Time (A1 Top Assy - Integ & Test) (BLT)	0d
291	*1338395-2*	*METSAT-A1 Shipping Config*	*44d*
292		Kit Release (RR - LT)	4d
294		Clean Shipping Container	3d



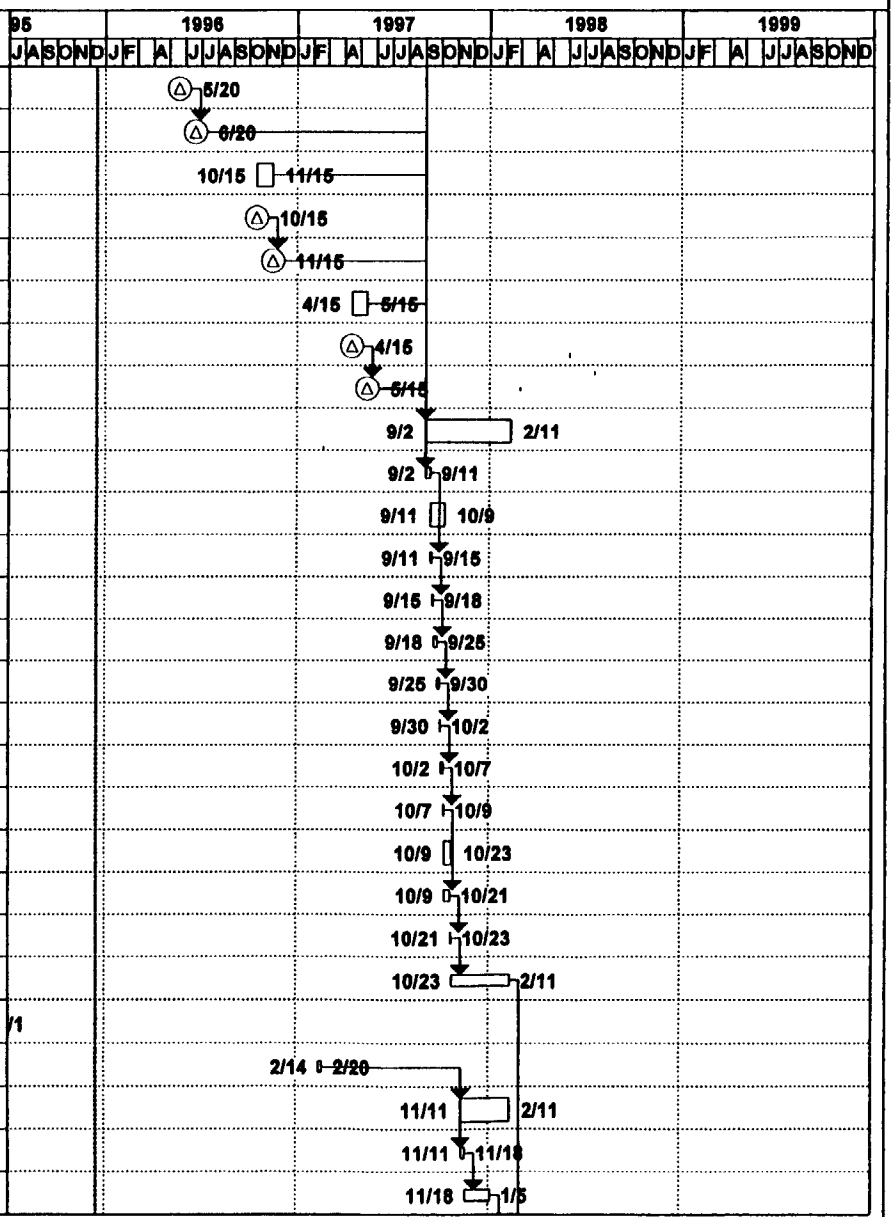
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
295		Inspect & Purge Shipping Container	2d
296		Clean Instrument	3d
297		Inspect Instrument for Cleanliness	1d
298		Load Unit in Shipping Container (Witness)	1d
299		Seal & Inspect Shipping Container	1d
300		PSR	2d
301		Red Time (A1 Ship Config) (BLT)	31d
302		SHIP METSAT2-A1 INSTRUMENT (12/21/98)	0d
		METSAT2 A2	729d
1		RECEIVER PRODUCT TEAM	1d
2	*Various*	*Major Subs*	*129d*
3	*1331084*	*Diplexer*	*15d*
4		Diplexer Vendor	0d
5		Diplexer Dock-to-Stock	0d
6	*1331111-2,*	*Isolators*	*17d*
7		Isolator Vendor	0d
8		Isolator Dock-to-Stock	0d
9	*1331559-3,*	*Bandpass Filters*	*17d*
10		BP Filter Vendor	0d
11		BP Filter Dock-to-Stock	0d
12	*1331516*	*IF Attenuators*	*16d*
13		IF Atten Vendor	0d
14		IF Atten Dock-to-Stock	0d
15	*1331100-1,*	*Waveguide Atten*	*17d*
16		W/G Atten Vendor	0d
17		W/G Atten Dock-to-Stock	0d
18		*Beryllium Shelf*	*18d*



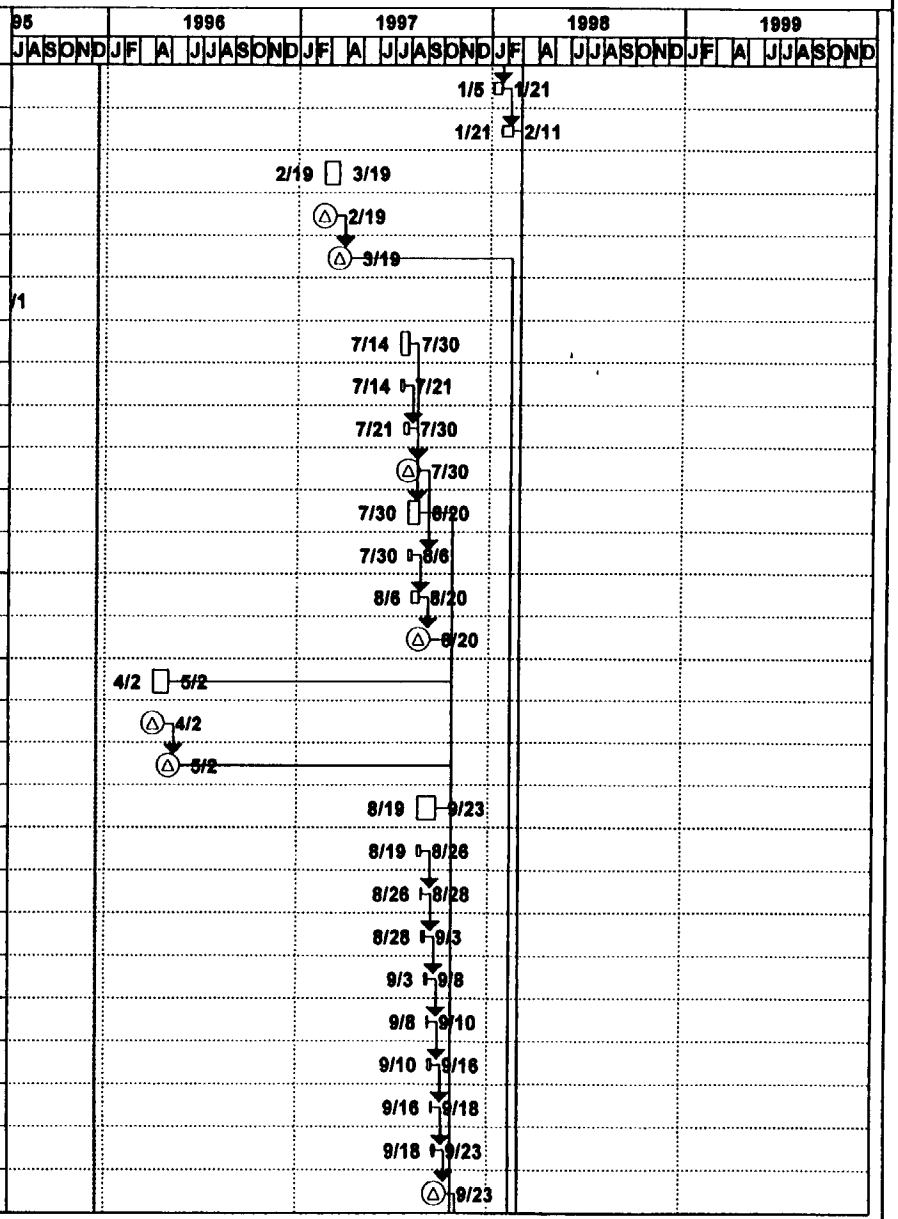
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
19		Be Shelf Vendor	0d
20		Be Shelf Dock-to-Stock	0d
21	*1331562-11*	*Mixer Amps*	*18d*
22		Mix/Amp Vendor	0d
23		Mix/Amp Dock-to-Stock	0d
24	*1336610-1,*	*DRO*	*18d*
25		DRO Vendor	0d
26		DRO Dock-to-Stock	0d
27	*1356441-1*	*Receiver Assy, A2*	*86d*
28		Kit Release (RR - LT)	6d
30		*Final Assemble*	*16d*
31		ID Components & Shelf	1d
32		DRO/Waveguide Attenuator Test	3d
33		Install RF Components	4d
34		Install Temp Sensor, T/B & Wire Mnts	2d
35		Wiring	2d
36		VSWR Test	2d
37		Clean & Spot Bond	2d
38		*Test & Final Inspection*	*8d*
39		Test	6d
40		Final Insp & NASA Insp	2d
41		Red Time (A2 Receiver Assy) (BLT)	66d
42		ELECTRONIC PRODUCT TEAM	1d
43		Draw from Stock (See EOS-A1 Build)	4d
44	*1356412-1*	*Signal Processing Assy*	*46d*
45		Kit Parts (RR - LT)	4d
47		Integrate & Checkout	20d



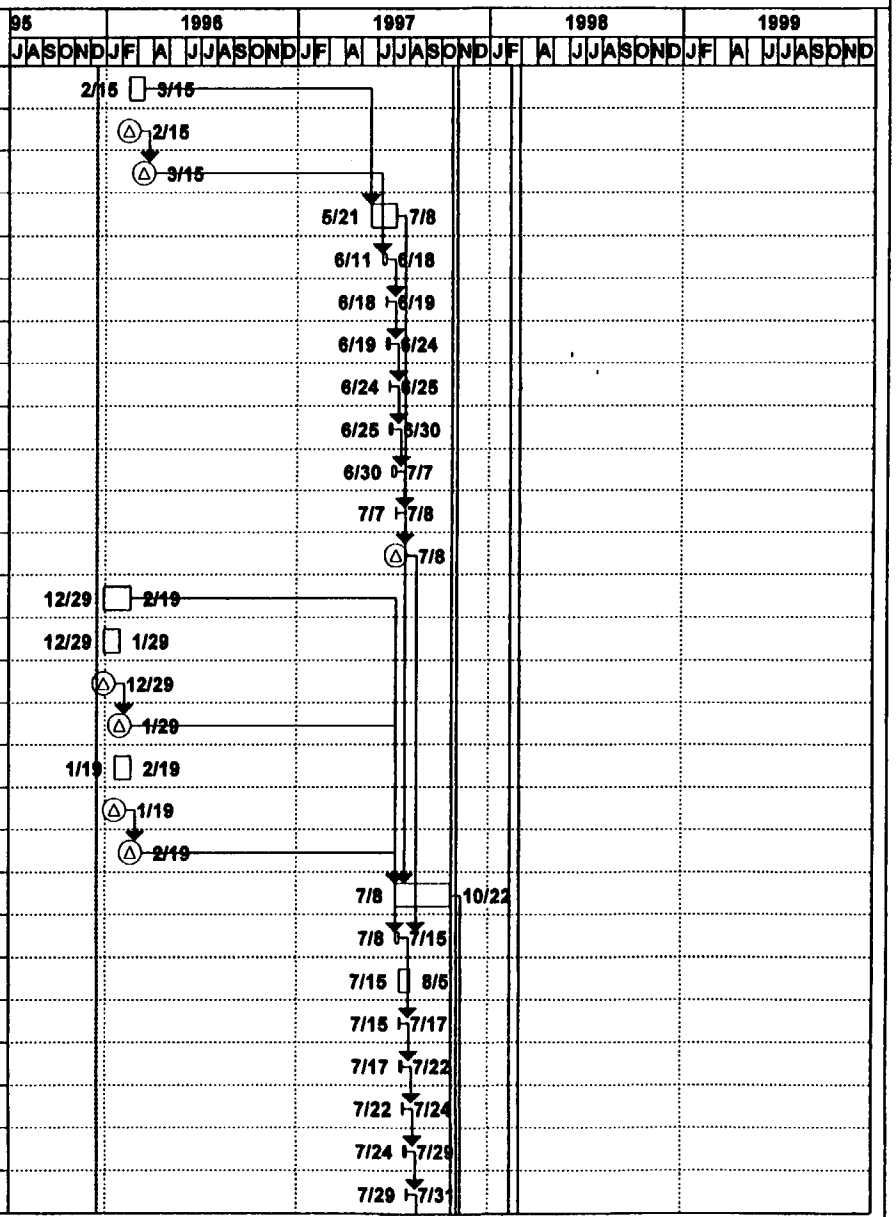
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
48		Test	10d
49		Red Time (A2 Signal Processor Assy) (BLT)	12d
50	*1356010-1*	*DC/DC Conv*	*16d*
51		Vendor Commit	0d
52		Dock-Stock	0d
53		ANTENNA PRODUCT TEAM	1d
54	*1331236-1*	*Warmload*	*10d*
55		Kit Parts (RR - LT)	4d
56		Assembly (LT)	6d
57		Red Time (BLT)	0d
58	*1331235-1*	*Calibration Source*	*12d*
59		Kit Parts (RR - LT)	4d
60		Assembly (LT)	8d
61		Red Time (BLT)	0d
62	*1355835-1*	*Composite Reflector*	*18d*
63		Vendor LT	0d
64		Dock-to-Stock	0d
65	*1331303-1*	*Antenna Subassy, Machined*	*19d*
66		Kit Parts (RR - LT)	4d
68		Assemble & Pin Structure	2d
69		Install & Machine Item 14 Spacer & Inspect	2d
70		Machine Item 13 Spacers & Verify	2d
71		Machine Item 15 Spacers & Verify	2d
72		Final Machine Structure & Inspect	3d
73		Touch-up w/Alodyne and Install Inserts	2d
74		ID the Assembly	2d
75		Red Time (A2 Antenna Subassy, Mach) (BLT)	0d



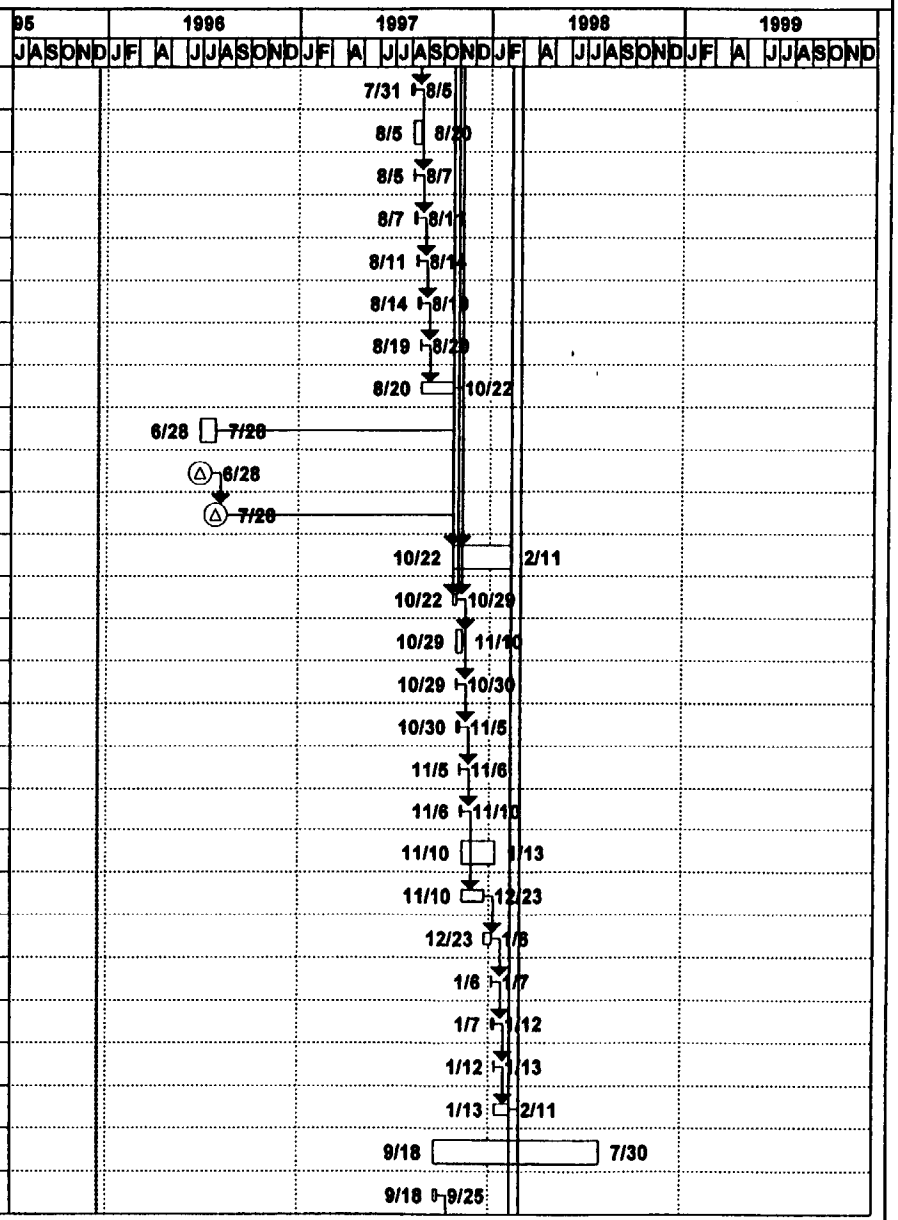
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
76	*1333667-1*	***Bearings***	***16d***
77		Bearing Vendor LT	0d
78		Bearings Dock-Stock	0d
79	*1333651-1*	***Rotating Assy***	***25d***
80		Kit Parts (RR - LT)	4d
82		Apply Flourad	1d
83		Install & Inspect Bearings	2d
84		Install Dowel Pin In Shaft	1d
85		Apply Flourad & ID the Assemble	2d
86		Torque Breakaway Test (Ambient & Cold)	3d
87		Final Inspect	1d
88		Red Time (A2 Rotating Assy) (BLT)	0d
89	*Various*	***Major Subs***	***28d***
90	*1331529-1*	***Resolvers***	***16d***
91		Resolver LT	0d
92		Resolver Dock-Stock	0d
93	*1333648-1*	***Motors***	***17d***
94		Motor Vendor LT	0d
95		Motor Dock-Stock	0d
96	*1333650-1*	***Drive Assy, Reflector***	***60d***
97		Kit Release (RR - LT)	4d
99		***Assemble***	***12d***
100		Install Resolver & Motor, Inspect	2d
101		Bond Components	2d
102		Wire Components	2d
103		Inspect & NASA Insp Wiring	2d
104		Install Cover/Torque	2d



AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
105		Inspect & NASA Insp	2d
106		*Test*	*9d*
107		Test Reflector Drive Motor Assy	2d
108		QE Data Review	1d
109		Random Vibration Test	3d
110		Verify Motor Operation	2d
111		Final Insp, NASA Insp	1d
112		Red Time (A2 Drive Assy, Reflct) (BLT)	35d
113		*Feedhorn Assembly*	*15d*
114		Feedhorn Vendor	0d
115		Feedhorn Dock-to-Stock	0d
116	*1331210-3*	*A2 Antenna Assy*	*57d*
117		Kit Release (RR - LT)	4d
119		*Assembly*	*6d*
120		Install Cube, Feedhorn & Sec Reflector	1d
121		Optical Alignment and Inspection	3d
122		Drill/Pin Secondary Reflector	1d
123		Install Drive Motor, Reflector, Diplexer	1d
124		*Antenna Range Testing & Final Assy*	*30d*
125		Subassy Pattern Test	24d
126		Pin Drive Motor & Install Warmload	2d
127		Inspect Antenna Assy	1d
128		Bond Wiremounts & Identify	2d
129		Final Assy, Insp, NASA Insp	1d
130		Red Time (A2 Antenna Assy) (BLT)	17d
131		*A2 Top Assy - Compensator & Blanket Assys*	#####
132		Kit Release (RR-LT)	4d



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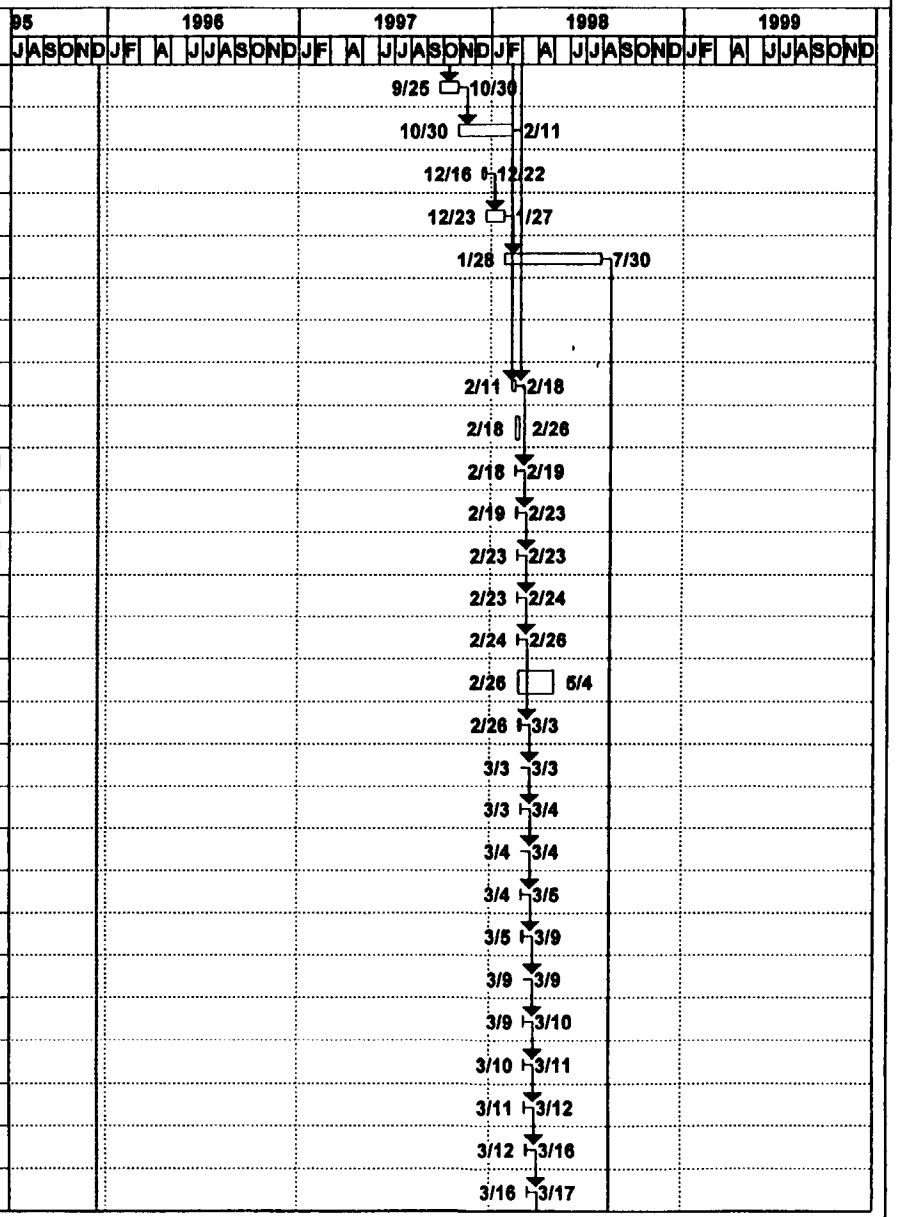
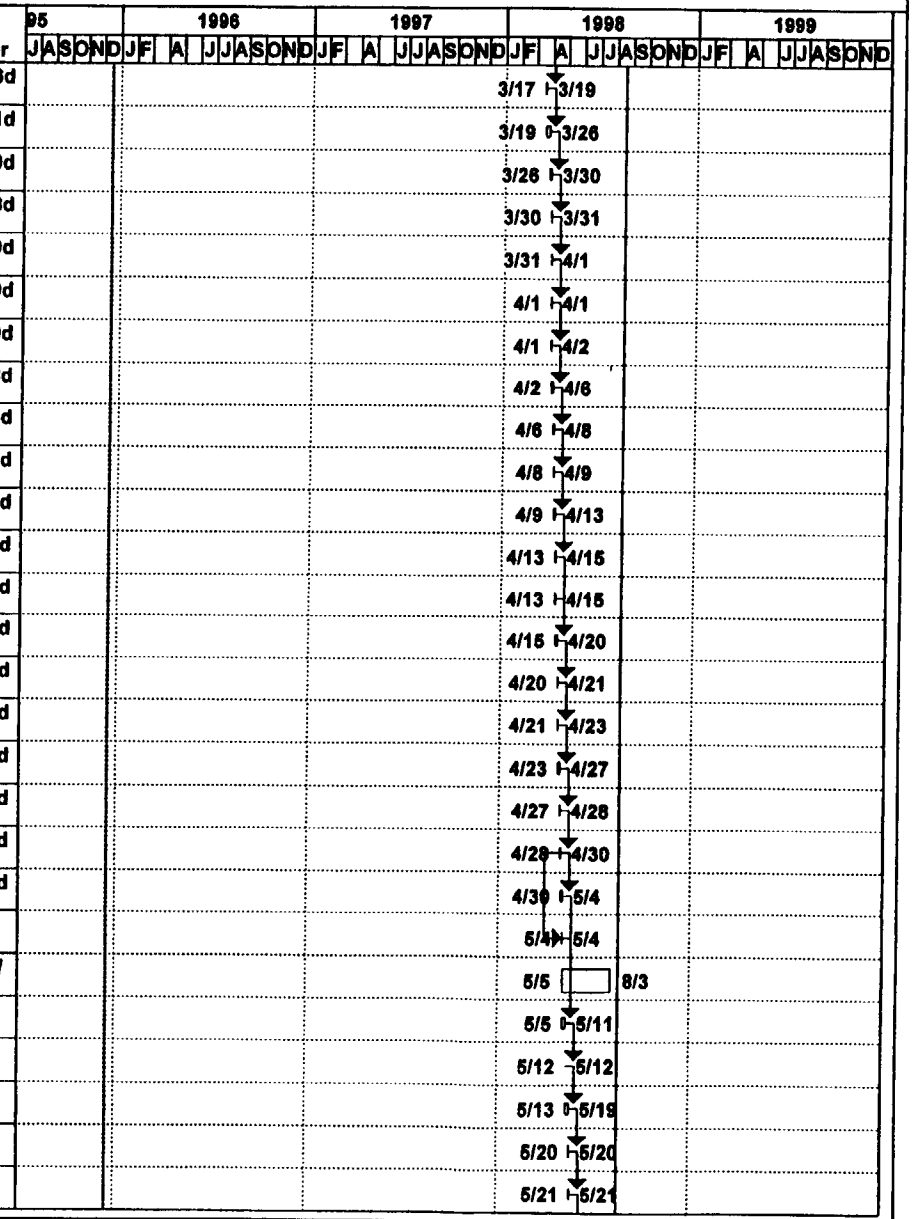
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
133	1333660-1	Assemble Compensator Assembly	20d
134	1333660-1	Red Time (A2 Compensator Assy) (BLT)	52d
135		Kit Release (RR-LT)	4d
136	1331253-2/-5	Assemble Insulating Blanket Assemblies	15d
137	1331253-2/-5	Red Time (A2 Blanket Assys) (BLT)	104d
138		SEIT PRODUCT TEAM	1d
139	*1356006-1*	*METSAT-A2 Top Assembly*	####
140		Kit Parts (RR - LT)	4d
142		*Prelim Integration (Pre-Receiver/Sig Proc)*	*5.3d*
143		Install Cable Assys	1.18d
144		Continuity Check	0.59d
145		Install DC/DC Conv & Power Ctrl Assy	0.59d
146		Continuity Test	0.59d
147		Instl Wrmid, Bond Grommts, T.B., Temp Sensors	2.35d
148		*Instrument Integration & Test*	####
149		Install, Align/Rivet Receiver	1.18d
150		Inspect Riveting, Shim Block	0.59d
151		Solder Temp Sensor Leads	0.59d
152		Receiver Continuity Test	0.59d
153		Inspect/NASA Inspect Receiver Wiring	0.59d
154		Fab, Condition, Test, Inspect Coax Cables	0.59d
155		Antenna & Receiver Isol Test	0.59d
156		DC/DC Test, Crit Wiring Isol (Continuity) Test	1.18d
157		QE Data Rev, Insp/NASA Insp (Crit Wiring Isol)	0.59d
158		System Integration (Ambient) Test	1.18d
159		DRO Bias/Frequency & Bandpass Test	1.18d
160		QE Data Rev, Insp/NASA Insp (DRO Bias Tests)	0.59d



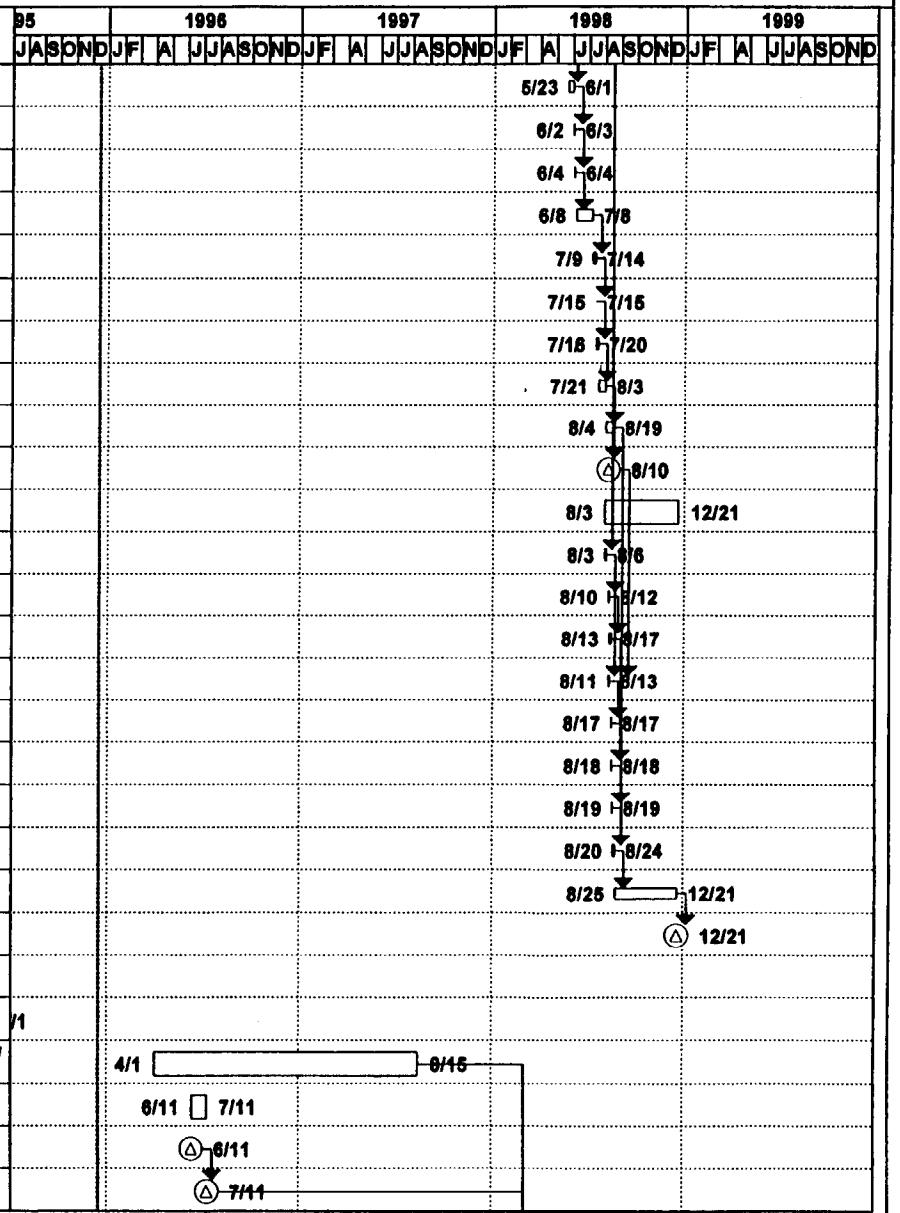
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
161		System Integration (Ambient) Tests	1.76d
162		Drive Subsystem Test	4.71d
163		Inspect/NASA Inspect CCAs	0.59d
164		Signal Processor CPT	1.18d
165		QE Data Rev, Inspect/NASA Insp (DRV/S/P Tests)	0.59d
166		Temp Connect Preamp/Coax, Bond Wiring	0.59d
167		Gain & Offset Tests	0.59d
168		QE Data Rev, Insp/NASA Insp (Gain & Offset Test	1.18d
169		PRT Calibration Tests (2 Shifts)	2.35d
170		QE Data Review (PRT Calibration)	0.59d
171		Reassemble for Evaluation CPT	0.59d
172		Evaluation CPT	2.35d
173		Sub Shop Order Prep	2.35d
174		Sub Touch-Up Conformal Coat CCAs	2.35d
175		Sub Inspect/NASA Inspect CCAs	1.18d
176		Sub Install CCAs & Inspect Subassys	1.18d
177		Sub Final Inspection & Final NASA Buyoff	1.18d
178		Reassemble for Baseline CPT	1.18d
179		Comprehensive Perf Test (Baseline)	2.35d
180		QE Data Rev, Insp/NASA Insp (Baseline)	1.18d
181		PER	1d
182		*Instrument Accept Tests*	*50d*
183		EMI/RFI & Mag Field Tests	4d
184		Data Review (EMI Tests)	1d
185		Random Vib/LPT	4d
186		Data Review (Random Vib Tests)	1d
187		Sub CPT, Post-Vib Inspect & NASA Inspect	1d



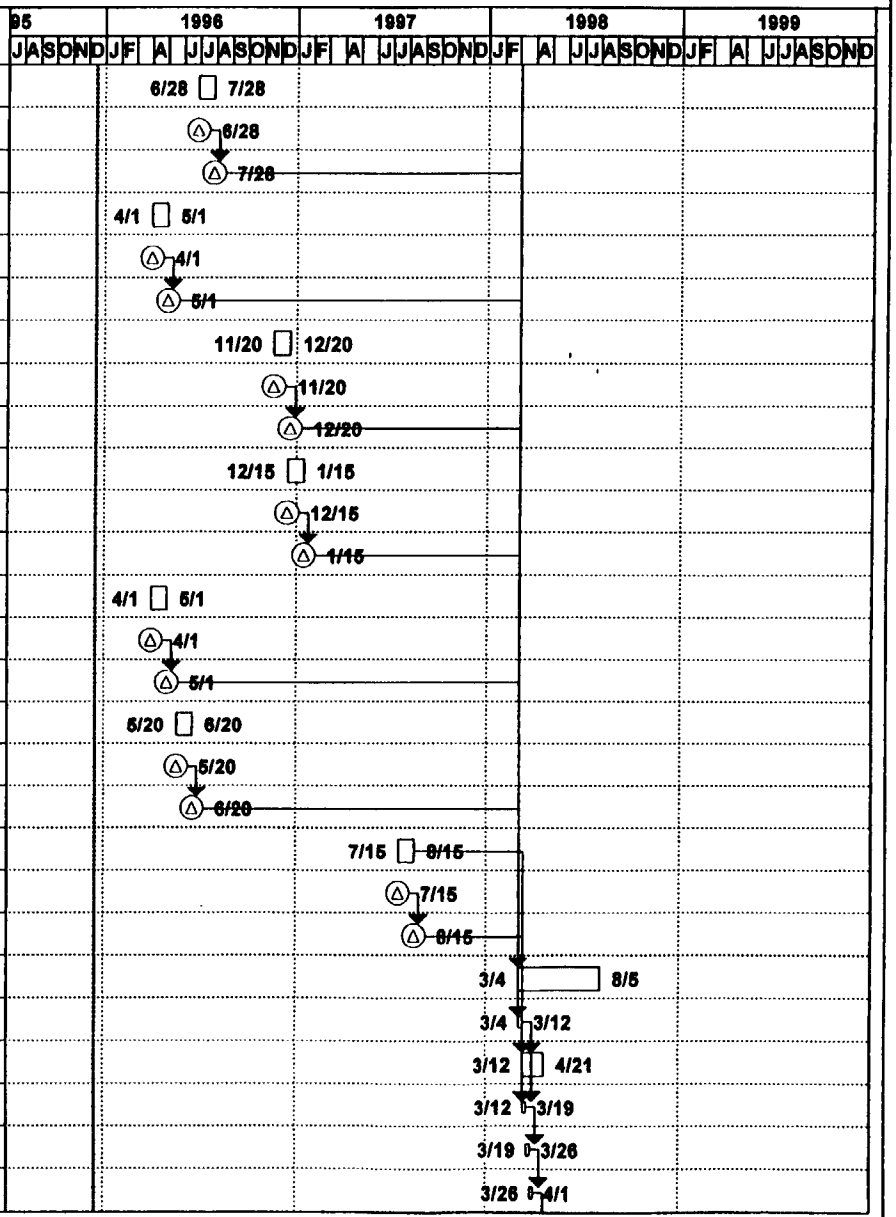
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
188		Thermal Cycle (Incl Setup)	10d
189		Sub CPT (Thermal Cycle)	2d
190		Data Review (Thermal Cycle)	1d
191		Primary Calibration (Including Setup) (VC2)	30d
192		Final CPT (Primary Calibration)	6d
193		Data Review (Calibration)	1d
194		Weight & CG	2d
195		Momentum Compensation	8d
196		Ship PSR Data Package	10d
197		Red Time (A2 Top Assy - Integ & Test) (BLT)	0d
198	*1356038-1*	*METSAT-A2 Shipping Config*	*79d*
199		Kit Release (RR - LT)	4d
201		Clean Shipping Container	3d
202		Inspect & Purge Shipping Container	2d
203		Clean Instrument	3d
204		Inspect Instrument for Cleanliness	1d
205		Load Unit In Shipping Container (Witness)	1d
206		Seal & Inspect Shipping Container	1d
207		PSR	2d
208		Red Time (A2 Prog Mgt) (BLT)	66d
209		SHIP METSAT2-A2 INSTRUMENT (12/21/98)	0d
		METSAT3 A1	812d
1		RECEIVER PRODUCT TEAM	1d
2		*Major Subs for A1-2 Receiver Assy*	*274d*
3	*1331559-2*	*Bandpass Filters*	*17d*
4		BP Filter Vendor	0d
5		BP Filter Dock-to-Stock	0d



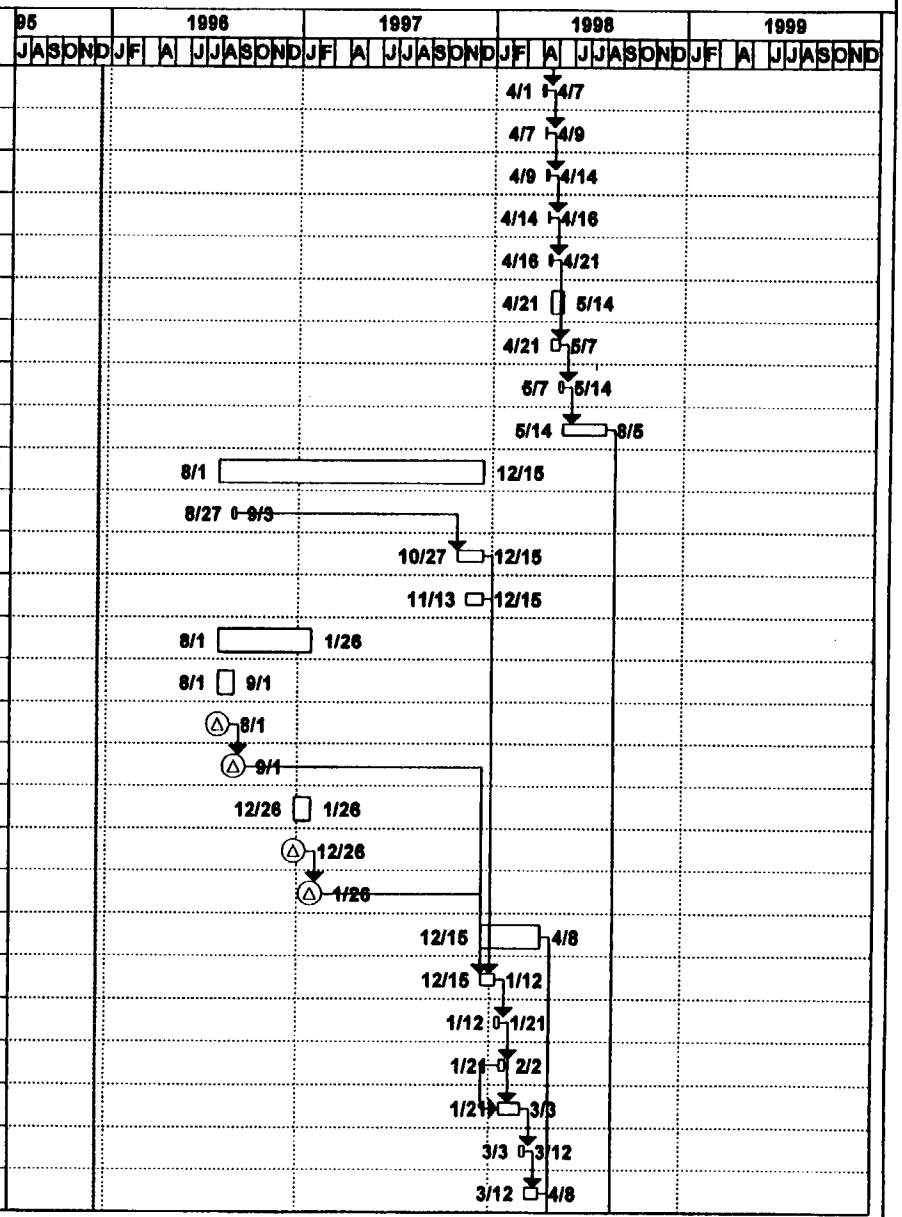
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
6	*1331507*	*5-Port Multiplexer*	*15d*
7		5-Port MUX Vendor	0d
8		5-Port MUX Dock-to-Stock	0d
9	*1356680-1,*	*Isolators*	*18d*
10		Isolator Vendor	0d
11		Isolator Dock-to-Stock	0d
12	*1331516*	*IF Attens*	*16d*
13		IF Atten Vendor	0d
14		IF Atten Dock-to-Stock	0d
15	*1331562-13*	*Mixer/Amps*	*12d*
16		Mix/Amp Vendor	0d
17		Mix/Amp Dock-to-Stock	0d
18	*1331509-1*	*Waveguide Attens*	*18d*
19		W/G Atten Vendor	0d
20		W/G Atten Dock-to-Stock	0d
21		*Beryllium Shelf*	*18d*
22		Be Shelf Vendor	0d
23		Be Shelf Dock-to-Stock	0d
24	*1356610-3,*	*DROs*	*18d*
25		DRO Vendor	0d
26		DRO Dock-to-Stock	0d
27	*1356409-1*	*Receiver Assy, A1-2*	*86d*
28		Kit Release (RR - LT)	5d
30		*Final Shelf Assy*	*22d*
31		DRO/Waveguide Attenuator Test	4d
32		ID and Install RF Components	4d
33		Install Temp Sensor, Term Bd, Wire Mount	3d



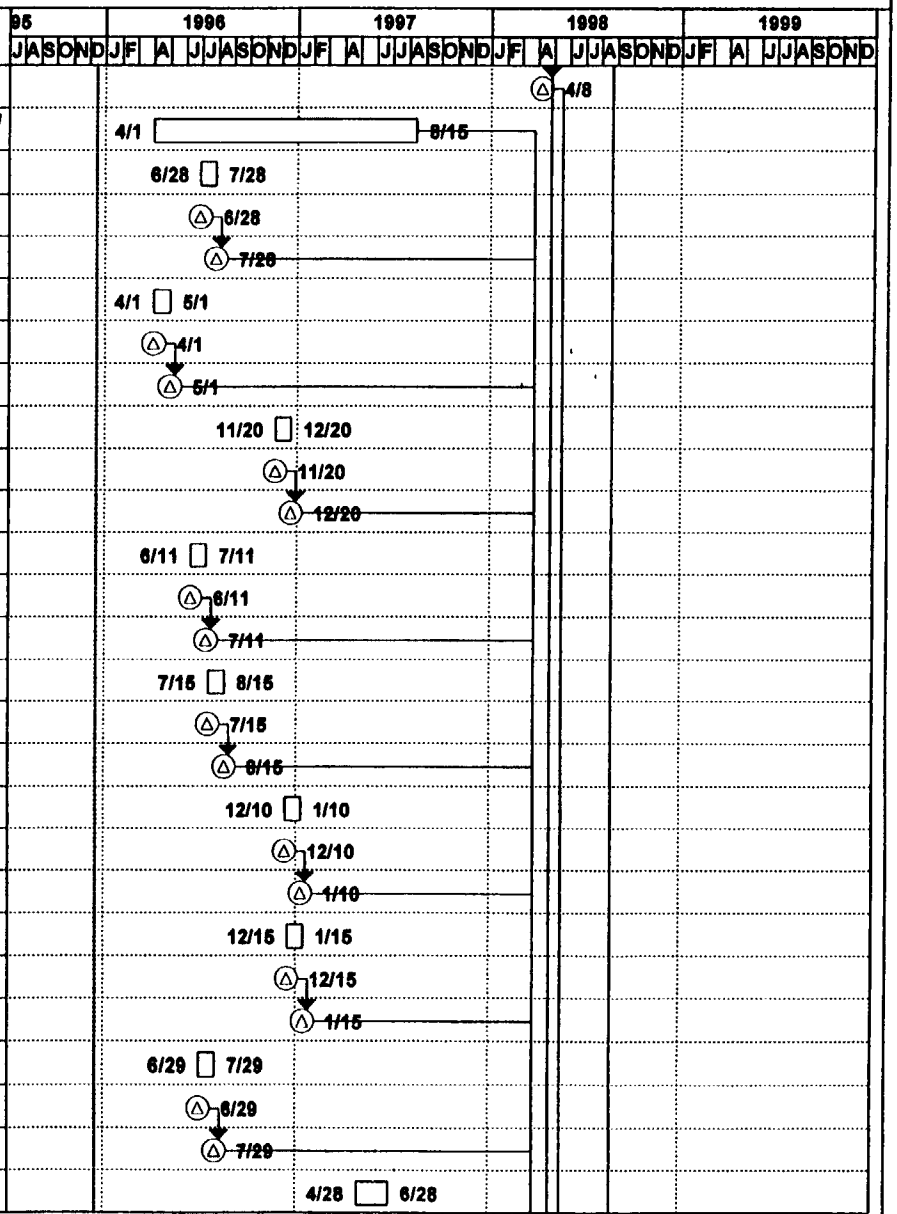
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
34		Wire	3d
35		Insp & NASA Insp	2d
36		Fab SMA Cables	2d
37		VSWR Test	2d
38		Clean & Spot Bond	2d
39		*Test & Final Inspection*	*14d*
40		Shelf Test	10d
41		Final Insp & NASA Insp	4d
42		Red Time (A1-2 Receiver Assy) (BLT)	45d
43		*PLO Subassys & Subcontracts*	#####
44		Draw SMT CCAs from Stock (see EOS-A1 Build)	4d
45	1348400-1	DRO Assy	27d
46	1348420-1	Regulator CCA	16d
47		*Major Subcontracts*	*91d*
48		*TCXO*	*16d*
49		TCXO Vendor	0d
50		TCXO Dock-to-Stock	0d
51		*VCGDO*	*12d*
52		VCGDO Vendor	0d
53		VCGDO Dock-to-Stock	0d
54	*1348360-1*	*PLO Assy (2 each)*	*60d*
55		Kit Release (RR - LT)	10d
57		PLO #2 Tune/Align/Assy	6d
58		PLO #1 Tune/Align/Assy	6d
59		PLO Electrical Performance	23d
60		PLO Vibration	6d
61		PLO Thermal/Vacuum Test	15d



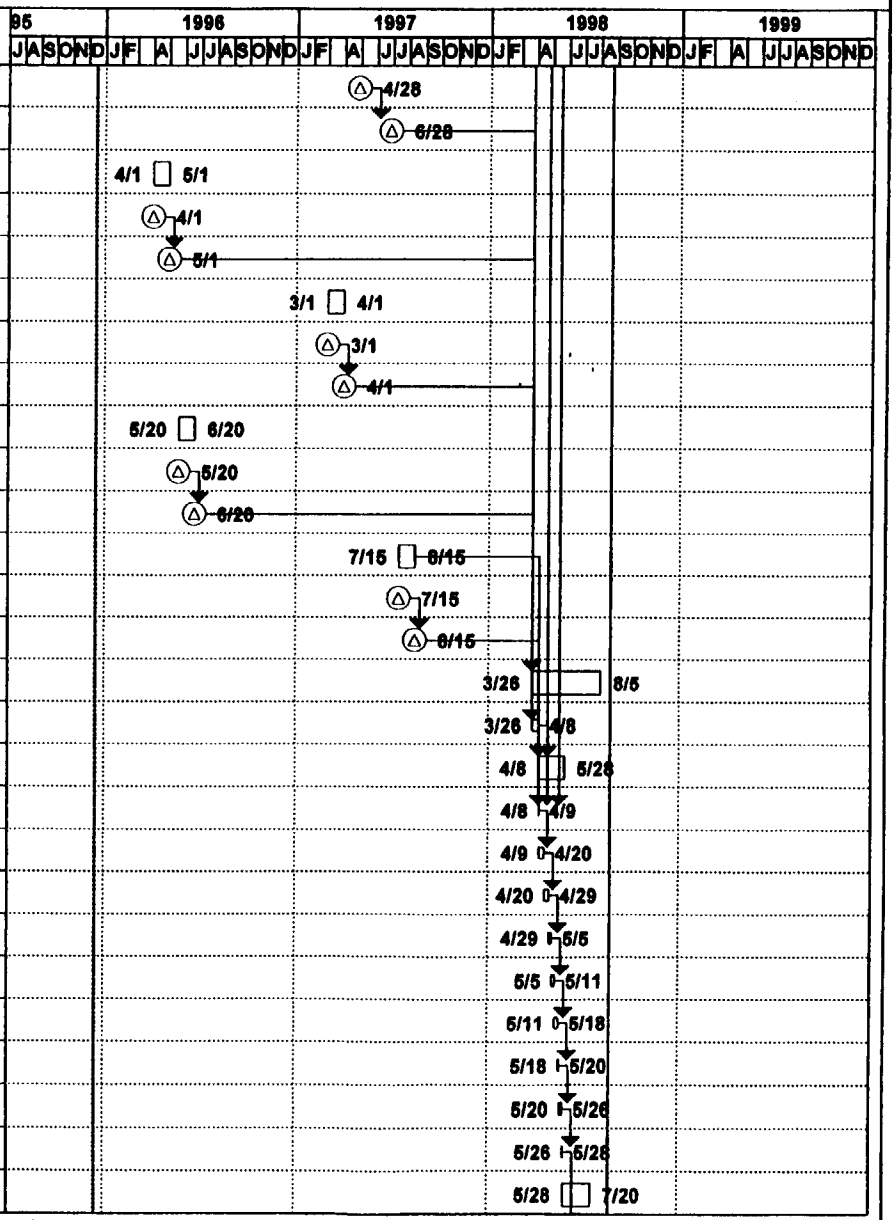
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
62		Red Time (PLO Assy) (BLT)	0d
63		*Major Subcontracts for A1-1 Receiver Assy*	*274d*
64	*1331546-1*	*5-Port Multiplexer*	*15d*
65		5-Port MUX Vendor	0d
66		5-Port MUX Dock-to-Stock	0d
67	*1356680-4,*	*Isolators*	*18d*
68		Isolator Vendor	0d
69		Isolator Dock-to-Stock	0d
70	*1331516*	*IF Attens*	*16d*
71		IF Atten Vendor	0d
72		IF Atten Dock-to-Stock	0d
73	*1331559-1*	*Bandpass Filters*	*17d*
74		BP Filter Vendor	0d
75		BP Filter Dock-to-Stock	0d
76	*1331554-1*	*Hybrid Tee*	*19d*
77		Hybrid Tee Vendor	0d
78		Hybrid Tee Dock-to-Stock	0d
79	*1356669/70*	*Power Dividers*	*11d*
80		Pow Div Vendor	0d
81		Pow Div Dock-to-Stock	0d
82	*1331562-16*	*Mixer Amps*	*12d*
83		Mix/Amp Vendor	0d
84		Mix/Amp Dock-to-Stock	0d
85	*1331576-1*	*Saw Filters*	*16d*
86		Saw Filt Vendor	0d
87		Saw Filt Dock-to-Stock	0d
88	*1331579-7*	*IF Amplifier*	*34d*



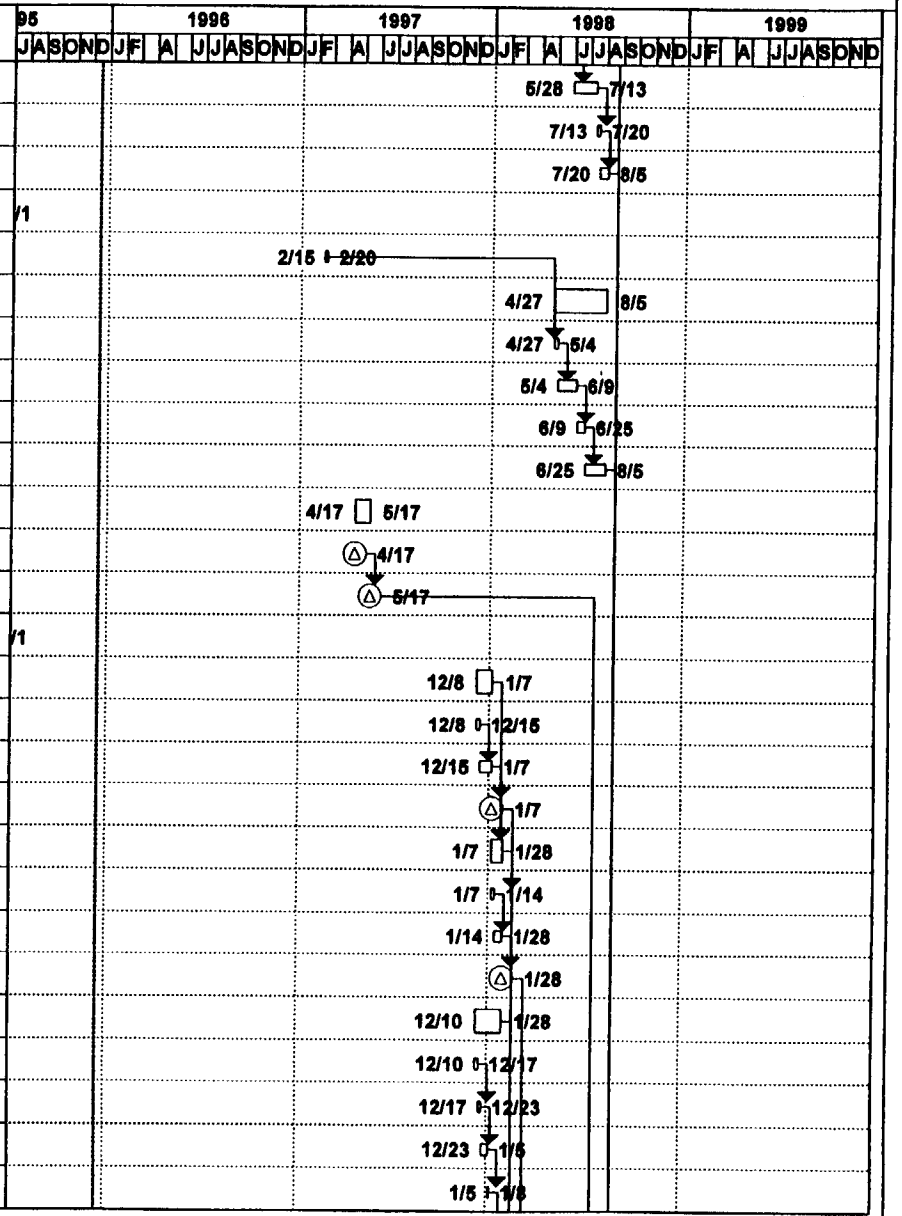
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
89		IF Amp Vendor	0d
90		IF Amp Dock-to-Stock	0d
91	*1331509/10*	*Waveguide Atten*	*18d*
92		W/G Atten Vendor	0d
93		W/G Atten Dock-to-Stock	0d
94		*89GHz GDO (Channel 15)*	*18d*
95		GDO Vendor	0d
96		GDO Dock to Stock	0d
97		*Beryllium Shelf*	*18d*
98		Be Shelf Vendor	0d
99		Be Shelf Dock-to-Stock	0d
100	*1356610-6,*	*DRO*	*18d*
101		DRO Vendor	0d
102		DRO Dock-to-Stock	0d
103	*1356429-1*	*Receiver Assy, A1-1*	*73d*
104		Kit Release (RR - LT)	7d
106		*Final Assemble*	*28d*
107		ID Components & Shelf	1d
108		DRO/Waveguide Attenuator Test	5d
109		Install RF Components	6d
110		Install Temp Sensor, T/B & Wire Mnts	3d
111		Wiring	3d
112		Insp & NASA Insp	4d
113		Fab SMA Cables	2d
114		VSWR Test	2d
115		Clean & Spot Bond	2d
116		*Test & Final Inspection*	*28d*



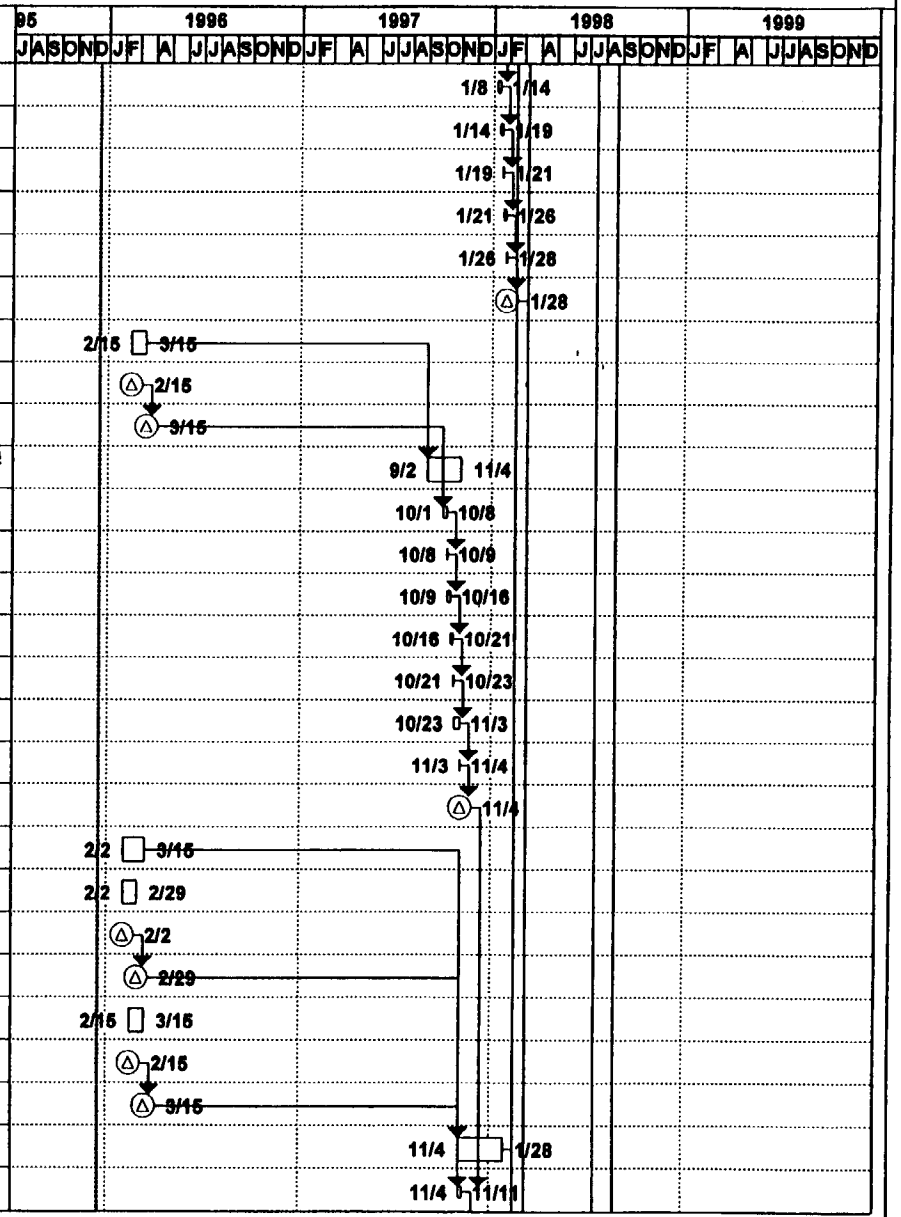
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
117		Test	24d
118		Final Insp & NASA Insp	4d
119		Red Time (A1-1 Receiver Assy) (BLT)	10d
120		ELECTRONIC PRODUCT TEAM	1d
121		Draw all Subsystems from Stock (see EOS-A1 Build)	4d
122	*1331670-2*	*Signal Processing Assy*	*56d*
123		Kit Parts (RR - LT)	4d
125		Integrate & Checkout	20d
126		Test	10d
127		Red Time (A1 Signal Processor Assy) (BLT)	22d
128	*1356010-1*	*DC/DC Conv*	*16d*
129		Vendor Commit	0d
130		Dock-Stock	0d
131		ANTENNA PRODUCT TEAM	1d
132	*1331381-1*	*Warmload (2)*	*12d*
133		Kit Parts (RR - LT)	4d
134		Assembly (LT)	8d
135		Red Time (BLT)	0d
136	*1331380-1*	*Calibration Source (2)*	*12d*
137		Kit Parts (RR - LT)	4d
138		Assembly (LT)	8d
139		Red Time (BLT)	0d
140	*1331351-1*	*Antenna Subassy, Machined*	*22d*
141		Kit Parts (RR - LT)	4d
143		Assy Up/Low Struct, Square, Torque, Verify	3d
144		Drill & Pin all Panels	1d
145		Install, Machine, & Verify Isolators	3d



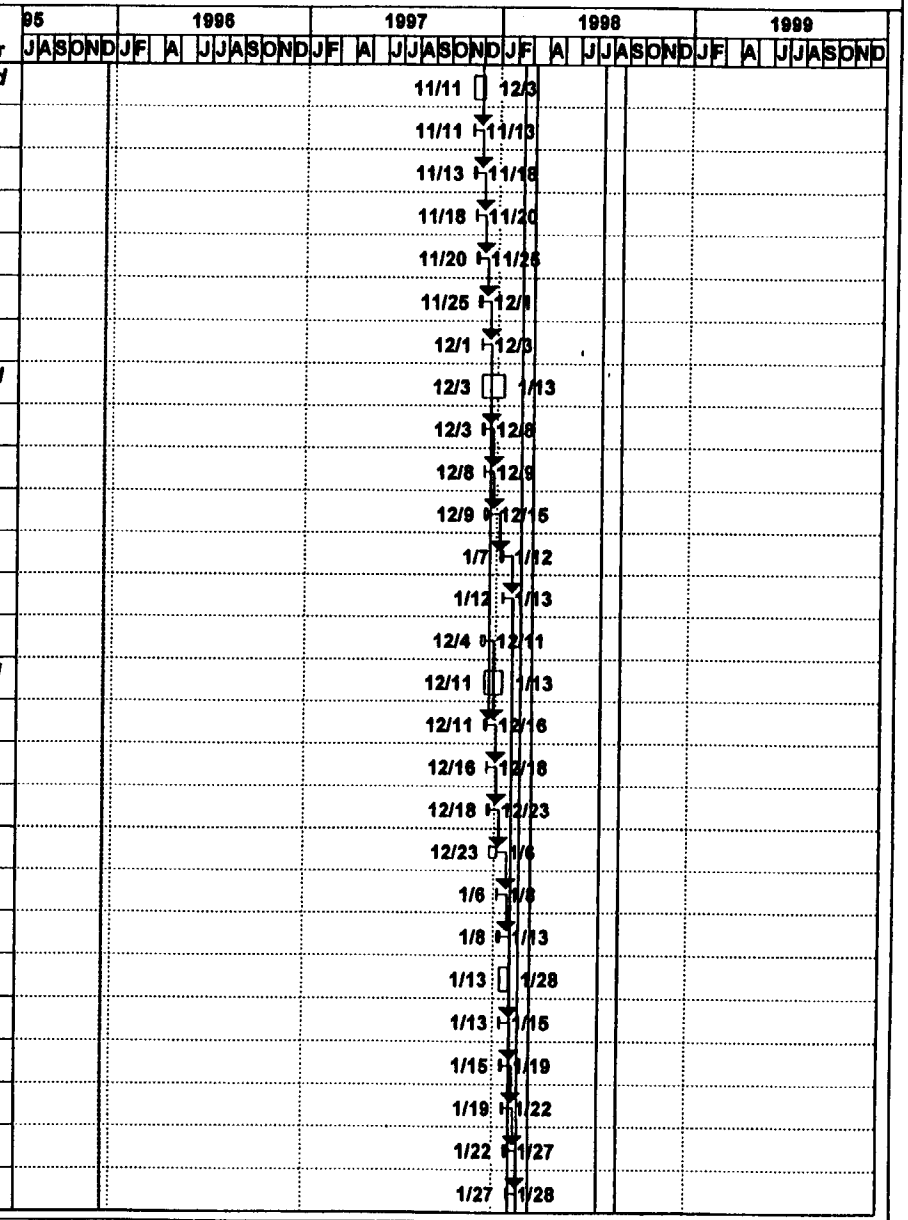
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
146		Machine Upper Motor Mount & Alignment Cube, Insp	3d
147		Machine Low Motor Mount, Touchup w/Alodyne	2d
148		Install Inserts, Clean & Apply Gold Tape	2d
149		ID the Assy	2d
150		Final Inspect/NASA Insp	2d
151		Red Time (A1 Antenna Subassy, Mach) (BLT)	0d
152	*1333667-1*	*Bearings*	*16d*
153		Bearing Vendor LT	0d
154		Bearings Dock-Stock	0d
155	*1333647-1*	*Rotating Assys (2)*	#####
156		Kit Parts (RR - LT)	4d
158		Apply Flourad	1d
159		Install & Inspect Bearings	4d
160		Install Dowel Pin in Shaft	2d
161		Apply Flourad & ID the Assy	2d
162		Torque Breakaway Test (Ambient & Cold)	5d
163		Final Inspect	1d
164		Red Time (A1 Rotating Assys) (BLT)	0d
165		*Major Subs for Drive Assy, Reflector*	*24d*
166	*1331529-1*	*Resolvers*	*16d*
167		Resolver LT	0d
168		Resolver Dock-Stock	0d
169	*1331392-1*	*Motors*	*16d*
170		Motor Vendor LT	0d
171		Motor Dock-Stock	0d
172	*1333640-1,*	*Drive Assy, Reflectors (2)*	*42d*
173		Kit Release (RR - LT)	4d



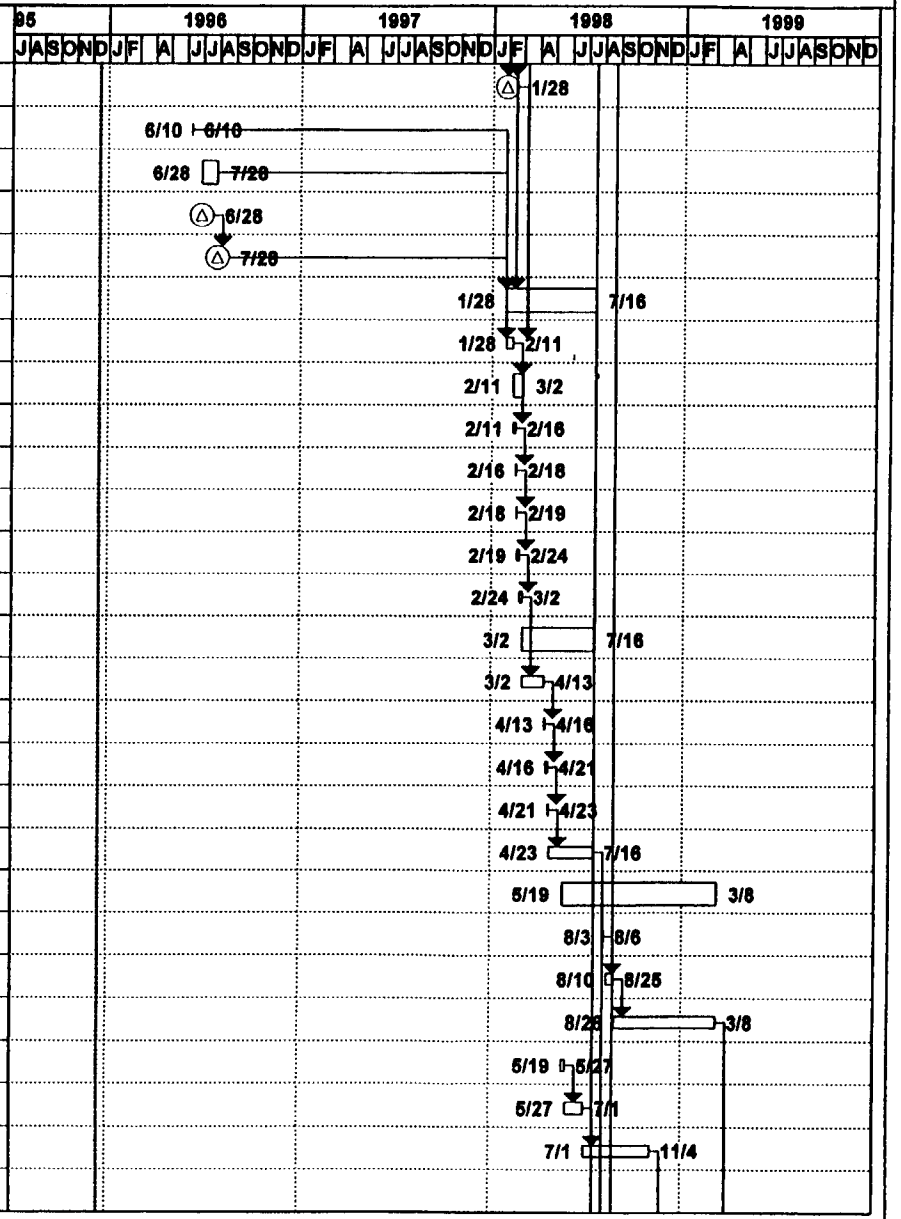
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
175		*Assemble (A1-1)*	*12d*
176		Install Resolver & Motor, Inspect	2d
177		Bond	2d
178		Wire	2d
179		Inspect & NASA Insp Wiring	2d
180		Install Cover/Torque, ID Assy	2d
181		Inspect/NASA Inspect	2d
182		*Test (A1-1)*	*17d*
183		Test Reflector Drive Motor Assy	2d
184		QE/Inspection Verify Test Data	1d
185		Random Vibration Test	3d
186		Verify Motor Operation	2d
187		QE Data Rev, Insp, NASA Insp	1d
188		Kit Release (RR - LT)	4d
189		*Assemble (A1-2)*	*12d*
190		Install Resolver & Motor, Inspect	2d
191		Bond	2d
192		Wire	2d
193		Inspect & NASA Insp Wiring	2d
194		Install Cover/Torque, ID Assy	2d
195		Inspect/NASA Inspect	2d
196		*Test (A1-2)*	*9d*
197		Test Reflector Drive Motor Assy	2d
198		QE/Inspection Verify Test Data	1d
199		Random Vibration Test	3d
200		Verify Motor Operation	2d
201		QE Data Rev, Insp, NASA Insp	1d



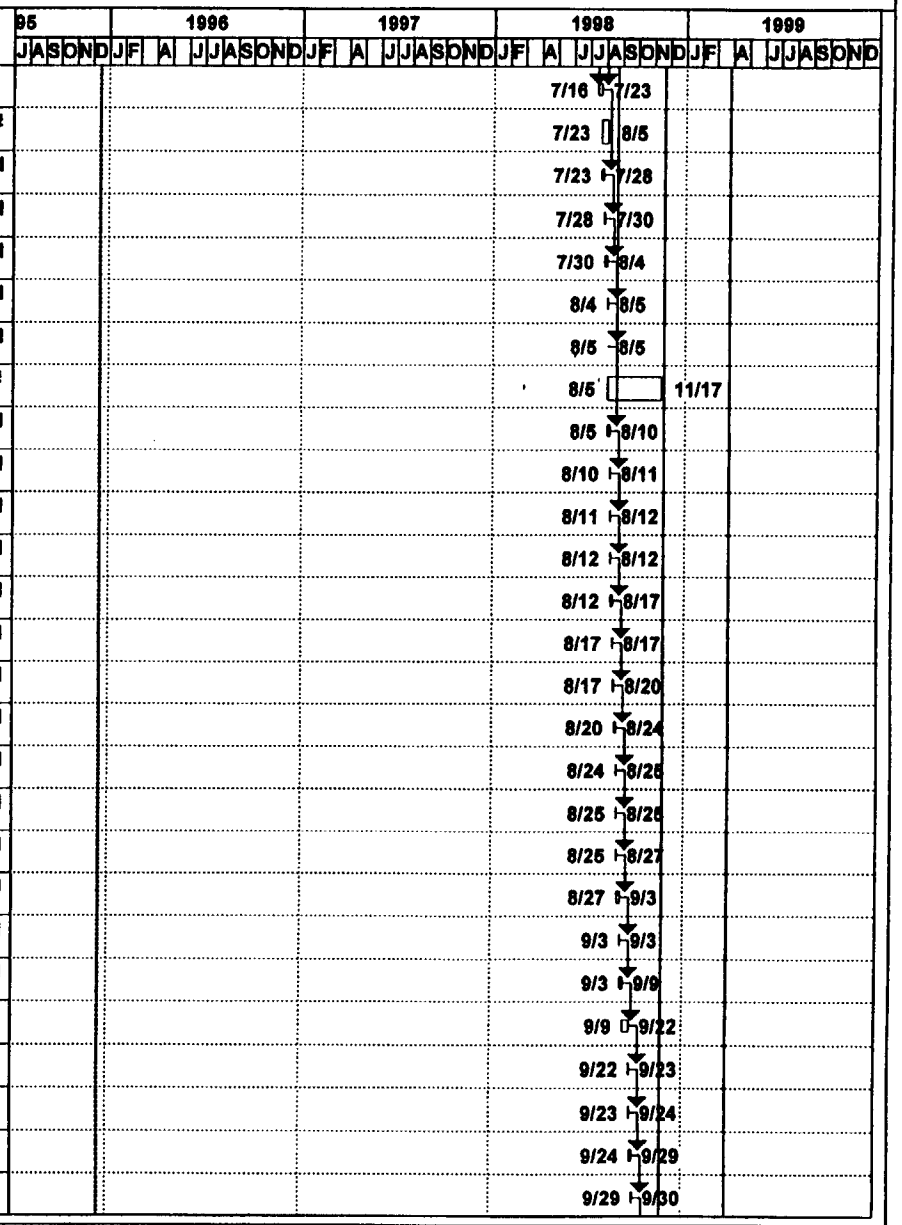
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
202		Red Time (A1 Drive Assys, Reflct) (BLT)	0d
203		Receive Reflector Assy 1355777-1 From M/S	1d
204		*Feedhorn*	*15d*
205		Feedhorn Vendor	0d
206		Feedhorn Dock-to-Stock	0d
207	*1331400-2*	*A1 Antenna Assy*	*95d*
208		Kit Release (RR - LT)	8d
210		*Assembly*	*10d*
211		Install Tube Brackets & Align Cube	2d
212		ID Unit & Bond Wire Mounts/Grommets	2d
213		Inst Drive Assemblies	1d
214		Install, Align & Pin Feedhorns & Inspect	2d
215		Install/Align Reflectors & Inspect	3d
216		*Antenna Range Testing & Final Assy*	*77d*
217		Subassy Pattern Test	24d
218		Drill/Pin Drive Motors, Install Warmloads, Inspect	3d
219		Verify all Torque & Add Wet Bends	2d
220		Final Assy, Insp, NASA Insp	2d
221		Red Time (A1 Antenna Assy) (BLT)	46d
222		*A1 Top Assy - Blanket & Mirror Panel Assys*	#####
223		Kit Release (RR-LT)	4d
224	1331626-2,9	Assemble Insulating Blanket Assemblies	10d
225	1331626-2,9	Red Time (A1 Blanket Assys) (BLT)	104d
226		Kit Release (RR-LT)	4d
227	131257-6,7,1	Assemble Mirror Panel Assemblies	20d
228	131257-6,7,1	Red Time (A1 Mirror Panel Assys)) (BLT)	70d
229	*1331720-2*	*METSAT-A1 Top Assembly*	#####



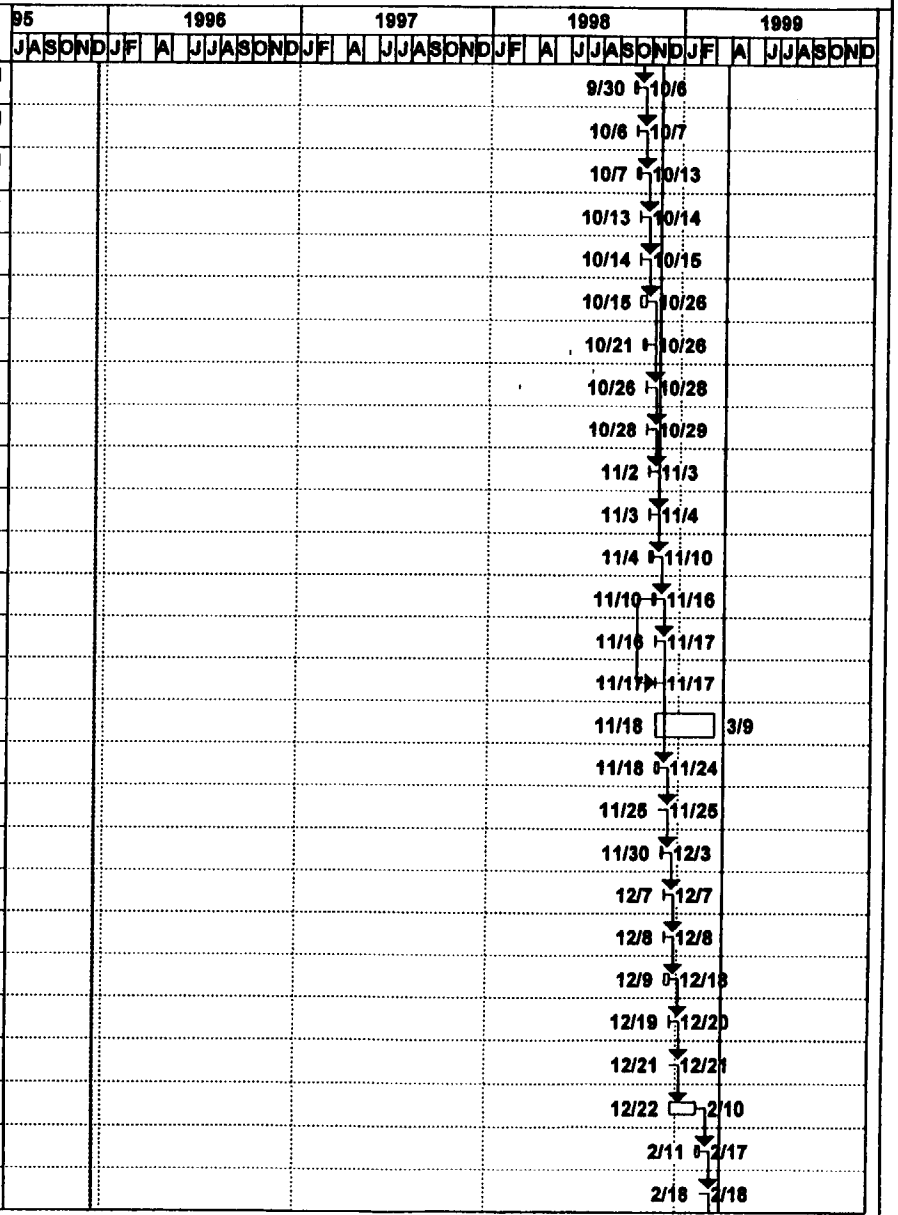
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
230		Kit Parts (RR - LT)	4d
232		*Prelim Integration (Pre-Receiver/Sig Processor)*	####
233		Bond Grommet, Temp Sensors, Term Bds, Inspe	1.76d
234		Install Cable Assemblies	2.35d
235		Install DC/DC Converter & Power Ctrl Assy	1.76d
236		Continuity Test	0.59d
237		Inspect/NASA Inspect Workmanship	0.59d
238		*Instrument Integration & Test*	####
239		Align Rivet A1-1 Receivers & Inspect	1.76d
240		Wire A1-1 & A1-2 Receivers	1.18d
241		Continuity Test	0.59d
242		Inspect/NASA Inspect Receiver Wiring	0.59d
243		Align/Rivet A1-2 Receiver & Inspect	1.18d
244		Install Test Panels	0.59d
245		Fab, Condition, Test, Inspect Coax Cables	2.94d
246		Install "Clamshell"	0.59d
247		Crit Wiring Isol (Continuity) Test	1.18d
248		QE Data Rev, Insp/NASA Insp (Crit Wiring Isol)	0.59d
249		System Integration (Ambient) Test	1.76d
250		DRO Bias/Frequency & Bandpass Test	3.53d
251		QE Data Rev, Insp/NASA Insp (DRO Bias Tests)	0.59d
252		System Integration (Ambient) Tests	1.76d
253		Drive Subsystem Test	7.06d
254		Inspect/NASA Inspect CCAs	1.18d
255		Signal Processor CPT	1.18d
256		QE Data Rev, Inspect/NASA Insp (DRV/S/P Tests)	1.18d
257		Temp Connect Preamp/Coax, Bond Wiring	1.18d



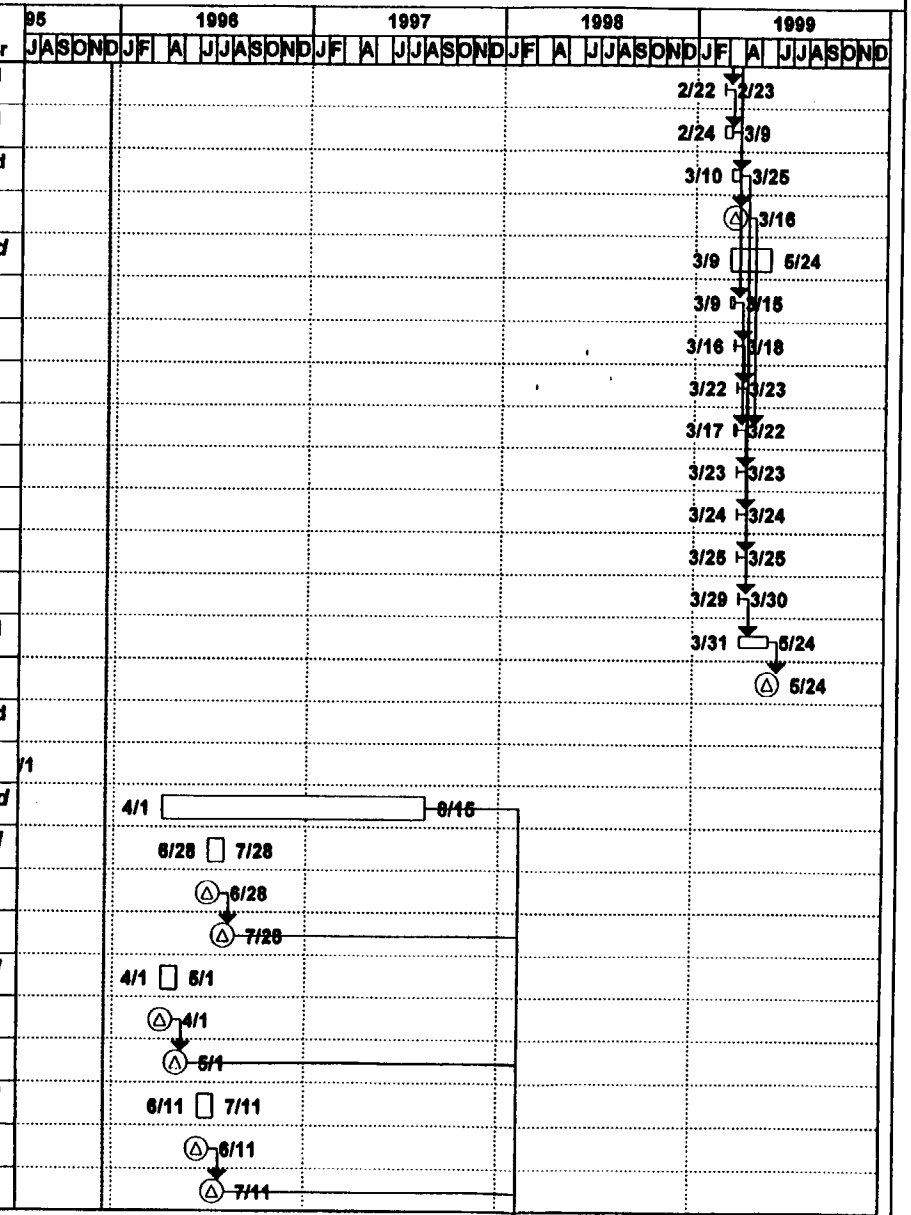
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
258		Gain & Offset Tests	2.94d
259		QE Data Rev, Insp/NASA Insp (Gain & Offset Test	1.18d
260		PRT Calibration Tests (2 Shifts)	3.53d
261		QE Data Review (PRT Calibration)	0.59d
262		Reassemble for Evaluation CPT	1.18d
263		Evaluation CPT	4.71d
264		Sub Shop Order Prep	2.35d
265		Sub Touch-Up Conformal Coat CCAs	2.35d
266		Sub Inspect/NASA Inspect CCAs	1.18d
267		Sub Install CCAs & Inspect Subassys	1.18d
268		Sub Final Inspection & Final NASA Buyoff	1.18d
269		Reassemble for Baseline CPT	3.53d
270		Comprehensive Perf Test (Baseline)	2.35d
271		QE Data Rev, Insp/NASA Insp (Baseline)	1.76d
272		PER	1d
273		*Instrument Accept Tests*	*58d*
274		EMI/RFI & Mag Field Tests	4d
275		Data Review (EMI Tests)	1d
276		Random Vib/LPT	4d
277		Data Review (Random Vib Tests)	1d
278		Sub CPT, Post-Vib Inspect & NASA Inspect	1d
279		Thermal Cycle (Incl Setup)	10d
280		Sub CPT (Thermal Cycle)	2d
281		Data Review (Thermal Cycle)	1d
282		Primary Calibration (Including Setup) (Turbo)	40d
283		Final CPT (Primary Calibration)	7d
284		Data Review (Calibration)	1d



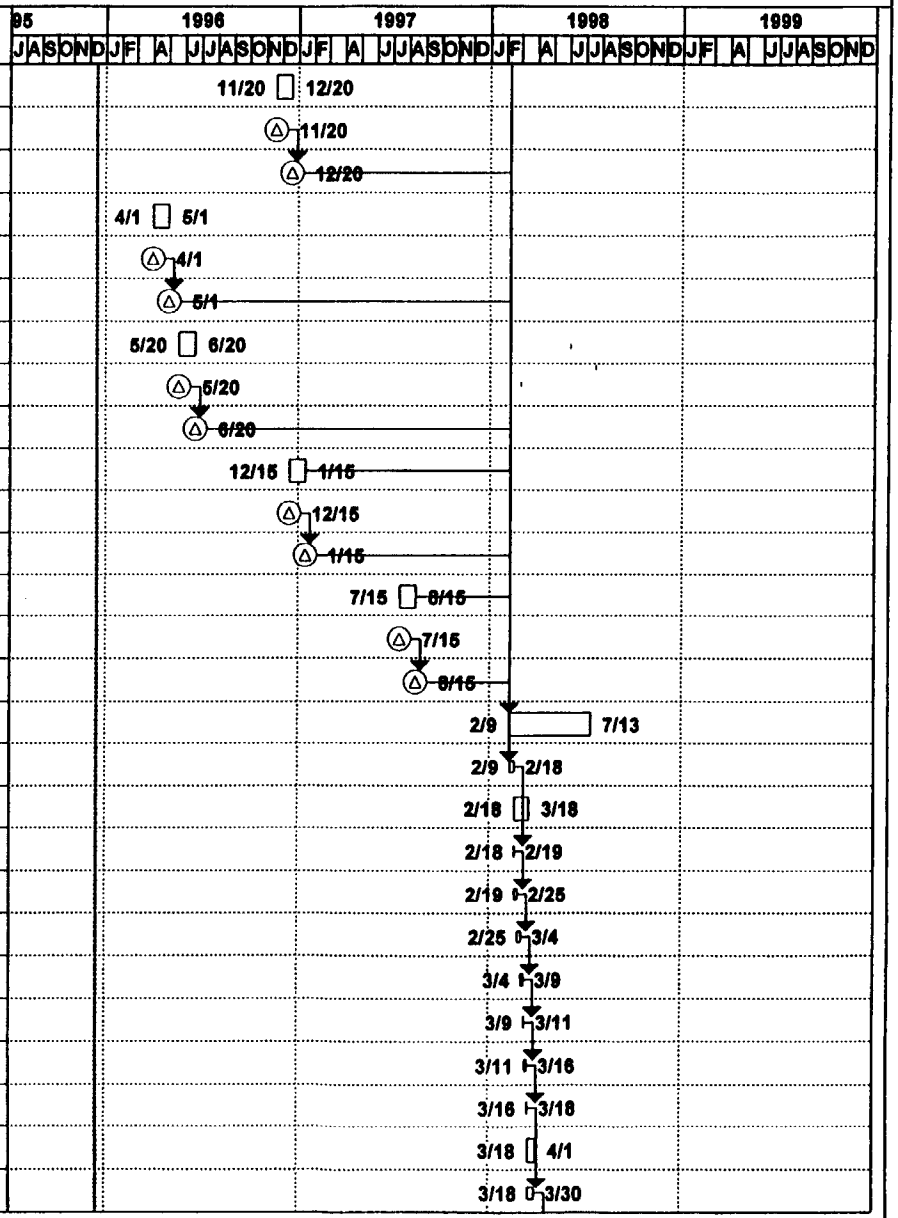
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
285		Weight & CG	2d
286		Momentum Compensation Test	8d
287		Ship PSR Data Package	10d
288		Red Time (A1 Top Assy - Integ & Test) (BLT)	0d
289	*1338395-2*	*METSAT-A1 Shipping Config*	*44d*
290		Kit Release (RR - LT)	4d
292		Clean Shipping Container	3d
293		Inspect & Purge Shipping Container	2d
294		Clean Instrument	3d
295		Inspect Instrument for Cleanliness	1d
296		Load Unit in Shipping Container (Witness)	1d
297		Seal & Inspect Shipping Container	1d
298		PSR	2d
299		Red Time (A1 Prog Mgt) (BLT)	31d
300		SHIP METSAT3-A1 INSTRUMENT (5/24/99)	0d
		METSAT3 A2	812d
1		RECEIVER PRODUCT TEAM	1d
2		*Major Subs for A2 Receiver Assy*	*274d*
3	*1331084*	*Diplexer*	*15d*
4		Diplexer Vendor	0d
5		Diplexer Dock-to-Stock	0d
6	*1331111-2,*	*Isolators*	*18d*
7		Isolator Vendor	0d
8		Isolator Dock-to-Stock	0d
9	*1331559-3,*	*Bandpass Filters*	*17d*
10		BP Filter Vendor	0d
11		BP Filter Dock-to-Stock	0d



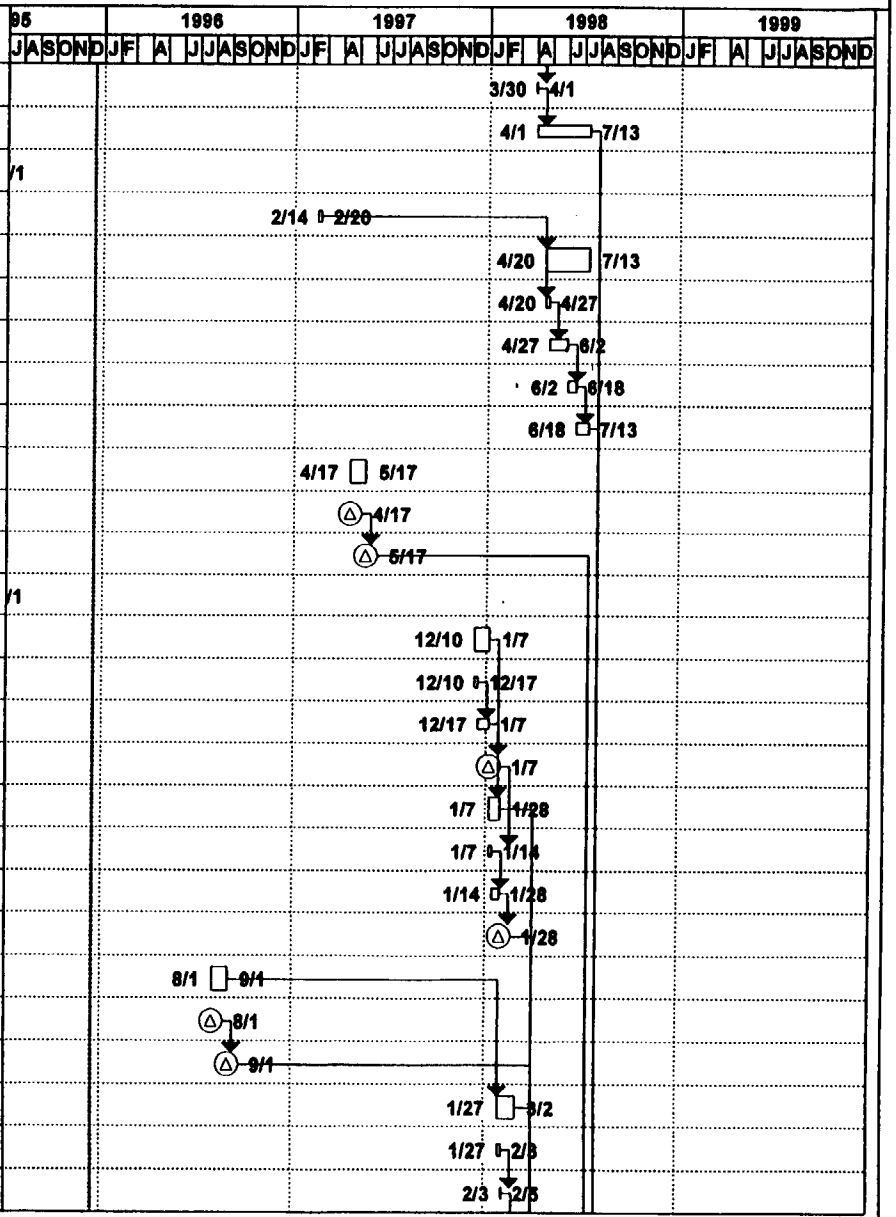
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
12	*1331516*	*IF Attenuators*	*16d*
13		IF Atten Vendor	0d
14		IF Atten Dock-to-Stock	0d
15	*1331100-1,*	*Waveguide Atten*	*18d*
16		W/G Atten Vendor	0d
17		W/G Atten Dock-to-Stock	0d
18		*Beryllium Shelf*	*18d*
19		Be Shelf Vendor	0d
20		Be Shelf Dock-to-Stock	0d
21	*1331562-11*	*Mixer Amps*	*12d*
22		Mix/Amp Vendor	0d
23		Mix/Amp Dock-to-Stock	0d
24	*1336610-1,*	*DRO*	*18d*
25		DRO Vendor	0d
26		DRO Dock-to-Stock	0d
27	*1356441-1*	*Receiver Assy, A2*	*86d*
28		Kit Release (RR - LT)	6d
30		*Final Assemble*	*16d*
31		ID Components & Shelf	1d
32		DRO/Waveguide Attenuator Test	3d
33		Install RF Components	4d
34		Install Temp Sensor, T/B & Wire Mnts	2d
35		Wiring	2d
36		VSWR Test	2d
37		Clean & Spot Bond	2d
38		*Test & Final Inspection*	*8d*
39		Test	6d



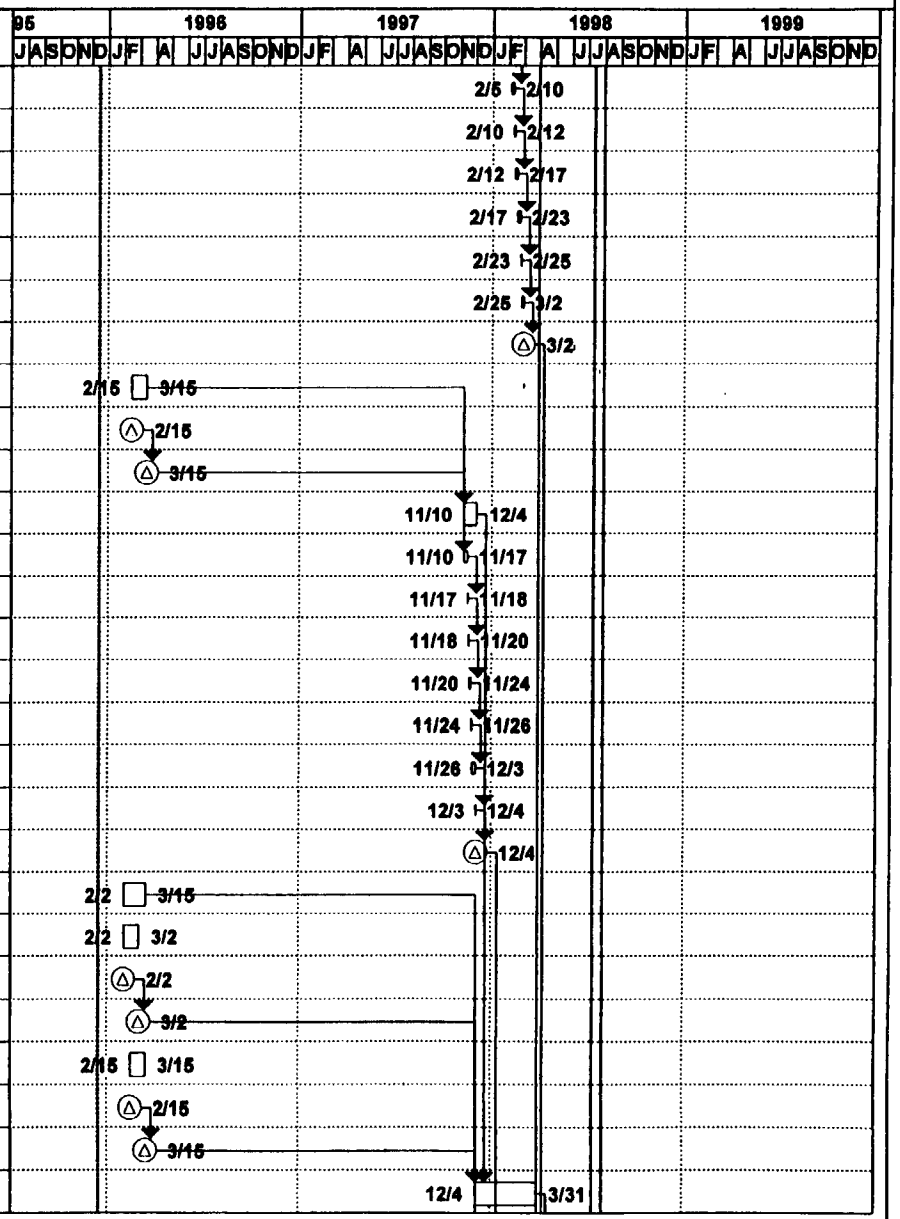
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
40		Final Insp & NASA Insp	2d
41		Red Time (A2 Receiver Assy) (BLT)	56d
42		ELECTRONIC PRODUCT TEAM	1d
43		Draw from Stock (See EOS-A1 Build)	4d
44	*1356412-1*	*Signal Processing Assy*	*46d*
45		Kit Parts (RR - LT)	4d
47		Integrate & Checkout	20d
48		Test	10d
49		Red Time (A2 Signal Processor Assy) (BLT)	12d
50	*1356010-1*	*DC/DC Conv*	*16d*
51		Vendor Commit	0d
52		Dock-Stock	0d
53		ANTENNA PRODUCT TEAM	1d
54	*1331236-1*	*Warmload*	*10d*
55		Kit Parts (RR - LT)	4d
56		Assembly (LT)	6d
57		Red Time (BLT)	0d
58	*1331235-1*	*Calibration Source*	*12d*
59		Kit Parts (RR - LT)	4d
60		Assembly (LT)	8d
61		Red Time (BLT)	0d
62	*1355835-1*	*Composite Reflector*	*16d*
63		Vendor LT	0d
64		Dock-to-Stock	0d
65	*1331303-1*	*Antenna Subassy, Machined*	*19d*
66		Kit Parts (RR - LT)	4d
68		Assemble & Pin Structure	2d



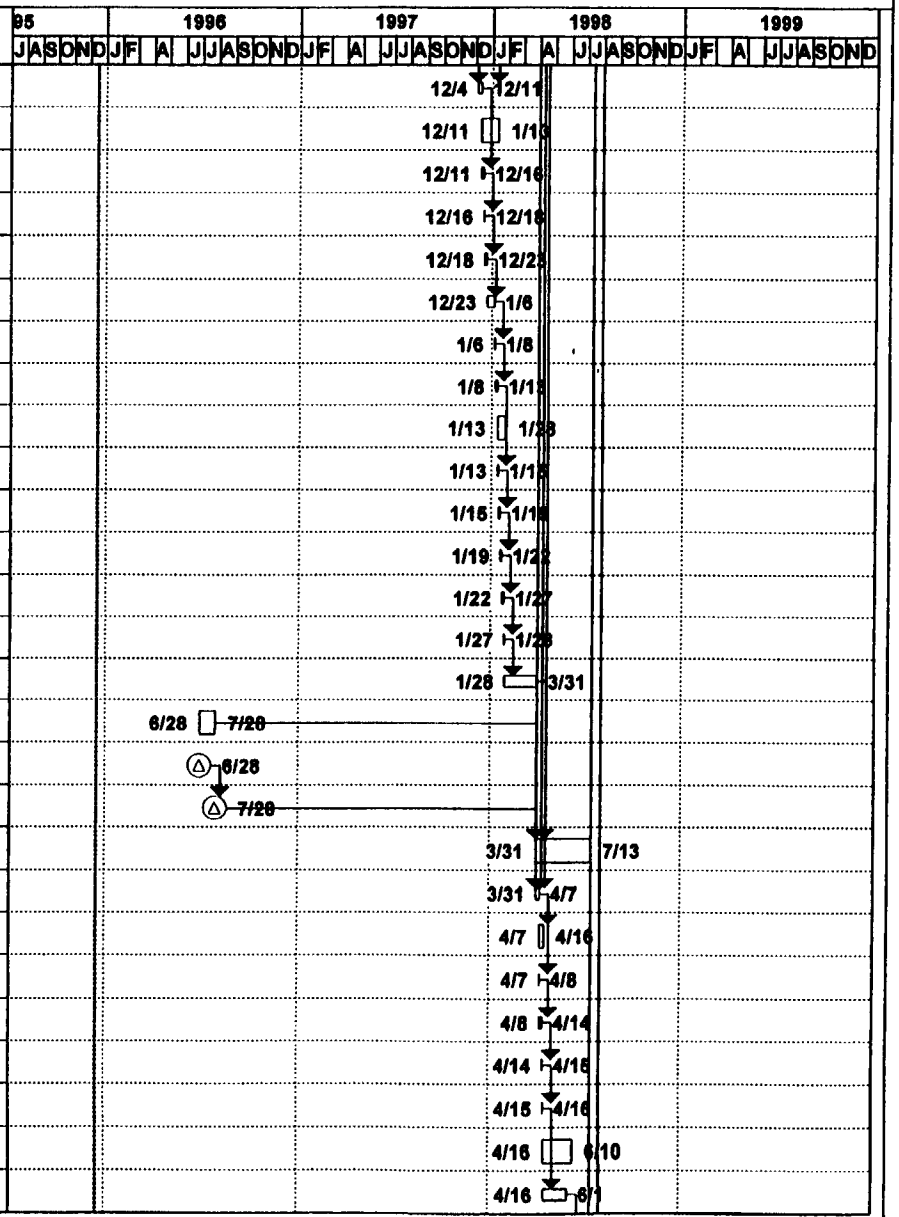
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
69		Install & Machine Item 14 Spacer & Inspect	2d
70		Machine Item 13 Spacers & Verify	2d
71		Machine Item 15 Spacers & Verify	2d
72		Final Machine Structure & Inspect	3d
73		Touch-up w/Alodyne and Install Inserts	2d
74		ID the Assembly	2d
75		Red Time (A2 Antenna Subassy, Mach) (BLT)	0d
76	*1333667-1*	*Bearings*	*16d*
77		Bearing Vendor LT	0d
78		Bearings Dock-Stock	0d
79	*1333651-1*	*Rotating Assy*	*14d*
80		Kit Parts (RR - LT)	4d
82		Apply Flourad	1d
83		Install & Inspect Bearings	2d
84		Install Dowel Pin in Shaft	1d
85		Apply Flourad & ID the Assemble	2d
86		Torque Breakaway Test (Ambient & Cold)	3d
87		Final Inspect	1d
88		Red Time (A2 Rotating Assy) (BLT)	0d
89	*Various*	*Major Subs for A2 Drive Assy, Reflector*	*24d*
90	*1331529-1*	*Resolvers*	*16d*
91		Resolver LT	0d
92		Resolver Dock-Stock	0d
93	*1333648-1*	*Motors*	*16d*
94		Motor Vendor LT	0d
95		Motor Dock-Stock	0d
96	*1333650-1*	*Drive Assy, Reflector*	*60d*



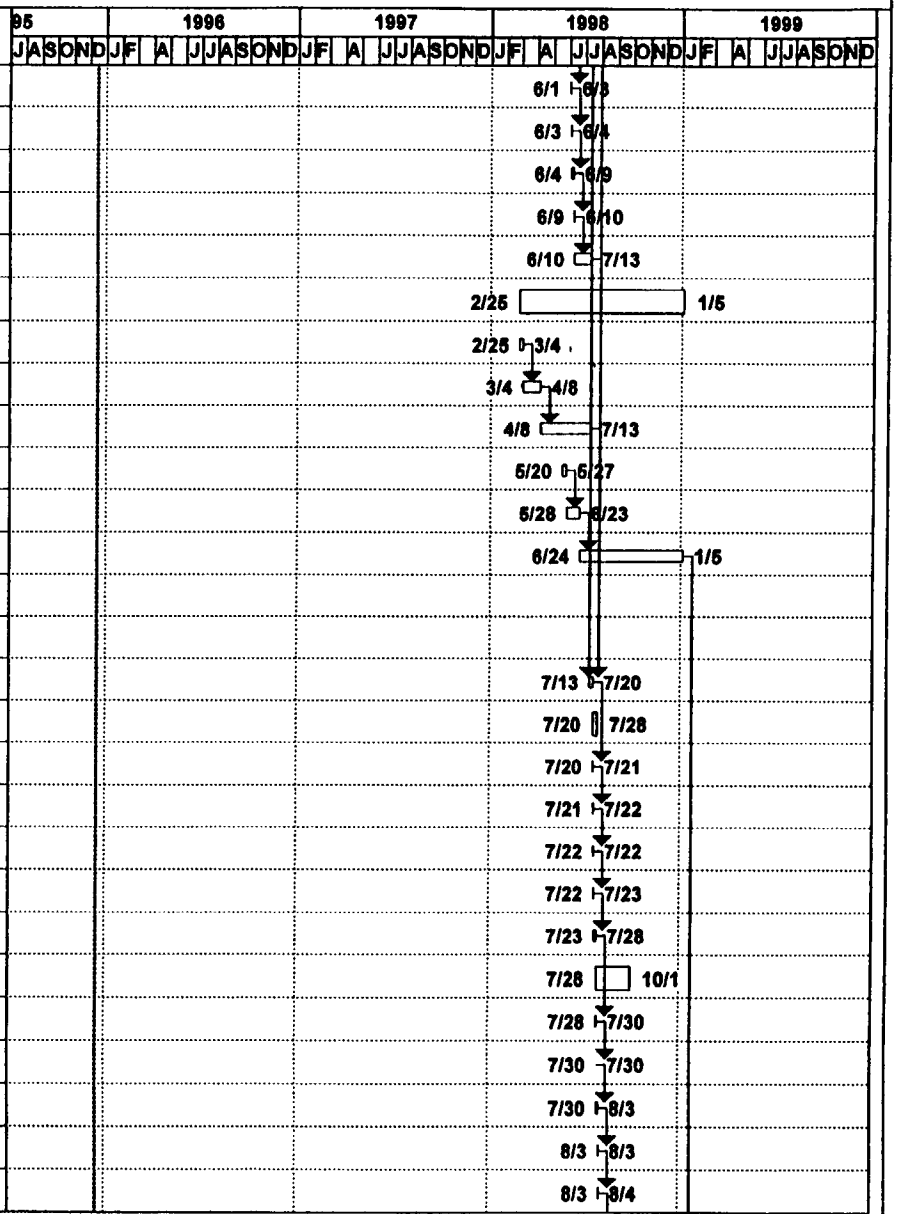
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
97		Kit Release (RR - LT)	4d
99		*Assemble*	*12d*
100		Install Resolver & Motor, Inspect	2d
101		Bond Components	2d
102		Wire Components	2d
103		Inspect & NASA Insp Wiring	2d
104		Install Cover/Torque	2d
105		Inspect & NASA Insp	2d
106		*Test & Final Inspection*	*9d*
107		Test Reflector Drive Motor Assy	2d
108		QE Data Review	1d
109		Random Vibration Test	3d
110		Verify Motor Operation	2d
111		Final Insp, NASA Insp	1d
112		Red Time (A2 Drive Assy, Reflct) (BLT)	35d
113		*Feedhorn Assembly*	*15d*
114		Feedhorn Vendor	0d
115		Feedhorn Dock-to-Stock	0d
116	*1331210-3*	*A2 Antenna Assy*	*57d*
117		Kit Release (RR - LT)	4d
119		*Assembly*	*6d*
120		Install Cube, Feedhorn & Sec Reflector	1d
121		Optical Alignment and Inspection	3d
122		Drill/Pin Secondary Reflector	1d
123		Install Drive Motor, Reflector, Diplexer	1d
124		*Antenna Range Testing & Final Assy*	*30d*
125		Subassy Pattern Test	24d



AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
126		Pin Drive Motor & Install Warmload	2d
127		Inspect Antenna Assy	1d
128		Bond Wiremounts & Identify	2d
129		Final Assy, Insp, NASA Insp	1d
130		Red Time (A2 Antenna Assy) (BLT)	17d
131		*A2 Top Assy - Compensator & Blanket Assys*	####
132		Kit Release (RR-LT)	4d
133	1333660-1	Assemble Compensator Assembly	20d
134	1333660-1	Red Time (A2 Compensator Assy) (BLT)	52d
135		Kit Release (RR-LT)	4d
136	1331253-2/-5	Assemble Insulating Blanket Assemblies	15d
137	1331253-2/-5	Red Time (A2 Blanket Assys) (BLT)	104d
138		SEIT PRODUCT TEAM	1d
139	*1356006-1*	*METSAT-A2 Top Assembly*	####
140		Kit Parts (RR - LT)	4d
142		*Prelim Integration (Pre-Receiver/Sig Proc)*	*5.3d*
143		Install Cable Assys	1.18d
144		Continuity Check	0.59d
145		Install DC/DC Conv & Power Ctrl Assy	0.59d
146		Continuity Test	0.59d
147		Instl Wrmld, Bond Grommts, T.B., Temp Sensors	2.35d
148		*Instrument Integration & Test*	####
149		Install, Align/Rivet Receiver	1.18d
150		Inspect Riveting, Shim Block	0.59d
151		Solder Temp Sensor Leads	0.59d
152		Receiver Continuity Test	0.59d
153		Inspect/NASA Inspect Receiver Wiring	0.59d



AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur	95	1996	1997	1998	1999
				JASOND	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND	JFMAMJJASOND
154		Fab, Condition, Test, Inspect Coax Cables	0.59d				8/4 8/5	
155		Antenna & Receiver Isol Test	0.59d				8/5 8/5	
156		DC/DC Test, Crit Wiring Isol (Continuity) Test	1.18d				8/5 8/6	
157		QE Data Rev, Insp/NASA Insp (Crit Wiring Isol)	0.59d				8/6 8/10	
158		System Integration (Ambient) Test	1.18d				8/10 8/11	
159		DRO Bias/Frequency & Bandpass Test	1.18d				8/11 8/12	
160		QE Data Rev, Insp/NASA Insp (DRO Bias Tests)	0.59d				8/12 8/13	
161		System Integration (Ambient) Tests	1.76d				8/13 8/18	
162		Drive Subsystem Test	4.71d				8/18 8/25	
163		Inspect/NASA Inspect CCAs	0.59d				8/25 8/26	
164		Signal Processor CPT	1.18d				8/26 8/27	
165		QE Data Rev, Inspect/NASA Insp (DRV/S/P Tests)	0.59d				8/27 8/31	
166		Temp Connect Preamp/Coax, Bond Wiring	0.59d				8/31 8/31	
167		Gain & Offset Tests	0.59d				8/31 9/1	
168		QE Data Rev, Insp/NASA Insp (Gain & Offset Test	1.18d				9/1 9/2	
169		PRT Calibration Tests (2 Shifts)	2.35d				9/2 9/8	
170		QE Data Review (PRT Calibration)	0.59d				9/8 9/9	
171		Reassemble for Evaluation CPT	0.59d				9/9 9/10	
172		Evaluation CPT	2.35d				9/10 9/15	
173		Sub Shop Order Prep	2.35d				9/10 9/15	
174		Sub Touch-Up Conformal Coat CCAs	2.35d				9/15 9/17	
175		Sub Inspect/NASA Inspect CCAs	1.18d				9/17 9/21	
176		Sub Install CCAs & Inspect Subassys	1.18d				9/21 9/23	
177		Sub Final Inspection & Final NASA Buyoff	1.18d				9/23 9/24	
178		Reassemble for Baseline CPT	1.18d				9/24 9/28	
179		Comprehensive Perf Test (Baseline)	2.35d				9/28 9/30	
180		QE Data Rev, Insp/NASA Insp (Baseline)	1.18d				9/30 10/1	

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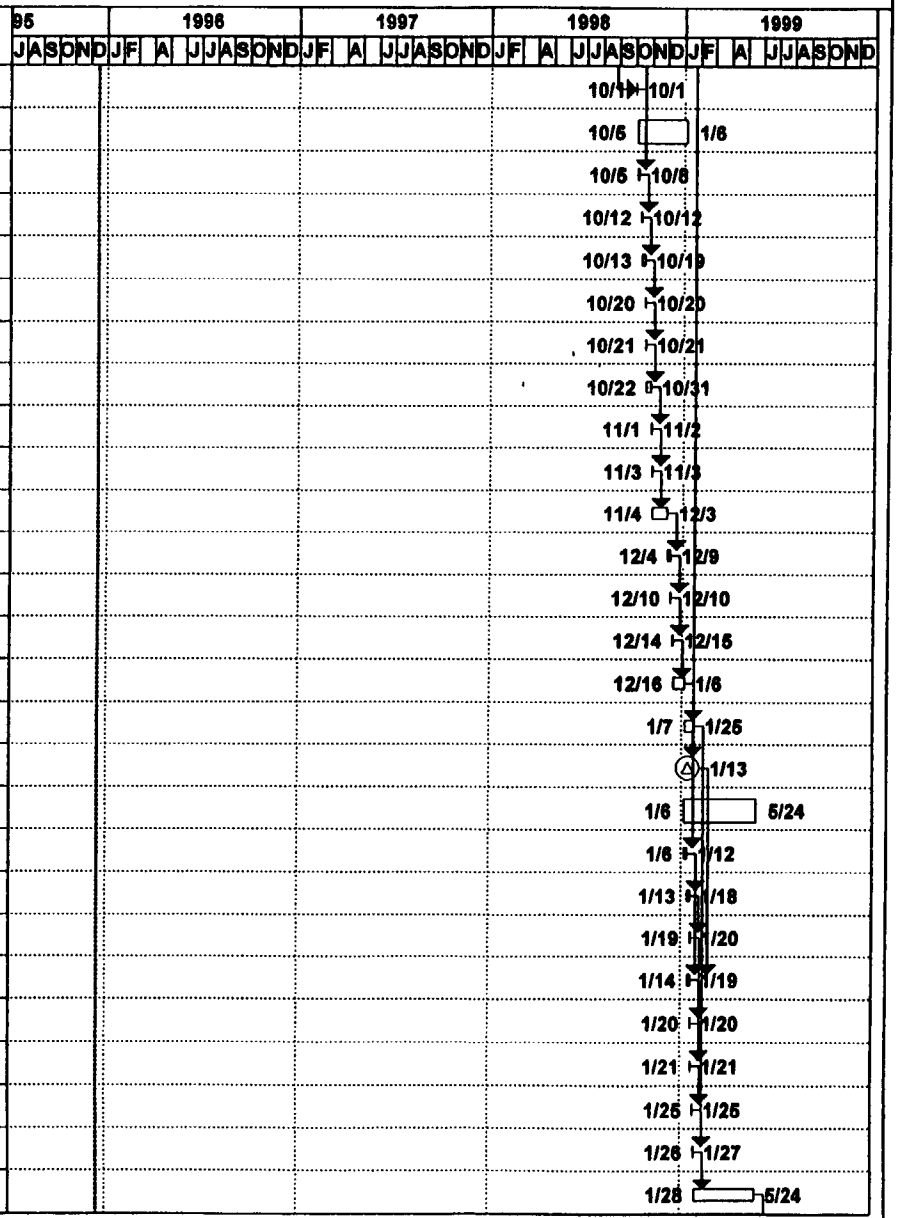
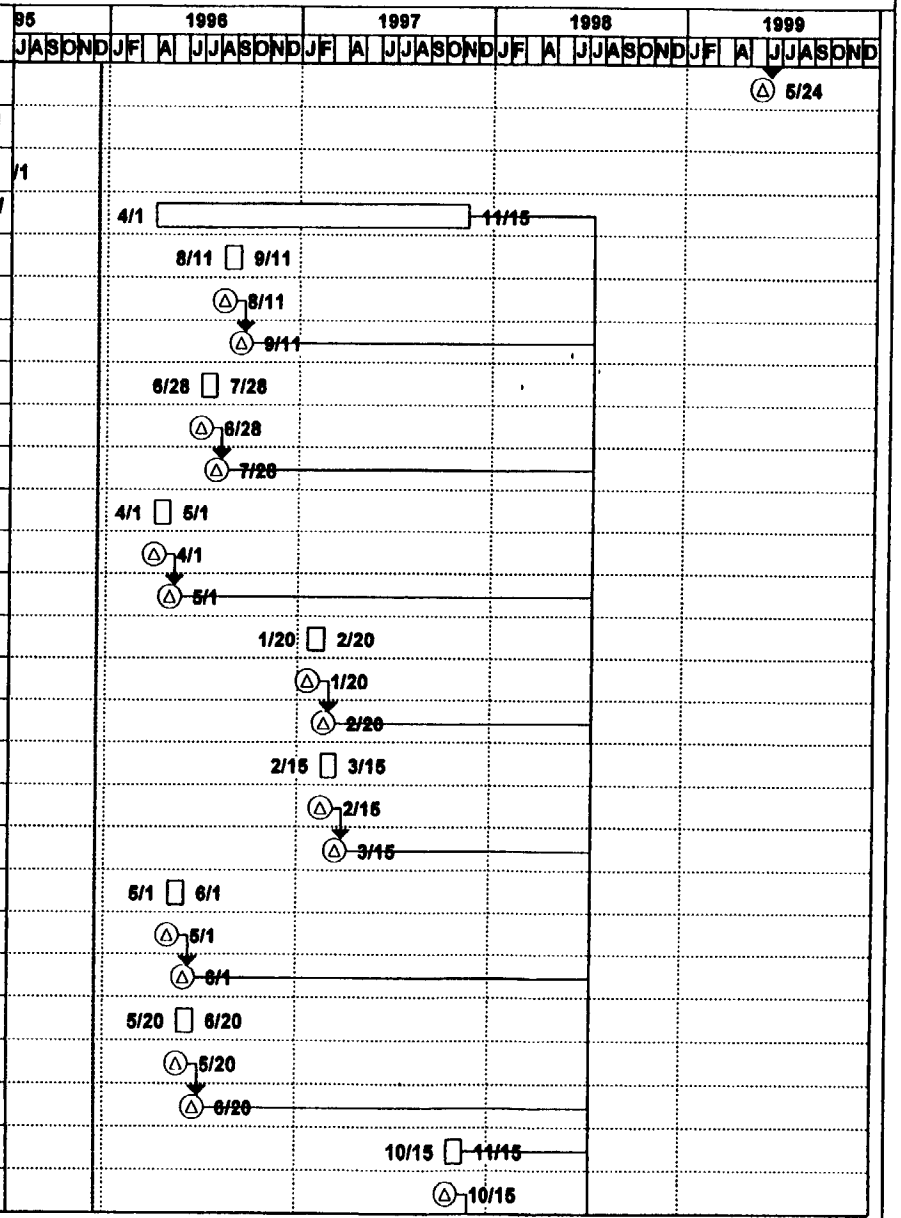
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
181		PER	1d
182		*Instrument Accept Tests*	*49d*
183		EMI/RFI & Mag Field Tests	4d
184		Data Review (EMI Tests)	1d
185		Random Vib/LPT	4d
186		Data Review (Random Vib Tests)	1d
187		Sub CPT, Post-Vib Inspect & NASA Inspect	1d
188		Thermal Cycle (Incl Setup)	10d
189		Sub CPT (Thermal Cycle)	2d
190		Data Review (Thermal Cycle)	1d
191		Primary Calibration (Including Setup) (VC2)	30d
192		Final CPT (Primary Calibration)	6d
193		Data Review (Calibration)	1d
194		Weight & CG	2d
195		Momentum Compensation	8d
196		Ship PSR Data Package	10d
197		Red Time (A2 Top Assy - Integration & Test) (BLT)	0d
198	*1356038-1*	*METSAT-A2 Shipping Config*	*79d*
199		Kit Release (RR - LT)	4d
201		Clean Shipping Container	3d
202		Inspect & Purge Shipping Container	2d
203		Clean Instrument	3d
204		Inspect Instrument for Cleanliness	1d
205		Load Unit in Shipping Container (Witness)	1d
206		Seal & Inspect Shipping Container	1d
207		PSR	2d
208		Red Time (A2 Prog Mgt) (BLT)	66d



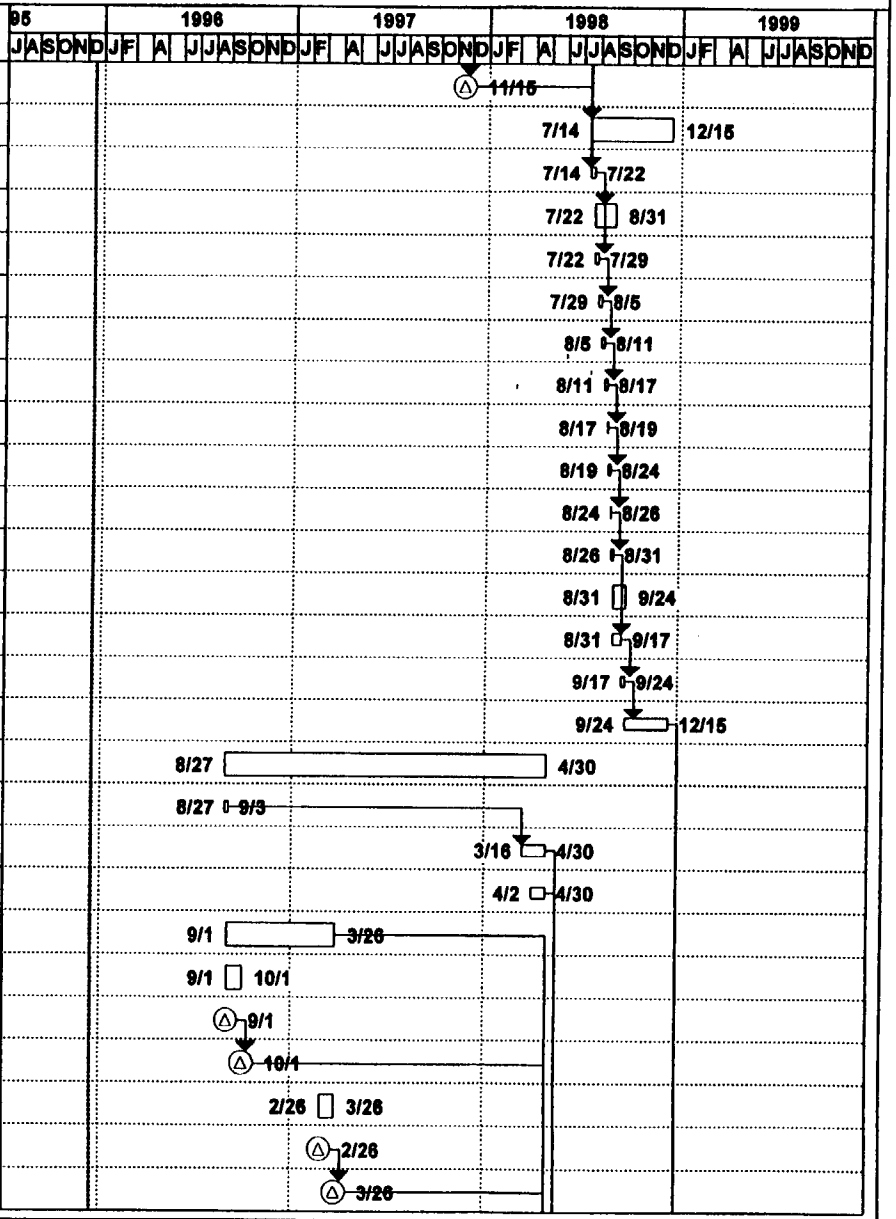
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
209		SHIP METSAT3-A2 INSTRUMENT (5/24/99)	0d
		METSAT4 A1	881d
1		RECEIVER PRODUCT TEAM	1d
2		*Major Subcontracts for A1-2 Receiver Assy*	*325d*
3	*1331559-2*	*Bandpass Filters*	*18d*
4		BP Filter Vendor	0d
5		BP Filter Dock-to-Stock	0d
6	*1331507*	*5-Port Multiplexer*	*15d*
7		5-Port MUX Vendor	0d
8		5-Port MUX Dock-to-Stock	0d
9	*1356680-1,*	*Isolators*	*18d*
10		Isolator Vendor	0d
11		Isolator Dock-to-Stock	0d
12	*1331516*	*IF Attens*	*19d*
13		IF Atten Vendor	0d
14		IF Atten Dock-to-Stock	0d
15	*1331562-13*	*Mixer/Amps*	*16d*
16		Mix/Amp Vendor	0d
17		Mix/Amp Dock-to-Stock	0d
18	*1331509-1*	*Waveguide Attens*	*16d*
19		W/G Atten Vendor	0d
20		W/G Atten Dock-to-Stock	0d
21		*Beryllium Shelf*	*18d*
22		Be Shelf Vendor	0d
23		Be Shelf Dock-to-Stock	0d
24	*1356610-3,*	*DROs*	*17d*
25		DRO Vendor	0d



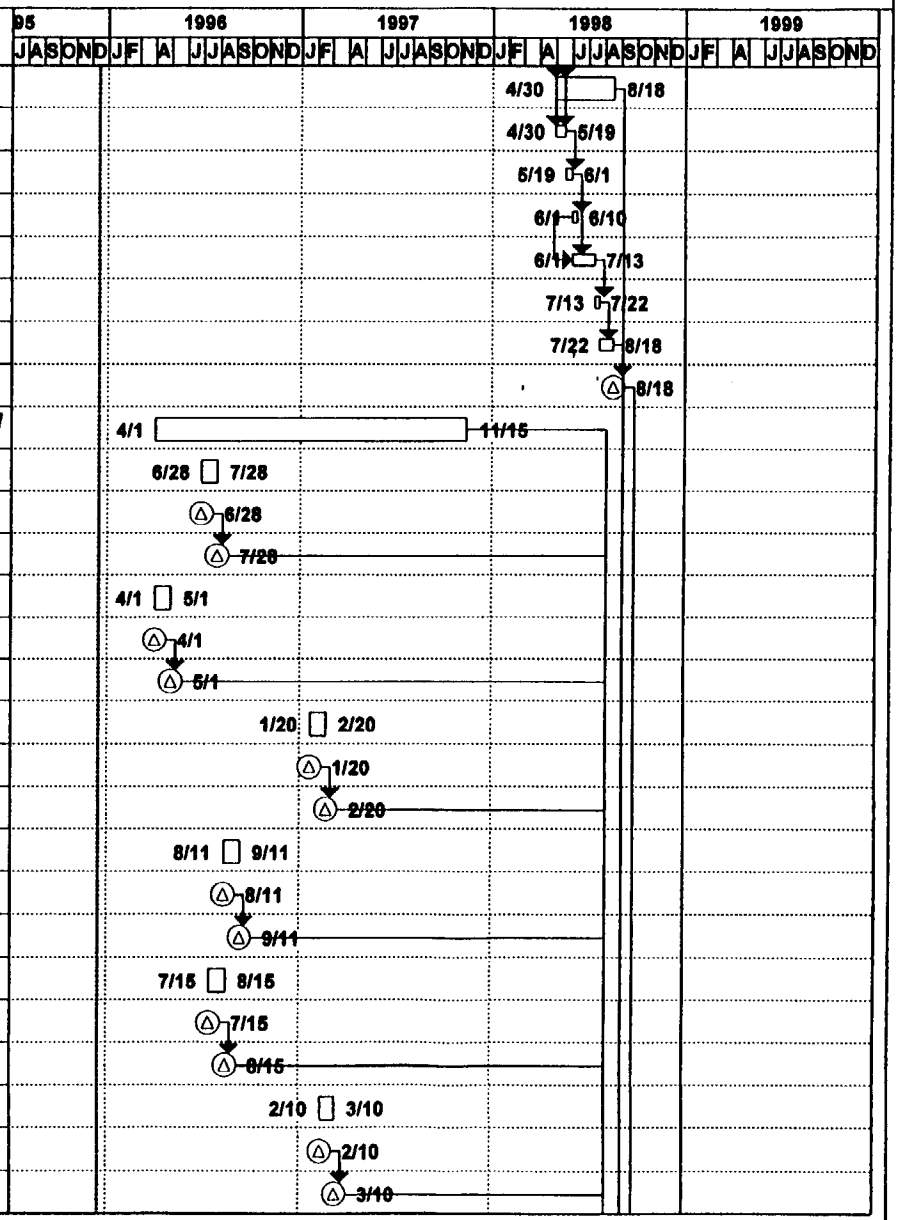
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
26		DRO Dock-to-Stock	0d
27	*1356409-1*	*Receiver Assy, A1-2*	*86d*
28		Kit Release (RR - LT)	5d
30		*Final Shelf Assy*	*22d*
31		DRO/Waveguide Attenuator Test	4d
32		ID and Install RF Components	4d
33		Install Temp Sensor, Term Bd, Wire Mount	3d
34		Wire	3d
35		Insp & NASA Insp	2d
36		Fab SMA Cables	2d
37		VSWR Test	2d
38		Clean & Spot Bond	2d
39		*Test & Final Inspection*	*14d*
40		Shelf Test	10d
41		Final Insp & NASA Insp	4d
42		Red Time (A1-2 Receiver Assy) (BLT)	45d
43		*PLO Subassys & Subcontracts*	#####
44		Draw SMT CCAs from Stock (see EOS-A1 Build)	4d
45	1348400-1	DRO Assy	27d
46	1348420-1	Regulator CCA	16d
47		*Major Subcontracts*	*110d*
48		*TCXO*	*17d*
49		TCXO Vendor	0d
50		TCXO Dock-to-Stock	0d
51		*VCGDO*	*16d*
52		VCGDO Vendor	0d
53		VCGDO Dock-to-Stock	0d



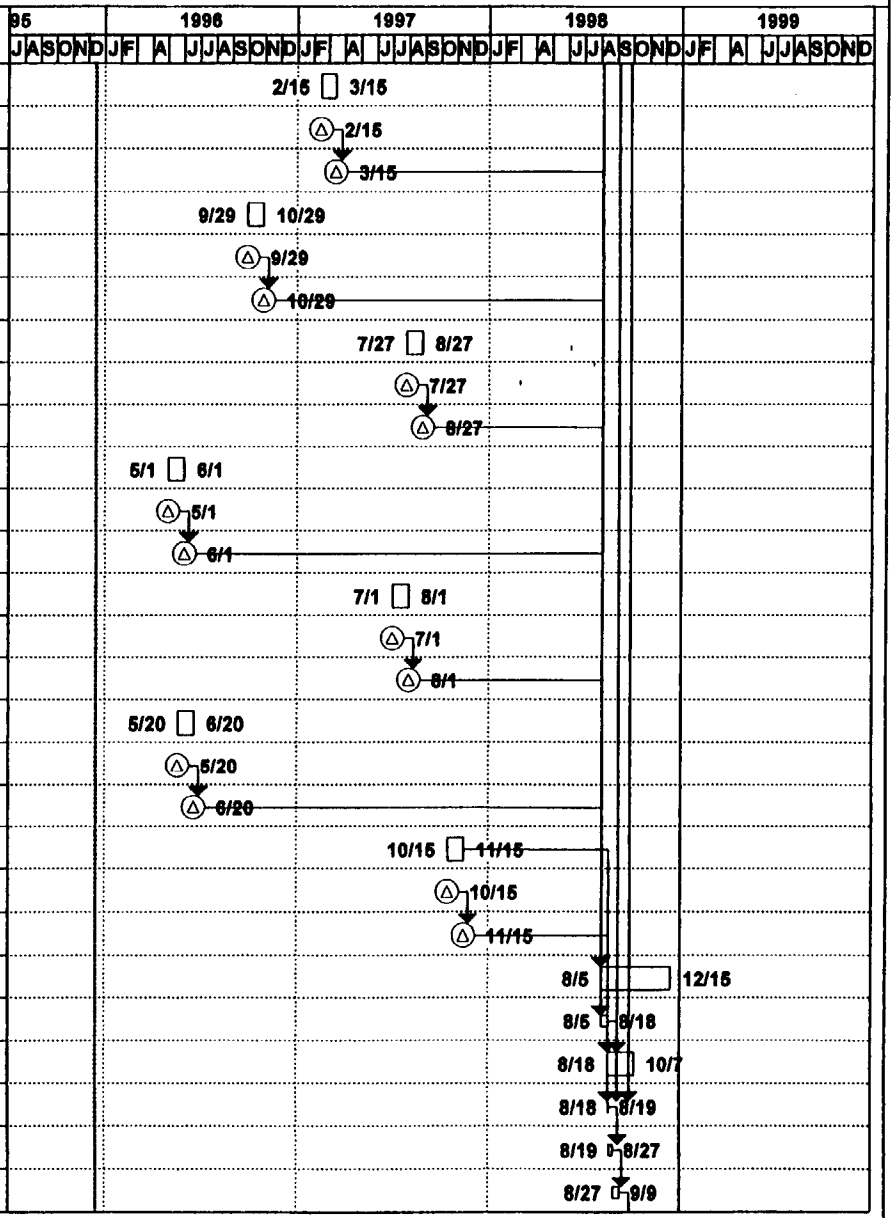
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
54	*1348360-1*	*PLO Assy (2 each)*	*60d*
55		Kit Release (RR - LT)	10d
57		PLO #2 Tune/Align/Assy	6d
58		PLO #1 Tune/Align/Assy	6d
59		PLO Electrical Performance	23d
60		PLO Vibration	6d
61		PLO Thermal/Vacuum Test	15d
62		Red Time (PLO Assy) (BLT)	0d
63		*Major Subcontracts for A1-1 Receiver Assy*	*325d*
64	*1331546-1*	*5-Port Multiplexer*	*15d*
65		5-Port MUX Vendor	0d
66		5-Port MUX Dock-to-Stock	0d
67	*1356680-4,*	*Isolators*	*18d*
68		Isolator Vendor	0d
69		Isolator Dock-to-Stock	0d
70	*1331516*	*IF Attens*	*19d*
71		IF Atten Vendor	0d
72		IF Atten Dock-to-Stock	0d
73	*1331559-1*	*Bandpass Filters*	*18d*
74		BP Filter Vendor	0d
75		BP Filter Dock-to-Stock	0d
76	*1331554-1*	*Hybrid Tee*	*19d*
77		Hybrid Tee Vendor	0d
78		Hybrid Tee Dock-to-Stock	0d
79	*1356669/70*	*Power Dividers*	*16d*
80		Pow Div Vendor	0d
81		Pow Div Dock-to-Stock	0d



AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
82	*1331562-16*	*Mixer Amps*	*16d*
83		Mix/Amp Vendor	0d
84		Mix/Amp Dock-to-Stock	0d
85	*1331576-1*	*Saw Filters*	*18d*
86		Saw Filt Vendor	0d
87		Saw Filt Dock-to-Stock	0d
88	*1331579-7*	*IF Amplifier*	*19d*
89		IF Amp Vendor	0d
90		IF Amp Dock-to-Stock	0d
91	*1331509/10*	*Waveguide Atten*	*16d*
92		W/G Atten Vendor	0d
93		W/G Atten Dock-to-Stock	0d
94		*89GHz GDO (Channel 15)*	*17d*
95		GDO Vendor	0d
96		GDO Dock to Stock	0d
97		*Beryllium Shelf*	*18d*
98		Be Shelf Vendor	0d
99		Be Shelf Dock-to-Stock	0d
100	*1356610-6,*	*DRO*	*17d*
101		DRO Vendor	0d
102		DRO Dock-to-Stock	0d
103	*1356429-1*	*Receiver Assy, A1-1*	*73d*
104		Kit Release (RR - LT)	7d
105		*Final Assemble*	*28d*
107		ID Components & Shelf	1d
108		DRO/Waveguide Attenuator Test	5d
109		Install RF Components	6d



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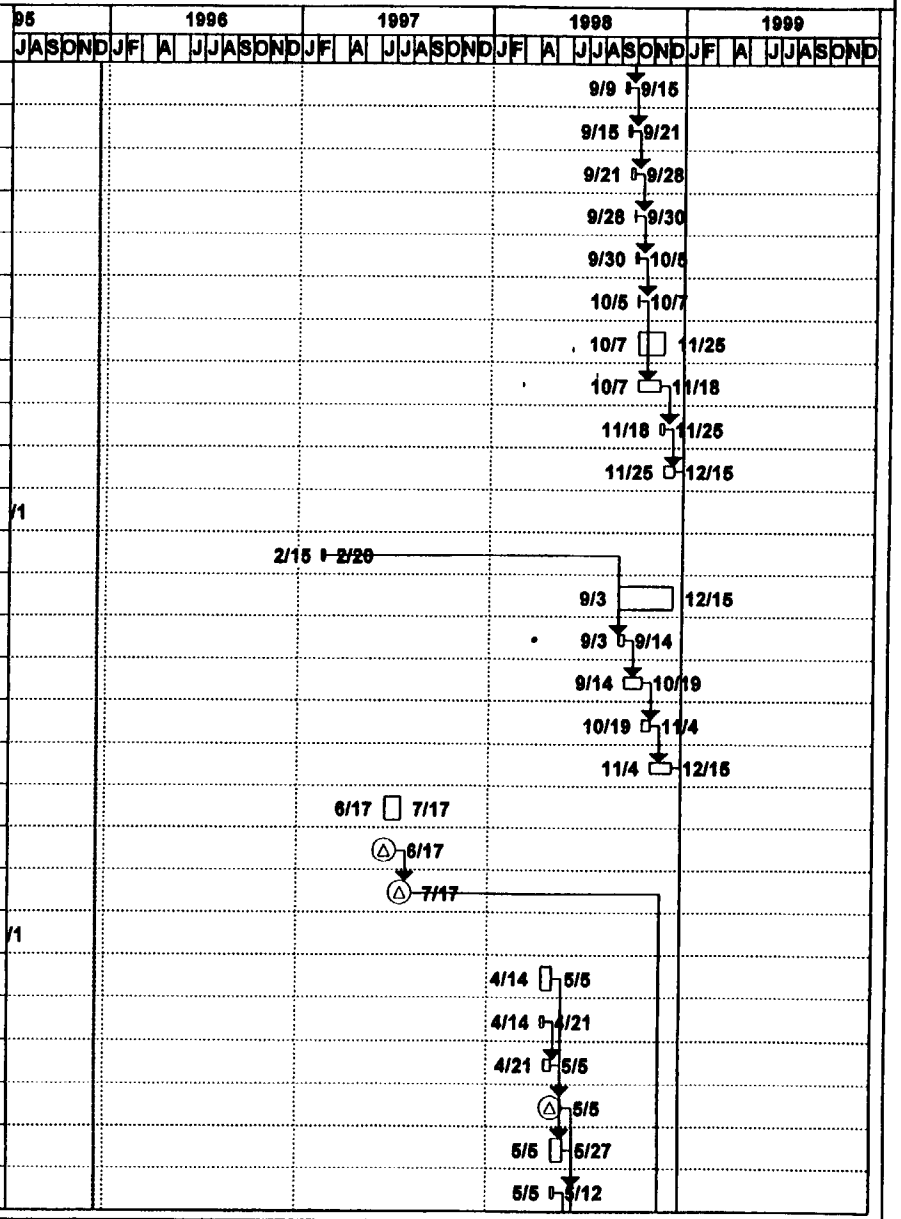
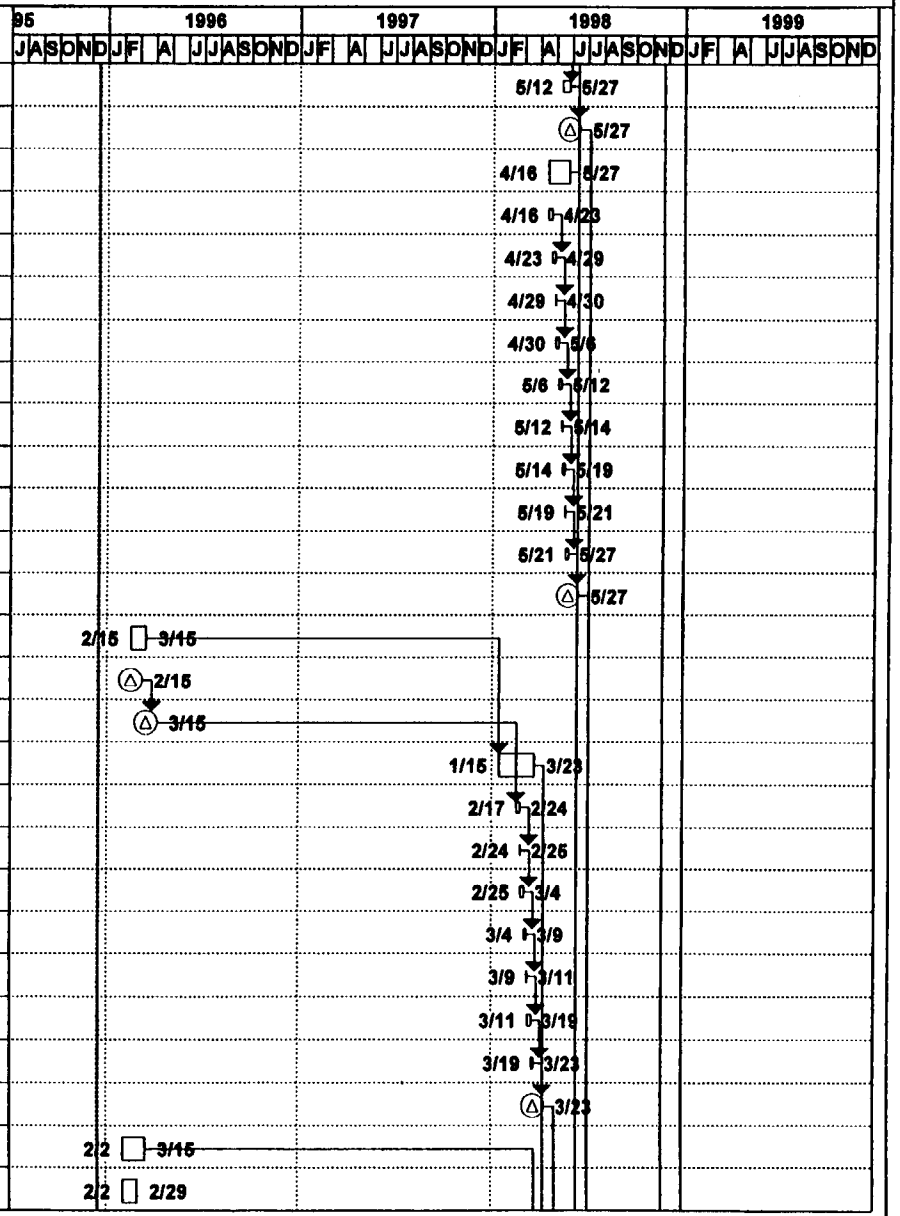
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
110		Install Temp Sensor, T/B & Wire Mnts	3d
111		Wiring	3d
112		Insp & NASA Insp	4d
113		Fab SMA Cables	2d
114		VSWR Test	2d
115		Clean & Spot Bond	2d
116		*Test & Final Inspection*	*28d*
117		Test	24d
118		Final Insp & NASA Insp	4d
119		Red Time (A1-1 Receiver Assy) (BLT)	10d
120		ELECTRONIC PRODUCT TEAM	1d
121		Draw all Subsystems from Stock (see EOS-A1 Build)	4d
122	*1331670-2*	*Signal Processing Assy*	*56d*
123		Kit Parts (RR - LT)	4d
125		Integrate & Checkout	20d
126		Test	10d
127		Red Time (A1 Signal Processor Assy) (BLT)	22d
128	*1356010-1*	*DC/DC Conv*	*17d*
129		Vendor Commit	0d
130		Dock-Stock	0d
131		ANTENNA PRODUCT TEAM	1d
132	*1331381-1*	*Warmload (2)*	*12d*
133		Kit Parts (RR - LT)	4d
134		Assembly (LT)	8d
135		Red Time (BLT)	0d
136	*1331380-1*	*Calibration Source (2)*	*12d*
137		Kit Parts (RR - LT)	4d



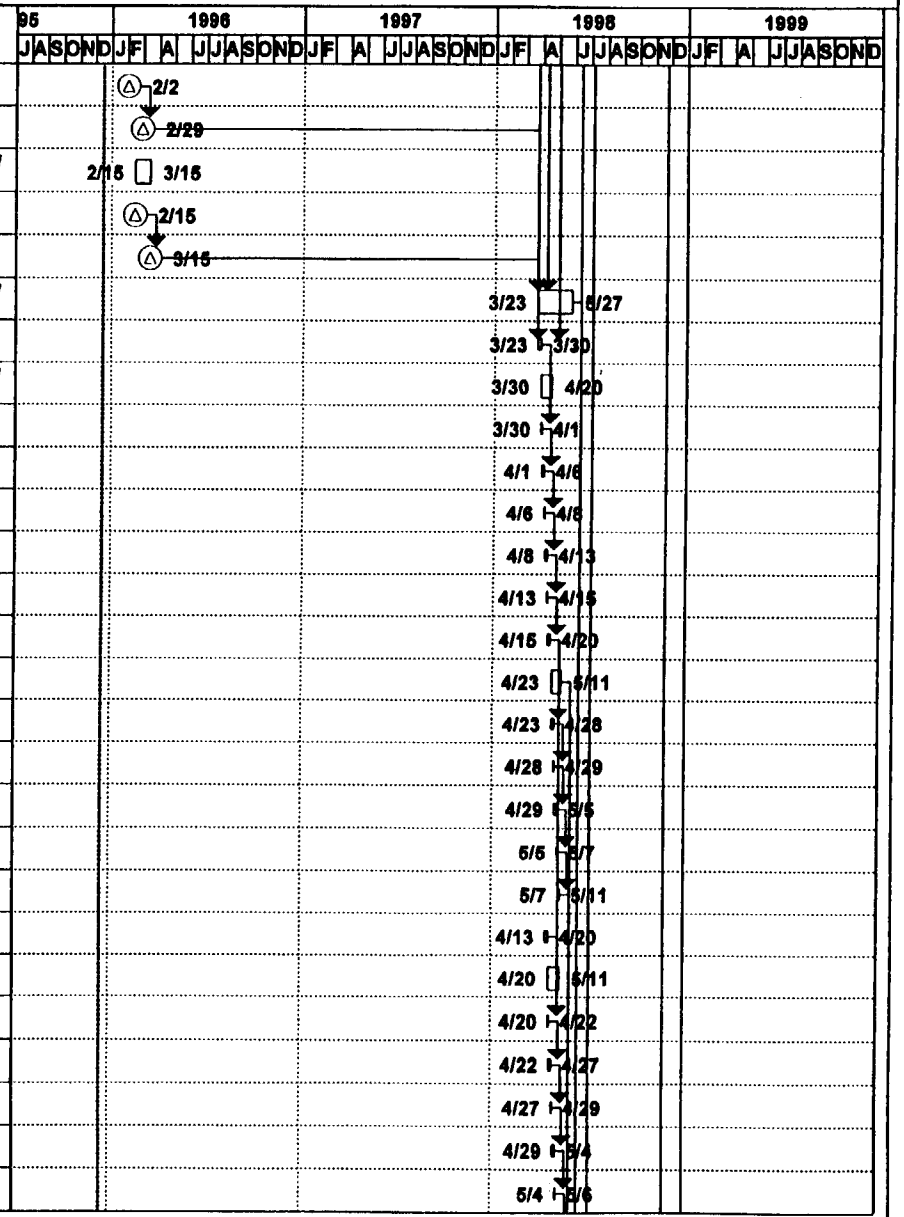
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
138		Assembly (LT)	8d
139		Red Time (BLT)	0d
140	*1331351-1*	*Antenna Subassy, Machined*	*22d*
141		Kit Parts (RR - LT)	4d
143		Assy Up/Low Struct, Square, Torque, Verify	3d
144		Drill & Pin all Panels	1d
145		Install, Machine, & Verify Isolators	3d
146		Machine Upper Motor Mount & Alignment Cube, Insp	3d
147		Machine Low Motor Mount, Touchup w/Alodyne	2d
148		Install Inserts, Clean & Apply Gold Tape	2d
149		ID the Assy	2d
150		Final Inspect/NASA Insp	2d
151		Red Time (A1 Antenna Subassy, Mach) (BLT)	0d
152	*1333667-1*	*Bearings*	*16d*
153		Bearing Vendor LT	0d
154		Bearings Dock-Stock	0d
155	*1333647-1*	*Rotating Assys (2)*	#####
156		Kit Parts (RR - LT)	4d
158		Apply Flourad	1d
159		Install & Inspect Bearings	4d
160		Install Dowel Pin in Shaft	2d
161		Apply Flourad & ID the Assy	2d
162		Torque Breakaway Test (Ambient & Cold)	5d
163		Final Inspect	1d
164		Red Time (A1 Rotating Assys) (BLT)	0d
165		*Major Subcontracts for Drive Assy, Reflectors*	*24d*
166	*1331529-1*	*Resolvers*	*16d*



AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
167		Resolver LT	0d
168		Resolver Dock-Stock	0d
169	*1331392-1*	*Motors*	*16d*
170		Motor Vendor LT	0d
171		Motor Dock-Stock	0d
172	*1333640-1,*	*Drive Assy, Reflectors (2)*	*37d*
173		Kit Release (RR - LT)	4d
175		*Assemble (A1-1)*	*12d*
176		Install Resolver & Motor, Inspect	2d
177		Bond	2d
178		Wire	2d
179		Inspect & NASA Insp Wiring	2d
180		Install Cover/Torque, ID Assy	2d
181		Inspect/NASA Inspect	2d
182		*Test (A1-1)*	*9d*
183		Test Reflector Drive Motor Assy	2d
184		QE/Inspection Verify Test Data	1d
185		Random Vibration Test	3d
186		Verify Motor Operation	2d
187		QE Data Rev, Insp, NASA Insp	1d
188		Kit Release (RR - LT)	4d
189		*Assemble (A1-2)*	*12d*
190		Install Resolver & Motor, Inspect	2d
191		Bond	2d
192		Wire	2d
193		Inspect & NASA Insp Wiring	2d
194		Install Cover/Torque, ID Assy	2d



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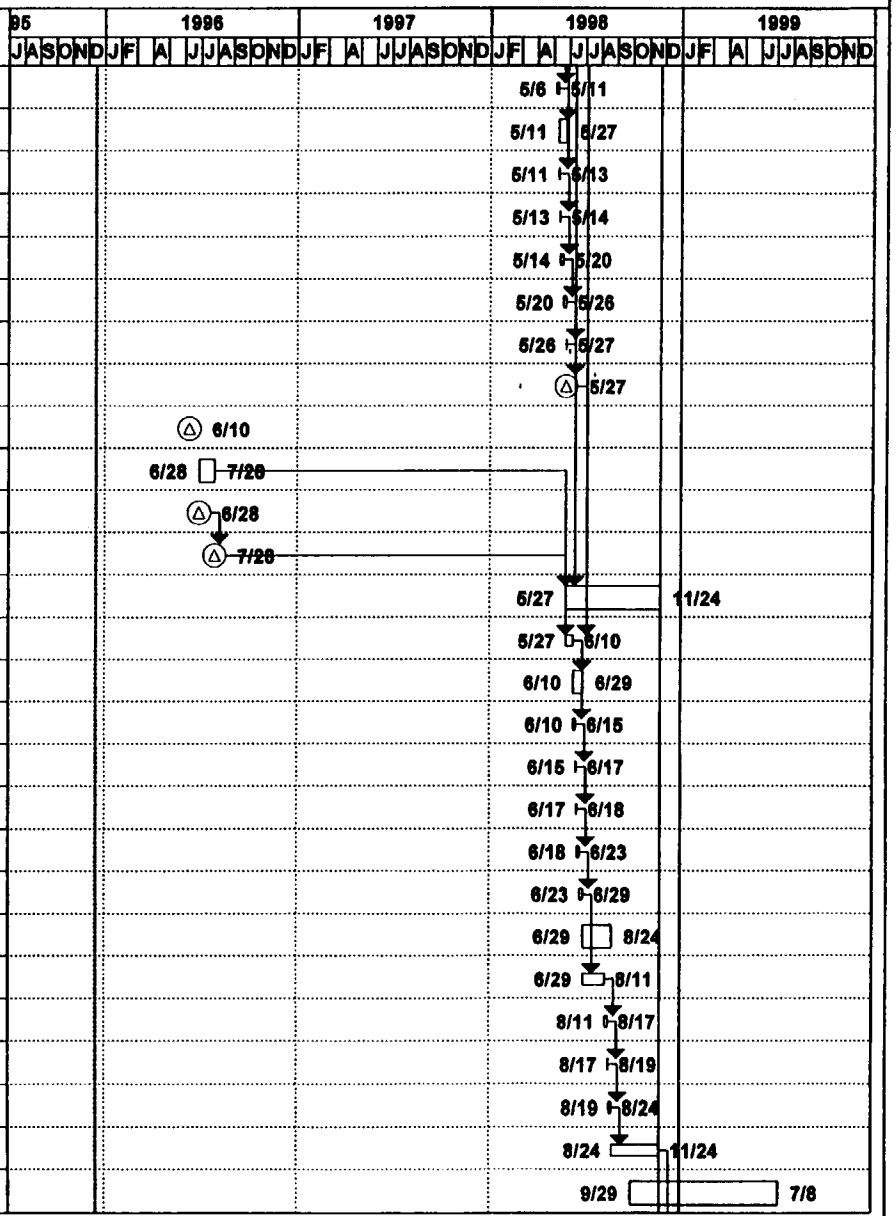
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
195		Inspect/NASA Insp	2d
196		*Test (A1-2)*	*9d*
197		Test Reflector Drive Motor Assy	2d
198		QE/Inspection Verify Test Data	1d
199		Random Vibration Test	3d
200		Verify Motor Operation	2d
201		QE Data Rev, Insp, NASA Insp	1d
202		Red Time (A1 Drive Assy, Reflectors) (BLT)	0d
203		Receive Reflector Assy 1355777-1 From M/S	0d
204		*Feedhorn*	*15d*
205		Feedhorn Vendor	0d
206		Feedhorn Dock-to-Stock	0d
207	*1331400-2*	*A1 Antenna Assy*	*101d*
208		Kit Release (RR - LT)	8d
210		*Assembly*	*10d*
211		Install Tube Brackets & Align Cube	2d
212		ID Unit & Bond Wire Mounts/Grommets	2d
213		Inst Drive Assemblies	1d
214		Install, Align & Pin Feedhorns & Inspect	2d
215		Install/Align Reflectors & Inspect	3d
216		*Antenna Range Testing & Final Assy*	*31d*
217		Subassy Pattern Test	24d
218		Drill/Pin Drive Motors, Install Warmloads, Inspect	3d
219		Verify all Torque & Add Wet Bends	2d
220		Final Assy, Insp, NASA Insp	2d
221		Red Time (A1 Antenna Assy) (BLT)	52d
222		*A1 Top Assy - Blanket & Mirror Panel Assys*	#####



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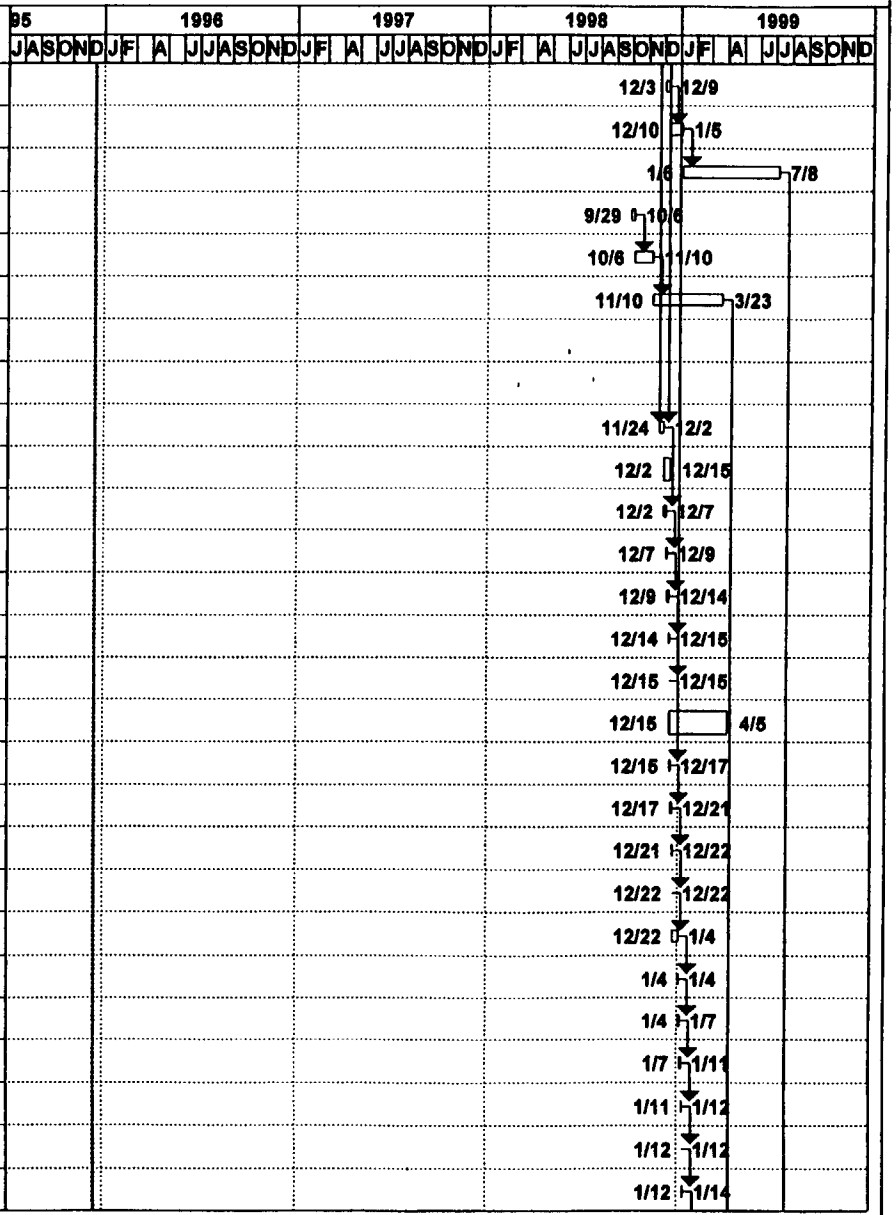
85

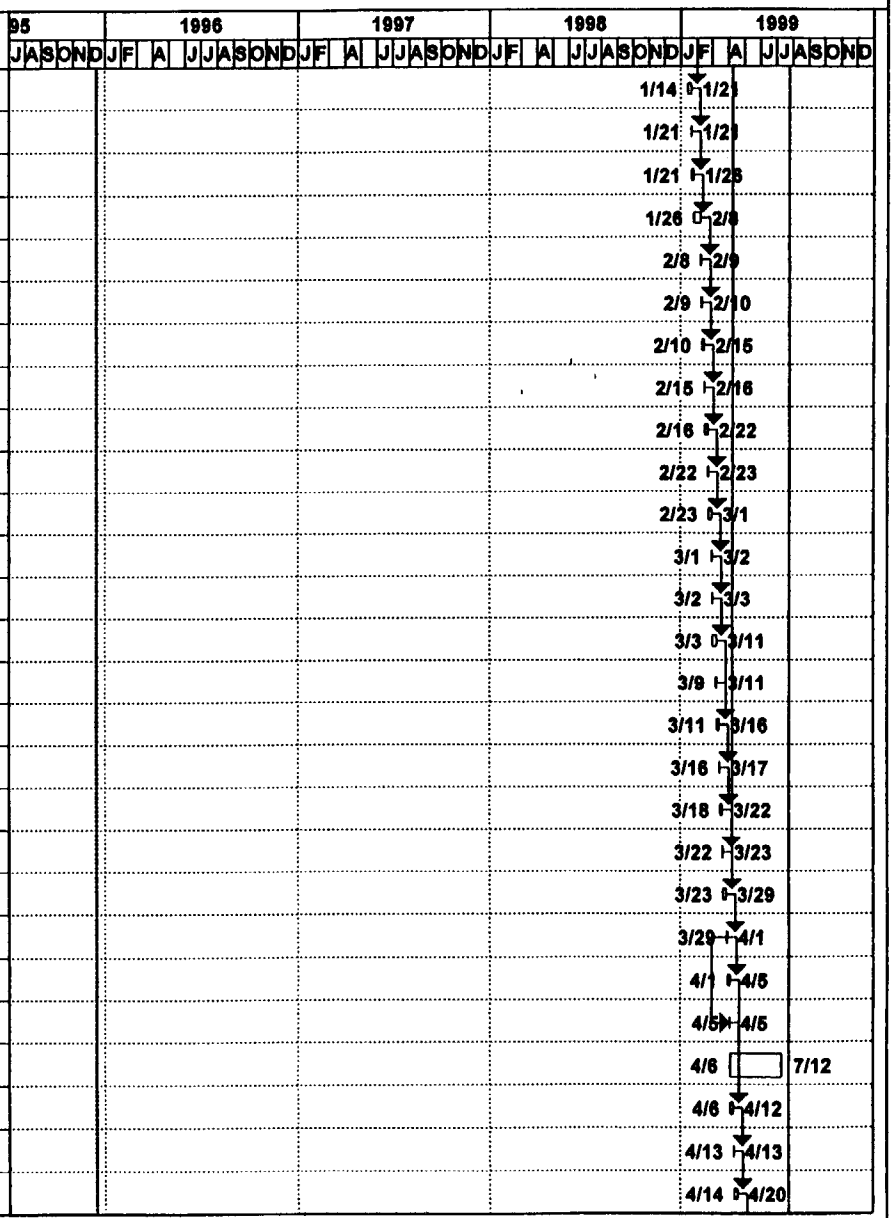
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
223		Kit Release (RR-LT)	4d
224	1331626-2,9	Assemble Insulating Blanket Assemblies	10d
225	1331626-2,9	Red Time (A1 Blanket Assys) (BLT)	104d
226		Kit Release (RR-LT)	4d
227	131257-6,7,1	Assemble Mirror Panel Assemblies	20d
228	131257-6,7,1	Red Time (A1 Mirror Panel Assys)) (BLT)	70d
229		SEIT PRODUCT TEAM	1d
230	*1331720-2*	*METSAT-A1 Top Assembly*	#####
231		Kit Parts (RR - LT)	4d
233		*Prelim Integration (Pre-Receiver/Sig Processor)*	#####
234		Bond Grommet, Temp Sensors, Term Bds, Inspe	1.76d
235		Install Cable Assemblies	2.35d
236		Install DC/DC Converter & Power Ctrl Assy	1.76d
237		Continuity Test	0.59d
238		Inspect/NASA Inspect Workmanship	0.59d
239		*Instrument Integration & Test*	####
240		Align Rivet A1-1 Receivers & Inspect	1.76d
241		Wire A1-1 & A1-2 Receivers	1.18d
242		Continuity Test	0.59d
243		Inspect/NASA Inspect Receiver Wiring	0.59d
244		Align/Rivet A1-2 Receiver & Inspect	1.18d
245		Install Test Panels	0.59d
246		Fab, Condition, Test, Inspect Coax Cables	2.94d
247		Install "Clamshell"	0.59d
248		Crit Wiring Isol (Continuity) Test	1.18d
249		QE Data Rev, Insp/NASA Insp (Crit Wiring Isol)	0.59d
250		System Integration (Ambient) Test	1.76d



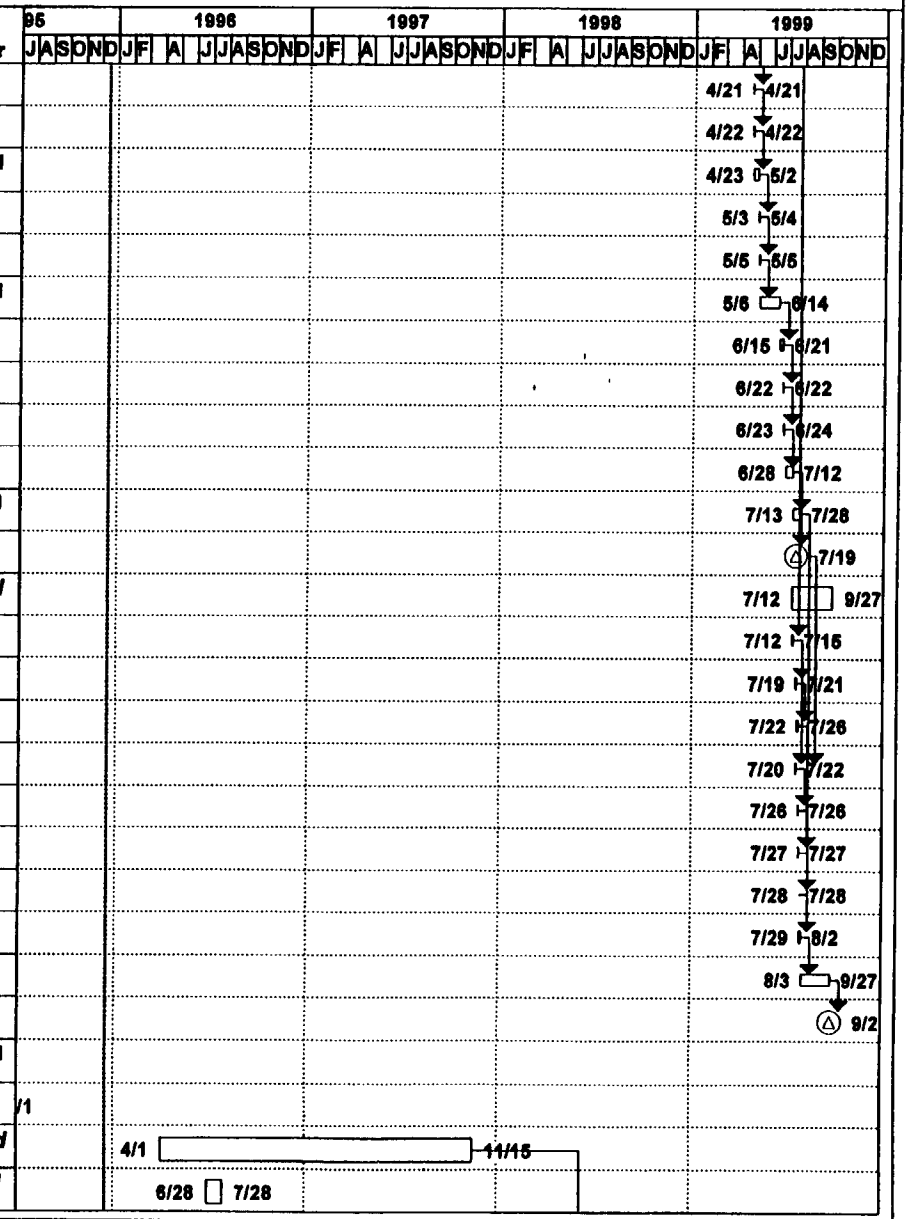
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
251		DRO Bias/Frequency & Bandpass Test	3.53d
252		QE Data Rev, Insp/NASA Insp (DRO Bias Tests)	0.59d
253		System Integration (Ambient) Tests	1.76d
254		Drive Subsystem Test	7.06d
255		Inspect/NASA Inspect CCAs	1.18d
256		Signal Processor CPT	1.18d
257		QE Data Rev, Inspect/NASA Insp (DRV/S/P Tests)	1.18d
258		Temp Connect Preamp/Coax, Bond Wiring	1.18d
259		Gain & Offset Tests	2.94d
260		QE Data Rev, Insp/NASA Insp (Gain & Offset Test	1.18d
261		PRT Calibration Tests (2 Shifts)	3.53d
262		QE Data Review (PRT Calibration)	0.59d
263		Reassemble for Evaluation CPT	1.18d
264		Evaluation CPT	4.71d
265		Sub Shop Order Prep	2.35d
266		Sub Touch-Up Conformal Coat CCAs	2.35d
267		Sub Inspect/NASA Inspect CCAs	1.18d
268		Sub Install CCAs & Inspect Subassys	1.18d
269		Sub Final Inspection & Final NASA Buyoff	1.18d
270		Reassemble for Baseline CPT	3.53d
271		Comprehensive Perf Test (Baseline)	2.35d
272		QE Data Rev, Insp/NASA Insp (Baseline)	1.76d
273		PER	1d
274		*Instrument Accept Tests*	*54d*
275		EMI/RFI & Mag Field Tests	4d
276		Data Review (EMI Tests)	1d
277		Random Vib/LPT	4d



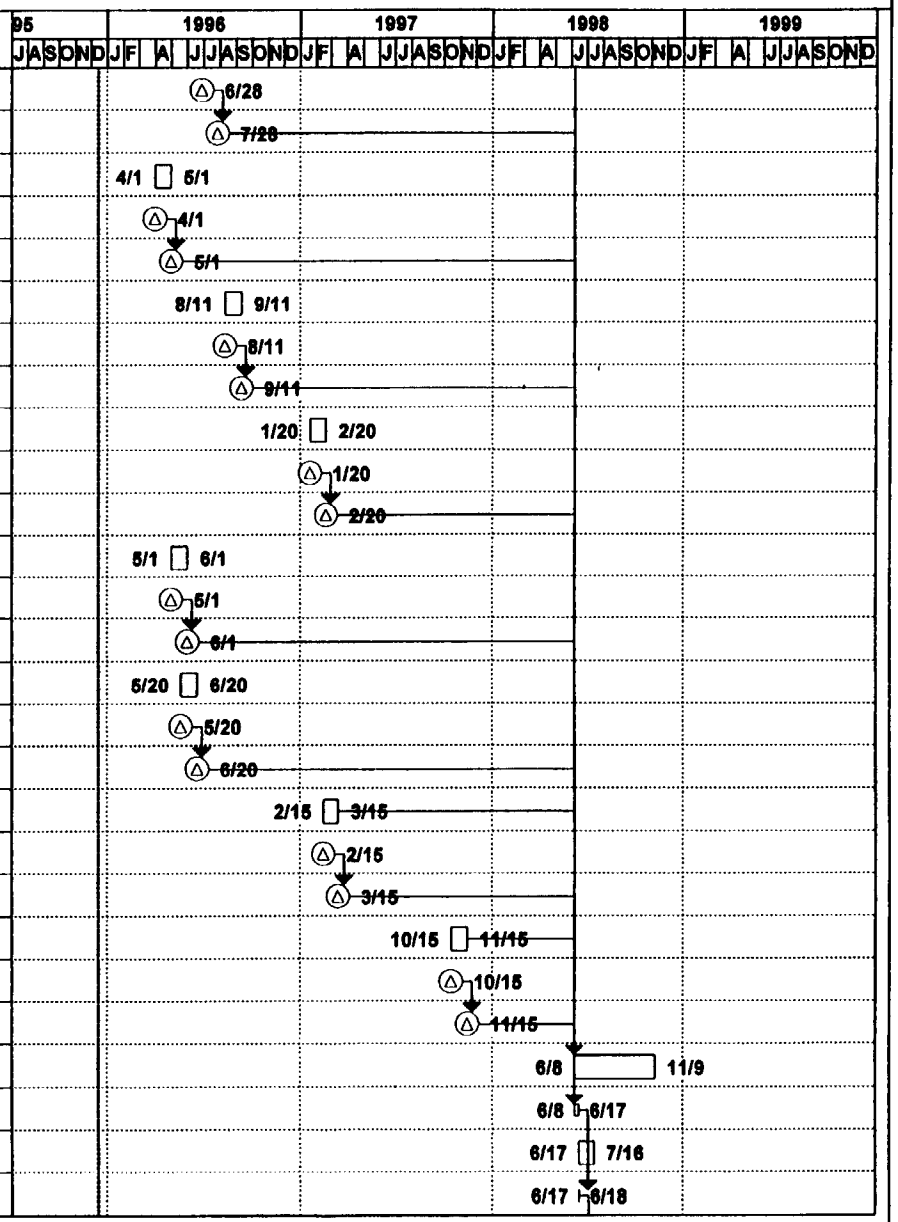
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
278		Data Review (Random Vib Tests)	1d
279		Sub CPT, Post-Vib Inspect & NASA Inspect	1d
280		Thermal Cycle (Incl Setup)	10d
281		Sub CPT (Thermal Cycle)	2d
282		Data Review (Thermal Cycle)	1d
283		Primary Calibration (Including Setup) (Turbo)	40d
284		Final CPT (Primary Calibration)	7d
285		Data Review (Calibration)	1d
286		Weight & CG	2d
287		Momentum Compensation Test	8d
288		Ship PSR Data Package	10d
289		Red Time (A1 Top Assy - Integration & Test) (BLT)	0d
290	*1338395-2*	*METSAT4-A1 Shipping Config*	*44d*
291		Kit Release (RR - LT)	4d
293		Clean Shipping Container	3d
294		Inspect & Purge Shipping Container	2d
295		Clean Instrument	3d
296		Inspect Instrument for Cleanliness	1d
297		Load Unit In Shipping Container (Witness)	1d
298		Seal & Inspect Shipping Container	1d
299		PSR	2d
300		Red Time (A1 Prog Mgt) (BLT)	31d
301		SHIP METSAT4-A1 INSTRUMENT (9/27/99)	0d
		METSAT4 A2	881d
1		RECEIVER PRODUCT TEAM	1d
2		*Major Subcontracts for A2 Receiver Assy*	*325d*
3	*1331084*	*Diplexer*	*15d*



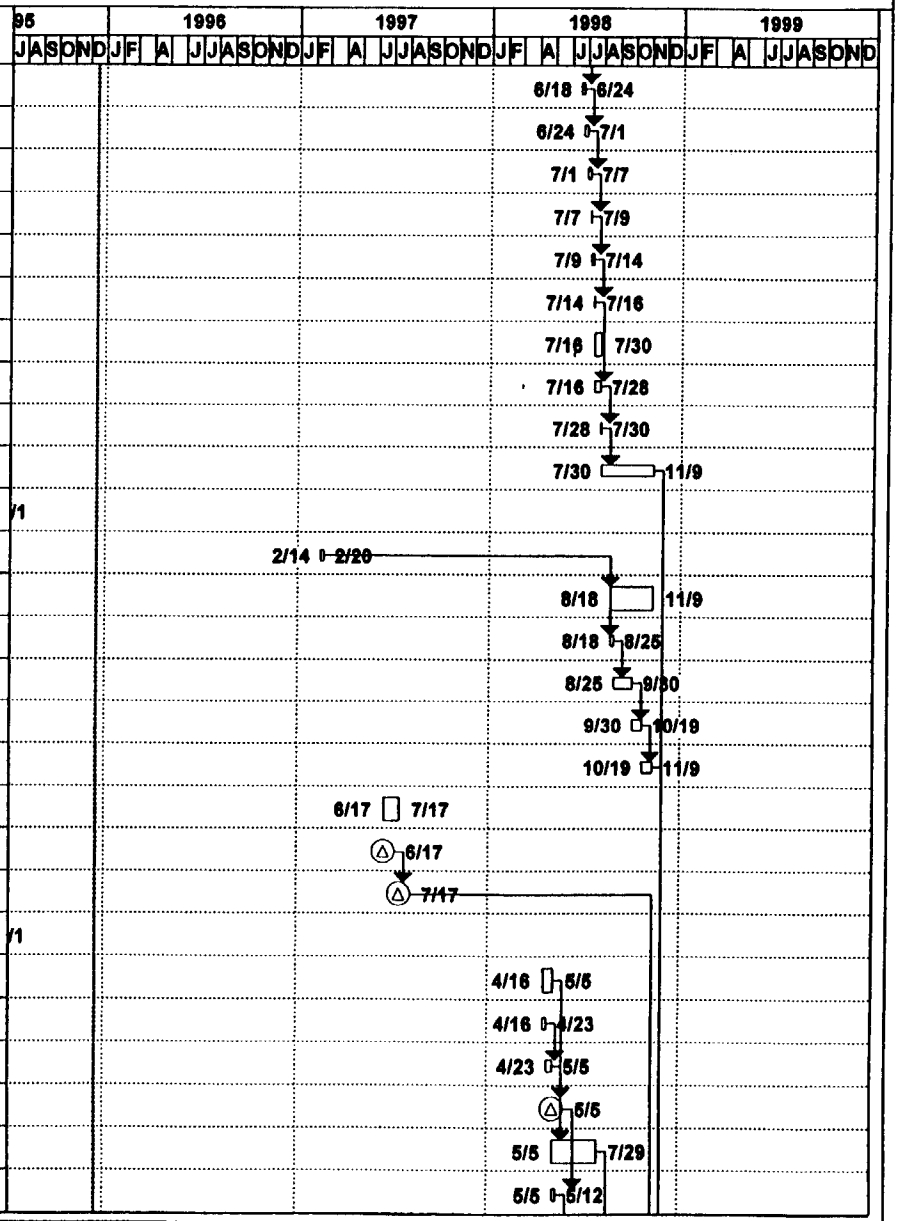
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
4		Diplexer Vendor	0d
5		Diplexer Dock-to-Stock	0d
6	*1331111-2,*	*Isolators*	*18d*
7		Isolator Vendor	0d
8		Isolator Dock-to-Stock	0d
9	*1331559-3,*	*Bandpass Filters*	*18d*
10		BP Filter Vendor	0d
11		BP Filter Dock-to-Stock	0d
12	*1331516*	*IF Attenuators*	*19d*
13		IF Atten Vendor	0d
14		IF Atten Dock-to-Stock	0d
15	*1331100-1,*	*Waveguide Atten*	*16d*
16		W/G Atten Vendor	0d
17		W/G Atten Dock-to-Stock	0d
18		*Beryllium Shelf*	*18d*
19		Be Shelf Vendor	0d
20		Be Shelf Dock-to-Stock	0d
21	*1331562-11*	*Mixer Amps*	*16d*
22		Mix/Amp Vendor	0d
23		Mix/Amp Dock-to-Stock	0d
24	*1336610-1,*	*DRO*	*17d*
25		DRO Vendor	0d
26		DRO Dock-to-Stock	0d
27	*1356441-1*	*Receiver Assy, A2*	*86d*
28		Kit Release (RR - LT)	6d
30		*Final Assemble*	*16d*
31		ID Components & Shelf	1d



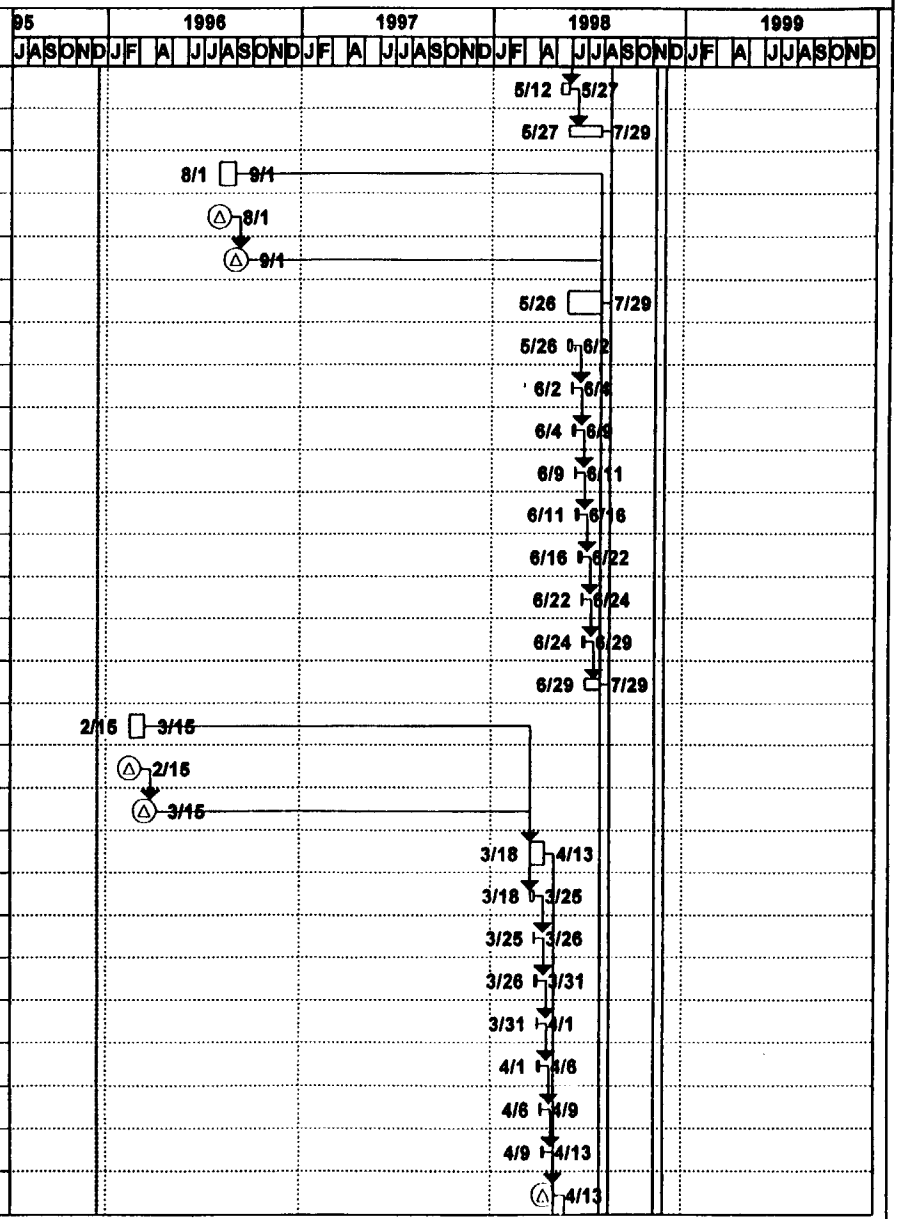
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
32		DRO/Waveguide Attenuator Test	3d
33		Install RF Components	4d
34		Install Temp Sensor, T/B & Wire Mnts	2d
35		Wiring	2d
36		VSWR Test	2d
37		Clean & Spot Bond	2d
38		*Test & Final Inspection*	*8d*
39		Test	6d
40		Final Insp & NASA Insp	2d
41		Red Time (A2 Receiver Assy) (BLT)	56d
42		ELECTRONIC PRODUCT TEAM	1d
43		Draw from Stock (See EOS-A1 Build)	4d
44	*1356412-1*	*Signal Processing Assy*	*46d*
45		Kit Parts (RR - LT)	4d
47		Integrate & Checkout	20d
48		Test	10d
49		Red Time (A2 Signal Processor Assy) (BLT)	12d
50	*1356010-1*	*DC/DC Conv*	*17d*
51		Vendor Commit	0d
52		Dock-Stock	0d
53		ANTENNA PRODUCT TEAM	1d
54	*1331236-1*	*Warmload*	*10d*
55		Kit Parts (RR - LT)	4d
56		Assembly (LT)	6d
57		Red Time (A2 Warm Load) (BLT)	0d
58	*1331235-1*	*Calibration Source*	*47d*
59		Kit Parts (RR - LT)	4d



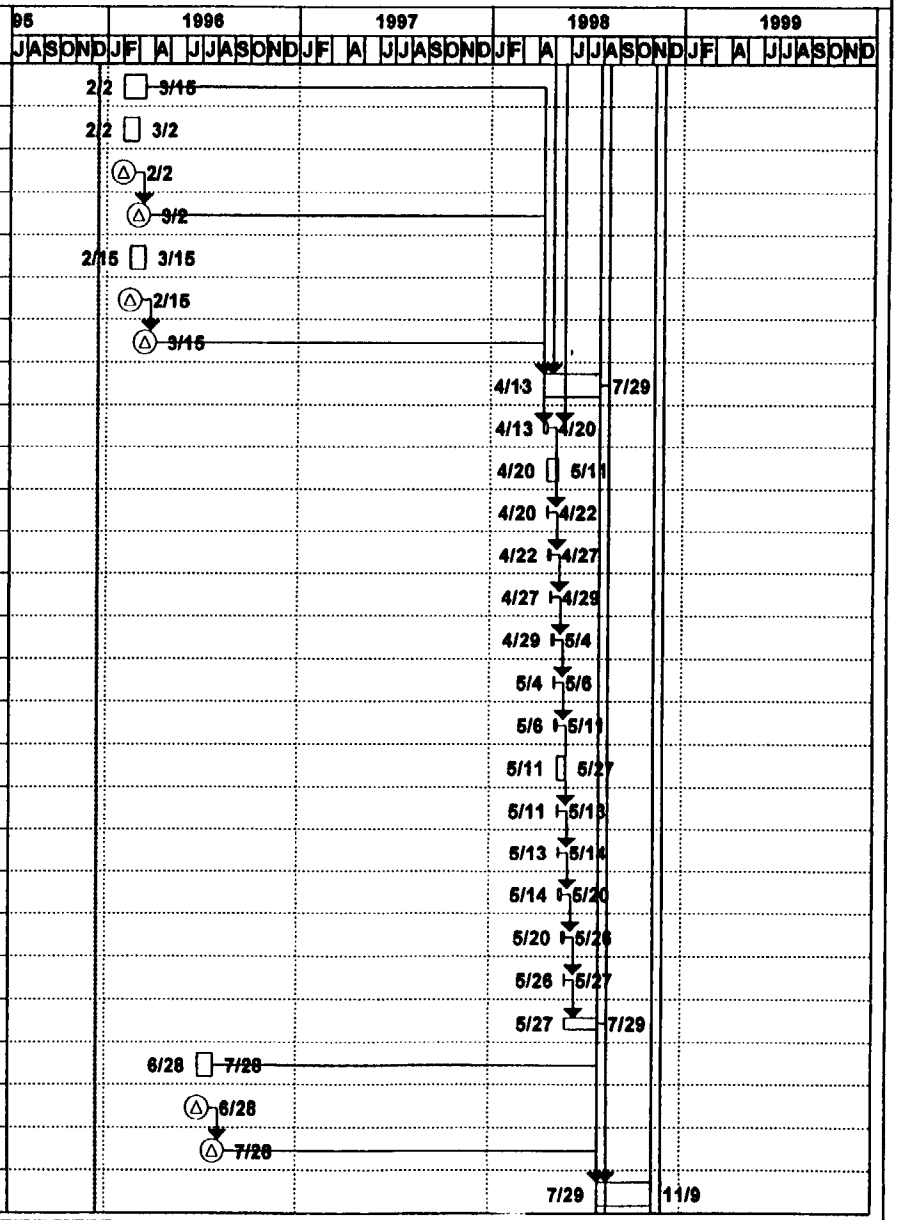
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
60		Assembly (LT)	8d
61		Red Time (A2 Calibration Source) (BLT)	35d
62	*1355835-1*	*Composite Reflector*	*16d*
63		Vendor LT	0d
64		Dock-to-Stock	0d
65	*1331303-1*	*Antenna Subassy, Machined*	*36d*
66		Kit Parts (RR - LT)	4d
68		Assemble & Pin Structure	2d
69		Install & Machine Item 14 Spacer & Inspect	2d
70		Machine Item 13 Spacers & Verify	2d
71		Machine Item 15 Spacers & Verify	2d
72		Final Machine Structure & Inspect	3d
73		Touch-up w/Alodyne and Install Inserts	2d
74		ID the Assembly	2d
75		Red Time (A2 Antenna Subassy, Mach) (BLT)	17d
76	*1333667-1*	*Bearings*	*16d*
77		Bearing Vendor LT	0d
78		Bearings Dock-Stock	0d
79	*1333651-1*	*Rotating Assy*	*14d*
80		Kit Parts (RR - LT)	4d
82		Apply Flourad	1d
83		Install & Inspect Bearings	2d
84		Install Dowel Pin in Shaft	1d
85		Apply Flourad & ID the Assemble	2d
86		Torque Breakaway Test (Ambient & Cold)	3d
87		Final Inspect	1d
88		Red Time (A2 Rotating Assy) (BLT)	0d



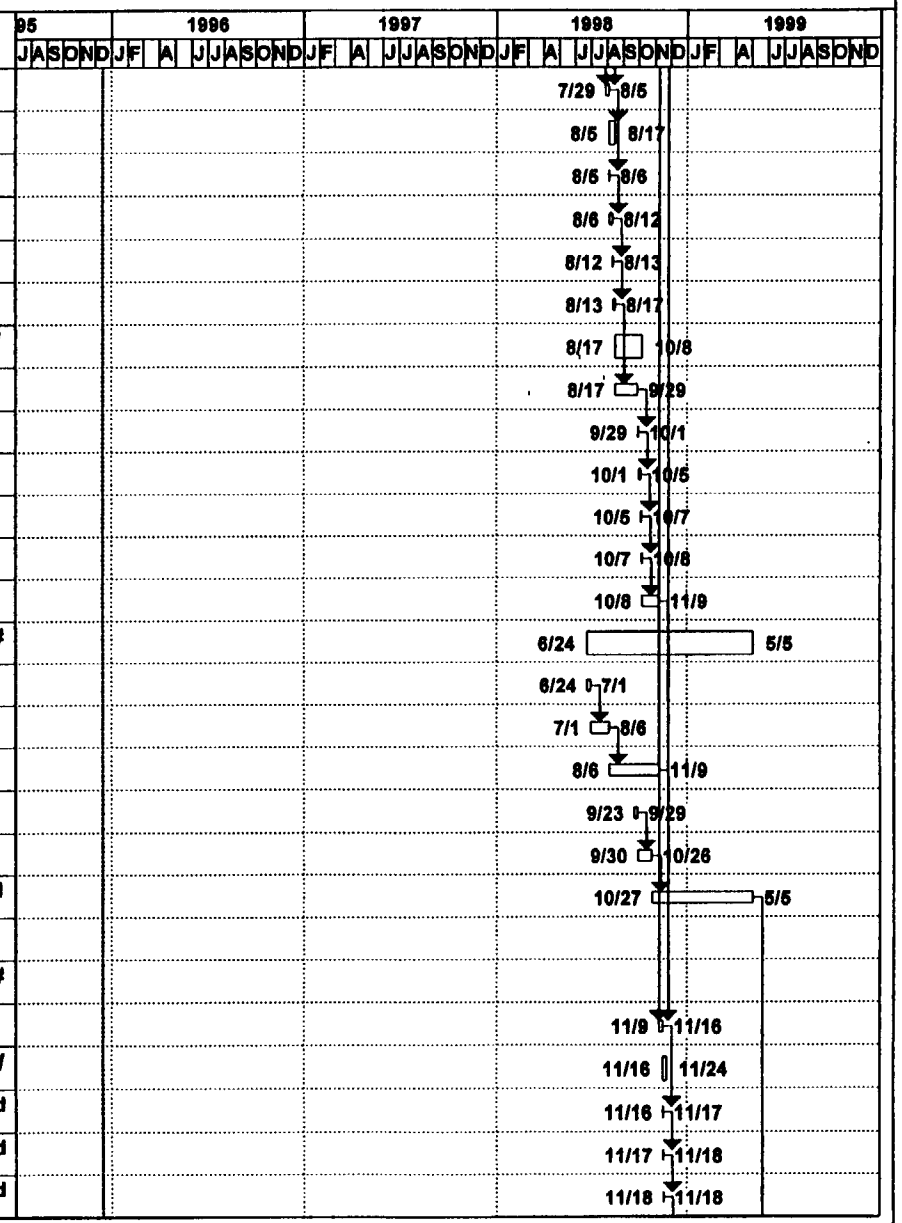
AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
89		*Major Subcontracts for Drive Assy, Reflectors*	*24d*
90	*1331529-1*	*Resolvers*	*16d*
91		Resolver LT	0d
92		Resolver Dock-Stock	0d
93	*1333648-1*	*Motors*	*16d*
94		Motor Vendor LT	0d
95		Motor Dock-Stock	0d
96	*1333650-1*	*Drive Assy, Reflector*	*60d*
97		Kit Release (RR - LT)	4d
99		*Assemble*	*12d*
100		Install Resolver & Motor, Inspect	2d
101		Bond Components	2d
102		Wire Components	2d
103		Inspect & NASA Insp Wiring	2d
104		Install Cover/Torque	2d
105		Inspect & NASA Insp	2d
106		*Test*	*9d*
107		Test Reflector Drive Motor Assy	2d
108		QE Data Review	1d
109		Random Vibration Test	3d
110		Verify Motor Operation	2d
111		Final Insp, NASA Insp	1d
112		Red Time (A2 Drive Assy, Refict) (BLT)	35d
113		*Feedhorn Assembly*	*15d*
114		Feedhorn Vendor	0d
115		Feedhorn Dock-to-Stock	0d
116	*1331210-3*	*A2 Antenna Assy*	*57d*



AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
117		Kit Release (RR - LT)	4d
119		*Assembly*	*6d*
120		Install Cube, Feedhorn & Sec Reflector	1d
121		Optical Alignment and Inspection	3d
122		Drill/Pin Secondary Reflector	1d
123		Install Drive Motor, Reflector, Diplexer	1d
124		*Antenna Range Testing & Final Assy*	*30d*
125		Subassy Pattern Test	24d
126		Pin Drive Motor & Install Warmload	2d
127		Inspect Antenna Assy	1d
128		Bond Wiremounts & Identify	2d
129		Final Assy, Insp, NASA Insp	1d
130		Red Time (A2 Antenna Assy) (BLT)	17d
131		*A2 Top Assy - Compensator & Blanket Assys*	#####
132		Kit Release (RR-LT)	4d
133	1333660-1	Assemble Compensator Assembly	20d
134	1333660-1	Red Time (A2 Compensator Assy) (BLT)	52d
135		Kit Release (RR-LT)	4d
136	1331253-2/-5	Assemble Insulating Blanket Assemblies	15d
137	1331253-2/-5	Red Time (A2 Blanket Assys) (BLT)	104d
138		SEIT PRODUCT TEAM	1d
139	*1356006-1*	*METSAT-A2 Top Assembly*	#####
140		Kit Parts (RR - LT)	4d
142		*Prelim Integration (Pre-Receiver/Sig Proc)*	*5.3d*
143		Install Cable Assys	1.18d
144		Continuity Check	0.59d
145		Install DC/DC Conv & Power Ctrl Assy	0.59d

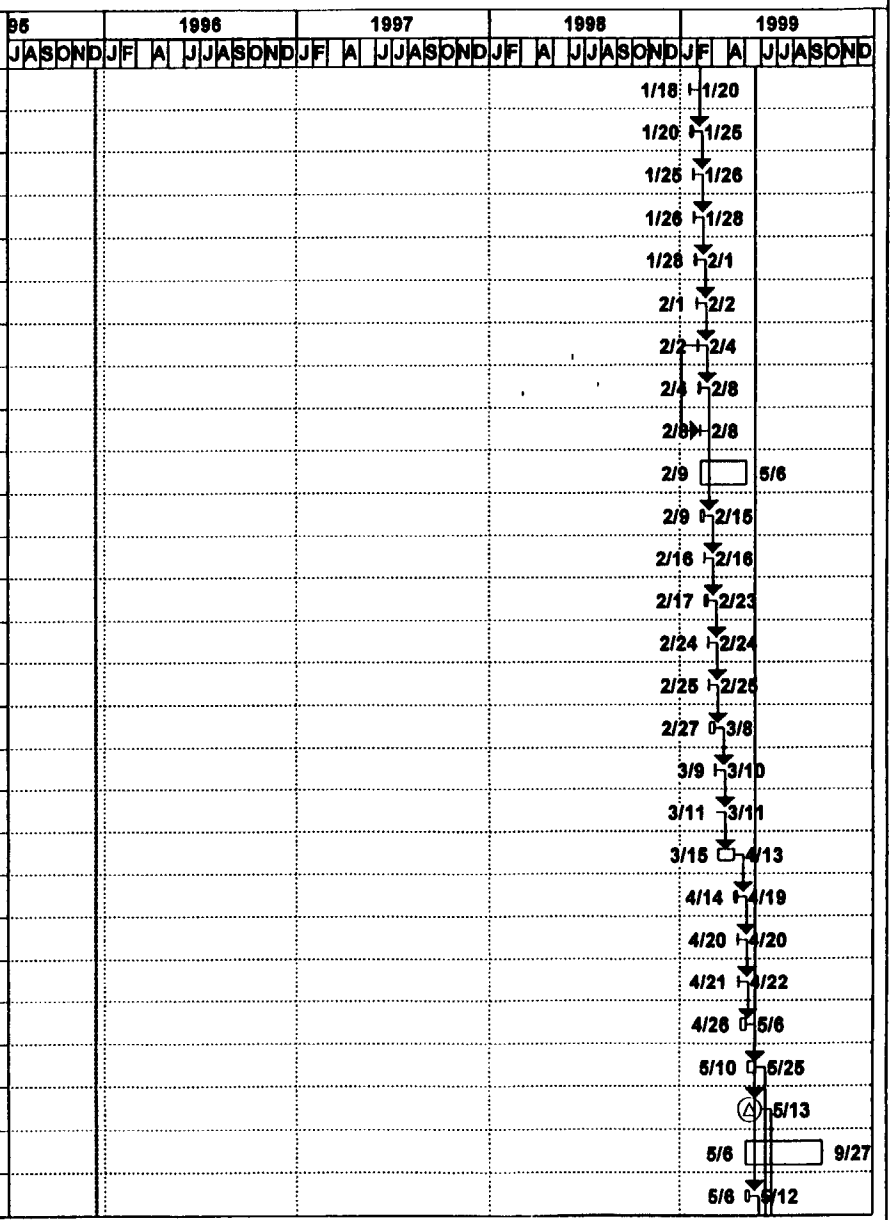


AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur	95	1996	1997	1998	1999
				J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D
146		Continuity Test	0.59d				11/18 11/19	
147		Instl Wrmld, Bond Grommts, T.B., Temp Sensors	2.36d				11/19 11/24	
148		*Instrument Integration & Test*	#####				11/24 2/8	
149		Install, Align/Rivet Receiver	1.18d				11/24 11/30	
150		Inspect Riveting, Shim Block	0.59d				11/30 11/30	
151		Solder Temp Sensor Leads	0.59d				11/30 12/1	
152		Receiver Continuity Test	0.59d				12/1 12/1	
153		Inspect/NASA Inspect Receiver Wiring	0.59d				12/1 12/2	
154		Fab, Condition, Test, Inspect Coax Cables	0.59d				12/2 12/3	
155		Antenna & Receiver Isol Test	0.59d				12/3 12/3	
156		DC/DC Test, Crit Wiring Isol (Continuity) Test	1.18d				12/3 12/7	
157		QE Data Rev, Insp/NASA Insp (Crit Wiring Isol)	0.59d				12/7 12/8	
158		System Integration (Ambient) Test	1.18d				12/8 12/9	
159		DRO Bias/Frequency & Bandpass Test	1.18d				12/9 12/10	
160		QE Data Rev, Insp/NASA Insp (DRO Bias Tests)	0.59d				12/10 12/14	
161		System Integration (Ambient) Tests	1.76d				12/14 12/16	
162		Drive Subsystem Test	4.71d				12/16 12/23	
163		Inspect/NASA Inspect CCAs	0.59d				12/23 1/4	
164		Signal Processor CPT	1.18d				1/4 1/5	
165		QE Data Rev, Inspect/NASA Insp (DRV/S/P Tests)	0.59d				1/5 1/6	
166		Temp Connect Preamp/Coax, Bond Wiring	0.59d				1/6 1/6	
167		Gain & Offset Tests	0.59d				1/6 1/7	
168		QE Data Rev, Insp/NASA Insp (Gain & Offset Test	1.18d				1/7 1/11	
169		PRT Calibration Tests (2 Shifts)	2.36d				1/11 1/13	
170		QE Data Review (PRT Calibration)	0.59d				1/13 1/14	
171		Reassemble for Evaluation CPT	0.59d				1/14 1/18	
172		Evaluation CPT	2.36d				1/18 1/20	

AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur
173		Sub Shop Order Prep	2.35d
174		Sub Touch-Up Conformal Coat CCAs	2.35d
175		Sub Inspect/NASA Inspect CCAs	1.18d
176		Sub Install CCAs & Inspect Subassys	1.18d
177		Sub Final Inspection & Final NASA Buyoff	1.18d
178		Reassemble for Baseline CPT	1.18d
179		Comprehensive Perf Test (Baseline)	2.35d
180		QE Data Rev, Insp/NASA Insp (Baseline)	1.18d
181		PER	1d
182		*Instrument Accept Tests*	*51d*
183		EMI/RFI & Mag Field Tests	4d
184		Data Review (EMI Tests)	1d
185		Random Vib/LPT	4d
186		Data Review (Random Vib Tests)	1d
187		Sub CPT, Post-Vib Inspect & NASA Inspect	1d
188		Thermal Cycle (Incl Setup)	10d
189		Sub CPT (Thermal Cycle)	2d
190		Data Review (Thermal Cycle)	1d
191		Primary Calibration (Including Setup) (VC2)	30d
192		Final CPT (Primary Calibration)	6d
193		Data Review (Calibration)	1d
194		Weight & CG	2d
195		Momentum Compensation	8d
196		Ship PSR Data Package	10d
197		Red Time (A2 Top Assy - Integration & Test) (BLT)	0d
198	*1356038-1*	*METSAT-A2 Shipping Config*	*79d*
199		Kit Release (RR - LT)	4d



AMSU-A BUILD SCHEDULE

ID	Part No	Name	Dur	95 J A S O N D	1996 J F A J J A S O N D	1997 J F A J J A S O N D	1998 J F A J J A S O N D	1999 J F A J J A S O N D
201		Clean Shipping Container	3d					5/13 5/18
202		Inspect & Purge Shipping Container	2d					5/19 5/20
203		Clean Instrument	3d					5/17 5/19
204		Inspect Instrument for Cleanliness	1d					5/20 5/20
205		Load Unit in Shipping Container (Witness)	1d					5/24 5/24
206		Seal & Inspect Shipping Container	1d					5/25 5/25
207		PSR	2d					5/26 5/27
208		Red Time (A2 Prog Mgt) (BLT)	66d					6/1 9/27
209		SHIP METSAT4-A2 INSTRUMENT (9/27/99)	0d					◎ 9/2

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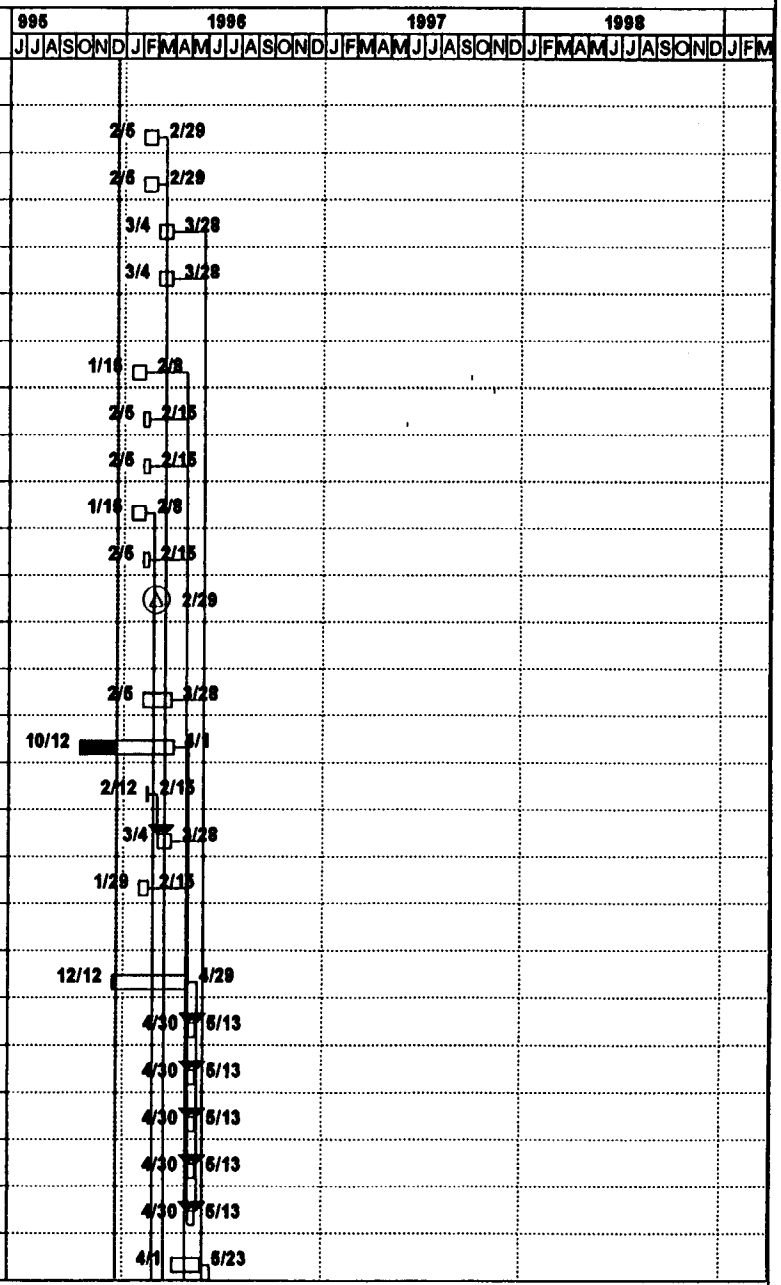
APPENDIX F

ELECTRONICS TEAM SCHEDULE

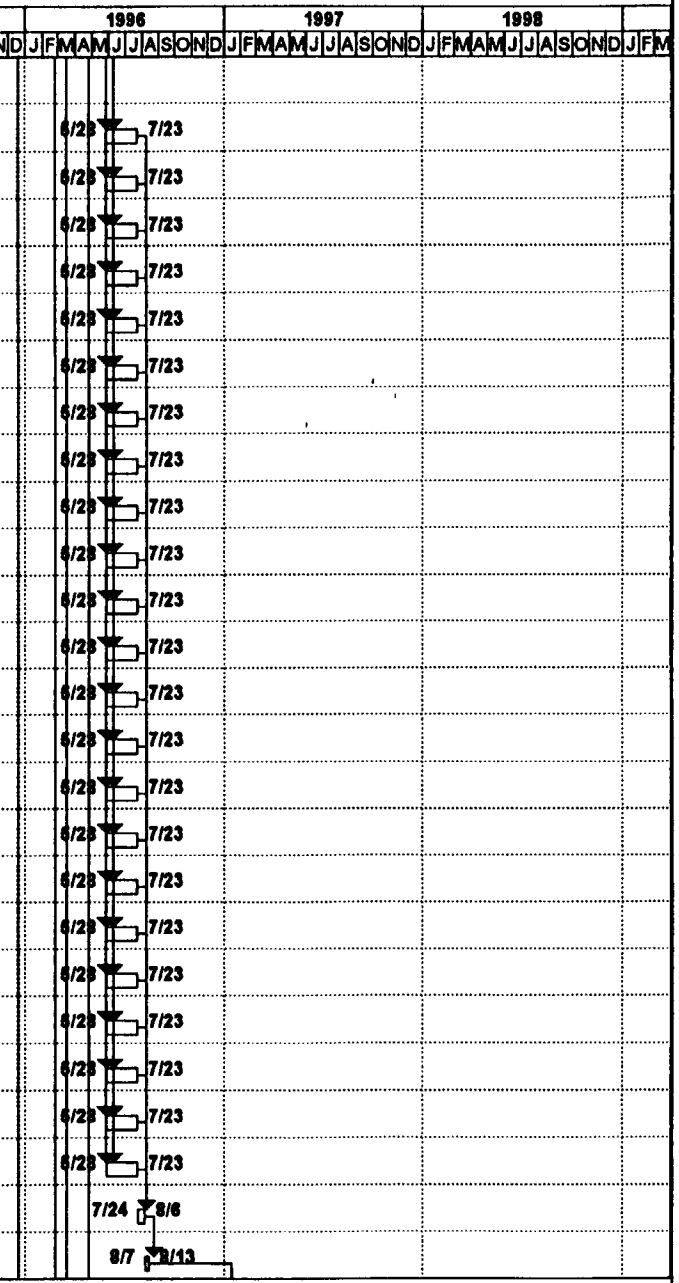
AMSU-A ELECTRONICS TEAM BUILD SCHEDULE

ID	Name	Act I	Cost Acct	WP	Dur
1	**TRAINING**	**213**			**32d**
2	NHB SOLDER TRAINING/ CERTIFICATION	214	03-2310	1	16d
3	NHB CONFORMAL COAT TRAINING/ CERTIFICATION	215	03-2310	1	16d
4	NHB CRIMPING & WIRE WRAP TRAINING/ CERTIFICATION	216	03-2310	1	16d
5	NHB CABLE ROUTING TRAINING/ CERTIFICATION	217	03-2310	1	16d
6	**TOOLING & LINE PREP**	**219**			**28d**
7	PROGRAM & CHECK OUT CONFORMAL COAT MACHINE	220	03-2210	2	16d
8	CHECK OUT OVENS, PURGE BOXES, SWAGING MACHINE	221	03-2210	2	8d
9	CHECK OUT OMEGA METER MACHINE	222	03-2210	2	8d
10	SET UP CCA LINE FLOW	223	03-2210	2	16d
11	CHECK OUT LEAD FORMING	224	03-2210	2	8d
12	PROTECTIVE CONTAINERS IN PLACE	259	03-2210	2	0d
13	**CABLE ASSYS**	**1**			**167d**
14	FAB PARTS	36	03-2210	12	32d
15	PROCURE CABLE PARTS (FILTER PIN CONN - AS8096-X)	2	03-2110	4	92d
16	TRANSISTOR/DIODE ASSY SHOP ORDERS COMPLETE	166	03-2210	1	4d
17	1356784-1,-2 ASSEMBLE TRANSISTOR/DIODE ASSYS	3	03-2210	9	16d
18	I/O INTERFACE CCA SHOP ORDERS COMPLETE	165	03-2210	1	12d
19	**ASSEMBLE I/O INTERFACE CCAs (5 TYPES)**	**285**			**83d**
20	PROCURE CONNECTOR - 25066/01-4	284	03-2110		75d
21	1337653-1, CCA, I/O INTERFACE (MET)(8)	199	03-2210	8	8d
22	1337653-2, CCA, I/O INTERFACE (EOS, MET) (10)	200	03-2210	8	8d
23	1337653-3, CCA, I/O INTERFACE (EOS, MET) (10)	201	03-2210	8	8d
24	1337653-4, CCA, I/O INTERFACE (EOS, MET) (10)	202	03-2210	8	8d
25	1356762-1, CCA, I/O INTERFACE (EOS) (2)	204	03-2210	8	8d
26	CABLE ASSY SHOP ORDERS COMPLETE	167	03-2210	1	32d



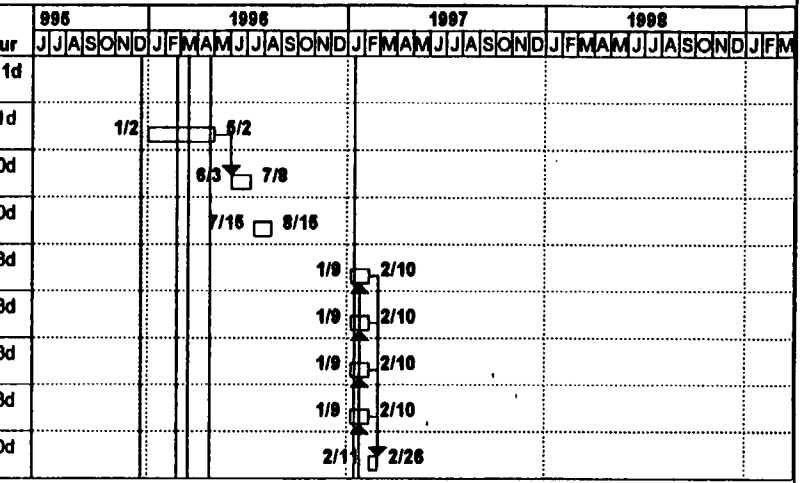
AMSU-A ELECTRONICS TEAM BUILD SCHEDULE

ID	Name	Act I	Cost Acct	WP	Dur
27	ASSEMBLE FLIGHT CABLE ASSYS	5			32d
28	1356428-1, A1W1 (EOS)	171	03-2210	12	32d
29	1356427-1, A1W2 (EOS)	172	03-2210	12	32d
30	1356424-1, A1W3 (EOS)	173	03-2210	12	32d
31	1356425-1, A1W4 (EOS)	174	03-2210	12	32d
32	1356426-1, A1W5 (EOS)	175	03-2210	12	32d
33	1356431-1, A2W1 (EOS)	176	03-2210	12	32d
34	1356432-1, A2W2 (EOS)	177	03-2210	12	32d
35	1356433-1, A2W3 (EOS)	178	03-2210	12	32d
36	1356434-1, A2W4 (EOS)	179	03-2210	12	32d
37	1356816-1, A2W5 (EOS)	180	03-2210	12	32d
38	1356817-1, A2W6 (COMMON)	181	03-2210	12	32d
39	1356818-1, A2W7 (COMMON)	182	03-2210	12	32d
40	1356819-1, A2W8 (COMMON)	183	03-2210	12	32d
41	1356428-2, A1W1 (MET)	184	03-2210	12	32d
42	1356427-2, A1W2 (MET)	185	03-2210	12	32d
43	1356941-1, A1W3 (MET)	186	03-2210	12	32d
44	1356942-1, A1W4 (MET)	187	03-2210	12	32d
45	1356943-1, A1W5 (MET)	188	03-2210	12	32d
46	1356431-2, A2W1 (MET)	189	03-2210	12	32d
47	1356432-2, A2W2 (MET)	191	03-2210	12	32d
48	1356946-1, A2W3 (MET)	190	03-2210	12	32d
49	1356947-1, A2W4 (MET)	193	03-2210	12	32d
50	1356948-1, A2W5 (MET)	195	03-2210	12	32d
51	TEST CABLE ASSYS	6	03-2210	12	8d
52	REWORK & ACCEPT CABLE ASSYS	37	03-2210	12	4d



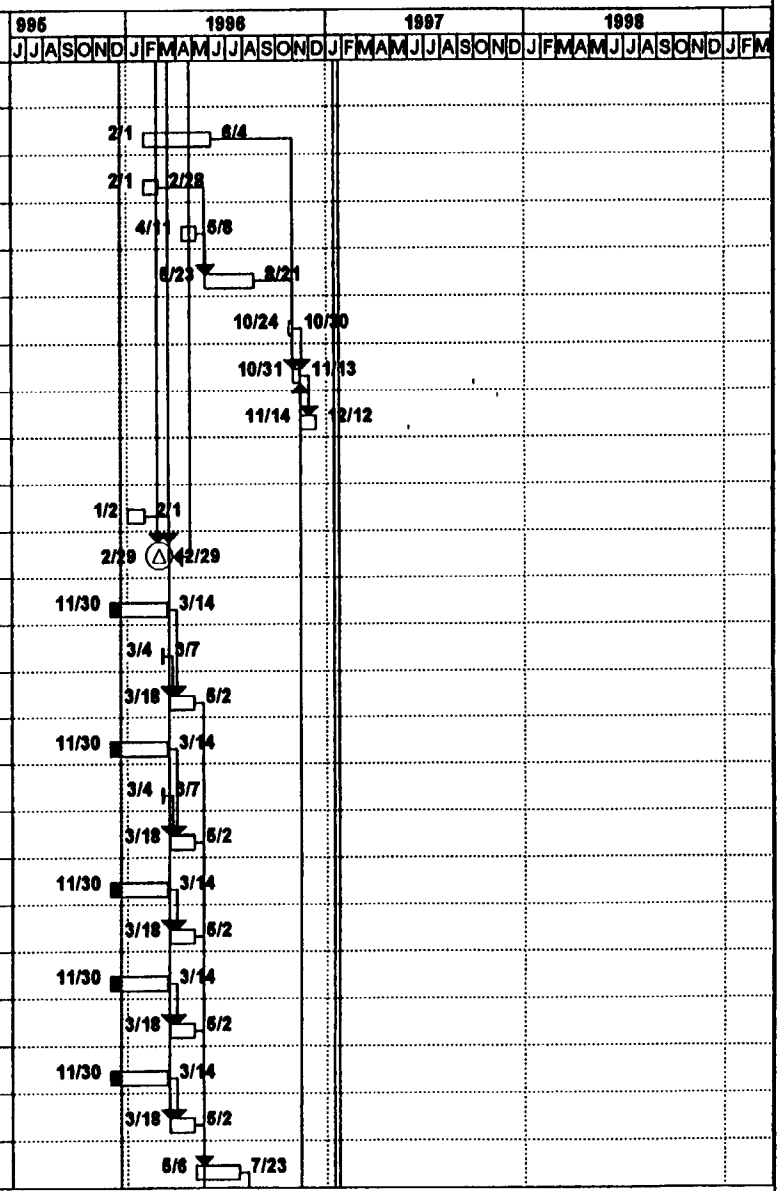
AMSU-A ELECTRONICS TEAM BUILD SCHEDULE

ID	Name	Act I	Cost Acct	WP	Dur
53	MISC ELECTRICAL ASSYS	205			231d
54	PROCURE THERMISTORS	278	03-2110	4	71d
55	1337651-1 ASSY THERMIST COMP ASSY(NEED 10/10/96)	206	03-2210	7	20d
56	1356406-1 ASSY THERMIST COMP ASSY(NEED 10/10/96)	207	03-2210	7	20d
57	1356760-1 ASSEMBLE PWR CONTROL MON ASSY (EOS)	208	03-2210	13	18d
58	1356760-2 ASSEMBLE PWR CONTROL MON ASSY (EOS)	209	03-2210	13	18d
59	1356969-1 ASSEMBLE PWR RELAY & HSKP ASSY (MET)	210	03-2210	13	18d
60	1356969-2 ASSEMBLE PWR RELAY & HSKP ASSY (MET)	211	03-2210	13	18d
61	TEST PWR CTRL & PWR RELAY ASSYS	279	03-2210	13	10d



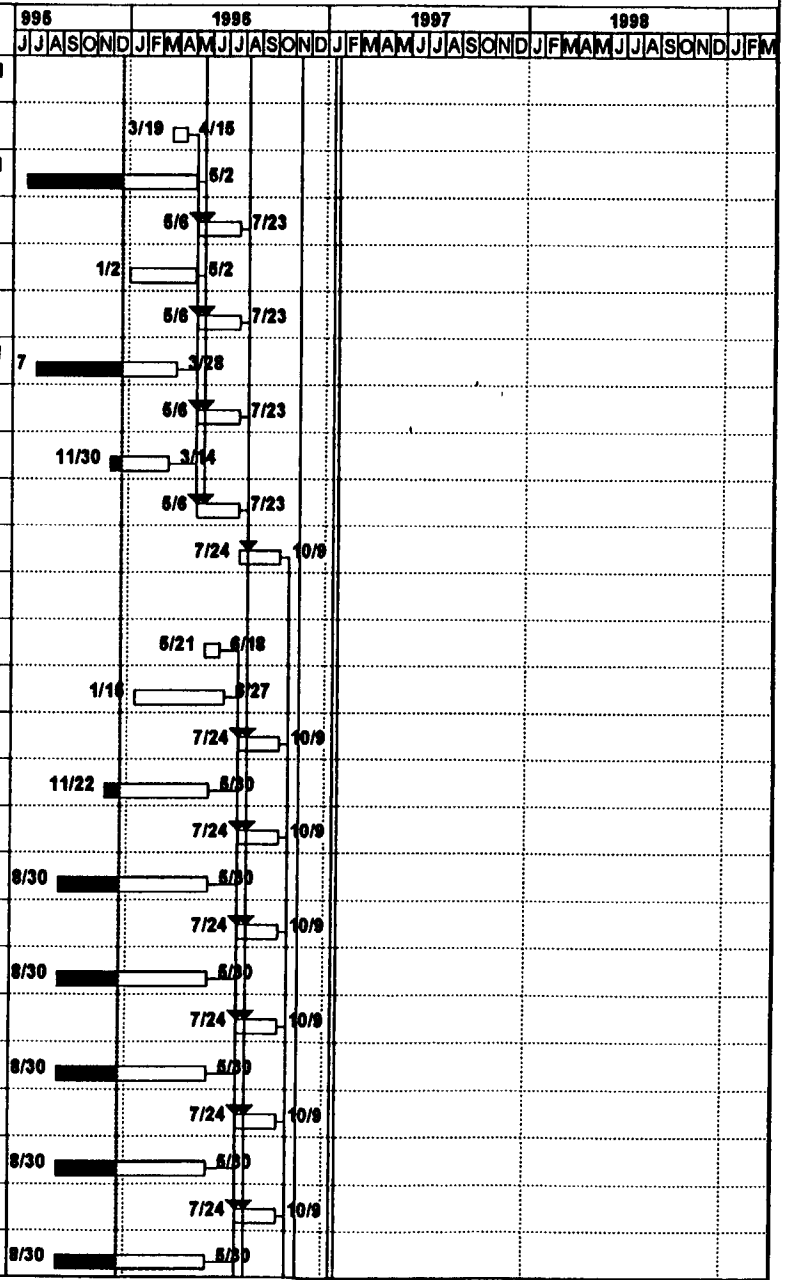
AMSU-A ELECTRONICS TEAM BUILD SCHEDULE

ID	Name	Act I	Cost Acct	WP	Dur
62	PREAMP DETECTOR ASSY (10 UNITS)	21			177d
63	PROCURE PARTS (RF DETECTORS - 1331577)	22	03-2110	4	70d
64	FAB PARTS (MPM GROUP 14)	24	03-2210	5	16d
65	PREAMP DETECTOR ASSY SHOP ORDERS COMPLETE	168	03-2210	1	16d
66	ASSEMBLE PREAMP DET. ASSYS (sans CCAs)	25	03-2210	5	50d
67	RF DETECTOR LINEARITY TESTING	260	03-2210	6	4d
68	FINAL ASSY & TEST PREAMP DETECTOR ASSYS	26	03-2210	6	8d
69	REWORK & ACCEPT PREAMP DETECTOR ASSYS	38	03-2210	6	16d
70	GROUP 1 CCAs	41			128d
71	GROUP 1 CCA SHOP ORDERS COMPLETE	159	03-2210	1	19d
72	CCA PRODUCTION READINESS REVIEW	169	03-2110	3	0d
73	PROCURE PWB 1337283-1	42	03-2110	4	56d
74	BURN-IN PROM	286	03-2110	4	4d
75	1331126-X ASSY MEMORY CCAs (W/O PROM) - QTY 10	43	03-2210	3	28d
76	PROCURE PWB 1337293-1	47	03-2110	4	56d
77	BURN-IN PROM	287	03-2110	4	4d
78	1331135-X ASSY TIMING & CONTROL CCAs - QTY 10	44	03-2210	3	28d
79	PROCURE PWB 1337295-1	152	03-2110	4	56d
80	1331147-1 ASSY SPACECRAFT INT #2 CCAs - QTY 8	153	03-2210	3	28d
81	PROCURE PWB 1337284-1	154	03-2110	4	56d
82	1331129-1 ASSEMBLE SCAN CTRL INT CCAs - QTY 10	155	03-2210	3	28d
83	PROCURE PWB	292	03-2110	4	56d
84	1338424-1 ASSY INTEGRATE & DUMP CCAs - QTY 25	293	03-2210	3	28d
85	TEST, REWORK & ACCEPT GROUP 1 CCAs	131	03-2210	4	44d



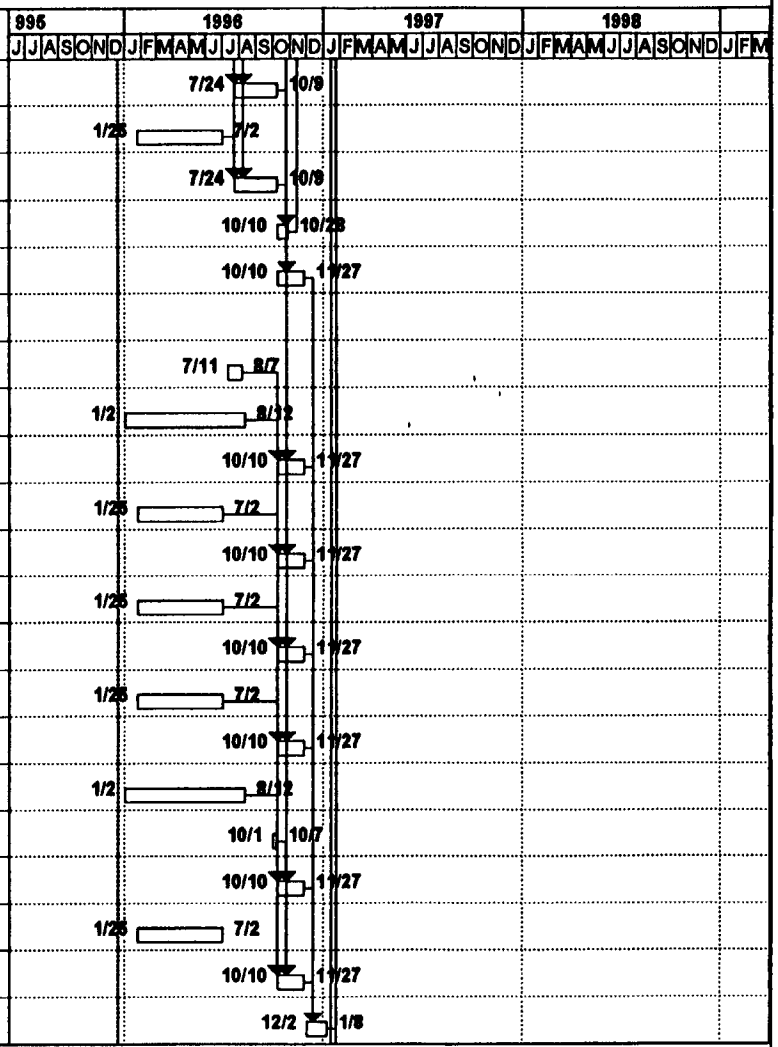
AMSU-A ELECTRONICS TEAM BUILD SCHEDULE

ID	Name	Act I	Cost Acct	WP	Dur
86	**GROUP 2 CCAs**	60			323d
87	GROUP 2 CCA SHOP ORDERS COMPLETE	160	03-2210	1	16d
88	PROCURE DAC MICROCIRCUIT AE23535/68	60	03-2110	4	172d
89	1331697-1 ASSEMBLE INTERFACE CONV CCAs - QTY 15	52	03-2210	3	44d
90	RESCREEN R/D CONVERTER STOCK	125	03-2110	4	71d
91	1337739-X ASSEMBLE R/D CONV CCAs (W/O T&C) - QTY 15	126	03-2210	3	44d
92	PROCURE MICROCIRCUIT AS8322/10901SPX	144	03-2110	4	141d
93	1334972-1 ASSEMBLE RESOLVER/DATA CCAs - QTY 15	145	03-2210	3	44d
94	PROCURE PWB	146	03-2110	4	56d
95	1331694-X ASSY MOTOR DRIVER CCAs (W/O T&C) - QTY 19	147	03-2210	3	44d
96	TEST, REWORK & ACCEPT GROUP 2 CCAs	132	03-2210	4	44d
97	**GROUP 3 CCAs**	67			251d
98	GROUP 3 CCA SHOP ORDERS COMPLETE	161	03-2210	1	16d
99	PROCURE MICROCIRCUIT AE26674-1 (FIFO)	290	03-2110	4	95d
100	1331150-1 ASSEMBLE PAR TO SERIAL CCAs - QTY 8	291	03-2210	3	44d
101	PROCURE RESISTOR NETWORK - 26046-6	288	03-2110	4	103d
102	1331144-1 ASSY SPACECRAFT INT #1 CCAs - QTY 8	289	03-2210	3	44d
103	PROCURE MICROCIRCUIT AS8322/10104SGX	73	03-2110	4	150d
104	1331074-X ASSY 2 CHAN VIDEO P.A. CCAs(W/O T&C)- QTY	68	03-2210	3	44d
105	PROCURE MICROCIRCUIT AS8322/10104SGX	74	03-2110	4	150d
106	1331157-1 ASSY 3 CHAN VIDEO P.A. CCAs(W/O T&C) - QTY	69	03-2210	3	44d
107	PROCURE MICROCIRCUIT AS8322/10104SGX	75	03-2110	4	150d
108	1331682-1 ASSEMBLE TEMP SENSOR B CCAs - QTY 15	70	03-2210	3	44d
109	PROCURE MICROCIRCUIT AS8322/10104SGX	76	03-2110	4	150d
110	1331688-1 ASSY TEMP SENSR ANA MUX CCAs - QTY 10	71	03-2210	3	44d
111	PROCURE MICROCIRCUIT AS8322/10104SGX	77	03-2110	4	150d



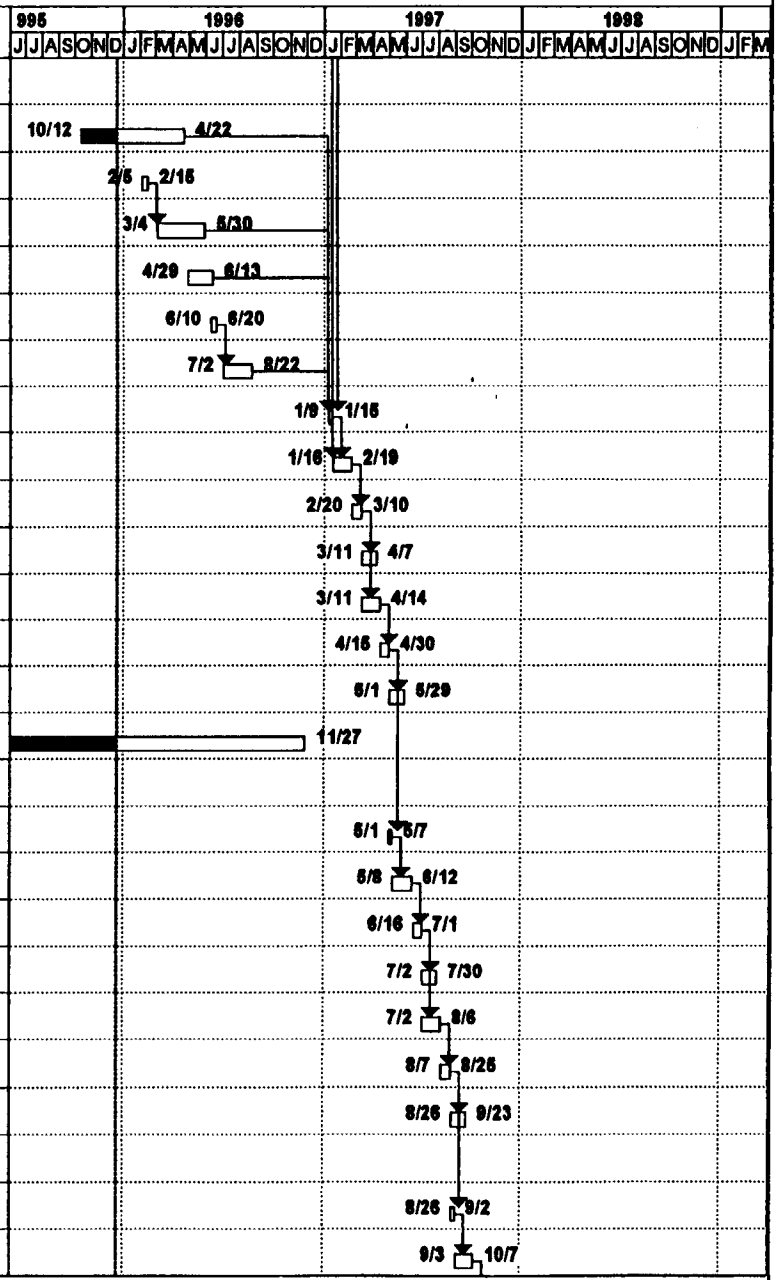
AMSU-A ELECTRONICS TEAM BUILD SCHEDULE

ID	Name	Act I	Cost Acct	WP	Dur
112	1338421-1 ASSEMBLE TEMP SENSOR A CCAs - QTY 10	72	03-2210	3	44d
113	PROCURE PWB	138	03-2110	4	90d
114	1356418-1 ASSY ANAL MUX-A/D CONV CCAs - QTY 10	139	03-2210	3	44d
115	TEST VIDEO P.A. CCAs IN PREAMP BOX	135	03-2210	4	10d
116	TEST, REWORK & ACCEPT GROUP 3 CCAs	133	03-2210	4	28d
117	**GROUP 4 CCAs**	78			203d
118	GROUP 4 CCA SHOP ORDERS COMPLETE	162	03-2210	1	16d
119	PROCURE OSCILLATOR AE26686-X	263	03-2110	4	126d
120	1356413-1 ASSEMBLE CPU CCAs - QTY 10	264	03-2210	3	28d
121	PROCURE PWB 1356417-1	88	03-2110	4	90d
122	1356000-1 ASSEMBLE MUX/RELAY CCAs - QTY 2	82	03-2210	3	28d
123	PROCURE PWB 1356422-1	89	03-2110	4	90d
124	1356002-1, 2 ASSY PWR CTRL MONITOR CCAs - QTY 2	83	03-2210	3	28d
125	PROCURE PWB 1356913-1	90	03-2110	4	90d
126	1356911-1, 2 ASSY RELAY DRV/CUR MON CCAs - QTY 8	84	03-2210	3	28d
127	PROCURE OSCILLATOR AE26686-X	119	03-2110	4	126d
128	BURN-IN PROM	294	03-2210	3	4d
129	1355998-1 ASSEMBLE 1553 CCAs - QTY 2	120	03-2210	3	28d
130	PROCURE PWB 1356910-1	142	03-2110	4	90d
131	1356908-1, 2 ASSY PWR RELAY & HSKP CCAs - QTY 8	143	03-2210	3	28d
132	TEST, REWORK & ACCEPT GROUP 4 CCAs	118	03-2210	4	16d



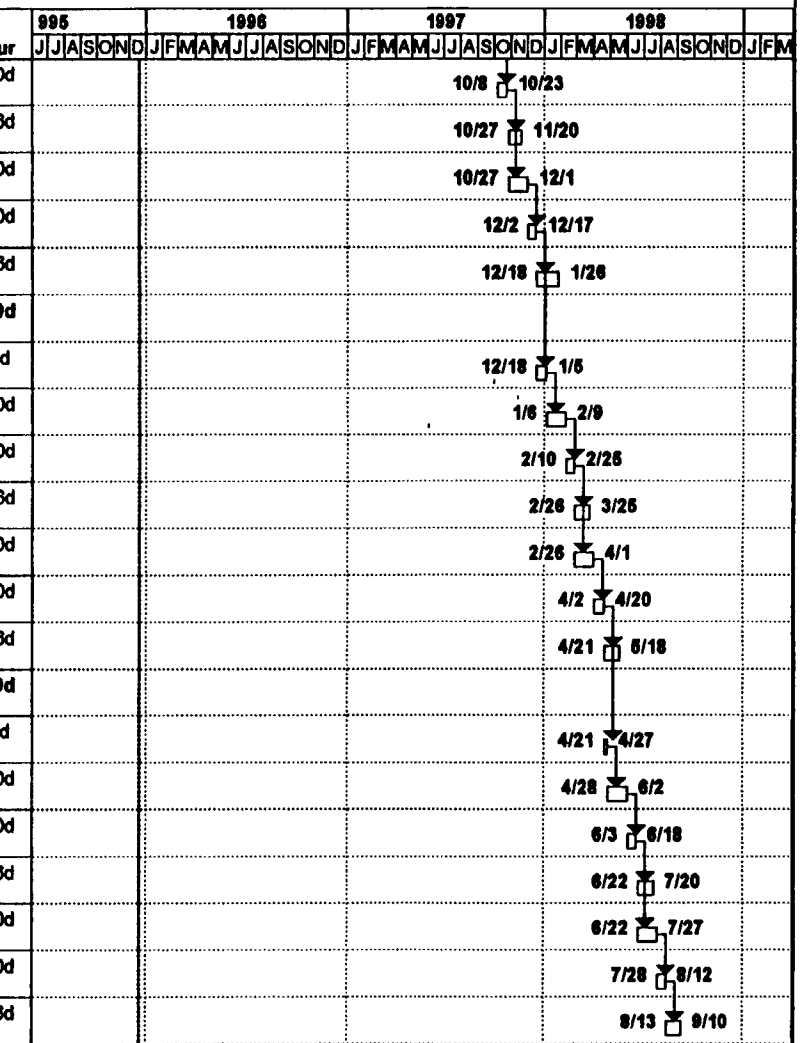
AMSU-A ELECTRONICS TEAM BUILD SCHEDULE

ID	Name	Act I	Cost Acct	WP	Dur
133	**SIGNAL PROCESSOR ASSY (EOS)**	27			447d
134	PROCURE PARTS (WW CONNECTORS - IEH)	28	03-2110	4	104d
135	CARD CAGE SHOP ORDERS COMPLETE	164	03-2210	1	8d
136	FAB CARD CAGES	29	03-2210	10	51d
137	SIGNAL PROCESSOR ASSY SHOP ORDERS COMPLETE	163	03-2210	1	27d
138	CARD CAGE PARTIAL ASSEMBLY	296	03-2210	11	8d
139	WIREWRAP BACKPLANES	30	03-2210	11	30d
140	ASSEMBLE EOS SIGNAL PROCESSOR HARDWARE	31	03-2210	11	4d
141	1356412-1 INTEG & CHKOUT EOS A1 SIG PROC ASSY	32	03-2210	11	20d
142	1356412-1 TEST EOS A1 SIGNAL PROCESSOR ASSY	33	03-2210	11	10d
143	COMPLETE EOS A1 SIG PROC TEST REPORT	225	03-2110	6	16d
144	1356439-1 INTEG & CHKOUT EOS A2 SIG PROC ASSY	34	03-2210	11	20d
145	1356439-1 TEST EOS A2 SIGNAL PROCESSOR ASSY	35	03-2210	11	10d
146	COMPLETE EOS A2 SIG PROC TEST REPORT	226	03-2110	6	16d
147	DC/DC CONVERTER PROCUREMENT (1ST FLIGHT UNIT)	129	03-2110	4	278d
148	**SIGNAL PROCESSOR ASSY (METSAT 1)**	255			80d
149	ASSEMBLE METSAT1 SIGNAL PROCESSOR HARDWARE	227	03-2210	11	4d
150	1331670-2 INTEG & CHKOUT MS1 A1 SIG PROC ASSY	228	03-2210	11	20d
151	1331670-2 TEST MS1 A1 SIGNAL PROCESSOR ASSY	229	03-2210	11	10d
152	COMPLETE METSAT1 A1 SIG PROC TEST REPORT	230	03-2110	6	16d
153	1331120-2 INTEG & CHKOUT MS1 A2 SIG PROC ASSY	231	03-2210	11	20d
154	1331120-2 TEST MS1 A2 SIGNAL PROCESSOR ASSY	232	03-2210	11	10d
155	COMPLETE METSAT1 A2 SIG PROC TEST REPORT	233	03-2110	6	16d
156	**SIGNAL PROCESSOR ASSY (METSAT 2)**	256			80d
157	ASSEMBLE METSAT2 SIGNAL PROCESSOR HARDWARE	234	03-2210	11	4d
158	1331670-2 INTEG & CHKOUT MS2 A1 SIG PROC ASSY	235	03-2210	11	20d



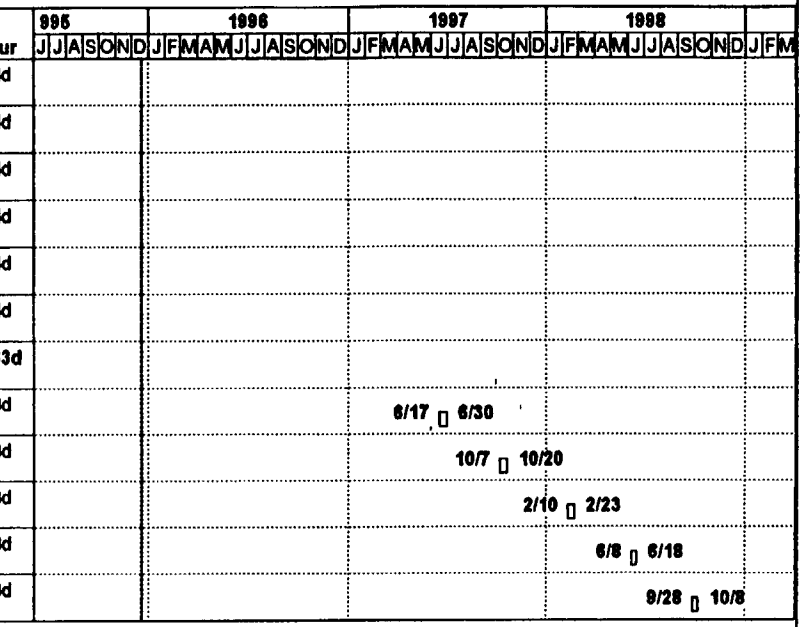
AMSU-A ELECTRONICS TEAM BUILD SCHEDULE

ID	Name	Act I	Cost Acct	WP	Dur
159	1331670-2 TEST MS2 A1 SIGNAL PROCESSOR ASSY	236	03-2210	11	10d
160	COMPLETE METSAT2 A1 SIG PROC TEST REPORT	237	03-2110	6	16d
161	1331120-2 INTEG & CHKOUT MS2 A2 SIG PROC ASSY	238	03-2210	11	20d
162	1331120-2 TEST MS2 A2 SIGNAL PROCESSOR ASSY	239	03-2210	11	10d
163	COMPLETE METSAT2 A2 SIG PROC TEST REPORT	240	03-2110	6	16d
164	**SIGNAL PROCESSOR ASSY (METSAT 3)**	267			80d
165	ASSEMBLE METSAT3 SIGNAL PROCESSOR HARDWARE	241	03-2210	11	4d
166	1331670-2 INTEG & CHKOUT MS3 A1 SIG PROC ASSY	242	03-2210	11	20d
167	1331670-2 TEST MS3 A1 SIGNAL PROCESSOR ASSY	243	03-2210	11	10d
168	COMPLETE METSAT3 A1 SIG PROC TEST REPORT	244	03-2110	6	16d
169	1331120-2 INTEG & CHKOUT MS3 A2 SIG PROC ASSY	245	03-2210	11	20d
170	1331120-2 TEST MS3 A2 SIGNAL PROCESSOR ASSY	246	03-2210	11	10d
171	COMPLETE METSAT3 A2 SIG PROC TEST REPORT	247	03-2110	6	16d
172	**SIGNAL PROCESSOR ASSY (METSAT 4)**	268			80d
173	ASSEMBLE METSAT4 SIGNAL PROCESSOR HARDWARE	248	03-2210	11	4d
174	1331670-2 INTEG & CHKOUT MS4 A1 SIG PROC ASSY	249	03-2210	11	20d
175	1331670-2 TEST MS4 A1 SIGNAL PROCESSOR ASSY	250	03-2210	11	10d
176	COMPLETE METSAT4 A1 SIG PROC TEST REPORT	251	03-2110	6	16d
177	1331120-2 INTEG & CHKOUT MS4 A2 SIG PROC ASSY	252	03-2210	11	20d
178	1331120-2 TEST MS4 A2 SIGNAL PROCESSOR ASSY	253	03-2210	11	10d
179	COMPLETE METSAT4 A2 SIG PROC TEST REPORT	254	03-2110	6	16d
180	**PROM BURN-IN & CCA INSTALLATION (IN PLNG PACKAGE)**	265			4d
181	EOS A1	266			4d
182	EOS A2	267			4d
183	METSAT 1 A1	268			4d
184	METSAT 1 A2	269			4d



AMSU-A ELECTRONICS TEAM BUILD SCHEDULE

ID	Name	Act I	Cost Acct	WP	Dur
185	METSAT 2 A1	270			4d
186	METSAT 2 A2	271			4d
187	METSAT 3 A1	272			4d
188	METSAT 3 A2	273			4d
189	METSAT 4 A1	274			4d
190	METSAT 4 A2	275			4d
191	PERFORMANCE VERIFICATION REPORT	297	02-3410	7	263d
192	EOS	298	02-3410	7	8d
193	METSAT 1	299	02-3410	7	8d
194	METSAT 2	300	02-3410	7	8d
195	METSAT 3	301	02-3410	7	8d
196	METSAT 4	302	02-3410	7	8d



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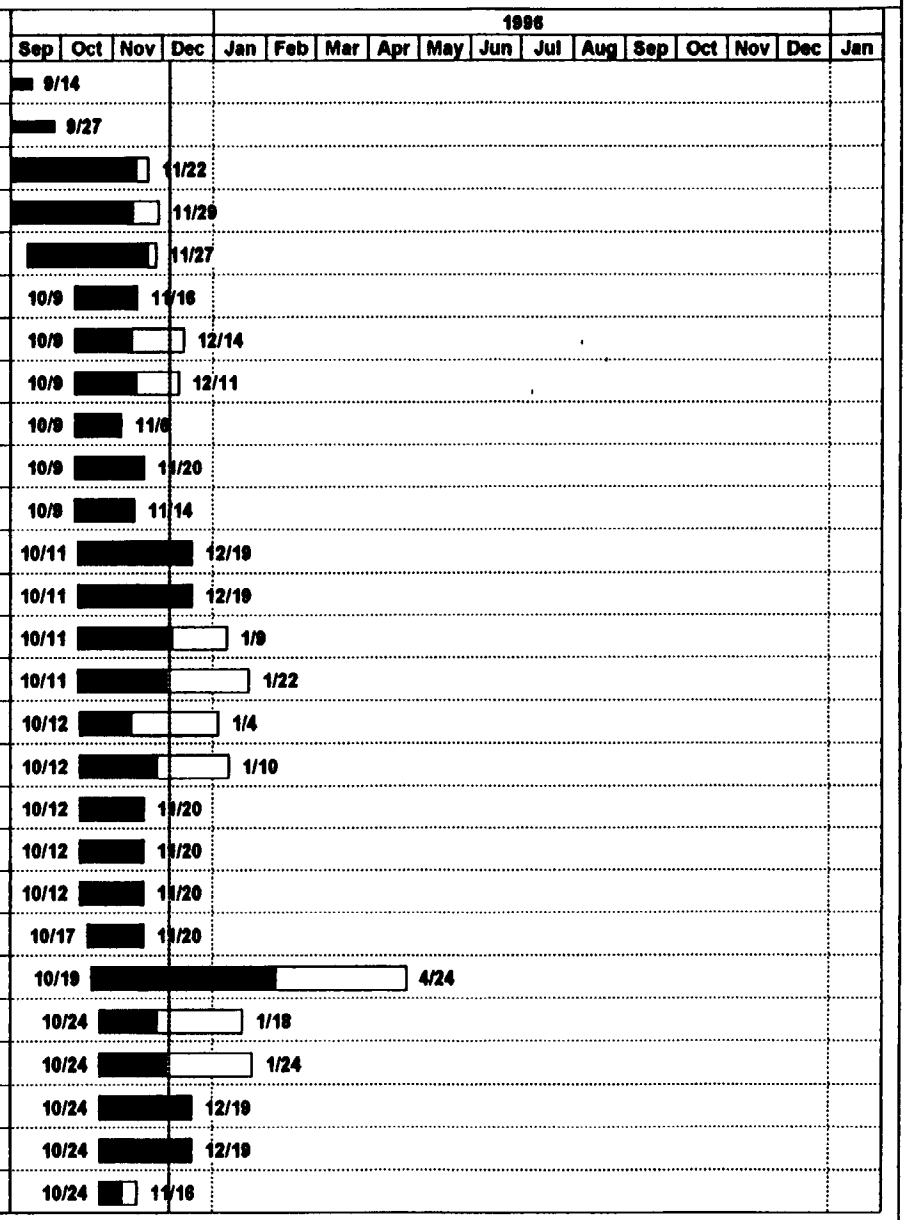
APPENDIX G

METAL PARTS MANUFACTURING SCHEDULE

AMSU-A METAL PARTS MANUFACTURING SCHEDULE



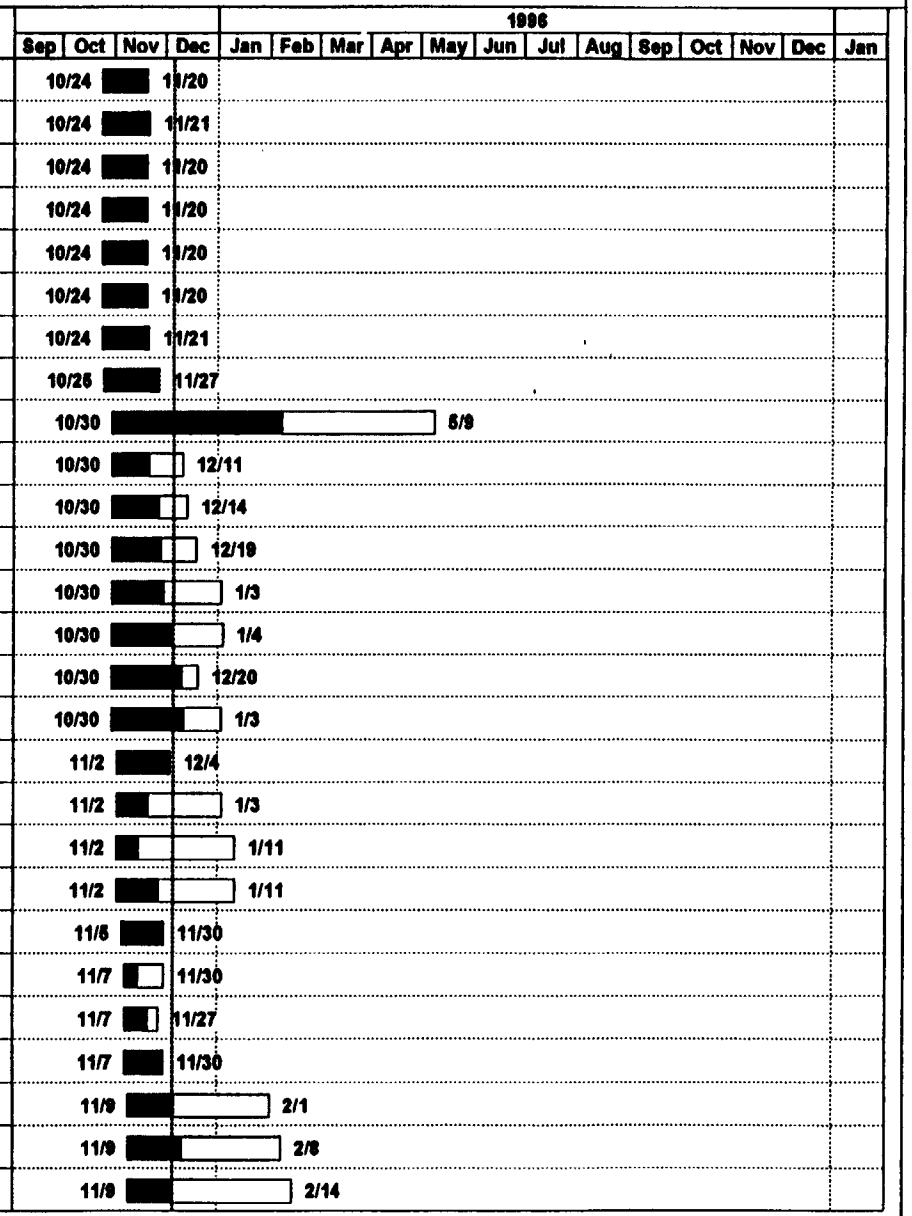
ID		Dur	% Complete
1	A1 Enclosure, Warm Load	36d	100%
2	A2 Enclosure, Warm Load	41d	100%
3	*Housing, Reflector Drive A2*	*52d*	*93%*
18	*Housing, Motor Compensator*	*42.8d*	*84%*
31	*Cover, Housing A2*	*35.2d*	*97%*
216	*Clamp, A1 Motor Rotor*	*18.7d*	*100%*
644	*Panel, Motor Mount, Upper*	*31d*	*52%*
655	*Panel, Motor Mount, Lower*	*28.2d*	*64%*
964	*DUST SHIELD*	*13.6d*	*100%*
973	*SHIM, A1 DRIVE ASSY*	*19.6d*	*100%*
982	*DOWEL PIN*	*17.6d*	*100%*
991	*WASHER,INSULATING*	*31d*	*100%*
1000	*WASHER,INSULATING*	*31d*	*100%*
666	*Baseplate, Lower*	*35d*	*74%*
678	*Baseplate, Upper*	*41d*	*56%*
44	*Housing, Reflector Drive*	*33d*	*41%*
57	*Cover, Housing A1*	*36d*	*56%*
1151	*SHIM,FEEDHORN*	*17d*	*100%*
1160	*SHIM,FEEDHORN*	*17d*	*100%*
1169	*SHIM,FEEDHORN*	*17d*	*100%*
226	*Shield, Reflector*	*15.4d*	*100%*
766	*Reflector, Secondary*	*80d*	*56%*
71	*Clamp, Bearing*	*35d*	*44%*
83	*Clamp, Bearing*	*37d*	*47%*
1009	*WASHER,INSULATING*	*25d*	*100%*
1018	*WASHER,INSULATING*	*25d*	*100%*
1027	*SCREW, ISOLATOR*	*11d*	*57%*

As of 12/5/95

1

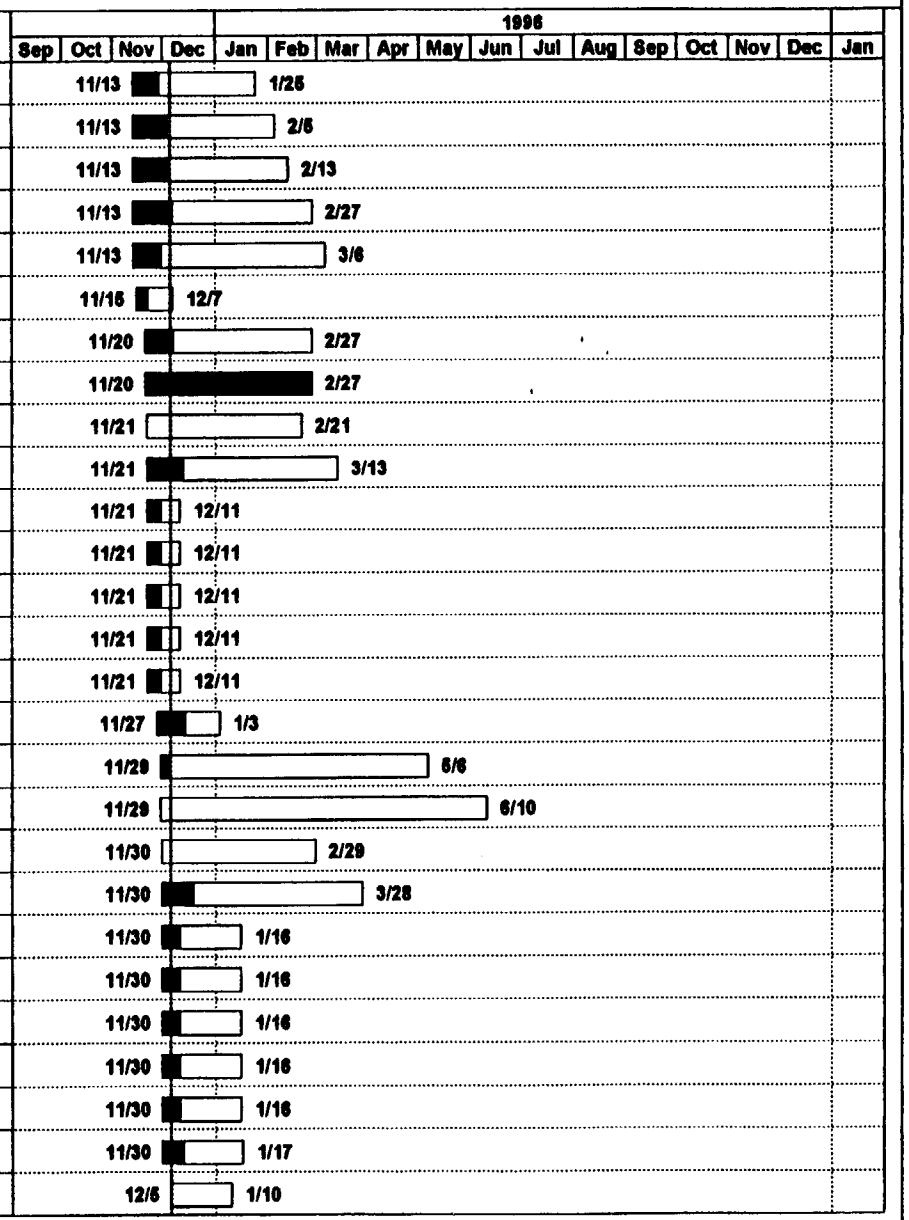
AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete
1036	SCREW, ISOLATOR	12d	100%
1046	SCREW, ISOLATOR	13d	100%
1178	SHIM,FEEDHORN	11.8d	100%
1187	SHIM,FEEDHORN	11.8d	100%
1196	SHIM,FEEDHORN	11.8d	100%
1206	SHIM,FEEDHORN	11.8d	100%
1214	INSULATOR,FEEDHORN	12.8d	100%
236	Shield, Reflector	14d	100%
777	Base, Housing, Sec Refl	83.4d	50%
2368	COVER,ACCESS SIDEWALL	19d	59%
2378	COVER,ACCESS SIDEWALL	21d	59%
2388	COVER, ACCESS SIDEWALL	23d	59%
2398	COVER, ACCESS SIDEWALL	25d	59%
2408	DOUBLER	26d	63%
2418	CLIP,CABLE SUPPORT	24d	77%
2427	CLIP,CABLE SUPPORT	25d	77%
246	Bumper, Reflector	13d	100%
256	Support, Shroud	23d	35%
268	Support, Shroud	27d	24%
280	Balance Weight	27d	38%
1232	SHIM,SECONDARY REFLECTOR	11.6d	100%
1054	SCREW, ISOLATOR	11d	40%
1223	SHIM,SECONDARY REFLECTOR	8.8d	78%
1241	SHIM,SECONDARY REFLECTOR	10.8d	100%
95	Shroud, Feedhorn	33d	36%
107	Shroud, Feedhorn	36d	36%
119	Housing, Subassembly A2	39d	29%



AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete
291	*Support, Warmload*	*29d*	*27%*
302	*Support, Warmload*	*33d*	*27%*
313	*Support, Warmload*	*37d*	*27%*
689	*Reflector, A1*	*44d*	*26%*
700	*Panel, Front (ETM - 3/1/96)*	*48d*	*18%*
1063	*SHIELD, DUST*	*10d*	*36%*
131	*Housing, Subassembly A1*	*40d*	*21%*
2436	*Reflector Housing, Sec (Purchased Part)*	*40d*	*100%*
324	*Support, Panel*	*37d*	*0%*
711	*Panel, Side Shelf Support (ETM - 3/1/96)*	*47d*	*21%*
1250	*SHIM STOCK,FEEDHORN*	*8d*	*50%*
1259	*SHIM STOCK,FEEDHORN*	*8d*	*50%*
1268	*SHIM STOCK,FEEDHORN*	*8d*	*50%*
1277	*SHIM STOCK,FEEDHORN*	*8d*	*50%*
1286	*SHIM STOCK,FEEDHORN*	*8d*	*50%*
1073	*COVER, RESOLVER*	*13.4d*	*68%*
2448	*Shroud, Reflector*	*67d*	*3%*
2458	*Reflector Assy (Check For Parts ??)*	*83d*	*0%*
336	*Shield, Warmload*	*37d*	*0%*
722	*Panel, Side Shelf Support (ETM - 3/1/96)*	*50d*	*17%*
1295	*SHIM,RF COMPARTMENT*	*16d*	*28%*
1305	*SHIM,RF COMPARTMENT*	*16d*	*28%*
1315	*SHIM,RF COMPARTMENT*	*16d*	*28%*
1325	*SHIM,RF COMPARTMENT*	*16d*	*28%*
1335	*SHIM,RF COMPARTMENT*	*16d*	*28%*
1345	*CLAMP,HUB*	*17d*	*36%*
1084	*RETAINER, BEARING*	*12.6d*	*0%*



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AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete	1996 Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
143	*Shroud, Reflector*	*42d*	*0%*				12/7	3/19												
346	*Shield, Warmload*	*37d*	*0%*				12/11	3/11												
733	*Panel, Side, Shelf Support (ETM - 3/1/96)*	*48d*	*20%*				12/11	4/2												
1355	*BRACKET,SIDE,UPPER*	*19d*	*0%*				12/11	1/30												
1365	*BRACKET,BP FILTER*	*19d*	*0%*				12/11	1/30												
1375	*BRACKET*	*19d*	*0%*				12/11	1/30												
1385	*BRACKET,FRONT,LEFT*	*19d*	*0%*				12/11	1/30												
1395	*BRACKET,LOWER,FRONT*	*19d*	*0%*				12/11	1/30												
1405	*BRACKET,LOWER,FORWARD*	*19d*	*0%*				12/11	1/30												
1415	*BRACKET,FRONT,UPPER*	*19d*	*0%*				12/11	1/30												
1425	*BRACKET,LWR SHELF,R SIDE*	*19d*	*0%*				12/11	1/30												
1435	*BEAM,SUPPORT,LOWER LEFT*	*19d*	*0%*				12/11	1/30												
1445	*BEAM,SUPPORT,UPPER*	*19d*	*0%*				12/11	1/30												
1455	*BEAM,SUPPORT - UPPER*	*19d*	*0%*				12/11	1/30												
1095	*SETSCREW*	*9d*	*44%*				12/13	1/11												
2468	*COVER*	*39d*	*0%*				12/13	3/21												
2478	*COVER*	*40d*	*0%*				12/13	3/25												
2488	*COVER,FRONT*	*41d*	*0%*				12/13	3/26												
2498	*PANEL,TOP*	*44d*	*0%*				12/13	4/2												
357	*Support, Panel*	*38d*	*0%*				12/19	3/20												
744	*Panel, Side, Shelf Support (ETM - 3/1/96)*	*47d*	*20%*				12/19	4/9												
1465	*BRACKET,LOWER,AFT*	*21d*	*0%*				12/19	2/13												
1475	*BRACKET,RIGHT,LOWER*	*21d*	*0%*				12/19	2/13												
1485	*BRACKET,SHELF SPRT,SIDE*	*21d*	*0%*				12/19	2/13												
1495	*BRACKET,SHELF SPRT,SIDE*	*21d*	*0%*				12/19	2/13												
1505	*BRACKET,SHELF SPRT,FRONT*	*21d*	*0%*				12/19	2/13												
1515	*BEAM,SUPPORT-LOWER*	*21d*	*0%*				12/19	2/13												

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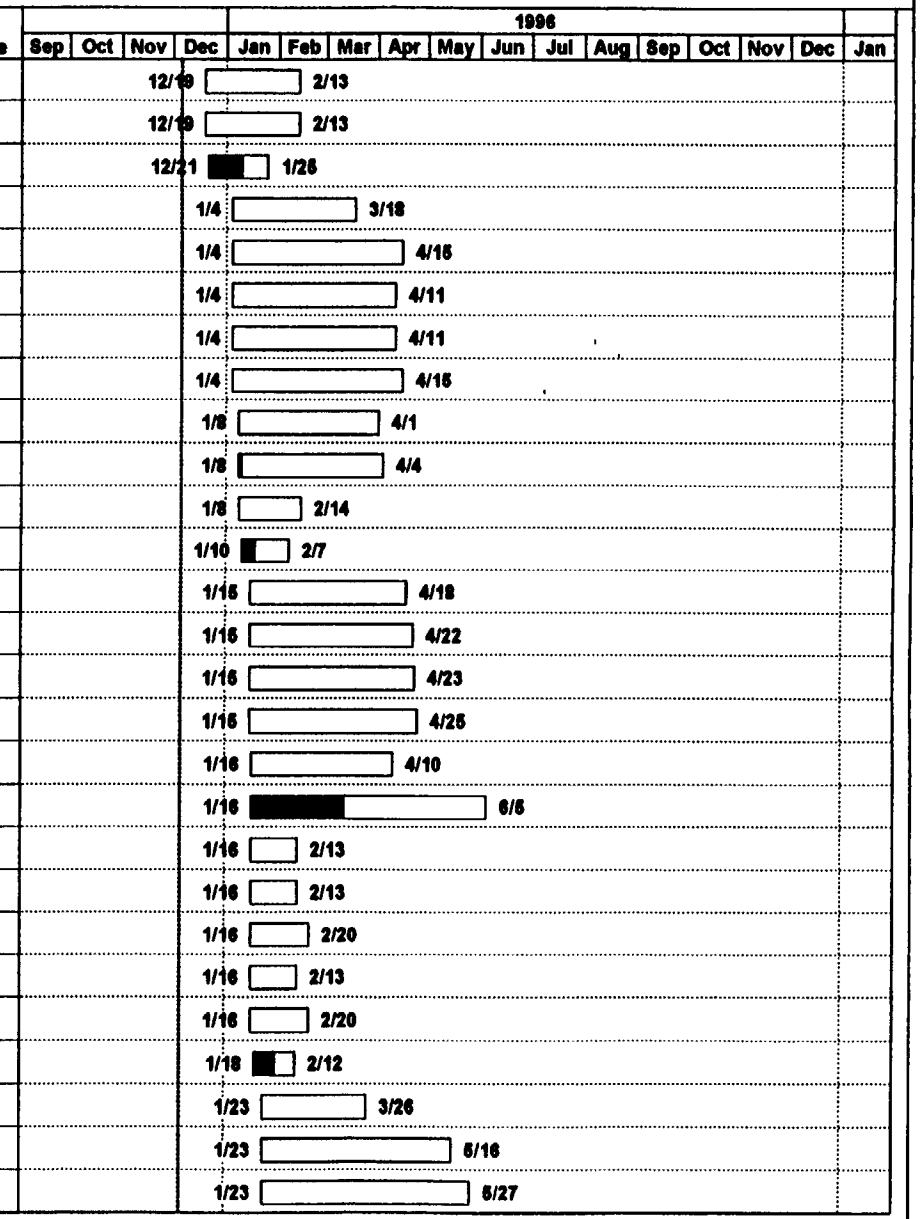
AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete
1525	BRACKET,SIDE-LOWER	21d	0%
1535	BRACKET,SHELF SPRT,REAR	21d	0%
1104	INSULATOR,RF SHLDR WASHER	11.6d	40%
166	Clamp, Stator	33d	0%
2508	PANEL,SIDE,RIGHT	46d	0%
2518	PANEL,SIDE,RIGHT	45d	0%
2528	PANEL	45d	0%
2538	RETAINER,I.O.CARD	46d	0%
368	Shield, Warmload	39d	0%
755	BASEPLATE ASSY (ETM - 3/1/96)	41d	5%
1545	BRACKET-REFLECTOR,COVER	18d	0%
1113	INSULATOR,RF SHLDR WASHER	13.6d	33%
2548	PANEL,TOP	44d	0%
2558	PANEL,BASE	45d	0%
2568	PANEL,FWD	46d	0%
2578	PANEL,AFT	47d	0%
379	Shield, Upper, Warmload	40d	0%
788	Panel, Front, Upper	65d	40%
1555	SPACER,ISOLATOR (Same as -1 ??)	13d	0%
1564	SPACER,ISOLATOR	13d	0%
1574	SPACER,ISOLATOR	16d	0%
1585	SPACER,ISOLATOR	13d	0%
1594	SPACER,ISOLATOR	16d	0%
1122	INSULATOR,RF SHLDR WASHER	10.6d	57%
168	Standoff, Warmload	29d	0%
2588	CARD CAGE ASSY, UPPER	53d	0%
2598	CARD CAGE ASSEMBLY	57d	0%



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AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete	1996 Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
2608	PANEL,BOTTOM	53d	0%					1/23					5/16							
2618	PANEL,TOP	58d	0%					1/23					5/28							
2628	PANEL, TOP	58d	0%					1/23					5/28							
390	Panel, Aft, Lower	44d	0%					1/24					4/29							
1604	CLAMP,MOTOR	14d	0%					1/24		2/22										
1131	SPACER	13.4d	0%					1/29		2/26										
2638	CARD CAGE ASSY	63d	0%					1/31					6/18							
2648	PANEL	57d	0%					1/31					6/4							
2658	PANEL,TOP	58d	0%					1/31					6/5							
2668	PANEL,SIDE	59d	0%					1/31					6/10							
401	Frame, Blackplane	45d	0%					2/1					5/9							
412	Panel, Shelf Support	48d	0%					2/1					5/15							
1614	PIN,MOTOR HOUSING	11d	0%					2/1		2/26										
1624	BACK COVER	15d	0%					2/1		3/6										
1634	BRACKET	17d	0%					2/1		3/11										
1644	GROUND WIRE ???????	16d	0%					2/1		3/7										
1142	WASHER,ISOLATOR	8.6d	0%					2/6		2/22										
179	Reflector Mount, Secondary	30d	0%					2/8			4/16									
2678	PANEL,SIDE	56d	0%					2/8					6/11							
2688	PANEL	57d	0%					2/8					6/12							
2698	CARD CAGE ASSY	61d	0%					2/8					6/20							
2708	CARD CAGE ASSEMBLY	70d	0%					2/8						7/10						
423	Backplane	45d	0%					2/12					5/20							
799	Panel, Front, Lower	63d	0%					2/12						6/26						
1654	HOUSING SUPPORT (Could be CNC)	15d	0%					2/12		3/13										
1664	INSULATOR,FEEDHORN	13d	0%					2/12		3/11										
1673	BRACKET,MIXER/PREAMP CH.6	18d	0%					2/12		3/20										

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AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete	1996													
				Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
1683	BRACKET,AMPL/PWR DIVIDER	21d	0%					2/12	3/27											
2718	STRAP,SHORTING	59.5d	0%					2/19	6/26											
2728	SPACER,SHORTING	60d	0%					2/19	6/27											
2738	BRACKET, SUPPORT-CHAN 1	61d	0%					2/19	7/1											
2748	FILLER,GROUND STRAP	60d	0%					2/19	6/27											
434	Frame	49d	0%					2/20	6/5											
445	Blackplane	51d	0%					2/20	6/10											
810	Panel, Side Wall	61d	0%					2/20	7/2											
1693	BRACKET,POWER DIVIDER	20d	0%					2/20	4/3											
1703	BRACKET,HYBRID TEE	22d	0%					2/20	4/8											
1713	BRACKET - SUPPORT	21d	0%					2/20	4/4											
1723	BRACKET - SUPPORT	22d	0%					2/20	4/8											
1733	BRACKET - SUPPORT	23d	0%					2/20	4/9											
1743	BRACKET - SUPPORT	24d	0%					2/20	4/11											
1753	BRACKET, SUPPORT	25d	0%					2/20	4/15											
1763	BRACKET - SUPPORT ?????	26d	0%					2/20	4/16											
191	Retainer, Motor Stator A2	26d	0%					2/27	4/23											
2767	SHIM	59d	0%					2/27	7/4											
2766	SHIM	59d	0%					2/27	7/4											
2775	SHIM	59d	0%					2/27	7/4											
2784	SHIM	60d	0%					2/27	7/8											
2793	SHIM	63d	0%					2/27	7/16											
2803	SHIM	58d	0%					2/27	7/2											
456	Backplane	49d	0%					2/28	6/13											
821	Panel EOS/AMSU-A1	60d	0%					2/28	7/8											
1773	FACE PLATE PLO	25d	0%					2/28	4/23											
1783	PLO HOUSING	28d	0%					2/28	4/30											

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AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete	Sep	Oct	Nov	Dec	1996 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
1793	*VCGDO/MIXER SUPPORT*	*31d*	*0%*					2/28					5/6							
2812	*SHIM*	*59d*	*0%*							3/6						7/16				
2822	*SHIM*	*59d*	*0%*							3/6						7/16				
2832	*SHIM*	*59d*	*0%*							3/6						7/16				
2842	*SHIM*	*59d*	*0%*							3/6						7/16				
2852	*SHIM*	*59d*	*0%*							3/6						7/16				
467	*Frame, Blackplane*	*53d*	*0%*							3/7					7/2					
832	*Panel, Aft Wall*	*61d*	*0%*							3/7						7/16				
1803	*TUNING DISK*	*28d*	*0%*							3/7			5/8							
1813	*TUNING DISK*	*29d*	*0%*							3/7			5/9							
1823	*TUNING DISK*	*30d*	*0%*							3/7			5/13							
1833	*TUNING DISK*	*31d*	*0%*							3/7			5/14							
1843	*TUNING DISK*	*32d*	*0%*							3/7			5/16							
1853	*TUNING DISK*	*33d*	*0%*							3/7			5/20							
1863	*TUNING DISK*	*34d*	*0%*							3/7			5/21							
1873	*TUNING DISK*	*35d*	*0%*							3/7			5/22							
1883	*TUNING DISK*	*36d*	*0%*							3/7			5/27							
1893	*TUNING DISK*	*37d*	*0%*							3/7			5/28							
203	*Retainer, Roter*	*23d*	*0%*							3/14			5/2							
2862	*SHIM,AMSU-A*	*57d*	*0%*							3/14						7/17				
2872	*SHIM,AMSU-A*	*57d*	*0%*							3/14						7/17				
2882	*SHIM,AMSU-A*	*57d*	*0%*							3/14						7/17				
2892	*SHIM,AMSU-A*	*57d*	*0%*							3/14						7/17				
2902	*SHIM,AMSU-A*	*57d*	*0%*							3/14						7/17				
478	*Retainer, IO Card Bracket*	*50d*	*0%*							3/18						7/3				
843	*Baseplate, Lower*	*64d*	*0%*							3/18							9/1			
1903	*COVER*	*36d*	*0%*							3/18				6/4						

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AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete	1995 Sep	Oct	Nov	Dec	1996 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
1913	COVER	38d	0%					3/18												6/6
1923	HEAT SINK	39d	0%					3/18												6/10
2912	SHIM,LAMINATED	53d	0%					3/26												7/17
2921	SHIM,LAMINATED	56d	0%					3/26												7/24
2931	SHIM,LAMINATED	56d	0%					3/26												7/24
2941	SHIM,LAMINATED	56d	0%					3/26												7/24
2951	SHIM,LAMINATED	56d	0%					3/26												7/24
2961	SHIM,LAMINATED	56d	0%					3/26												7/24
2971	SHIM,LAMINATED	56d	0%					3/26												7/24
2981	SHIM,LAMINATED	56d	0%					3/26												7/24
489	Bracket, Support Chan 2	53d	0%					3/26												7/18
854	Panel, Front (Need ETM by 3/1/96)	71d	0%					3/26												9/27
1933	INSULATOR	38d	0%					3/26												6/17
1943	ENCLOSURE PLL MODULE	41d	0%					3/26												6/24
1953	PLL MODULE COVER	44d	0%					3/26												7/1
1963	INSULATOR, HEATSINK	47d	0%					3/26												7/4
2991	PLATE,STRAIN RELIEF	53d	0%					4/2												7/25
3001	PLATE, STRAIN RELIEF	53d	0%					4/2												7/25
3011	CAP	56d	0%					4/2												8/1
3020	STRIP	59d	0%					4/2												8/8
500	Bracket, MTG Amplifier	55d	0%					4/3												7/31
865	Panel, Rear, Shelf Support	75d	0%					4/3												9/12
1973	BRACKET	46d	0%					4/3												7/11
1983	COVER, EMI	49d	0%					4/3												7/18
1993	HEATSINK	52d	0%					4/3												7/25
2003	HEATSINK	50d	0%					4/3												7/22
3029	COVER	60d	0%					4/10												9/20

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AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete	1996 Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
3039	COVER,SIDE	62d	0%							4/10						8/22				
3049	BRACKET - SUPPORT	62d	0%							4/10						8/22				
3059	BRACKET - SUPPORT	64d	0%							4/10						8/28				
511	Bracket, MTG Amplifier Ch4	57d	0%							4/11						8/14				
876	Panel, Feedhorn Support	81d	0%							4/11							10/7			
2012	STRIP,SHADE	50d	0%							4/11						7/30				
2022	HUB CLAMP, REFLECTOR	52d	0%							4/11						8/5				
2032	WASHER, CRES	51d	0%							4/11						7/31				
3069	COVER,SIDE	62d	0%							4/18						9/2				
3079	COVER, PREAMP DETECTOR	62d	0%							4/18						9/2				
3089	COVER ASSY	63d	0%							4/18						9/4				
3099	PANEL,CONNECTOR	64d	0%							4/18						9/5				
522	Bracket, MTG Amplifier Ch3	61d	0%							4/22						9/2				
887	Panel, Side Shelf Support (Need ETM by 3/1/96)	79d	0%							4/22							10/9			
2041	SPACER, LOCKING	52d	0%							4/22						8/13				
2051	SPACER,LOCKING	54d	0%							4/22						8/15				
2061	SPACER,LOCKING	56d	0%							4/22						8/21				
2071	SPACER,LOCKING	58d	0%							4/22						8/26				
2081	SPACER,LOCKING	60d	0%							4/22						8/29				
2091	SPACER,LOCKING	62d	0%							4/22						9/3				
3109	PANEL,SIDE,CONNECTOR	61d	0%							4/29						9/9				
3119	BRACKET, RADIATOR PANEL	62d	0%							4/29						9/10				
3129	PANEL, RADIATOR	63d	0%							4/29						9/12				
533	Bracket, Band Pass Filter	62d	0%							4/30						9/11				
898	Panel, Side Shelf Support (Need ETM by 3/1/96)	85d	0%							4/30							10/31			
2101	SUPPORT,BLANKET	61d	0%							4/30						9/10				
2111	SUPPORT,BLANKET	63d	0%							4/30						9/12				

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AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete	1996													
				Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
2121	SUPPORT,BLANKET	61d	0%								4/30					9/10				
544	Bracket, Filter Mounting	62d	0%								5/8					9/19				
909	Shelf, Warmload	89d	0%								5/8							11/19		
2130	SUPPORT,BLANKET	59d	0%								5/8					9/12				
555	Bracket, Band Pass Filter	69d	0%								5/16						10/16			
920	Panel, Side, Shelf Support (Need ETM by 3/1/96)	88d	0%								5/16							11/25		
2139	SUPPORT, BLANKET	59d	0%								5/16					9/23				
2149	SUPPORT,BLANKET	60d	0%								5/16					9/25				
2159	SUPPORT,BLANKET	61d	0%								5/16					9/26				
2169	SUPPORT,BLANKET	62d	0%								5/16					9/30				
2179	SUPPORT,BLANKET	63d	0%								5/16					10/1				
2189	SUPPORT,BLANKET	64d	0%								5/16					10/3				
2199	SUPPORT,BLANKET	65d	0%								5/16					10/7				
2209	SUPPORT,BLANKET	66d	0%								5/16					10/8				
2219	SUPPORT,BLANKET	67d	0%								5/16					10/9				
2229	SUPPORT,BLANKET	68d	0%								5/16					10/14				
2239	SUPPORT,BLANKET	69d	0%								5/16					10/15				
2249	SUPPORT,BLANKET	70d	0%								5/16					10/16				
2259	SUPPORT,BLANKET	71d	0%								5/16					10/17				
2269	SUPPORT,BLANKET	72d	0%								5/16					10/22				
2279	SUPPORT,BLANKET	73d	0%								5/16					10/23				
2289	SUPPORT,BLANKET	74d	0%								5/16					10/24				
2299	SUPPORT,BLANKET	75d	0%								5/16					10/26				
2309	SUPPORT,BLANKET	76d	0%								5/16					10/30				
566	Bracket, Mixer/Amp	71d	0%								5/27					10/26				
931	Panel, Side, Shelf Support (Need ETM by 3/1/96)	88d	0%								5/27							12/3		
2319	SPACER	70d	0%								5/27					10/24				

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AMSU-A METAL PARTS MANUFACTURING SCHEDULE

ID		Dur	% Complete	1996 Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
577	*Bracket, IF Amp*	*76d*	*0%*									6/4						11/14		
942	*Panel, End, Shelf Support*	*88d*	*0%*									6/4							12/11	
2328	*COVER, CONNECTOR*	*70d*	*0%*									6/4						11/4		
2338	*PANEL, CONNECTOR*	*71d*	*0%*									6/4						11/6		
2348	*PANEL, SIDE CONNECTOR*	*72d*	*0%*									6/4						11/7		
2358	*COVER ALIGNMENT CUBE*	*73d*	*0%*									6/4						11/11		
588	*BRACKET,AMP*	*78d*	*0%*									6/12							11/28	
953	*BASEPLATE ASSY (Need ETM by 3/1/96)*	*83d*	*0%*									6/12							12/10	
599	*Strip, Shade*	*77d*	*0%*									6/20							12/6	
611	*Support Cover*	*77d*	*0%*									7/1							12/16	
622	*Cover*	*78d*	*0%*									7/9							12/26	
633	*Cover*	*78d*	*0%*									7/17								1/2

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