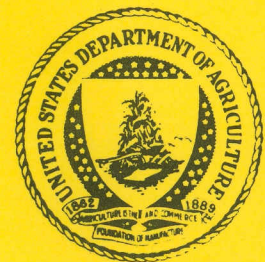


AgRISTARS

A Joint Program for
Agriculture and
Resources Inventory
Surveys Through
Aerospace
Remote Sensing

Management/Organization Plan

January 15, 1980



NASA



MANAGEMENT/ORGANIZATION PLAN FOR AgRISTARS

APPROVED BY:

William E. Kibler

Date:

1/15/80

William E. Kibler
U. S. Department of Agriculture

Pitt G. Thome

Date:

1/15/80

Pitt G. Thome
National Aeronautics and Space
Administration

Thomas D. Potter

Date:

1/15/80

Thomas D. Potter
U. S. Department of Commerce

Frederick J. Doyle

Date:

15 Jan 80

Frederick J. Doyle
U. S. Department of the Interior

Table of Contents

		<u>Page No.</u>
1.0	<u>Introduction</u>	1
1.1	<u>Background and Program Scope</u>	1
1.2	<u>Purpose</u>	1
2.0	<u>Responsibilities</u>	1
3.0	<u>Joint Management Structure/Organization</u>	4
3.1	<u>Interagency Policy Board (IPB)</u>	4
3.2	<u>Interagency Coordinating Committee (ICC) (Level 1)</u>	4
3.3	<u>Program Management Team (PMT) (Level 2)</u>	5
3.3.1	<u>Program Support Staff (PSS)</u>	5
3.4	<u>Project Managers (Level 3)</u>	8
3.4.1	<u>Task Management</u>	9
4.0	<u>Individual Agency Management Structure</u>	10
4.1	<u>NASA</u>	10
4.1.1	<u>Level 1 Manager</u>	11
4.1.2	<u>Level 2 Manager</u>	11
4.1.2.1	<u>Program Support Office (PSO)</u>	15
4.1.3	<u>Level 3 Managers (Project Managers and Task Managers)</u>	16
4.2	<u>USDA</u>	16
4.2.1	<u>USDA Interagency Coordinating Committee Member</u>	19
4.2.2	<u>USDA Program Management Team Member</u>	20
4.2.3	<u>Project Managers</u>	21
4.3	<u>USDC</u>	21
4.3.1	<u>Interagency Policy Board</u>	21
4.3.2	<u>Level 1 Manager</u>	21
4.3.3	<u>Level 2 Manager</u>	21
4.3.4	<u>Level 3 Manager</u>	23

Table of Contents
(Cont'd.)

	<u>Page No.</u>
4.4 <u>USDI</u>	23
4.4.1 <u>Interagency Policy Board</u>	23
4.4.2 <u>Level 1 Manager</u>	23
4.4.3 <u>Level 2 Manager</u>	23
4.4.4 <u>Level 3 Manager/Liaison to PSS and Science Teams</u>	23
5.0 <u>Review and Reporting</u>	28
5.1 <u>Annual Program Review</u>	28
5.2 <u>Internal Program Reviews</u>	28
5.2.1 <u>Task Manager Reviews</u>	28
5.2.2 <u>Level 3, Project Manager Reviews</u>	28
5.2.3 <u>Program Management Team (PMT) Reviews/Meetings</u>	29
5.2.4 <u>Level 1, Interagency Coordinating Committee Reviews/Meetings</u>	29
5.2.5 <u>USDA User Evaluation</u>	29

Appendix A - PMT Change Control Plan

Appendix B - ICC Change Control Plan

Listing of Figures

<u>Figure</u>		<u>Page No.</u>
2.1	<u>Department/Agency Roles</u>	3
3.0	<u>Joint Agency Program Management and Functional Relationships</u>	6
4.1.0	<u>NASA Organization</u>	12
4.1.1	<u>NASA/OSTA Organization</u>	13
4.1.2	<u>NASA Program Management Structure</u>	17
4.1.3	<u>AgRISTARS NASA Center Participation</u>	18
4.2.0	<u>USDA Program/Line Organization Relationships</u>	22
4.3.0	<u>USDC/NOAA Organization Chart</u>	24
4.3.1	<u>NESS Organization Chart</u>	25
4.3.2	<u>EDIS Organization Chart</u>	26
4.4.0	<u>USDI Management Structure</u>	27
5.1	<u>AgRISTARS Program Events</u>	30
5.2	<u>AgRISTARS Program Reviews and Reporting</u>	31

1.0 INTRODUCTION

1.1 Background and Program Scope

The Program for Agriculture and Resources Inventory Surveys Through Aerospace Remote Sensing (AgRISTARS) is a new initiative with USDA, NASA, USDC, USDI, and AID beginning in FY 80. The technical program is defined in the Preliminary Technical Program Plan. The Resources Plan contains detailed funding and manpower levels. The program specifically addresses the seven information requirements¹ identified by the Secretary of Agriculture and listed in the Preliminary Technical Program Plan.¹ It is structured into projects designed to conduct research, development, test, and evaluation of the various applications of aerospace technology. These projects are designed to support a decision regarding the routine use of remote sensing technology that has emerged from the pilot experiments.

1.2 Purpose

This document defines the management arrangements to implement AgRISTARS. The document describes the joint agency management and organizational structure and defines how that relates to each of the individual Agency's management lines. In addition, the program and project review and reporting requirements are established.

2.0 RESPONSIBILITIES

The organization and management philosophy reflected in this plan recognizes that each government agency involved enters into an agreement to support information requirements defined by the Secretary of Agriculture. Each government agency budgets, manages, and maintains control of resources necessary to meet its own responsibilities as jointly agreed upon by the participating organizations. In this program (see Figure 2.1) the USDA has sole responsibility for defining its information requirements and will be responsible for conducting RD&T and predominantly responsible for applications analysis in determination of area, yield, and foreign production; crop/weather assessments; renewable resources; soil moisture; and conservation/pollution. NASA will be primarily responsible for selected R&D, pilot testing and support in areas where it has specialized knowledge and/or capabilities. The USDC will be responsible for supplying the meteorological data base, application of Environmental Satellite data and RD&T in weather/crop assessments (with emphasis on supporting environmental satellite studies in early warning), yield models and soil moisture measuring techniques. Two agencies (USDI and AID), although not involved in research, are important participants in the program. USDI will provide for the storage, retrieval and dissemination of archival Landsat data. AID will evaluate utility and applicability of research and development products for AID programs.

Figure 2.1 indicates that some overlap in responsibilities exist. These apparent overlaps can be explained in terms of both level of detail and emphasis. In the Preliminary Technical Program Plan, a more complete listing of agency/department responsibilities in

¹Joint Program of Research and Development of Users of Aerospace Technology for Agricultural Programs, February 1978.

each of the projects can be found. Detailed responsibilities will be documented in the implementation plan for each project. In some cases to assure the coordination of efforts between projects an Interface Control Document (ICD) will be necessary.

FIGURE 2.1

DEPARTMENT/AGENCY ROLES

USDA

- DEFINE USDA INFORMATION REQUIREMENTS
- YIELD MODEL RD&T AND APPLICATIONS
- RD&T - APPLICATIONS ANALYSIS FOR AREA, YIELD, AND PRODUCTION ESTIMATION
- AGRONOMIC/ANCILLARY DATA BASE
- USER EVALUATION
- GROUND DATA COLLECTION
- RD&T AND APPLICATIONS CROP/WEATHER ASSESSMENTS 1/
- RD&T AND APPLICATION FOR EARLY WARNING
- RD&T AND APPLICATIONS FOR RENEWABLE RESOURCES ANALYSIS
- RD&T AND APPLICATIONS FOR LAND USE, PRODUCTIVITY, CONSERVATION, AND POLLUTION ANALYSIS
- RD&T FOR SOIL MOISTURE MEASURING TECHNIQUES
- LARGE SCALE APPLICATIONS TESTS

1/ Primary emphasis on assessment of crop conditions (e.g., yield, production) using meteorological data as an input to develop needed information.

NASA

- RD&T FOR FOREIGN CROP AREA ESTIMATION
- RD&T FOR COMBINING AREA AND YIELD ESTIMATES FOR FOREIGN CROP PRODUCTION
- FIELD RESEARCH
- LANDSAT DATA ACQUISITION
- RD&T-SPECTRAL INPUTS TO YIELD MODELS
- RD&T-SPECTRAL INPUTS TO QUANTITATIVE EARLY WARNING AND CROP CONDITION ASSESSMENT
- RD&T FOR SPECTRAL ANALYSIS RELATED TO INVENTORY AND CONDITION ASSESSMENT TECHNIQUES FOR RENEWABLE RESOURCES
- RD&T INVENTORY AND MONITORING TECHNIQUES FOR LAND USE, CONSERVATION, AND POLLUTION
- RD&T FOR REMOTELY SENSED SOIL MOISTURE MEASURING TECHNIQUES
- DEFINITION OF REQUIREMENTS FOR FUTURE SENSORS (INCLUDING IN-SITU)

2/ Primary emphasis on acquisition and evaluation of meteorological data in terms of its utility for crop condition assessment.

USDC

- METEOROLOGICAL DATA BASE
- RD&T AND APPLICATIONS OF ENVIRONMENTAL SATELLITE DATA
- RD&T METEOROLOGICAL YIELD MODELS

- RD&T WEATHER/CROP ASSESSMENTS 2/
- RD&T ON USE OF CONVENTIONAL AND SATELLITE-DEFINED MET DATA APPLIED TO RENEWABLE RESOURCES, CONSERVATION, AND POLLUTION
- RD&T ON TECHNIQUES FOR DETERMINING SOIL MOISTURE

USDI

- LANDSAT DATA STORAGE, RETRIEVAL, AND DISSEMINATION

AID

- EVALUATE UTILITY OF RD&T RESULTS FOR APPLICATION IN DEVELOPING COUNTRIES

3.0 JOINT MANAGEMENT STRUCTURE/ORGANIZATION

The program will utilize the matrix management system. There are eight major projects, each having a number of tasks assigned to various line organizations of the participating agencies. These projects are Early Warning/Crop Condition Assessment, Foreign Commodity Production Forecasting, Yield Model Development, Supporting Research, Soil Moisture, Domestic Crops and Land Cover, Renewable Resources Inventory, and Conservation/Pollution. Each of the eight projects has a project manager who reports to a Program Management Team (PMT). The PMT in turn takes its direction and guidance from an Interagency Coordinating Committee (ICC). As viewed in Figure 3.0, the functional relationships are structured into a three-level management system, each having distinct responsibilities. This section of the Plan (Section 3) will address the responsibilities and reporting lines of each of these program management levels. The specific project tasks assigned to an agency are managed by the individual participating agency's line management structure. Section 4 of this document will address each of the agency's line management structures to identify responsibilities, lines of communications and interrelationships to the Program/Project "Level" Management structure.

The Joint Management Structure/Organization is intended as a general framework for program activities. Individual projects may require an additional coordinating structure to handle their unique features.

3.1 Interagency Policy Board (IPB)

This Board chaired by USDA is a joint agency group of policy level officials at the Assistant Secretary or equivalent level, responsible for approving major interagency agreements and establishing basic policy and guidelines for the program. The program will be reviewed by this group at least semi-annually to:

1. Assess progress.
2. Assess need for change of emphasis or direction.
3. Address issues brought forward by the Interagency Coordinating Committee.

3.2 Interagency Coordinating Committee (ICC) (Level 1)

The Interagency Coordinating Committee with membership from USDA, NASA, USDC, USDI, and AID is chaired by the USDA and is responsible for:

1. Approving AgRISTARS Program objectives and establishing priorities.
2. Approving the AgRISTARS Program Plan, including schedules and changes thereto.
3. Assessing progress, identifying problems and developing corrective actions.
4. Coordinating the use of resources assigned to the Program.

5. Approving all press releases concerning the Program.
6. Advising the Interagency Policy Board on progress and problems.

The ICC will convene and review program progress at least semi-annually or as necessary to resolve special problems. The ICC members and their responsibilities are documented in Section 4 of this Plan.

3.3 Program Management Team (PMT) (Level 2)

The PMT (Level 2) represents a joint approach to management which provides participation, project integration, and needed visibility by all participants and assures full responsiveness to USDA information requirements. Each agency or department will provide a member who will be responsible for or coordinate his agency's program resources and will work with the other PMT members to jointly plan, integrate, and execute the Program. The PMT, with members from the USDA, NASA, USDC, USDI, and AID, will be chaired by the USDA representative. It is responsible to the ICC for preparation of the implementation plans by the project managers to carry out the AgRISTARS Program Plan and for recommending changes to the Program Plan to the ICC. The PMT is also responsible for establishing project level guidelines, approving project content, recommending assignments for the different agencies, establishing project funding levels within resources allocated by ICC, approving project schedules and setting milestones. The PMT will jointly approve the project plans, concur with the implementation plans, and their annual updates.

The PMT will act as the project change control board and will exercise change control authority for all issues and significant changes affecting specified control milestones, and schedules, project goals and objectives, priorities, and project funding levels. Changes which affect only the internal operations of one agency can be made by that agency's PMT member. Such changes will be made after coordinating with other members of the PMT. A project change control mechanism and associated procedures to carry out this responsibility is documented in Appendix A to this document.

A detailed description of responsibilities of the PMT members appears in Section 4 where individual organizational responsibility within the agencies for carrying their assigned program element tasks are addressed.

The PMT will approve all interface control documents which are prepared to assure coordination between projects.

3.3.1 Program Support Staff (PSS)

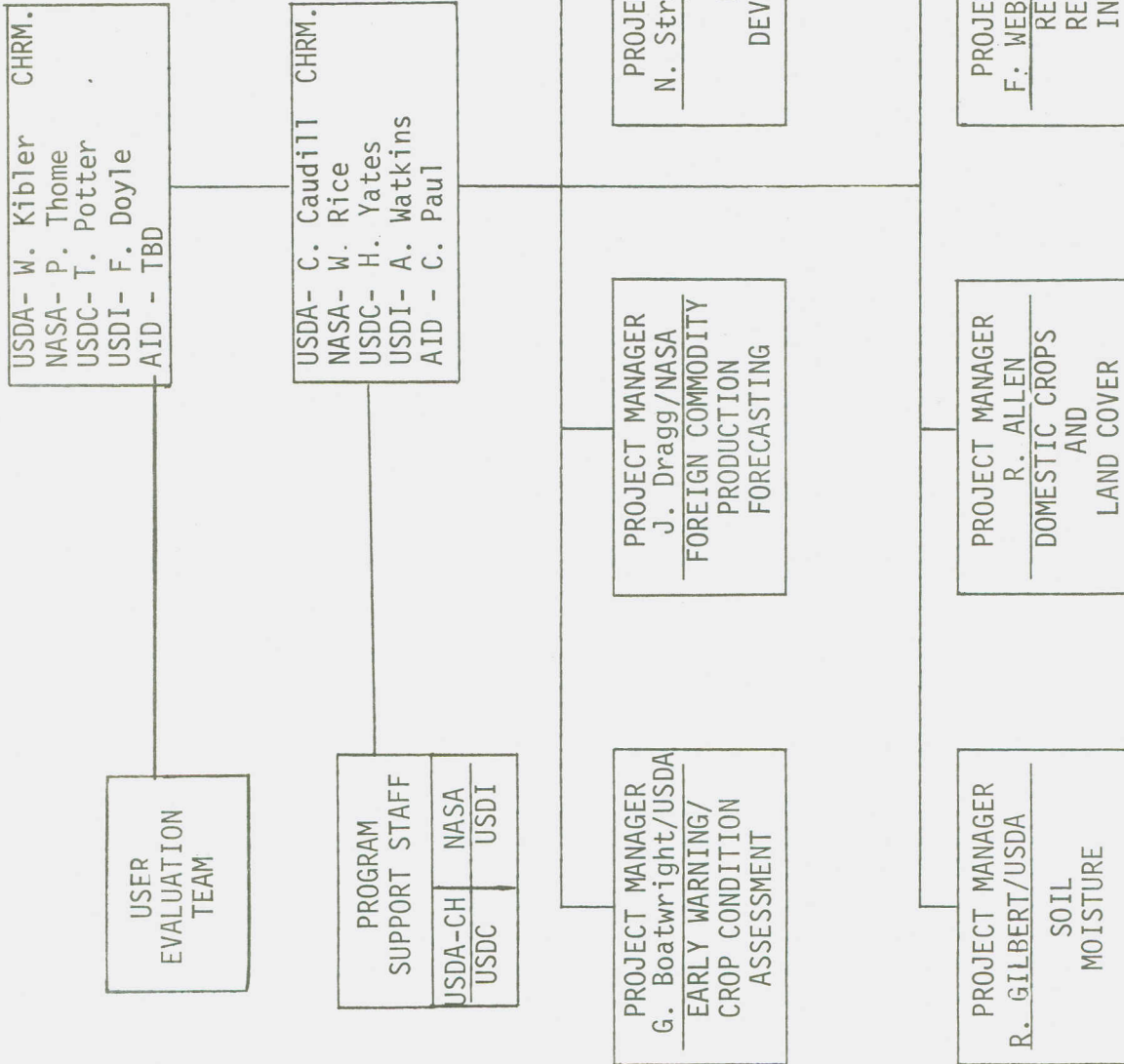
The PSS is led by USDA, has membership from all agencies, and primarily performs staff support to the PMT. It provides a coordination and liaison function to facilitate information flow from one phase of the Program to the next, between projects and from one agency to the other. It assists the PMT on problems or issues identified by or brought to the PMT for action or resolution. The PSS may also bring to the attention of the PMT problems meriting its attention. It

LEVEL 1 - INTERAGENCY COORDINATING COMMITTEE

LEVEL 2 - PROGRAM MANAGEMENT TEAM

LEVEL 3

LEVEL 3



JOINT AGENCY PROGRAM MANAGEMENT & FUNCTIONAL RELATIONSHIPS

FIGURE 3.0

arranges reviews and produces periodic reports for the PMT covering overall program status, problems, and progress in project development, integration, and accomplishments. Specifically in support of the PMT, it performs the following tasks:

1. Program/Project Plans

In support of the ICC, PMT, and project managers, integrates the project plans into a single program plan and assures its accuracy and congruence to the implementation plans by issuing directives and updating according to ICC and PMT direction. Documents the outline, describes the contents, and edits the project and implementation plans in support of the PMT and project managers.

2. Change Control Board (CCB) Support

Maintains and operates a change control system for the PMT. The PMT CCB will control milestones and schedules at the project level, project goals and objectives, priorities, funding, and interfaces. Maintains cognizance of project level changes, conducts inquiries and examinations as requested by the CCB, coordinates all actions through the concerned project managers, prepares the change board packages for the CCB members, provides assessments of impacts of the proposed changes, documents, and disseminates results of the CCB reviews.

3. Service to the Project Managers

Provides, as requested, any service to the project managers concerning establishing, conducting, recording results of their project reviews, formulating project plans and budget inputs and other associated activities. Assists in coordinating between project managers and tasks being conducted at locations other than JSC.

4. Data Requirements and Handling

Maintains cognizance and, if necessary, coordinates data requirements. Documents and maintains a Data Management Plan. On behalf of the PMT, acts as the interface with USDA, NASA, USDC, and USDI suppliers of data.

Keeps abreast of processing capability at USDA, NASA, USDC, and USDI facilities to determine capability to satisfy these various requirements. Keeps PMT advised of any problem areas which may cause project delays or incompatibilities between systems of the participating agencies.

5. Resources Planning

Using inputs and estimates from the PMT and project managers, prepares an annual budget recommendation for the PMT. Additionally, with ICC and PMT direction, and coordination with the project managers, prepares a recommended annual resources plan for the total program. Maintains the approved version of the plan throughout the budget year.

6. Reviews and Reporting

Coordinates and documents results of program/project reviews for the ICC and PMT. In coordination with the project managers prepares/issues the review agendas, documents results, changes and directives as required. Prepares formal reports of the reviews to include probable impacts resulting from the reported status of the projects. Coordinates the reports through concerned project managers and the PMT to the ICC.

3.4 Project Managers (Level 3)

The work to be accomplished is divided into the eight projects shown on Figure 3.0. Each of these projects is headed by a project manager, selected from a participating agency, based principally upon considerations of technical expertise and expected levels of agency involvement. Project managers will have dual responsibilities, i.e., a coordinating responsibility to the PMT in implementing the project and a line responsibility to his agency as defined later in Section 4. The project managers are responsible to the PMT for planning and managing activities within their projects. To insure that project objectives will be met within allotted resources, these responsibilities also include defining project content, identifying expected products and schedules, assessing status and progress, identifying problems, making change recommendations, planning and defining tasks, and participating with other project managers in the integration of the various projects. Specifically, the project manager is responsible for:

1. Providing direction to his and other participating organizations conducting tasks in his project.
2. Preparing and maintaining a project implementation plan for his project.
3. Supporting program planning, including the coordination and integration of inputs from all participating agencies or project elements.
4. Proposing resource requirements to the PMT.
5. Coordinating with other project managers to insure appropriate flow of requirements, status information, and results among projects.
6. Assessing the adequacy of work performed as it relates to project needs.
7. Assessing the need for changes in the implementation and project plans, submitting to the PMT those changes requiring their approval, and coordinating and implementing those changes as necessary.
8. Reporting overall status to the PMT and identifying need for management guidelines.

3.4.1 Task Management

The specific tasks as defined in each implementation plan will be managed and carried out at designated facilities of the participating agencies. The execution of the tasks are the responsibility of the assigned task managers who will report to their respective agency PMT members through established reporting lines. Because tasks are conducted within the various organizations, a more complete discussion on task management is given in Section 4. In this section it is important to draw attention to the dual management and reporting systems. Task managers, regardless of parent agencies and/or physical locations, must be responsive to the Level 3 project managers and at the same time responsible to their parent organizations. Any conflicts arising because of these dual relationships will be promptly brought to the attention of both his parent agency and joint project management. If these conflicts cannot be resolved at the task or project level, it will be the responsibility of the PMT members from the involved agencies to seek resolution of the issues within and between agencies.

4.0 INDIVIDUAL AGENCY MANAGEMENT STRUCTURE

NASA

The Office of Space and Terrestrial Applications (OSTA) is one of seven functional offices and eleven operating field centers who report directly to the Administrator, NASA. Figure 4.1 shows the NASA organization.

The Associate Administrator of OSTA serves as the NASA member to the Interagency Policy Board. Within the OSTA there are six division directors who report to the Associate Administrator (see Figure 4.1.1). Each director has responsibility for his programs and accomplishes objectives and goals through assignments of tasks and projects to the various NASA field centers. AgRISTARS is a program assigned to the Resource Observation Division (ROD). The Director, ROD, serves as the NASA representative to the Level 1 Interagency Coordinating Committee.

The Director, ROD, has made the following assignments to the NASA field centers to facilitate carrying out the NASA responsibilities associated with the program.

1. Johnson Space Center (JSC)

Carries out lead center role for all AgRISTARS activities assigned to NASA. The Level 2 manager is located at JSC and represents NASA on the PMT. His specific responsibilities are identified in Section 4.1.2. In addition, JSC will be responsible for Foreign Commodity Production Forecasting and Supporting Research Project management and for selected tasks in the Early Warning/Crop Condition Assessment, Renewable Resources, and Domestic Crops and Land Cover Projects.

2. Goddard Space Flight Center (GSFC)

Responsible for operation of the Landsat and data acquisition, and for selected tasks in the Supporting Research, Soil Moisture, Renewable Resources, and Conservation Projects.

3. Ames Research Center (ARC)

Responsible for selected tasks in the Supporting Research and Renewable Resources and Domestic Crops/Land Cover Projects.

4. Langley Research Center (LaRC)

Responsible for selected tasks in the Pollution Project

5. National Space Technology Laboratory (NSTL)

Responsible for selected tasks in the Domestic Crops and Land Cover, Renewable Resources Inventory, and Conservation Projects.

The NASA management structure established for this Program is shown in Figure 4.1.2. The lines of authority from Level 1 to Level 2 to the participating centers where projects and tasks are carried out represent a programmatic relationship and not an administrative or technical supervision relationship.

Specific relationships and responsibilities of the Level 1 manager, the Level 2 manager, the Program Support Office, project and task managers (regardless of center affiliation) are addressed in the following sections.

4.1.1 Level 1 Manager

The NASA Level 1 Manager, Figure 4.1.2, is the Director of the Resource Observation Division/OSTA, and is the NASA member of the Interagency Coordinating Committee (ICC). He provides program leadership and direction to the NASA Level 2 Program manager and is the NASA representative to government and nongovernment organizations who are or desire to be involved in the program. With respect to this program, he is responsible for the following:

1. Interprets and implements through the NASA structure, all policies and decisions passed to him by the Interagency Policy Board.
2. Jointly with other ICC members establishes program policy and priorities.
3. Exercises program resource allocation authority (POP guidelines within limits set by the Policy Board.)
4. Jointly with other ICC members approves the Program Plan, its appendices, and all changes and updates thereto.
5. Jointly with other ICC members exercises change control authority for changes in the Program Plan affecting policy, priorities, program scope, funding, and critical milestones. If just the NASA portion of the program is involved, the Level 1 manager will make the decision.
6. Prepares all testimony and justifications required for the OMB, Congress, or the President.
7. Jointly with other ICC members is responsible for assessing the adequacy of the planning of the program against objectives.
8. Defines NASA center roles and missions, including approval of center program assignments and funding levels.

4.1.2 Level 2 Manager

The NASA Level 2 Manager, Figure 4.1.2, is located at the Johnson Space Center and is Deputy Director for Earth Resources of the Space and Life Sciences Directorate. He is the NASA member of the

FIGURE 4.1
NASA ORGANIZATION

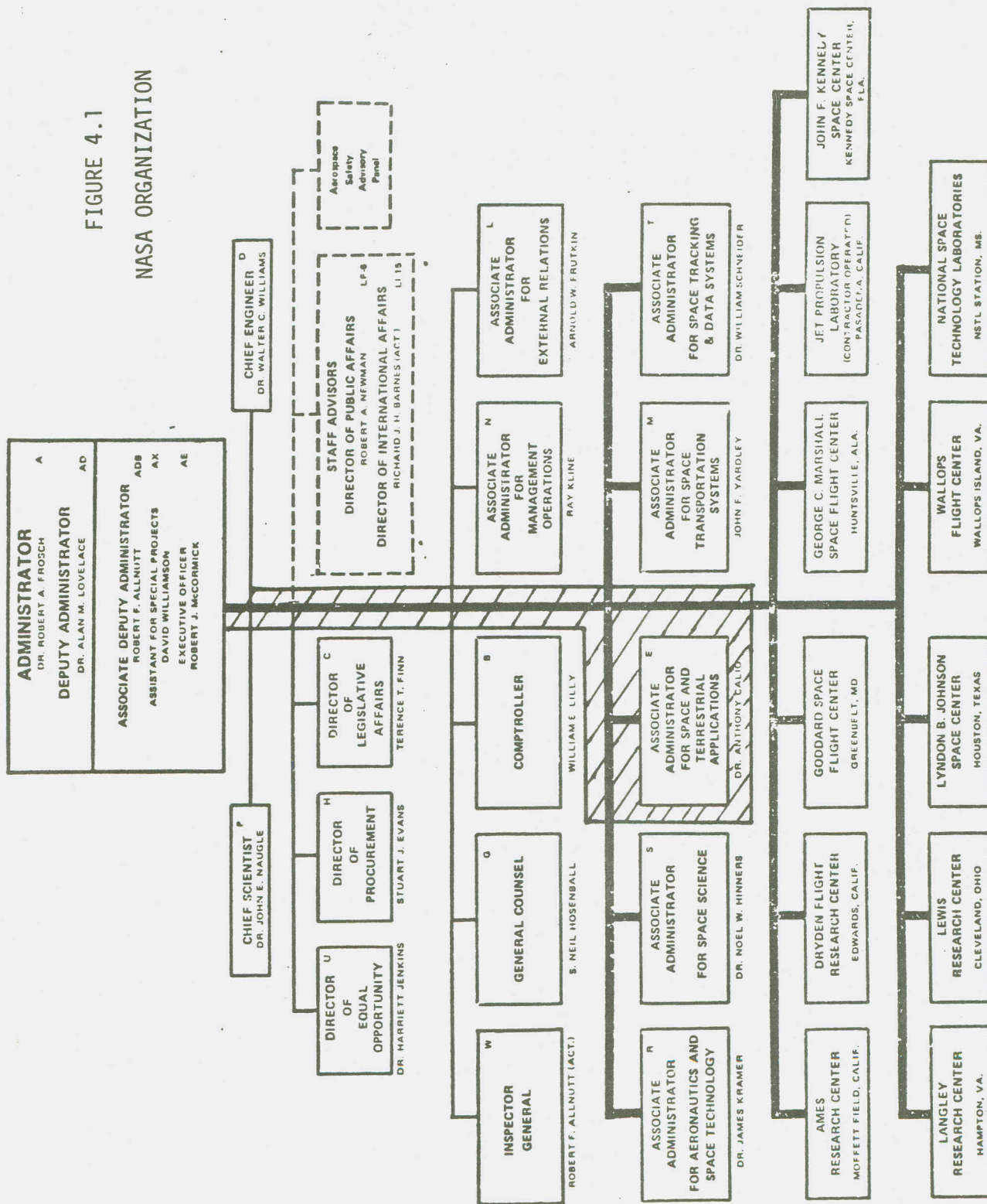
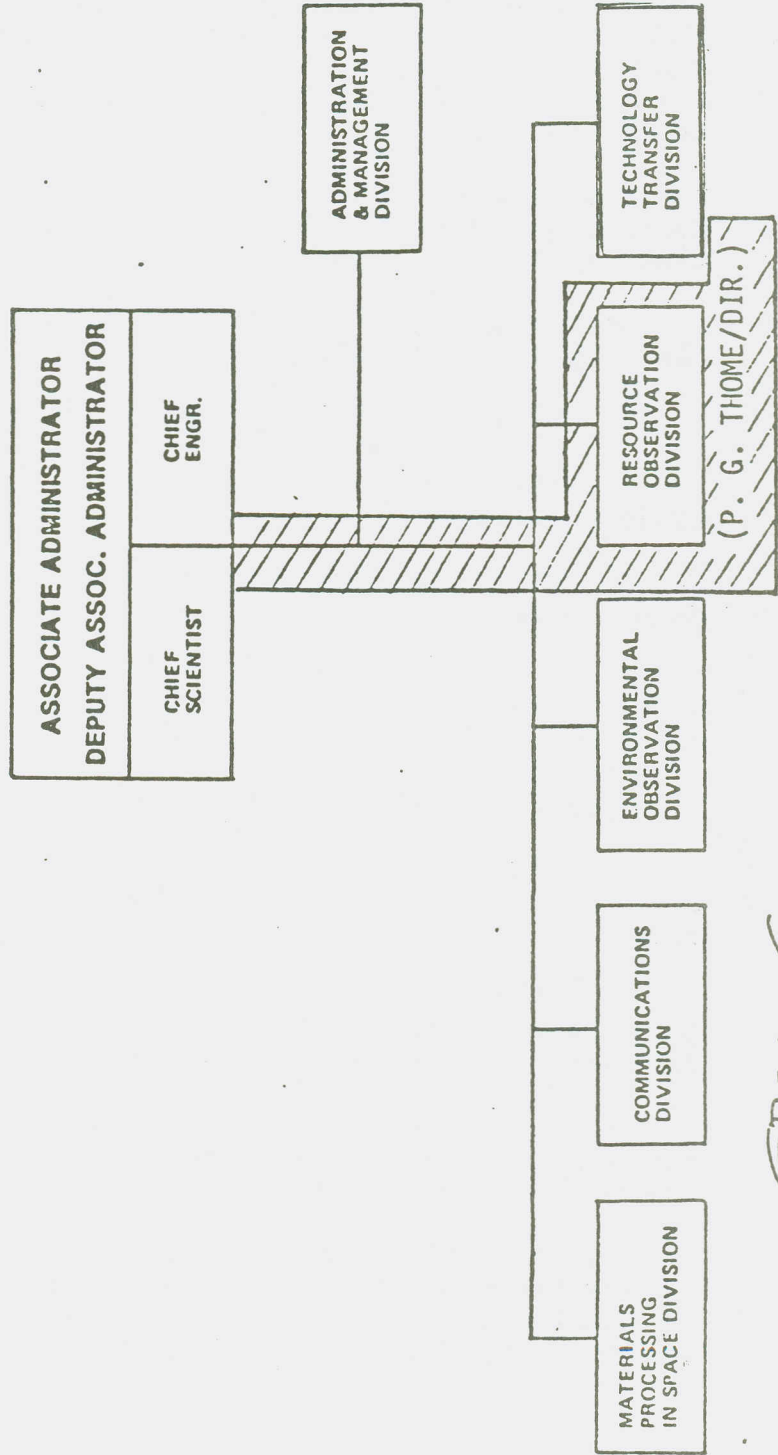


FIGURE 4.1.1

NASA/OSTA ORGANIZATION

OFFICE OF SPACE AND TERRESTRIAL APPLICATIONS



APPROVED: *A. M. ...*
 DATE: 2/25/78

PMT. He has direct line authority over the JSC elements which are responsible for carrying out those program activities assigned to JSC, and provides project leadership and guidance to the other NASA centers for all project activities assigned to them and maintain project overview and authority over work at the other centers. He is responsible for assigned goals and objectives, satisfies requirements and accomplishes tasks by working through the line organization management at each of the NASA centers. NASA centers will maintain technical control and responsibility for properly and successfully carrying out those tasks assigned to them. NASA center management interfaces to the Level 2 manager are also shown in Figure 4.1.2. NASA's project managers and task managers conduct work for and under the direction of division chiefs who are responsible to their directors for the successful management and completion of tasks assigned to them.

Specific responsibilities of the NASA Level 2 manager for those activities assigned to NASA, and his responsibilities on NASA's behalf to the Level 2 PMT are as follows:

1. Prepares and implements the project and implementation plans, their changes and updates.
2. Establishes priorities at the project level.
3. Defines and recommends to Level 1 the funding level for projects and tasks.
4. Establishes NASA center project and task assignments and submits to Level 1 for approval.
5. Jointly with other PMT members exercises change control authority for all project changes affecting milestones and schedules, project priority and funding levels and for assigned goals and objectives. If just the NASA portion of the project is involved by a change, the Level 2 manager will make the decision.
6. Interfaces directly with other NASA center management for coordination of the project, task assignments, and required support.
7. Holds formal and informal reviews of all work at participating centers. Of interest will be progress/results, problems, compatibility with program.
8. Documents periodic program reports to Level 1 manager; coordinates and conducts detailed reviews by project and task managers for Level 1 where and when required.
9. Prepares the JSC semi-annual POP response and recommends the Headquarters total program funding requirements; coordinates the total budget with the PMT. Each NASA center will also submit its POP recommendations to NASA Headquarters.

4.1.2.1 Program Support Office (PSO)

The NASA Level 2 manager has established and will maintain a Program Support Office (PSO). The PSO has two functions. First, it fulfills the NASA support responsibility to the PMT Program Support staff (see Section 3.3.5). The second function of the PSO is to provide support to the NASA Level 2 manager in carrying out each of his responsibilities. In support of the NASA Level 2 manager, the PSO performs the following tasks:

1. Staff to JSC Level Manager

Provides support to the JSC Level 2 manager in the areas of program planning, priorities, funding levels, center task assignments, change control, interfaces with other centers, reviews, reporting to Level 1, and budget preparation.

2. Resources Planning and Control

With Level 1 and 2 direction, and coordination with the project managers, prepares an annual resources plan for the NASA program to be included in the overall Program Resources Plan. Maintains the approved version of the plan throughout the budget year. Disburses and controls JSC funds allocated by NASA Headquarters. Recommends level of funding for tasks and other NASA centers and maintains a status of those funds.

3. Allowance for Program Adjustments (APA) and Change Support

Provides status of the APA funds and assists in the evaluation of resources required by proposed changes. Additionally, recommends specific changes in approved budget allocations within the NASA budget. Documents and reports to Level 1 all changes and actions resulting from Level 2 change authority action.

4. Reviews and Reporting

Coordinates, conducts, and documents results of reviews of the NASA projects for the Levels 1 and 2 managers. Coordinates with the project and task managers at NASA centers and prepares and issues the review agendas, is instrumental in conducting the reviews and documents results. Prepares formal reports of the reviews containing probable impacts resulting from the status of the projects and submits as inputs to the program reviews conducted by the PMT/PSS.

5. Data Systems Requirements

Coordinates and/or conducts special studies involving data needs, systems definitions or systems acquisition in support of NASA Headquarters, other NASA centers, or the AgRISTARS Program in respect to the JSC or NASA inputs to such efforts.

4.1.3 Level 3 Managers (Project Managers and Task Managers)

The detailed implementation plan will, for each project, identify specific tasks which will be assigned to the line organizations of the involved agencies. Those tasks and activities which are assigned to NASA will be further reassigned to NASA centers for management. Figure 4.1.3 shows planned NASA center participation. NASA will assign Level 3 project managers to those projects assigned to NASA and a task manager for each task of any project which will be carried out by a NASA center. In either case both a project manager and/or the task manager will report to and take technical direction from his line management who has responsibility for tasks or projects under his direct control. The division chief also has responsibility for coordinating tasks with outside groups where required. See Figure 4.1.2. The responsibilities of the Level 3 project manager are contained in Section 3.4 and are not repeated here.

The task manager's responsibilities are task planning and task management. He will supply technical leadership and be responsible for the conduct of his task.

The task manager is responsive to the project manager who has project overview and he is responsible to the Level 2 NASA manager through his line management. There are cases within NASA where the task manager works under a project manager in an "in-line" relationship in which case he is directly responsible to him. There are other situations in which a NASA task manager at one center will be working under a project manager at a second center, or a project manager from another agency. In these latter cases, the task manager is responsive to the project manager and responsible through his line supervisors to the NASA Level 2 manager. Specific responsibilities of the NASA task manager are:

1. Supports the Level 3 project manager in planning the technical tasks to be carried out and participates in all updating of the overall plan as requested.

2. Develops the technical approach, schedules, and procedures to be used, assures technical validity and insures complete coordination with other task managers and project managers, and makes certain the compatibility of his task products with other projects

which may utilize the procedures or techniques, and/or products at a later date.

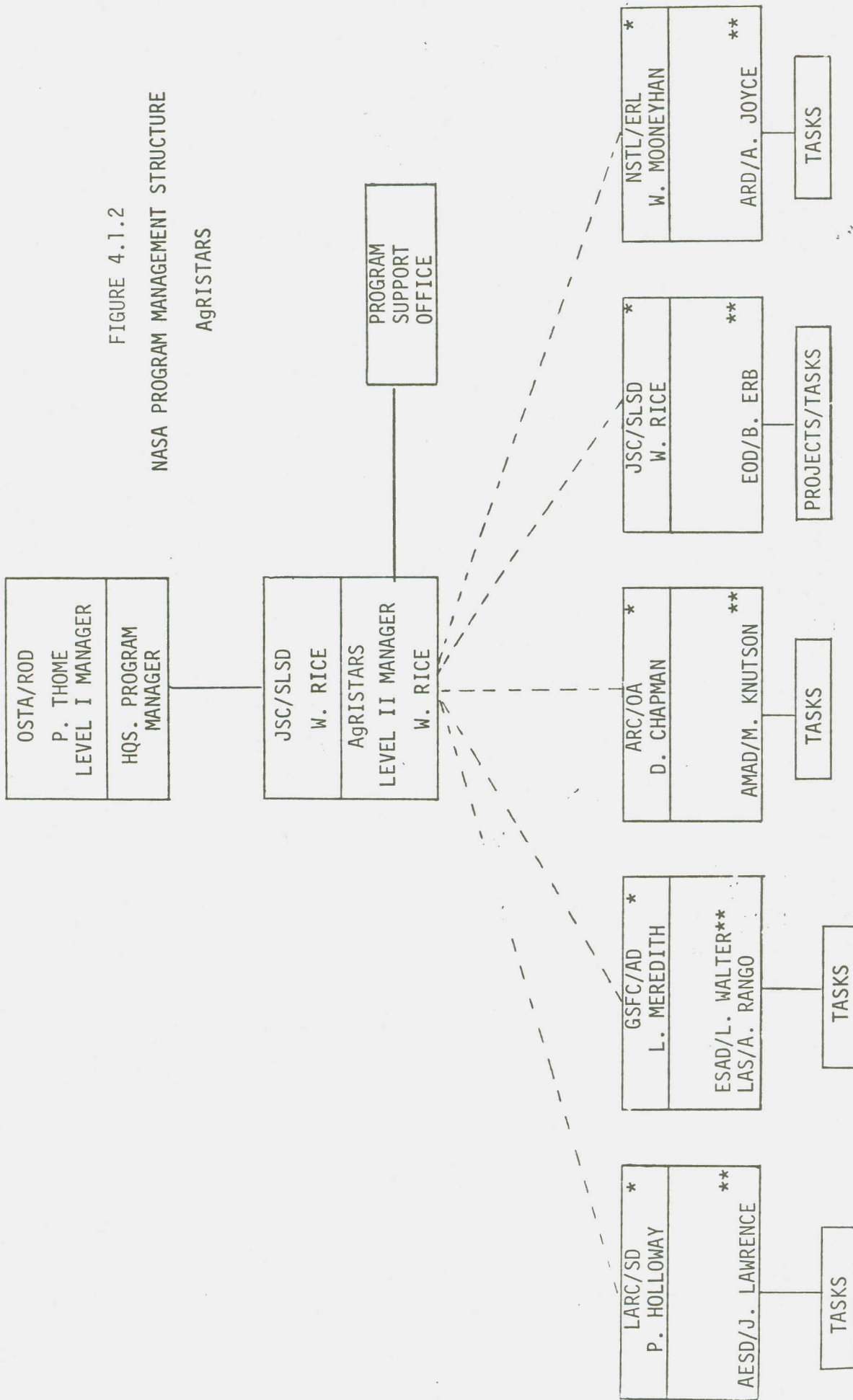
3. Prepares reports on a periodic basis (see Section 5) and as requested by management.

4. Supports Level 3 project manager and Level 2 manager as requested.

4.2 USDA

The USDA organization for AgRISTARS has no single organizational line unit responsible for all of this program. Ultimate responsibility for the component projects structured under the AgRISTARS Program is vested in the participating USDA line agencies, with a

FIGURE 4.1.2
NASA PROGRAM MANAGEMENT STRUCTURE



*DIRECTORS
**DIVISION CHIEFS

PROJECT	CENTER INVOLVEMENT					
	JSC	GSFC	ARC	LARC	NSTL	JPL
EW/CCA	X					
FCPF	X					
SUPPORTING RESEARCH	X	X	X			
YIELD						
SOIL MOISTURE	X	X				X
DOMESTIC CROPS/LAND COVER	X		X		X	
RRI	X	X	X		X	
CONSERVATION		X			X	
POLLUTION				X		

X = PLANNED PARTICIPATION - 1980 to 1985

FIGURE 4.1.3
AgRISTARS NASA CENTER PARTICIPATION

coordinating and integrating function assigned to the ad hoc Level 1 ICC and the Level 2 PMT. The relationship of the USDA line organization and the ad hoc ICC-PMT coordination and management structure to the various research projects under the auspices of AgRISTARS is shown in Figure 4.2

The existing administrative and management relationships from the Secretary, through the Assistant Secretaries to the involved agencies and their subordinate divisions are shown at the top of Figure 4.2. The solid lines from the subordinate divisions or agencies to individual projects represent the extension of the management function of USDA line units to administrative matters regarding USDA personnel assigned to the project teams. Superimposed over this administrative structure is the program management and functional relationships shown in Figure 3.0. This same arrangement is shown in an inverted manner at the bottom of Figure 4.2.

Project managers, whether USDA or not, administer and provide technical direction for assigned research in accordance with an agreed-upon project implementation plan which reflects the USDA requirements and priorities addressed in the overall AgRISTARS Program Plan prepared under the direction of the PMT and approved by the ICC. The lines of authority from the ICC to the PMT to the project managers represent a programmatic coordination and integration function and should not be interpreted to replace or diminish any authority or responsibility normally inherent through the USDA line organization.

Specific relationships and responsibilities of the USDA members of the ICC and the PMT and USDA project managers are addressed in the following sections.

4.2.1 USDA Interagency Coordinating Committee Member

The USDA member and Chairman of the ICC is the Deputy Administrator for Statistics, in the Economics, Statistics, and Cooperatives Service (ESCS). He provides program leadership and direction to the USDA member of the PMT. Within and on behalf of USDA, with respect to the program, he is responsible for the following:

1. Serves as chairman of the ICC.
2. Interpret and coordinate through the USDA structure, all policies and decisions referred to him by the Interagency Policy Board.
3. Jointly with other ICC members establishes AgRISTARS Program policies and priorities.
4. Jointly with other ICC members approves the AgRISTARS Program Plan, its appendices, and all changes and updates thereto.

5. Jointly with other ICC members exercises change control authority for changes in the AgRISTARS Program Plan affecting policy, priorities, and program scope. Coordinates through internal USDA lines of authority resource requirements affected by these changes.

6. Within USDA leads in the preparation of all testimony and justifications required by the department, OMB, or Congress.

7. Jointly with other members of the ICC is responsible for assessing the adequacy of the program progress against plan objectives.

4.2.2 USDA Program Management Team Member

The USDA member of the PMT is located in Washington, D.C., and is Director of the Statistical Research Division, ESCS. He has direct line authority over ESCS staff involved in AgRISTARS. Working with and through existing USDA line organization he fills an integrating role in relation to other USDA agencies with assigned responsibilities under this program. He works closely with the USDA Remote Sensing Coordinator and the Remote Sensing Coordinating Committee to assure program adherence to USDA requirements and to coordinate USDA resources devoted to the program.

Specific responsibilities include the following:

1. Serves as Chairman of the PMT.

2. Jointly with other PMT members prepares and implements the program plan, including changes and updates.

3. Jointly with other PMT members establishes project priorities.

4. Jointly with other PMT members exercises change control authority for project changes affecting priorities, goals, and objectives. For changes requiring USDA resource shifts, works through existing line organization to seek approval for these shifts.

5. Interfaces directly with other USDA agencies and through the USDA Coordinating Committee for coordination and required support.

6. As jointly agreed with other USDA line organizations, holds formal and informal reviews of work and activities connected with AgRISTARS

7. Jointly with other PMT members documents periodic program reports to ICC and to the USDA Remote Sensing Coordinating Committee; coordinates and conducts project reviews for ICC where and when required.

4.2.3 Project Managers

Preparation of the detailed project implementation plan for each project is the responsibility of the project managers and will identify specific research tasks and the USDA organization which will have the responsibility for carrying out these tasks. Those tasks and research activities assigned to USDA will be carried out by existing line organizations or by the joint project team in areas where the team has the appropriate capability and resources. USDA will assign project managers to those projects identified by the ICC-PMT for USDA leadership. Responsibilities below the project levels will be assigned by the project leader working with the USDA-PMT member and the USDA RSCC or directly with the involved USDA line organization. Internal USDA coordination shall be in accordance with provisions of the Secretary's Memorandum 1951.

4.3 USDC

The National Oceanic and Atmospheric Administration (NOAA), a primary agency in the Department of Commerce has been assigned the responsibility for the AgRISTARS Program. The primary NOAA roles in the program will be to provide all types of environmental data and products and to perform research, development, and test on yield models, weather/crop assessments, and on methods for determining soil moisture.

4.3.1 Interagency Policy Board

The Associate Administrator of NOAA serves as the NOAA member to the Interagency Policy Board. NOAA has five major line components (MLC's), each headed by an assistant administrator, see Figure 4.3. Within NOAA, AgRISTARS has been assigned to the Assistant Administrator for Oceanic and Atmospheric Services (OA).

4.3.2 Level 1 Manager

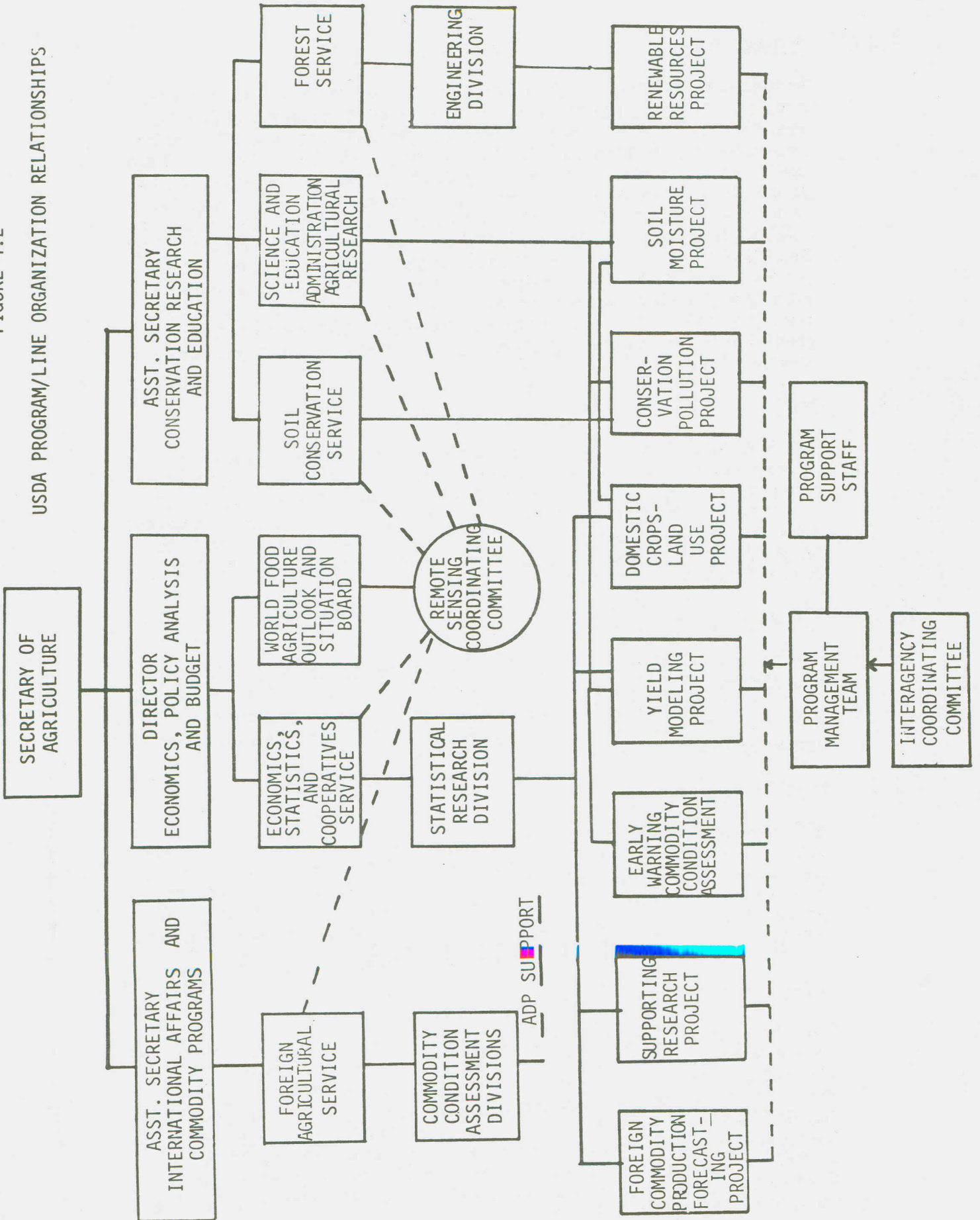
NOAA representation on the Interagency Coordinating Committee has been delegated to the Deputy Assistant Administrator for Oceanic and Atmospheric Services. There are four major program elements (MPE's) in OA: the National Weather Service (NWS); the National Ocean Survey (NOS); the Environmental Data and Information Service (EDIS); and the National Environmental Satellite Service (NESS).

4.3.3 Level 2 Manager

The Director of Research, NESS (see Figure 4.3.1) has been assigned as the NOAA Program Management Team member. He will participate in all PMT meetings to assist in the management of the projects to meet the objectives within the schedules and funding constraints. The NOAA Level 2 manager will also chair a NOAA Coordinating Committee to assure that he represents the views of all OA MPE's at PMT meetings. The following MPE's will have membership on this committee: NWS, NESS, EDIS, Policy and Planning and Service Operations staff offices in OA.

FIGURE 4.2

USDA PROGRAM/LINE ORGANIZATION RELATIONSHIPS



4.3.4 Level 3 Manager

NOAA has been given the assignment to manage the Yield Model Development (YMD) Project (see Figure 3.0). The project manager will be the Chief, Climatic Impact Assessment Division. This individual reports to the Director, Center for Environmental Assessment Services (EDIS) (see Figure 4.3.2).

4.4 USDI

The primary role of the Department of the Interior in the program is to disseminate preprocessed Landsat and certain aircraft data to support agreed-upon requirements of timeliness, format, and quality necessary to support the research, development, and tests activities. In addition, the department will evaluate the utility and applicability of research and development products from the program to USDI missions. The following sections discuss the management structure necessary to carry out these roles.

4.4.1 Interagency Policy Board

USDI representation on the Interagency Policy Board has been delegated by the Secretary of Interior to the Science Advisor to the Secretary. The Science Advisor will participate in semi-annual reviews of the joint program, address issues brought forward by the ICC, and provide overall policy guidance to the program as appropriate.

4.4.2 Level 1 Manager

USDI representation on the ICC has been delegated to the Director, Earth Resources Observation Systems (EROS) Program. The EROS Director will participate in Level 1 meetings to: approve program objectives and priorities, and the Program Plan, its schedules and changes; and assess progress, identify problems, and develop corrective actions.

4.4.3 Level 2 Manager

USDI representation on the PMT has been delegated to the Chief, EROS Data Center (EDC). The Data Center Chief will participate in monthly meetings to assist in the preparation of the project plans and the management of the projects to meet the objectives within the schedules and funding constraints.

4.4.4 Level 3 Manager/Liaison to PSS and Science Teams

The USDI will name a senior individual at the EDC to coordinate the dissemination of the preprocessed Landsat and aircraft data required by the projects. He will be in close contact with individuals on the Program Support Staff responsible for coordinating program data requirements and will be the principal USDI interface for data matters.

FIGURE 4.3

U. S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

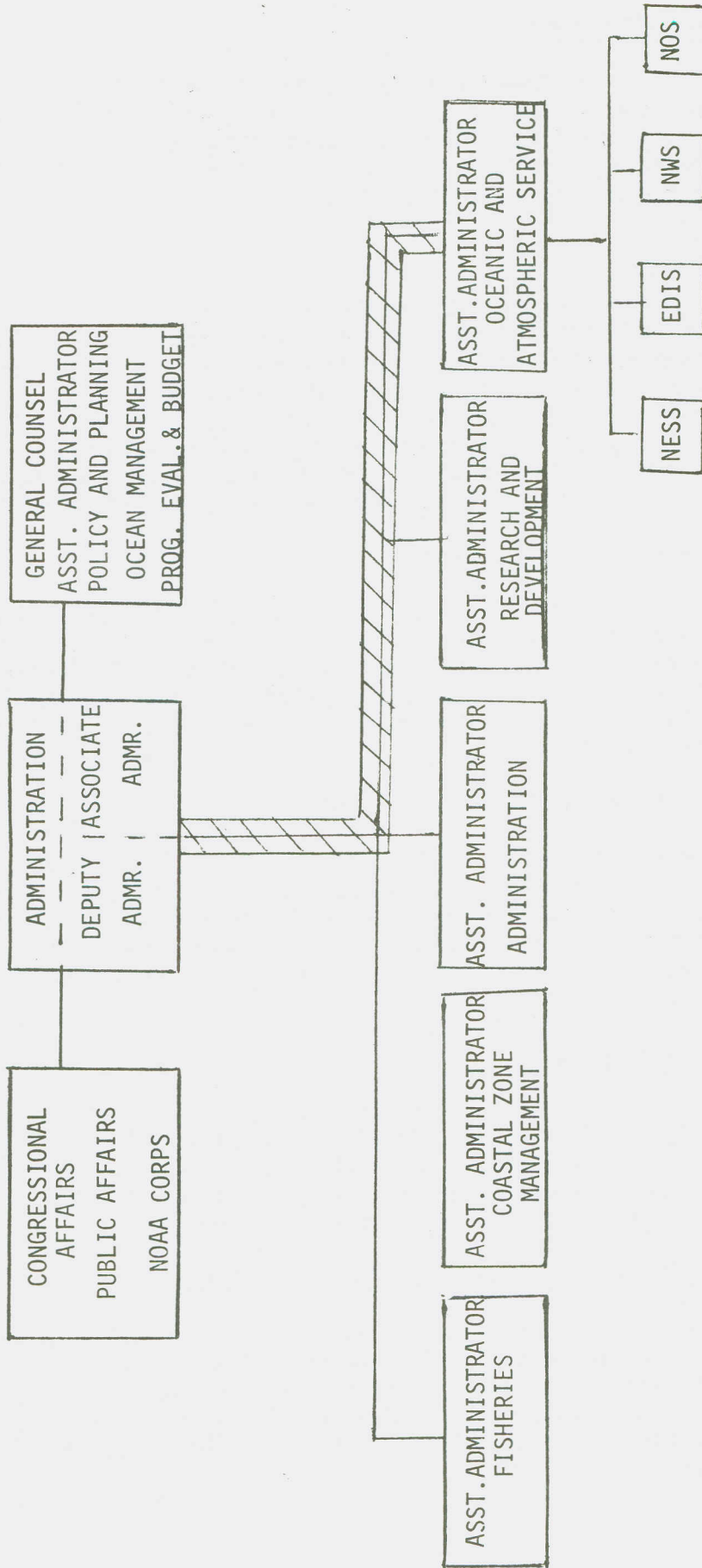


FIGURE 4.3.1
NATIONAL ENVIRONMENTAL SATELLITE SERVICE (NESS)

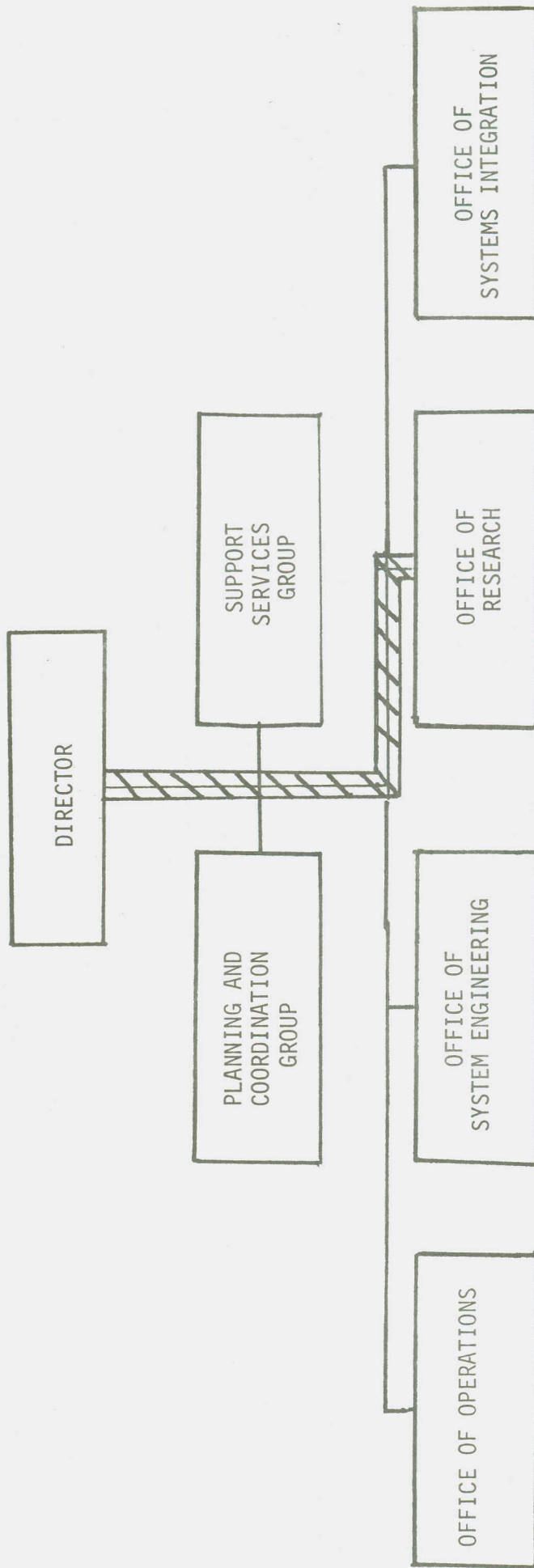
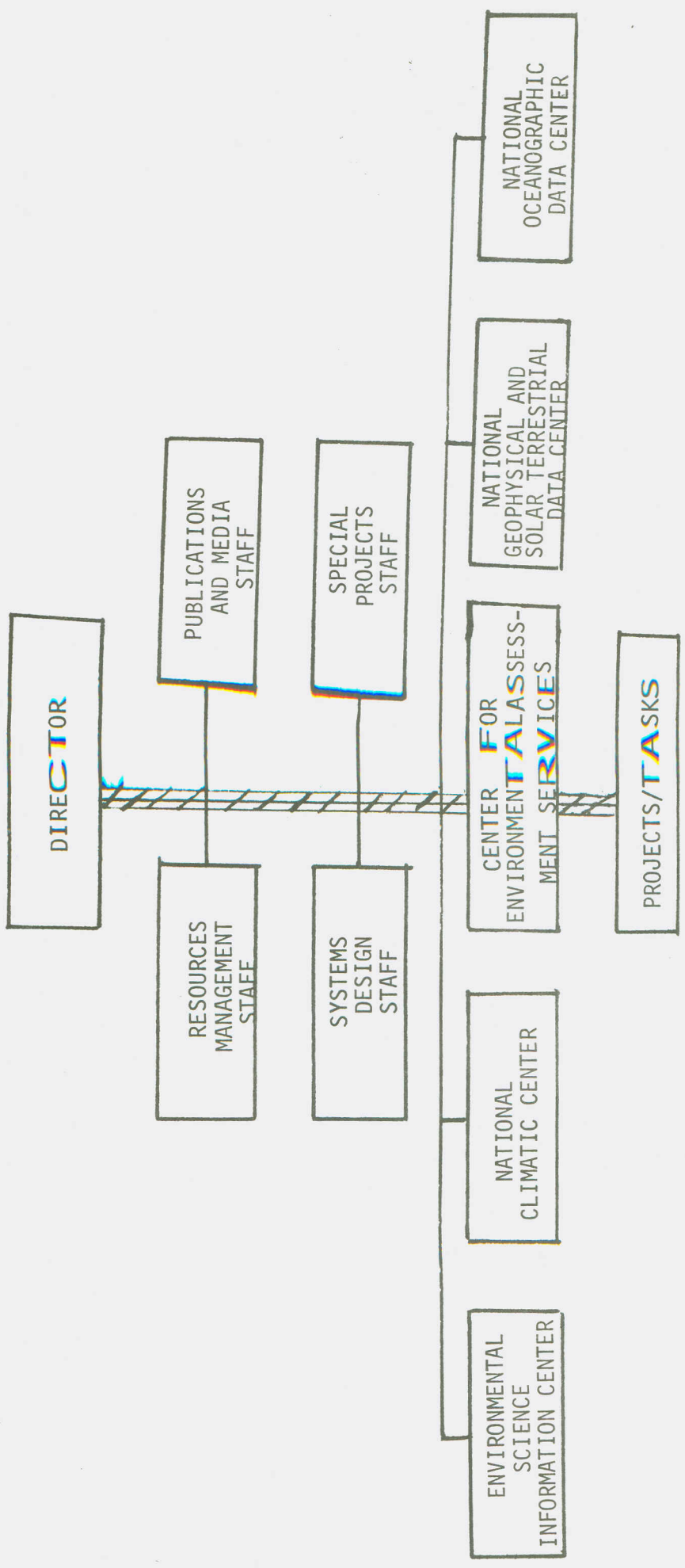


FIGURE 4 - 3.2
 OFFICE OF ENVIRONMENTAL DATA AND INFORMATION SERVICE (EDIS)



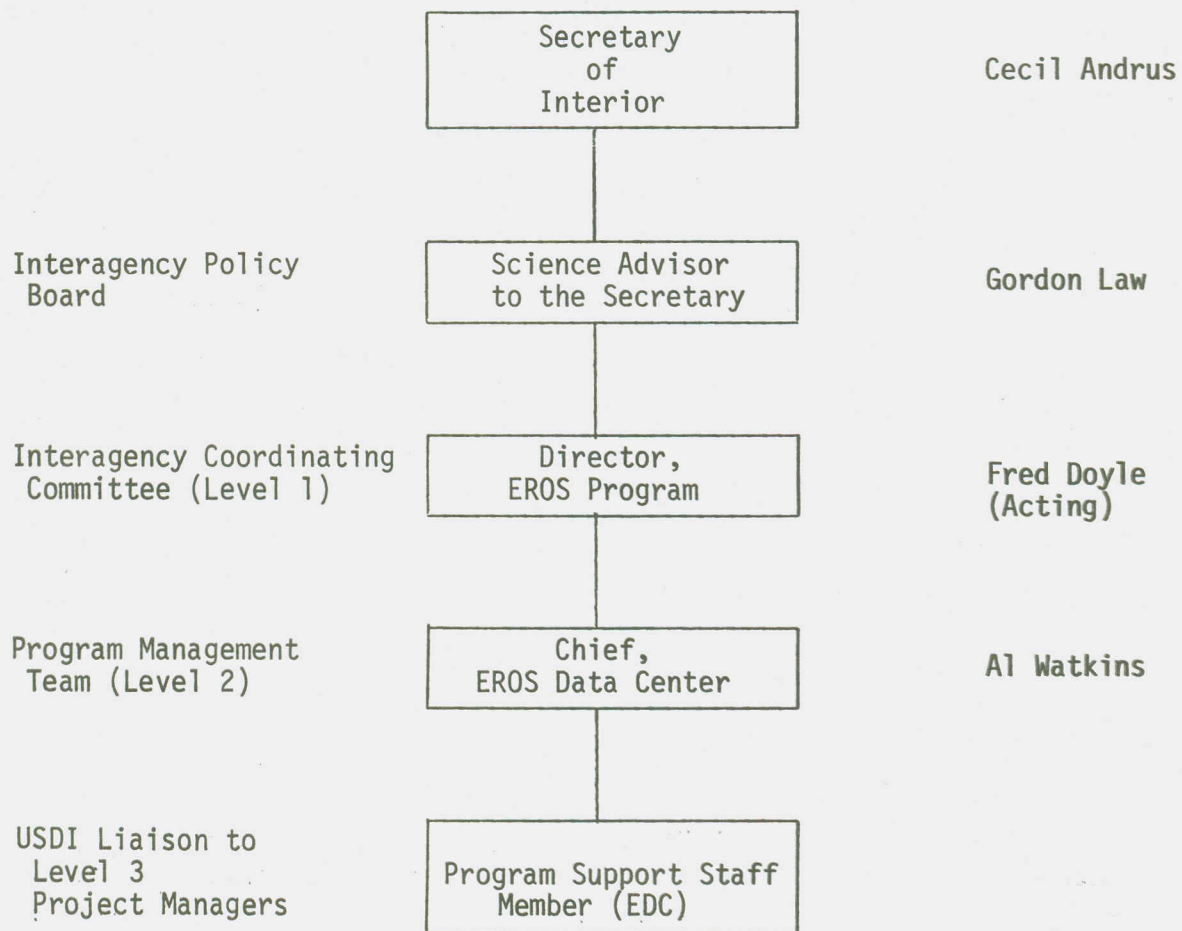


Figure 4.4

USDI Management Structure

5.0 REVIEW AND REPORTING

In order to maintain the necessary visibility into the program at all levels of management, a review and reporting plan has been established. The reviews and subsequent reports are designed so as to coincide with and support major program planning and budgetary events. Figure 5.1 shows three years of activity so that program budgeting and other key events can be seen in relation to each other. Figure 5.2 shows scheduled technical/program reviews, meetings and reporting events.

There are two major types of reviews, a progress review which will be held periodically to obtain nonprogram expert advice on the research program. The other type of review(s) are internal in nature and are conducted by all levels of program management. Each type of review will be discussed separately.

5.1 Annual Program Review

Each year in the May-June time period, the PMT, project managers, and task managers will update each of the project implementation plans to reflect current budget numbers and the results and recommendations resulting from the various technical reviews. One kind of review may be an annual progress review of the past 12 months' efforts. It is anticipated that the tasks, technical approaches and technical problems encountered would be presented to a small group of academic, industry and other federal users. The purpose would be to give the program results the widest possible exposure and to invite comments and recommendations from experts not associated with the program. Recommendations would be documented and submitted to the ICC and PMT. The recommendations will be reviewed and any decision to incorporate changes will be made and, if directed, included in the program and implementation plans update for the following year.

5.2 Internal Program Reviews

There will be four kinds of internal reviews held by the four levels of management (Task, Levels 1, 2, and 3). Figure 5.2 shows formal planned reviews only. Informal reviews for resolution of specific problems can be called anytime by any level of management concerning work being conducted below that level.

5.2.1 Task Manager Reviews

Reviews will be conducted during the year at the discretion of the task manager. Results of reviews are to be documented and transmitted to the project manager. A copy will be forwarded to the PSS for information.

5.2.2 Level 3, Project Manager Reviews

Project managers will conduct major semi-annual reviews of all tasks under their cognizance. For continuous insight to his project, the project manager may also conduct informal reviews of his tasks.

The timing of the major task reviews should be chosen to allow redirection within and between the tasks to be effected prior to expenditure of all funds and prior to the annual program review. These major reviews will be concurrent and be at one location open to all interested persons.

Results are to be documented and made available to the PMT with information copies to the PSS.

5.2.3 Program Management Team (PMT) Reviews/Meetings

The PMT will meet every month to discuss project issues. Two of these meetings will be major semi-annual reviews of each project.

5.2.4 Level 1, Interagency Coordinating Committee Reviews/Meetings

The ICC will meet as needed. Two of these meetings will be concurrent with or immediately following the PMT major semi-annual program reviews and will be the occasion of major program planning and decisions prior to beginning the next year's implementation plan update and prior to the "Year + Two" program presentation to OMB. The ICC will schedule and make program presentations to the Interagency Policy Board as required.

5.2.5 USDA User Evaluation

An evaluation plan will be developed by USDA for each project and will appear as an appendix to the program plan. This plan will include statements of at least the following items:

1. Nature and objectives of the research.
2. Potential areas of application.
3. Evaluation criteria and procedures, including data requirements and sources of data. This procedure should include comparisons with existing data sources as to probable accuracy and timeliness, start-up and operating costs, data requirements, and overall compatibility with the present system.

Evaluation of research activities will be carried on throughout the research, development, and test phases of the program and at the completion of pilot tests and LSAT's.

The purpose of such an evaluation plan is to establish procedures whereby USDA management may obtain objective appraisals of the probable usefulness to USDA of the results of ongoing and future joint investigations into the possible uses of different types of remotely-sensed data in the production of improved agricultural information, both domestic and/or foreign.

NASA
PROGRAM EVENTS

AgRISTARS PROGRAM

	FY 1979												FY 1980												FY 1981											
	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
1980																																				
PROGRAM TO OMB	▲																																			
CONGRESSIONAL HEARINGS																																				
CONGRESSIONAL REPORT TO HQS																																				
1981																																				
PRELIMINARY PROGRAM CALL																																				
RESPONSE TO HQS																																				
PRELIMINARY PROGRAM TO CBO																																				
PROGRAM TO OMB																																				
CONGRESSIONAL HEARINGS																																				
1982																																				
PRELIMINARY PROGRAM CALL																																				
RESPONSE TO HQS																																				
PRELIMINARY PROGRAM TO CBO																																				
PROGRAM TO OMB																																				
CONGRESSIONAL HEARINGS																																				
1983																																				
PRELIMINARY PROGRAM CALL																																				
RESPONSE TO HQS																																				
PRELIMINARY PROGRAM TO CBO																																				
PROGRAM TO OMB																																				
CONGRESSIONAL HEARINGS																																				

FIGURE 5.1

PROGRAM REVIEWS AND REPORTING	AgRISTARS PROGRAM															
	FY 1979				FY 1980				FY 1981							
	O	N	D	J	O	N	D	J	O	N	D	J	O	N	D	J
TASK MANAGERS																
CONTRACTOR REVIEW/MONITORING																
REPORT - DOCUMENTED STATUS																
PROJECT MANAGERS - LEVEL 3																
TASK REVIEWS - INFORMAL																
PROJECT REVIEWS - MAJOR																
REPORT - DOCUMENTED STATUS																
PROGRAM MANAGEMENT TEAM - LEVEL 2																
MEETINGS																
PROGRAM REVIEW/																
REPORT - DOCUMENTED STATUS																
INTERAGENCY COORD. COMMITTEE - LEVEL 1																
MEETINGS																
PROGRAM REVIEW																
PEER REVIEWS																

U.S. GOVERNMENT PRINTING OFFICE: 1972-779-258/136

MSC FORM 1956B (FEB 66)

FIGURE 5.2

MANAGEMENT/ORGANIZATION PLAN

APPENDIX A

CHANGE CONTROL PLAN FOR

LEVEL 2

PROGRAM MANAGEMENT TEAM (PMT)

PROGRAM MANAGEMENT TEAM (LEVEL 2) CHANGE CONTROL PLAN

AgRISTARS

This appendix defines the essential change control requirements and responsibilities of the organization involved in the AgRISTARS Program. All Level 2 AgRISTARS project change control activities shall be accomplished in accordance with the methods and procedures established herein. AgRISTARS Level 1 program level change control activities shall be accomplished in accordance with methods and procedures as defined in Appendix B of the Management/Organization Plan.

APPROVED BY:

Charles E. Caudill

Date 10/28/79

Charles E. Caudill
U.S. Department of Agriculture

W. E. Rice

Date 10/29/79

William E. Rice
National Aeronautics and
Space Administration

Harold Yates

Date 11/16/79

Harold Yates
U.S. Department of Commerce

Allen Watkins

Date 11/2/79

Allen Watkins
U.S. Department of the Interior

TABLE OF CONTENTS

		<u>Page Number</u>
1.0	INTRODUCTION	1
1.1	<u>Purpose</u>	1
1.2	<u>Scope</u>	1
1.3	<u>Objectives</u>	1
1.4	<u>Change Procedures</u>	1
2.0	RESPONSIBILITIES	1
2.1	<u>Level 2 Program Management Team (PMT)</u>	1
2.2	<u>Participating Organizations</u>	1
3.0	ORGANIZATION	3
3.1	<u>General</u>	3
3.2	<u>AgRISTARS Change Control Board</u>	3
3.2.1	<u>Responsibilities</u>	3
3.3	<u>Baseline</u>	4
3.3.1	<u>Group I</u> - Changes which Alter Project Objectives, Priorities, Goals, and Guidelines or Content	4
3.3.2	<u>Group II</u> - Changes which Alter Assignments to the Different Agencies by the PMT	4
3.3.3	<u>Group III</u> - Changes which Alter Schedules, Milestones, and Resources Approved by PMT	4
3.4	<u>Change Processing</u>	4
	APPENDIX A-1 PROJECT CHANGE REQUEST	6
	APPENDIX A-2 CHANGE PROCESSING	10
	APPENDIX A-3 CHANGE CONTROL BOARD DIRECTIVE (CCBD)	14

FIGURES

<u>Figure</u>		
1	Change Control Board Data Flow	2
A-1.1	Sample Project Change Request (PCR)	8
A-3.1	Sample Change Control Board Directive (CCBD) Form	16

REVISIONS		
DESCRIPTION	DATE	APPROVED

1.0 INTRODUCTION

1.1 Purpose

This document establishes the overall project level change control management system applicable to the conduct of the Agricultural and Resources Inventory Survey Through Aerospace Remote Sensing (AgRISTARS) Program. Defined herein are the procedures to be used in identifying and establishing baselines and the processing of changes thereto. The data flow for project changes is indicated in Figure 1.

1.2 Scope

The change control management system established by this document and the procedures described herein are applicable to all participants of the AgRISTARS and their support contractors.

1.3 Objectives

It is the objective of the program management to provide for a systematic approach to the identification, change control, and status of the eight projects being conducted as part of the AgRISTARS. Such a system enhances the ability to achieve program purposes efficiently and effectively.

1.4 Change Procedures

This document will be revised as required and changes will be issued as replacement pages. Changes to this document will be indicated by a line in the left margin on each replacement page listed.

2.0 RESPONSIBILITIES

2.1 Level 2 Program Management Team (PMT)

1. Establishing and issuing policies and requirements for AgRISTARS change control management.

2. Establishing a Change Control Board (CCB).

3. Preparing a document which details the policy, methodology, and procedures to be utilized in implementing an effective change control management system.

4. Issuing and maintaining baseline records, CCB agendas, directives and minutes of meetings.

2.2 Participating Organizations

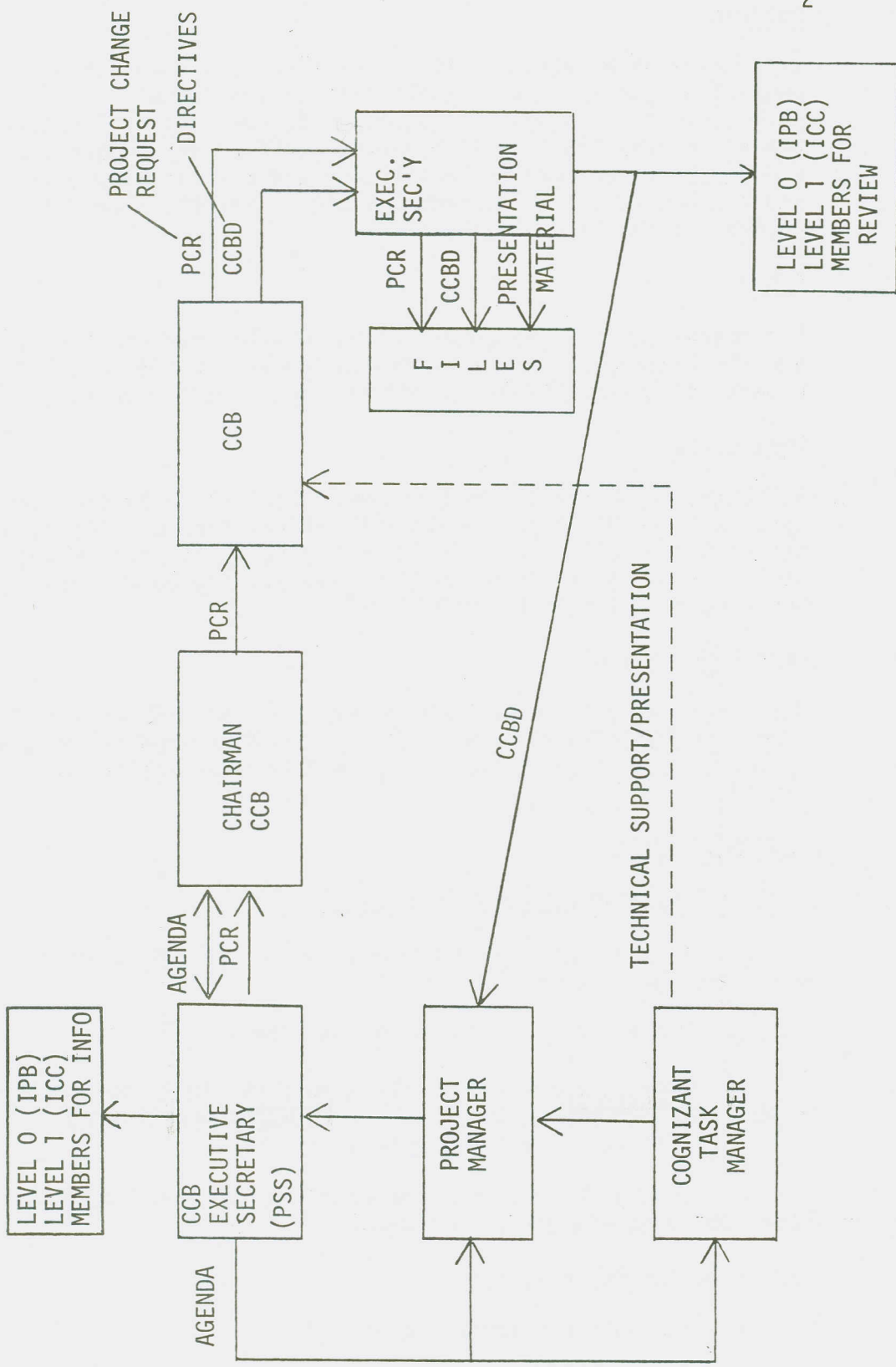
1. Appointing a member to the CCB.

2. Providing appropriate attendance at all CCB meetings, including supporting contractor personnel.

3. Adopting a method to enact the changes.

FIGURE 1

CHANGE CONTROL BOARD DATA FLOW



3.0 ORGANIZATION

3.1 General

As described in the Management/Organization Plan, an effective change control management system encompassing the AgRISTARS projects and documentation used in the AgRISTARS will be implemented.

3.2 AgRISTARS Change Control Board

The CCB is established by the authorization provided the program through its organizational charter guidelines and is designated as the approving authority for CCB actions at the project level. Chaired by the appropriate manager or his designated representative, the CCB shall be constituted as follows:

1. Chairman - Should the requested change
 - o Be totally within one of the five participating organizations, and
 - o Involve resources totally belonging to that organization, but
 - o Would affect another organization,

then the chairman should be the Level 2 PMT member from the agency from which the change was initiated.

For all other requested changes, the CCB is to be chaired by the Level 2 USDA manager of the PMT or his designated alternate.

2. Members - The Level 2 PMT members from USDA, NASA, USDC, USDI, and AID, or their designated alternates, form the basic membership of the CCB.

3. Executive Secretary - The Program Support Staff will provide a permanent secretary and an alternate.

3.2.1 Responsibilities

The CCB is responsible for the review and disposition of the proposed changes which affect program baseline specified in paragraph 3.3 if these changes affect or may later affect the activities or resources of more than one participating organization.

Responsibilities of the chairman shall be to:

1. Schedule CCB meetings.
2. Concur on CCB agendas.
3. Preside over CCB meetings.
4. Sign all Project Change Requests (PCR's).

5. Sign all Configuration Control Board Directives (CCBD's).
6. Act on "out-of-board" changes (emergencies).

Responsibilities of the executive secretary shall be to:

1. Provide appropriate personnel with an agenda of planned meetings.
2. Provide CCB members and the required supporting personnel of the meetings.
3. Maintain and present status of open and completed action items.
4. Provide copies of change requests and all results of the CCB meetings to all levels of management.
5. Issue CCBD's (Appendix A-3).
6. Maintain complete file of all board proceedings.

3.3 Baseline

The baseline groups below are established to indicate general categories in which configuration changes are classified. The executive secretary will maintain a detailed current listing of all changes under control or cognizance of the CCB.

- 3.3.1 Group I - Changes which alter project objectives, priorities, goals, guidelines, or content.
- 3.3.2 Group II - Changes which alter assignments to the different agencies by the PMT.
- 3.3.3 Group III - Changes which alter schedules, milestones, and resources approved by the PMT.

3.4 Change Processing

Change processing will be as follows:

1. Submittal

All requests for changes will be signed and approved by a project manager or major organizational element manager and shall be submitted using a PCR form. This form and the directions for completing it are illustrated in Appendix A-1.

2. Processing

Changes submitted to the CCB shall be processed in accordance with the detailed procedure set forth in Appendix A-2.

3. Decisions

All actions taken by the CCB shall be documented in the form of a Change Control Board Directive (CCBD) in accordance with procedures described in Appendix A-3. CCBD's will be distributed to Level 0 and 1 Management. If no comment is received within 20 working days after receipt, the change becomes effective.

4. Emergency PCR's

Changes that require immediate action to avoid a serious problem shall be delivered to the executive secretary for immediate action. The secretary then takes the required action to allow the CCB chairman's immediate disposition of the PCR and CCB. This action is then reviewed at the following CCB meeting for the record.

APPENDIX A-1

PROJECT CHANGE REQUEST (PCR)

APPENDIX A-1

PROJECT CHANGE REQUEST

1.0 SCOPE

This Appendix establishes the procedures by which changes to the AgRISTARS projects, tasks, and to the controlled documentation are initiated.

2.0 AUTHORITY

The PCR may be originated by anyone providing support to the AgRISTARS Program, including contractor personnel. Each PCR must have signature approval of a sponsor (project manager or major organizational element manager) before being accepted by the CCB secretary for processing.

3.0 PROCEDURES

All PCR's shall be initiated and submitted in accordance with the procedures contained herein.

3.1 Format

The PCR's are prepared using copies of the PCR form shown in Figure A-1.1. Continuation sheets may be used as required to furnish complete information.

3.1.1 Content

Instructions for filling out the PCR are given on the following pages.

PROJECT CHANGE REQUEST
AgRISTARS PROGRAM

PCR NUMBER

PROJECT TITLE/TASK ID

DATE LOGGED BY PSS

ORIGINATING ORGANIZATION

NEED DATE

CHANGE TITLE

CHANGE PERFORMER

DESCRIPTION OF CHANGE

JUSTIFICATION

EFFECTIVITY

PCR NUMBER

PROJECT TITLE

DATE

IMPACT ON PROGRAM IF CHANGE IS DISAPPROVED

REMARKS

IF ICC/CCB ITEM - THIS SPACE RESERVED FOR PMT COMMENTS / RECOMMENDATIONS

ESTIMATED COST

	FY _____	FY _____	FY _____	FY _____	TOTAL
USDA	_____	_____	_____	_____	_____
NASA	_____	_____	_____	_____	_____
USDC	_____	_____	_____	_____	_____

APPROVALS

SIGNATURE OF ORIGINATOR

DATE

SIGNATURE OF SPONSOR

DATE

APPENDIX A-2

CHANGE PROCESSING

APPENDIX A-2

CHANGE PROCESSING

1.0 SCOPE

This Appendix establishes the procedures for processing a Project Change Request (PCR).

2.0 AUTHORITY

The executive secretary is responsible for the processing of all changes to be considered by the CCB in accordance with the information contained herein.

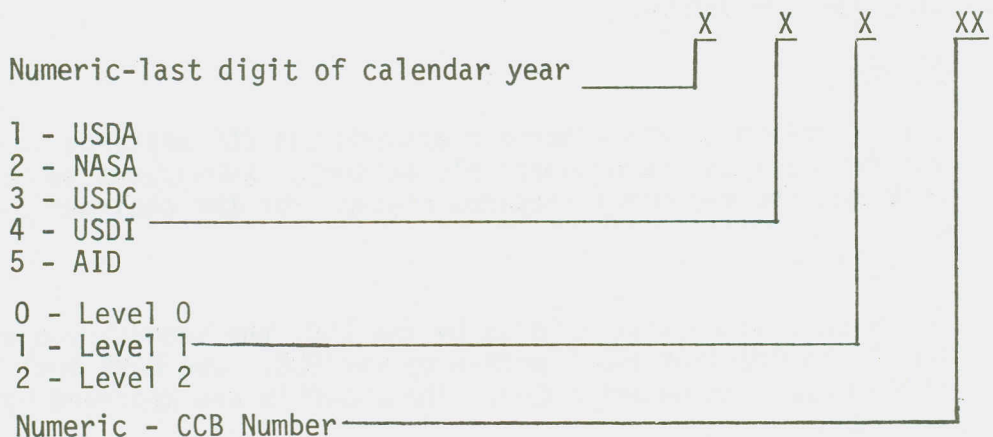
3.0 PLANNING

All change packages submitted by government organizational elements for disposition by the CCB shall be addressed to the executive secretary, AgRISTARS CCB, code SA4, NASA-Johnson Space Center, Houston, Texas. Upon receipt of each change request, the executive secretary assigns the identifying number and reproduces copies for review. Each change request is coordinated with the CCB chairman or his designated representative to assess the full impact of the change on the Program.

3.1 Control Numbers

Each change will be assigned a control number to provide identification for processing and statusing. The executive secretary is responsible for maintaining the control number log and assigning the control numbers. Once a control number has been assigned, it will not be reassigned to another change irrespective of withdrawal, cancellation, or disapproval. Once a change package has been assigned a control number, all subsequent actions and components (CCBD's, revisions, etc.) of that change reflect the same basic control number.

The control number will be a six-digit code as follows:



3.2 Scheduling

The CCB is scheduled to meet at a time and place designated by the chairman and specified in the agenda but will normally take place as an adjunct to the monthly PMT meeting. The chairman shall cancel or reschedule the CCB if a person(s) whose presence would be required for proper disposition of a change request is absent or because of the lack of change request(s).

3.3 Change Records

The executive secretary maintains a change log and an individual file on each change.

When the secretary receives a change request, a change file is initiated and maintained throughout the life of the program. These files are available to all AgRISTARS personnel for reference. Each file contains copies of the following:

1. PCR.
2. CCBD.
3. CCB presentation material.
4. All other correspondence relating to the change.

3.4 Agenda

The executive secretary, in coordination with the CCB chairman or his designated representative, schedules all changes for each CCB and issues an agenda to the appropriate personnel prior to each CCB.

3.5 Presentations

The originator of each change or the project manager concerned should present the change to the CCB. In so doing, the originator or project manager is responsible for all required presentation material (slides, viewgraphs, etc.), including a reproducible copy for the secretary.

3.6 Minutes

The secretary or his alternate attends all CCB meetings to record the proceedings and document all actions. Subsequent to each meeting, the secretary prepares minutes for the chairman's approval.

3.7 Directives

For each change dispositioned by the CCB, the secretary prepares a CCBD to document final action by the CCB. The CCBD must be in accordance with Appendix A-3. These CCBD's are approved by the chairman.

3.8 Follow-up

The secretary insures that all action items and deferred items assigned by the chairman are completed and reported to the CCB for follow-up and closeout.

3.9 Implementation

The secretary forwards or issues the proper implementing instruction to the appropriate personnel.

APPENDIX A-3

CHANGE CONTROL BOARD DIRECTIVE

APPENDIX A-3

CHANGE CONTROL BOARD DIRECTIVE (CCBD)

1.0 SCOPE

This appendix establishes the procedures for initiation and completion of the Change Control Board Directive (CCBD). The CCBD shall be used to document the decision for final disposition of each item considered by the CCB.

2.0 AUTHORITY

The CCBD, when signed by the chairman of the CCB, is the official written record of all decisions made by the CCB. The CCBD directs specific actions to be accomplished and the CCB-directed method of accomplishing the change. All configuration changes must be dispositioned by the CCBD before changes may be implemented.

3.0 PROCEDURES

The CCBD is prepared by the CCB executive secretary in accordance with the procedures described herein.

3.1 Preparation

The executive secretary prepares the CCBD's for the CCB chairman's signature. Before each Board meeting, the secretary prepares a CCBD for each item on the agenda. The disposition of each CCBD is recorded during the CCB.

3.1.1 Format

The CCBD is in accordance with the format shown in Figure A-3.1.

3.1.2 Contents

The CCBD is completed as follows:

1. CCBD Number

Enter the number assigned by the secretary upon receipt of the initial change. These numbers are as specified in Appendix A-2.

2. Implementer

Enter the name of the group that will make the physical change.

CCBD#	CHANGE CONTROL BOARD DIRECTIVE AgRISTARS PROGRAM				DATE	
IMPLEMETER.					PAGE _____ OF _____	
DATE LOGGED BY PSS	CHANGE TITLE/DESCRIPTION					
DISPOSITION						
APPROVED FUNDING	FY _____	FY _____	FY _____	FY _____	TOTAL	
USDA	_____	_____	_____	_____	_____	
NASA	_____	_____	_____	_____	_____	
USDC	_____	_____	_____	_____	_____	
CONCURRENCES	REMARKS:					
RESPONSIBLE MANAGER						
THIS CHANGE IS:						
<input type="checkbox"/> APPROVED AS WRITTEN.						
<input type="checkbox"/> APPROVED WITH CHANGES NOTED IN REMARKS.						
<input type="checkbox"/> DISAPPROVED.						
SIGNATURE OF CHAIRMAN, CHANGE CONTROL BOARD/DATE						

FIGURE A-3.1 SAMPLE CCBD FORM

3. Date

Enter the calendar date on which the disposition decision was made.

4. Page ___ of ___

Enter the page number data on the CCBd.

5. Date

Enter the date of the PCR.

6. Change Title/Description

Enter the title of the change or provide a brief description of the change if the title is not definitive.

7. Disposition

Enter the proposed disposition of the change.

3.2 Processing

Subsequent to the CCB meeting, the executive secretary presents the proposed CCBd's (as modified by the Board decision) to the chairman for his signature. The chairman signs and returns the CCBd's to the secretary for distribution. The secretary distributes copies of the signed CCBd's to all offices/persons assigned actions and to other offices/persons as designated by the CCB. Level 1 (ICC) and Level 0 (IPB) members will all receive copies of CCBd's. If no response is received within 20 working days of receipt, the directive becomes effective.

MANAGEMENT/ORGANIZATION PLAN

APPENDIX B

CHANGE CONTROL PLAN FOR

LEVEL 1

INTERAGENCY COORDINATING COMMITTEE (ICC)

REVISIONS

DESCRIPTION	DATE	APPROVED

1.0 INTRODUCTION

1.1 Purpose

This document establishes the procedure for processing changes requiring Level 1 disposition, and for maintaining chronological information. The data flow for these changes is indicated in Figure B-1.

1.2 Objective

The objective is to:

- Obtain Level 1 decisions on change matters submitted by PMT members and project managers.
- Assure that all project managers affected by the decisions are fully informed.
- Maintain chronological files whereby the reasons for such changes and the disposition of the changes can be traced.

2.0 PROCEDURE

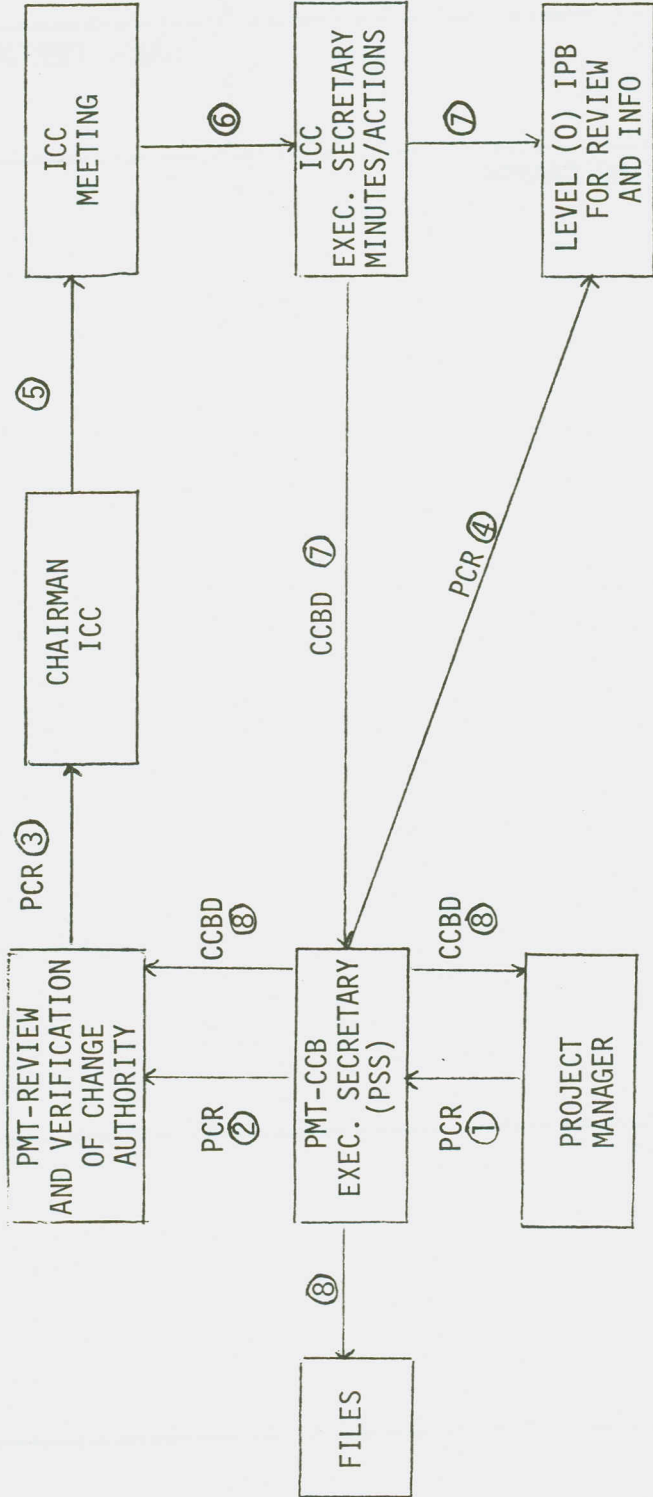
The following procedures will be followed for processing change proposals:

1. The PMT member or the project manager is to submit a request for a change (PCR, Figure B-2) to the Program Support Staff (PSS).
2. Copies will be filed and also transmitted to all members of the PMT for review.
3. Should the PMT Chairman, in consultation with the other PMT members, consider the requested change to require Level 1 decisions, the chairman will submit the change to Level 1 Chairman.
4. At this time, the PMT/CCB secretary will transmit the change request to Level 0 and Level 1 members for information.
5. The Level 1 Chairman schedules and discusses the change request at the next Level 1 meeting.
6. Results of the Level 1 decision are to be recorded in the minutes of the meeting by the Level 1 executive secretary, or is to be documented by the Level 2 CCB Chairman should the change be time-dependent and be negotiated by telecommunications.
7. The ICC executive secretary will transmit results of the Level 1 change action to the IPB for information and review. If no response is received within 20 days, the change becomes effective.

8. The PSS/CCB executive secretary will prepare a Change Control Board Directive (CCBD) (CCBD Figure B-3) reflecting the ICC decision for the ICC Chairman's signature. The Chairman will sign and return the CCBD to the PSS/CCB secretary for distribution. The PSS/CCB secretary distributes copies of the signed CCBD's to all offices/persons assigned actions and to other offices/persons as designated by the ICC Chairman.

FIGURE B-1

ICC CHANGE DATA FLOW



PROJECT CHANGE REQUEST, PAGE 1 OF 2

AgRISTARS PROGRAM

PCR NUMBER	PROJECT TITLE/TASK ID	DATE LOGGED BY PSS
ORIGINATING ORGANIZATION	NEED DATE	
CHANGE TITLE	CHANGE PERFORMER	
DESCRIPTION OF CHANGE		
JUSTIFICATION		
EFFECTIVITY		

FIGURE B-2 SAMPLE PCR FORM

PCR NUMBER	PROJECT TITLE	DATE
------------	---------------	------

IMPACT ON PROGRAM IF CHANGE IS DISAPPROVED

REMARKS

IF ICC/CCB ITEM - THIS SPACE RESERVED FOR PMT COMMENTS / RECOMMENDATIONS

ESTIMATED COST	FY	FY	FY	FY	TOTAL
USDA	_____	_____	_____	_____	_____
NASA	_____	_____	_____	_____	_____
USDC	_____	_____	_____	_____	_____

APPROVALS

SIGNATURE OF ORIGINATOR	DATE	SIGNATURE OF SPONSOR	DATE
-------------------------	------	----------------------	------

