

CONTRACTOR

PROGRAM

PROCEDURES

SATURN HISTORY DOCUMENT University of Aleberta Respects, Institute History of Science & Technology Group

Date ---- Doc No

AERO-SPACE DIVISION LAUNCH SYSTEMS BRANCH

CONTRACTOR

PROGRAM

PROCEDURES

List of Procedures and Directives cancelled during the quarter - $\mbox{\tt June}$ to September

June	
OP 465.2	Spare Parts Recommendation Data - Acquisition from Suppliers
OP 465.3	S-IC Spare Parts - Selection, Release, Receipt and Distribution
OP 465.4	S-IC Spare Parts Requisition - Use of
OP 465.6	Spares - S-IC Stages and Associated GSE/MSE Priority Demands
OP 465.11	S-IC Spare Parts - Shipment of
OP 465.12	Use of the S-IC Spare Parts Release (SPR) Form
OP 465.13	S-IC GSE/MSE Parts Loaned from Spares Stores for Trial on Test and Checkout Stations

July

OP 560.1	Personnel Control - Remote Sites - Atlantic Booster Test
	and Mississippi Test

BD 564.1 Local Mileage Expenses

September

AP 636 Medical Treatment - Accident Investigations and Reporting

AP 637 , Accident Investigations and Reporting - NASA Requirements

Space Division

Operating Procedure 120.7

CONTROL OF CHECKS SUBJECT:

August 12, 1966

AFFECTED ORGANIZATIONS

Michoud

Finance

Management Services

Operations Materiel Huntsville

Finance Operations FROM H. NELSON GENERAL MANAGER

REFERENCES: (a) Operating Procedure 120.3.

"Bank Accounts - Remote Locations"

(b) Operating Procedure 200.3, "Purchase Order Draft System"

I. PURPOSE

This procedure outlines the method and responsibility for controlling undistributed checks in the Launch Systems Branch.

GENERAL II.

The check custodian, appointed by the Michoud Finance Manager, through his designated subcustodians is responsible for safeguarding, issuing and maintaining supplies of blank check stocks.

The subcustodian in each affected functional unit is the only person authorized to issue checks.

- В. The organizations responsible for check preparation are:
 - Finance, Accounts Payable general voucher checks
 - Finance, Travel Accounting general voucher checks
 - Finance, Payroll hand prepared payroll checks 3.
 - Finance, Mississippi Test Facility Imprest Account checks 4.
 - 5. Finance, Huntsville - Imprest Account checks
 - 6. Finance, BATC - Imprest Account checks
 - 7. Operations, Materiel - Purchase Order Draft Checks (P.O.D.)
 - Management Services Data Systems Operations machine prepared payroll checks
- All undistributed checks, including checks in process, are to be stored in locked vaults or cabinets at all times when not in the direct custody of authorized employees.

- D. Blank checks are controlled through sequential serial numbers on each check. When more than one series of checks is used for one bank account, the serial number is prefixed by a letter for each series.
- E. The working supply of non-payroll checks, other than Purchase Order Drafts, should not exceed five working days requirements.
- F. If an error is made in preparing a check, the check is stamped "void" and replaced by a new one. The void check is then forwarded to Treasury Cash Control.
- G. Checks determined to be in error after they have been entered in the check register are processed the same as II.F. above and applicable cross references made to replacement checks and check registers.
- H. All in-process checks and obsolete blank checks not intended to be signed and distributed are to be voided and sent to Treasury - Cash Control, except Purchase Order Draft checks.
- I. For instructions relative to lost, stolen, or destroyed checks, see Operating Procedure 120.4.

III. RESPONSIBILITIES

- A. Check Subcustodians All Affected Organizations
 - 1. Inspect blank check stocks received from suppliers to determine that quantity billed is received and that specifications are met.
 - 2. Issue blank checks in numerical sequence to employee as authorized by Document D5-11030. Upon each issuance of general voucher and payroll checks, forward to Treasury Cash Control a statement showing:
 - a. Date and quantity issued
 - b. Serial numbers of checks issued
 - c. Signatures of issuing agent and the receiving agent
 - 3. Maintain a perpetual inventory record on each series of checks showing:
 - a. Date received and issued
 - b. Quantity received and issued
 - c. Serial numbers of the series received and issued
 - d. Signature of employee receiving checks
 - e. Number of unsigned check forms on hand
 - 4. Take a physical inventory of each series of unsigned check forms on hand at the end of each Thursday, reconcile to perpetual inventory record, and forward the following information to General Accounting Supervisor, New Orleans:

- a. Check series
- b. Serial numbers, "from ____ to ___'
- c. Number of check forms on hand
- d. Estimated supply reorder date

B. Finance

- 1. Prepares, signs and distributes Imprest Account, general voucher and hand-prepared payroll checks.
- 2. Audits supporting documents that accompany checks.
- 3. Maintains check registers to account for checks prepared.
- 4. Operates, maintains and safeguards check signing machines and signature plates.
- Destroys voided checks and records the series destroyed in the cancelled check file.

C. Management Services

- 1. Processes machine-prepared payroll checks.
- 2. Produces check registers for machine-prepared payroll checks.
- 3. Forwards checks with supporting records to Treasury Cash Control for signature and distribution.

D. Operations - Materiel

Prepares and issues Purchase Order Draft checks in accordance with Operating Procedure 200.3.

PAGE 3 OF 3

LSB 1150A (9/65)

Space Division

LAUNCH SYSTEMS BRANCH

Operating Procedure 190.2

SUBJECT:

HANDLING AND ACCOUNTING OF SUPPLIER FURNISHED RETURNABLE

CONTAINERS

August 23, 1966

(Supersedes issue dated

May 28, 1964)

AFFECTED ORGANIZATIONS

All Organizations

REFERENCE:

Operating Procedure 190.16, "Control of Gas Cylinders Having a Demurrage Charge" FROM: CAWILLIAM

C. A. WILKINSON MICHOUD MANAGER

I. PURPOSE AND SCOPE

This procedure establishes the system for the handling and accounting of supplier furnished returnable containers for which a refundable deposit of \$2.00 or more per unit is paid. Government and Company owned containers are excluded.

II. DEFINITION

Supplier-Furnished Returnable Containers - Containers received from suppliers on which deposits of \$2.00 or more per unit have been paid. Included are such items as drums, reels, boxes, carboys, pallets, and cylinders.

III. RESPONSIBILITIES

A. Materiel:

- Provides separate item coverage and includes required provisions on purchase orders involving refundable deposits of \$2.00 or more per unit.
- 2. Receives material and prepares receiving report for all returnable containers listed as a separate item on the purchase order.
- 3. Ensures that all returnable containers with a deposit of \$2.00 or more are labeled with the supplier's name, purchase order number and deposit amount. (Form S-310-45-13)
- 4. Attaches labels to all returnable containers immediately upon receipt. Labels non-returnable containers as nonreturnable.
- 5. When containers are returned to the supplier, Stores initiates a prenumbered shipping form (S-370-15-3) and processes through Manufacturing Shipping. The shipper references the purchase order number and price when available.

- 6. Maintains accountability of shipping forms.
- 7. Maintains liaison with the Support Services Contractor to retrieve returnable containers from the scrap area.
- B. Manufacturing Shipping:

Processes shipping forms and distributes.

- C. Affected Organizations:
 - Assures that returnable containers are not used for other purposes (such as waste materials).
 - Reassembles containers with packing, seals, covers, nuts, bolts, etc.
 - 3. Routes empty returnable containers to the applicable Material Storage Area.

D. Finance:

- 1. Assures proper accounting of deposit costs.
- 2. Receives copies of the shipping forms from Manufacturing-Shipping and maintains an appropriate file.
- 3. Assures deposits are refunded.
- 4. Maintains surveillance over activities covered by this procedure to ensure compliance with accountability and accounting requirements.

SUBJECT:

Space Division

TRANSFER OF NON-DELIVERABLE

INDUSTRIAL PROPERTY

AFFECTED ORGANIZATIONS

All Organizations

June 20, 1966 (Supersedes issue dated November 5, 1963)

R. H. NELSON

FROM

GENERAL MANAGER

I. PURPOSE

The purpose of this procedure is to describe the requirements for shipment, receipt, and transfer of all Government-owned industrial property which is classified as non-deliverable.

II. GENERAL

- A. Government-owned industrial property will be shipped F.O.B. from the point of origin on Government Bills of Lading (GBL), except when it is to the mutual benefit of the Government and the Company to use commercial shipping forms.
- B Shipment of S-IC Logistics Spares will be accomplished by T or SA (Form 5-1100-47) as described in the 'Logistics Operating Manual'.
- C. Accountability transfers of Government-owned industrial property between Boeing locations, between Boeing and the Government, between Boeing and its vendors or associate contractors, and/or between Boeing vendors or associate contractors and the Government will be accomplished by MSFC Form 57 or by Form DD-1149 as applicable, upon which approval is signified by the cognizant Government Property Administrator.
- D. Shipment of industrial property between Boeing locations or between Boeing and its vendors or associate contractors, where there is no transfer of accountability, may be accomplished either by MSFC Form 57 or by Shipping Authorization Form S-370-15-3, except for shipment of Logistics Spares as noted in II.B. above.

III. DEFINITIONS

<u>Industrial Property</u> (Government-owned) - any contractor-acquired or Government furnished property, including materials, special tooling and industrial facilities used in the performance of a contract or sub-contract.

OPERATIONS -MATERIEL - TRAFFIC

- Determines mode of shipment in coordination with Operations - Production Control.
- Prepares GBL or commercial bill of lading and forwards to Production Control - Shipping.

OPERATIONS -FINAL ASSEMBLY -SHIPPING

 Contacts Quality and Reliability Assurance representatives for acceptance of Shipping forms and equipment.

OPERATIONS -QUALITY AND RELIABILITY ASSURANCE

- Inspects applicable shipping form for completeness and accuracy.
- Inspects equipment and method of packaging for compliance with NASA and Company regulations.
- 9. Stamps, signs, and dates applicable shipping form.

OPERATIONS -FINAL ASSEMBLY -SHIPPING

- 10. Packages and releases property for shipment.
- 11. Distributes applicable shipping form.

FINANCE - PROPERTY & MATERIAL SURVEILLANCE & CONTROL

12. Ensures that MSFC Form 57 is properly executed for accountability transfers in compliance with NASA and Company regulations.

C. Attachment

Instructions for preparation of MSFC Form 57 - "Shipping Document".

INSTRUCTIONS FOR PREPARATION OF MSFC FORM 57 - "SHIPPING DOCUMENT"

A. Section I:

Block.

1. Enter name and address of shipper: The Boeing Company Launch Systems Branch Post Office Box 29100 New Orleans, Louisiana 70129

2. This block indicates ownership. All movement of Government-owned property by MSFC Form 57 will indicate "National Aeronautics and Space Administration" with the city and state of destination. This form will not be used for the shipment of Company-owned property.

Description

- Enter the "ship to" company or agency, with address, organization, inplant routing, and recipient.
- 4. Enter the accountability contract, contract item number, accounting charge number and other information pertinent to end use.
- 5. Enter the releasing contract number, or other accounting data relating to origin.
- 6. Enter the demand date at destination.
- 7. Enter the priority. (Use of block 7 is optional). Priority on intra-Company shipments is governed by destination demand date in block 6.
- 8. Enter the authority for the transfer, such as Purchase Order number, Tool Liaison (TL) number, Interdivisional Work Authorization (IDWA) number, contract item number, or letter of authority.
- 9. Obtain signature of NASA Property Administrator in this block.
- 10. a. Enter MSFC sequential control number assigned by the originating organization.
 - b. Enter credit voucher number assigned by Operations Shipping, when applicable.
- 11. Enter date of shipment.
- Enter name and type of carrier.
- 13. Enter Bill of Lading number assigned by Materiel Traffic.

B. Section II:

Block Description

- a. Enter line item number for each item entry.
- b. Enter the part number or tool number, Federal Stock Class, Production Equipment Code, equipment tag number, nomenclature, specification, used-on assembly, capacity, manufacturer, data package of information, and other data applicable to the property to be shipped. For industrial facilities, include description of accessory or auxiliary items contained in shipment.
- c. Enter unit of measure.
- d. Enter quantity requested by authority in Section I, block 8.
- e. Enter quantity shipped.
- f. Enter type of container, if applicable.
- g. Enter container number, if applicable.
- h. When form is used to transfer accountability to another company or to the Government, cost information will be provided by Finance when such information is readily available.
- i. Same as h, above.

C. Recapitulation of Shipment:

- 14. To be completed by Operations Shipping, who enters container information as applicable.
- 15. To be completed by receiving organization at destination.
- 16. Sheet total for accountability transfers.
- 17. Grand total for accountability transfers.
- 18. Receiving organization enters debit voucher number, when applicable.

D. Distribution of MSFC Form 57:

1. Receipts:

1 copy - Accounting Records, 5-1530

1 copy - Property and Material Surveillance and Control, 5-1532

1 copy - NASA Property Office

2 copies - Operations - Materiel, 5-3200

1 copy - Operations - Quality and Reliability Assurance, 5-3300

D. Distribution of MSFC Form 57: (Continued)

2. Shipments:

1 copy - Accounting Records, 5-1530 1 copy - Operations - Shipping, 5-3600

1 copy - NASA Property Office

1 copy - Property and Material Surveillance and Control, 5-1532 1 copy - Operations - Quality and Reliability Assurance, 5-3300 1 copy - Originating organization 1 copy - Consignee

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LAUNCH SYSTEMS BRANCH

Operating Procedure 190.20

SUBJECT:

Sooce Division

CONTROL OF PRECIOUS METALS

(Supersedos toque dated

AFFECTED ORGANIZATIONS

September 3, 1995)

August 24, 1966

All Organizations

R. H. NELSON

GENERAL MANAGER

All Olganizacion

Operating Procedure 190.3, "Accountability for Company and Government Property"

I. PURPOSE

REFERENCE:

This procedure establishes precious metals controls maintained by the Launch Systems Branch.

A. Controls and quarterly reports defined in this procedure will be processed for gold only.

B. Log controls are maintained on all other precious metals.

II. DEFINITIONS

A. Precious metals - Gold, platinum, iridium, rhodium, silver, and alloys of these metals in raw material form such as sheet, bar, foil, powder, wire, leaf, and solutions containing soluble salts of these metals.

B. Fabricated gold - Processed or manufactured gold in any form (other than gold coin or scrap gold) where the value of the gold content is 90 per cent or less of the total domestic value of the article.

C. Semi-processed gold - Processed or manufactured gold in any form (other than gold coin or scrap gold) where the value of the gold content is more than 90 per cent of the total domestic value of the article. (See Exhibit)

D. Gold value - For the purpose of this procedure, gold value shall be computed at \$35 per troy ounce of fine gold content. The total domestic value of processed or manufactured gold shall be based on the cost to Boeing rather than the selling price.

III. GENERAL

Reports will be submitted to Finance on all the precious metals defined above. Quarterly reports on the purchase, use and disposition of semi-processed gold are required.

IV. RESPONSIBILITIES

- A. All organizations will control precious metals as follows:
 - 1. Appoint an individual supervisor and an alternate as Precious Metals Custodian, and provide names, organization, and mail stops to Finance. Each Precious Metals Custodian has the following responsibilities:
 - a. Maintain a log on all receipts and issues reflecting purchase order number, descriptions, quantity, receiving shop, and date. Maintain separate sections for gold, platinum, iridium, rhodium and silver. The gold section will contain an appendix for adequate records of receipts, inventory, and disbursements according to the above definitions.
 - b. Assure that pure metals, or alloys containing 50 per cent or more of the precious metal, are kept under tight security at all times.
 - c. Report the loss of any precious metal immediately to Industrial Relations - Security and to Michoud or Huntsville Finance.
 - d. For gold only, complete and return to Finance by the fifth day after the end of each calendar quarter the Quarterly Report of Precious Metals Activity, form 2-9000-65-18.
 - 2. Handle acquisition of precious metals as follows:
 - a. Submit purchase requisitions for gold and other precious metals to Materiel.
 - b. Identify the Precious Metals Custodian as recipient on the purchase requisition.
 - c. Plainly mark the words "PRECIOUS METALS" on each purchase requisition.
 - Provide storage facilities which will prevent loss from damage or theft.
 - 4. Route precious metals for which there are no further requirements to Finance accompanied by a special letter of transmittal (in duplicate) showing the work order or account and budget number to be credited.

- B. S-IC Operations Materiel or Huntsville Operations Materiel:
 - 1. Materiel Buyers:
 - a. Use Typing Code 559 on all purchase orders for gold as follows:

"The Seller certifies that this purchase consists of troy ounces of (fabricated (semi-processed) gold as defined in Section 54.4 of United States Treasury Department Gold Regulations dated August, 1963. The Seller's Treasury Gold License number is

- b. Route one copy of all purchase orders for gold to Finance.
- 2. Receiving organizations:

Maintain controls to ensure that precious metals are properly received and accounted for and route copies of applicable receiving reports to Finance.

- C. Michoud or Huntsville Finance:
 - 1. Maintain current listings of Precious Metals Custodians and their alternates, and supply them with forms to be used for quarterly reports.
 - Maintain a complete record of gold procurement, inventory, consumption, and disbursement.
 - Prepare and forward semi-annual reports (January and July) to the Aerospace Group - Finance - Property Management Organization.
 - 4. Upon receipt of unusable, scrap, or surplus precious metals from using organizations, verify the amount received and acknowledge receipt to the releasing organization.
 - Dispose of unusable, scrap or surplus precious metals in accordance with appropriate procedures.
- D. Industrial Relations Security:

Conduct investigations upon receipt of a reported loss of precious metals.

EXHIBIT

FABRICATED AND SEMI-PROCESSED GOLD - 90% RULE

The manufacturer or processor is to figure the cost applicable to the manufacturing or processing of such articles. Contact Finance for applicable labor and overhead rates as necessary.

Profit, sales and administrative expenses or commissions may not be included in allowable costs.

If the total gold value of the article is ninety percent or less of the total domestic value of the article, it is fabricated gold. If it is in excess of ninety percent, the gold is classified as semi-processed, and must be reported to the Treasury Department.

The following example illustrates how the percentage computation may be applied to any item:

Weight of the gold article	dwts.)
Karat or Fineness14	
Weight of Fine Gold	(dwts.)

1. Value of Fine Gold in finished article at \$35 per fine troy ounce, or at \$1.75 a pennyweight.....\$30.63

MANUFACTURING COST COST OF MATERIAL IN THE ARTICLE	
Karat gold at actual purchase price\$3	
Materials other than Fine Gold and Alloys	.50
LABOR PERFORMED ON THE ARTICLE	2.25
OUTSIDE CONTRACT CHARGE	. 75
MANUFACTURING OR PROCESSING OVERHEAD.	
	.30
2. Total Domestic Value Based on Cost of the Article\$3	5.50

3. Ratio of fine gold content at \$35 per troy ounce to total domestic value based on the cost of the article:

VALUE OF FINE GOLD CONTENT (Item 1) - \$30.63
TOTAL DOMESTIC VALUE (Item 2) - \$35.50

The resulting percentage would be 86%. Therefore, because the percentage is less than 90%, the gold item would fall within the definition of "fabricated gold".

LAUNCH SYSTEMS BRANCH

Aerospace Group

OPERATING PROCEDURE

OP 371.9 (315-003)

SUBJECT:	INTERDIVISIONAL WORK TRANSACTIONS	May 1966
	AFFECTED ORGANIZATIONS:	rsedes issue dated t 13, 1965)
	All Aerospace Group Divisions, Branches and Other Organizations	
REFERENCE:	(a) Corporate Policy LAI and Supplement, "Interdivisional Work Transactions"	
	(b) Attachment 1-9100-11-1070, January 22, 1963, "Accounting for Interdivisional Work Transactions"	
	(c) Aerospace Group Policy ASG-010, "Interdivisional Work Transactions"	

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I. SIMMARY

It is essential that all interdivisional work transactions be fully documented and approved in a uniform manner to assure adequate notification of affected organizations for scheduling of the activity and establishment of accounting and cost control records. This procedure provides organizational responsibilities for the authorization, documentation, processing and control of interdivisional work transactions in compliance with the referenced policies.

It is the purpose of this procedure to ensure that Interdivisional Work Authorizations (IDWA's) documenting interdivisional work transactions are prepared, estimated (where required) and approved prior to release of the work to the maximum possible extent. Any departures from this procedure must be approved by the Group Director of Finance.

II. SCOPE

A. This procedure and use of Interdivisional Work Authorization (IDWA) forms apply to any work transactions between members of Aerospace Group and (1) Members of other Groups, (2) Independent Divisions, (3) Corporate Headquarters, and (4) Other members of Aerospace Group, when such members maintain separate books of account.

As examples of item 4, DWA's will be used to document work transactions between Missile and Information Systems Division and/or the Launch Systems Branch and the Atlantic Test Center. Separate Command Media will be published to govern the documentation of transactions between organizations served by a common accounting system.

"Work transactions" include Task Support, Direct Assist, Overhead Support, Loans of Employees and Other Support. (See IV., Types of Transactions.)

- B. Interdivisional transactions will be undertaken only after determining that:
 - 1. The required work cannot be obtained from other Prime Division organizations, or
 - 2. When it is determined to be in the best interests of the Company or Customer to obtain the required work from a Support Division.
- C. Transfers of surplus materials or materials transferred to relieve a temporary emergency are not considered "work transactions" for purposes of this procedure.
 - The Material Requisition/Work Order Transfer systems of transferring materials and related costs will be used between the Seattle-Renton Area Divisions. Refer to Operating Procedures 740-004 and 740-006.
 - 2. The system used for Divisions or Branches maintaining separate books of account outside the Seattle-Renton area is prescribed by Operating Procedure 740-015.

III. DEFINITIONS - GENERAL

A. Interdivisional Work Authorization (IDWA)

A documented agreement between two IDWA Approvers in a Prime and Support Division (see B., C., and G., below), which describes the requirements of a specific work transaction. A Program Document may be referenced (see L., below).

NOTE: "Blanket" and "One-Time" IDWA's:

A "blanket" IDWA is one which authorizes the Support Division to perform several different work assignments chargeable to different accounting charge numbers on the Prime Division's books. Individual work assignments and their related accounting charge numbers are released to the Support Division via Program Documents which must be cross-referenced to the appropriate IDWA.

"Blanket" IDWA's offer slight reductions in paperwork; however, they present serious problems in the areas of cost estimating, control, and identification of cost by IDWA. Certain types of transactions may not be authorized by "blanket" IDWA's except under special circumstances. A "blanket" IDWA should not be used to document transactions in which cost is a factor in placement of the work.

A "One-Time" IDWA authorizes the Support Division to perform a specific work assignment chargeable to specific accounting charge numbers on the Prime Division's books. From the viewpoints of cost control, visibility and identification of cost by IDWA, a "one-time" IDWA is preferable.

B. Prime Division

The member of Aerospace Group (maintaining separate books of account) REQUESTING supporting work or BORRCWING personnel.

III. C. Support Division

The member of Aerospace Group (maintaining separate books of account) PERFORMING supporting work or LOANING its personnel.

D. Coordinating Organization

The functional organization in each Division assigned the responsibility to request or provide the support, as shown by title and/or budget number on the IDWA.

E. Coordinating Administrators

The individuals designated on the IDWA by the Prime and Support IDWA Approvers who are responsible for the coordination of a particular interdivisional work transaction.

F. Types of Transactions

The categories of work to be performed (see Section IV.).

G. IDWA Approver

Persons properly authorized by the Group Vice President as having authority to approve Interdivisional Work Authorizations as listed on Exhibit A of this procedure.

H. Divisional Coordinator

The person designated by the Managers of the Missile and Information Systems Division and Space Division - Seattle to coordinate and distribute all IDWA's originated by or affecting coordinating organizations within such Divisions.

I. Functional Coordinator

The person designated by one or more IDWA Approvers to coordinate and distribute all IDWA's originated by or affecting coordinating organizations under the jurisdiction of such IDWA Approver(s).

J. IDWA Registrar

The person acting on behalf of Finance as the Central IDWA Registry and Control Point. There will be only one Registrar per location for each member or group of members within Aerospace Group.

One Registrar is authorized for each of the following:

- Aerospace Group Seattle Area (includes Missile and Information Systems Division and Space Division other than Launch Systems Branch).
- 2. Launch Systems Branch Seattle.
- 3. Launch Systems Branch Huntsville.
- 4. Launch Systems Branch Michoud.
- 5. Boeing Atlantic Test Center.

K. IDWA Committee

A standing committee, composed of the Divisional and/or Functional Coordinators in a particular location, chaired by the appropriate IDWA Registrar. The purpose of this Committee is to resolve any communications problems and other matters of concern within the IDWA system.

L. Program Document

A listing or a grouping of records, forms, and data under a suitable cover from which all information pertinent to the IDWA can be obtained for a common understanding of the work to be performed. The document will provide a complete definition of the work to be performed, end items to be delivered, items furnished by the prime organization, terms and conditions, performance sheedules, quality and acceptance provisions, responsibilities, and administrative controls. Each program document will be referenced to the related IDWA. Such documents, together with all pertinent correspondence and any other applicable material, will be assembled and maintained for historical purposes by the Prime Coordinating Organization.

Examples of program documents include, but are not limited to, Engineering Work Authorizations and Manufacturing Shop Orders.

Me. Distributable Employee

An employee who has the authority to identify his labor to various jobs.

N. Full-Time General Overhead Employee

An employee who lacks the authority to identify his labor to various jobs.

IV. DEFINITIONS - TYPES OF WORK TRANSACTIONS

A. Direct Contract Work

1. Task Support

- a. Definition Direct work transactions which require the Support Division to perform planning, procurement of raw materials, purchased parts, tools and hardware, and substantially all normal indirect support (overhead) functions in addition to fabrication or development and testing effort.
- b. Pricing Method Task Support transactions are priced to include all related direct costs (labor and non-labor) plus gross "divisional" overhead.
- c. Cost Accumulation All Task Support costs are collected in work orders on the Support Division's books and are billed to the Prime Division monthly.
- d. Cost Reporting The Support Division has reporting responsibility for Task Support Transactions since the related costs are initially accumulated on the Support Division's books. Task Support Cost Reports by IDWA will be provided only when the accounting charge (work order) on the IDWA is unique to that particular IDWA.

2. Direct Assist

- a. Definition Direct work transactions which require the Prime Division to perform planning, procurement of raw materials, purchased parts, tools and hardware. The Support Division is responsible only for specific assist activities while the Prime Division retains over-all job direction and administration. Only applicable overhead services of the Support Division are involved.
- b. Pricing Method Direct Assist transactions are priced to include all related direct costs (labor and non-labor) plus cost center overhead. Gross "divisional" overhead will be applied if the Support Division does not use a Cost Center System. For TDWA pricing purposes, the only Support Divisions using Cost Center Systems are the Airplane Group (Renton-Seattle) and the Aerospace Group (Seattle-Renton).
- c. Cost Accumulation Within the Seattle-Renton area, Direct Assist effort is cross-charged to a direct work order on the Prime Division's books of account. Direct Assist effort between Branches and Divisions outside the Seattle-Renton area is initially charged to work orders on the Support Division's books. Accumulated costs are billed to the Prime Division monthly.
- d. Cost Reporting Within the Seattle-Renton area, the Prime Division has Direct Assist reporting responsibility since the costs are initially accumulated on the Prime Division's books and do not appear on the Support Division's books.

The Support Division has reporting responsibility for Direct Assist transactions between Branches and Divisions outside the Seattle-Renton area because such costs are initially accumulated on the Support Division's books.

Direct Assist Cost Reports by IDWA can be provided only when the accounting charge on the IDWA is unique to that particular IDWA.

B. Overhead Support

1. Identified Overhead

- a. Definition Indirect (overhead) services, or work assignments performed by distributable employees ONLY, which are chargeable to the identified overhead accounts of the Prime Division.
- b. Pricing Method Identified Overhead transactions are priced to include all related labor and non-labor costs, plus cost center overhead. Overhead at 100% of labor dollars will be applied if the Support Division does not use a Cost Center System. For IDWA pricing purposes, the only Support Divisions using Cost Center Systems are the Airplane Group (Renton-Seattle) and the Aerospace Group (Seattle-Renton).

IV. B. 1.

c. Cost Accumulation - Within the Seattle-Renton area, such effort is cross-charged to the Prime Division's overhead accounts. Such effort between Branches and Divisions outside the Seattle-Renton area is initially charged to special work orders on the Support Division's books of account. Accumulated costs are billed to the Prime Division monthly.

NOTE: Direct Assist and Identified Overhead transactions are treated identically by the Support Division except for application of overhead. The basic direct-indirect distinction exists only within the Prime Division's books of account.

d. Cost Reporting - Within the Seattle-Renton area, the Prime Division has Identified Overhead reporting responsibility since the costs are initially accumulated on the Prime Division's books and do not appear on the Support Division's books.

The Support Division has reporting responsibility for Identified Overhead transactions between Branches and Divisions outside the Seattle-Renton area because such costs are initially accumulated on the Support Division's books.

Identified Overhead Cost Reports by IDWA can be provided only when the accounting charge on the IDWA is unique to that particular IDWA.

2. Service Support

- a. Definition Indirect (overhead) services, or work assignments, of a continuous or recurring nature, performed by either distributable or Full-Time General Overhead employees, which are initially chargeable to the overhead accounts of the Support Division.
- b. Examples Service Support includes, but is not limited to, the following functions: Computing, Data Processing, Maintenance of Corporate Manuals, Payroll, Security, Timekeeping, Transportation and Utilities.
- c. Pricing Method The Costs of Service Support functions performed by the Airplane Group (Renton-Seattle) or the Aerospace Group (Seattle-Renton) are allocated through the Cost Center System. The basis of allocation must be mutually acceptable to the Prime and Support Divisions. Service Support performed by other members of the Aerospace Group or the Company will be priced to include related labor and non-labor costs plus overhead at 100% of incurred labor dollars.
- d. Cost Accumulation Service Support costs are initially charged to the overhead accounts of the Support Division. Labor of distributable employees performing service support is charged to individual accounts established for the purpose of identifying particular kinds of effort. Labor of Full-Time General Overhead employees is charged to appropriate General Overhead. Salary and Wage accounts, and is also reported to the Finance Cost Center group in the Support Division. Billings are credited to special indirect support overhead accounts of the Prime Division and charged to similar special indirect support overhead accounts of the Prime Division by the appropriate Finance Departments.
- e. Cost Reporting The various accounting systems within the Company generally do not provide for identification and reporting of Service Support costs by TDWA. The appropriate Finance Overhead or Cost Center Overhead organization should be contacted to determine what type of reporting can be provided for Service Support costs.

C. Employee Loans

- Definition The temporary assignment of an employee to the technical or functional jurisdiction
 of a Prime Division which will not involve a transfer of administrative or personnel records.
 It should be clearly understood that a loaned employee works under the technical direction and
 guidance of other than his own supervision, and a change in his physical location usually occurs.
- 2. Pricing Method Employee loan transactions are priced to include all labor and travel-related costs. Overhead is applied at a Headquarters-determined percentage of labor dollars. The rate applicable at any given time is obtainable from Functional Coordinators or Registrars.
- 3. Cost Accumulation Within the Seattle-Renton area, loan effort is charged to the appropriate work order or overhead account on the Prime Division's books through the labor distribution process. Loan effort between Branches and Divisions outside the Seattle-Renton area is charged to special work orders on the Support Division's books. Accumulated costs are billed to the Prime Division monthly.

IV. C.

4. Cost Reporting - Within the Seattle-Renton area, the Prime Division has Loan reporting responsibility since the costs are accumulated on the Prime Division's books. The Support Division has reporting responsibility for Loan transactions between Branches and Divisions outside the Seattle-Renton area because such costs are initially accumulated on the Support Division's books.

Loan Cost Reports by IDWA can be provided only when the accounting charge on the IDWA is unique to that particular IDWA.

5. Management-Requested Employment Interviews - An employee traveling to a Prime Division for a management-requested employment interview is not on loan. Such employee's salary will be charged to the appropriate Support Division general overhead account. Only the travel-related costs will be transfered. DWA's authorizing transfer of such travel costs will be categorized as "Identified Overhead.

D. Other Support

- 1. Definition Non-recurring direct or indirect activities not covered by any of the above categories, such as: Contract terminations, transfer or manufacture of capital asset facilities and other work subject to special overhead or pricing applications.
- 2. Pricing Method Other Support transactions will be priced as required by the circumstances. Special pricing arrangements (to include other than gross "divisional" or cost center overhead) will be reviewed with and approved by the Prime Division Director of Finance. The Support Division Director of Finance will also review and approve special pricing arrangements. The Directors' of Finance approval will be obtained before the work is released to the Support Division.
- 3. Cost Accumulation The Costs of Other Support effort will be accumulated in special work orders or overhead accounts as required by the circumstances. Support Division Finance will coordinate within its Division and with Prime Division Finance, if required, to establish an effective cost collection and identification system for such transactions. The Support Division will bill the Prime Division in accordance with existing standard practices.
- 4. Cost Reporting Reporting requirements will be specified by the "Administrative Agreements Section" of the IDWA subject to approval of the Finance Departments concerned.

V. COMMON IDWA REQUIREMENTS

A. IDWA Numbers

To facilitate IDWA filing and communications, a Company-wide standard six-digit numbering system has been developed. This number system will be used by all members of Aerospace Group. Numbers will be assigned only by IDWA Registrars.

The first three digits of the IDWA number will be code digits indicating the Prime Division, Support Division, and type of transaction, respectively.

Prime Division (first digit):

2 - Aerospace Group (Seattle-Renton Area)

BATC 5 - Boeing Atlantic Test Center*

H 5 - Launch Systems Branch (Huntsville)*
M 5 - Launch Systems Branch (Michoud)*

S 5 - Launch Systems Branch (Seattle)*

Support Division (second digit):

- 0 Central Fabrication (Commercial Airplane Division Seattle)
- 1 Headquarters
- 2 Aerospace Group (Sesttle-Renton Area)
- 3 Military Airplane Division (Wichita Branch)
- 4 Turbine Division
- 5 Boeing Atlantic Test Center or Launch Systems Branch (any location)
- 6 Commercial Airplane Division (Renton-Seattle Area)
- 8 Vertol Division

*Letter prefixes are necessary to IDWA's issued by the indicated organizations since the possibility exists that duplicate IDWA numbers may be issued by BATC and the various LSB locations.

V. A.

Type of Transaction (third digit):

0,1,2 - Task Support

3 - Direct Assist

4,5 - Overhead Support

6,7 - Personnel Loans 8,9 - Other Support

The remaining three digits of the IDWA number will be in sequence by type of transaction and support division. If an organization desires to identify its IDWA's alphabetically by department, code letters may be used following the six-digit number.

B. IDWA Revisions

1. An existing IDWA may be revised to change:

Quantities or other items in the Work Description*
Completion Date
Estimated Total Cost or Maximum Authorized Expenditures
Administrative Agreements

*NOTE: Items in the work description subject to frequent revision can be listed in Program Documents or attachments to the IDWA, eliminating the need for retyping the entire IDWA. Exceptions to this are items which would result in a change to the estimated total cost of a Government Contract Task Support transaction or any transaction in which cost is a determining factor in placement of the work. IDWA's in such cases must be revised as required by Paragraph 2 below.

- 2. Revised IDWA's must be prepared on a new form and routed for approvals as if they were new IDWA's.
- 3. An existing IDWA may not be revised to change:

Type of Work Transaction Prime or Support Coordinating Organization or Division The Prime Contract Pricing Method

4. A new IDWA number must be used to accomplish the changes described in the foregoing paragraph. If the new IDWA supersedes, cancels or continues work begun under another IDWA (including IDWA's issued by other Prime Divisions), the old IDWA number should be shown in parenthesis following the new number. For example: "254002 (continues 254001)."

C. Work Description

This section of an IDWA will contain a work statement which clearly defines, to the extent practical, the performance responsibilities and commitments of both parties and covers, as appropriate to the particular transaction, schedules, costs and an expression of responsibilities accepted for performance of the product and for provision of spares and service. NOTE: A Program Document (see paragraph III.L.) may be referenced.

D. Completion Date

- 1. Service Support IDWA's will normally be negotiated annually, to expire not later than December 31.
- 2. All other IDWA's will contain a definite completion date in the appropriate block on the 1.

 form, to be determined as accurately as possible. On long-term transactions, an IDWA may show an expiration date of up to three years from the starting date. IDWA's will not be released to Support Divisions containing "open" or "indefinite" completion dates or a completion date more than three years from the starting date.

VI. IDWA REQUIREMENTS WHEN COST IS A FACTOR IN PLACEMENT OF THE WORK

- A. The IDWA System does not require the Prime Division to obtain cost estimates on transactions other than Government Contract Task Support, unless cost is a factor in placement of the work.
- B. If cost is a factor in placement of the work, estimates will be obtained as described below. Such estimates will be obtained, evaluated, negotiated and approved by the Prime Division prior to release of the work to the Support Division, with NO EXCEPTIONS. Related IDWA's will contain a statement of work which is sufficiently clear to permit estimating. IDWA's for Government Contract work will contain one of the following statements (as applicable): "Work Package Negotiated" or "Work Package Subject to Negotiation" (with the Government).
 - Cost estimates will be obtained from the Support Division's Finance organization, not from the performing organization.
 - 2. Estimates are best obtained by forwarding unapproved "advance" copies of the related IDWA through normal IDWA channels. This practice ensures that estimates will be prepared by Finance personnel. The IDWA with estimate will be returned to the Prime Division coordinating organization through normal IDWA channels.
 - 3. After the estimate has been received, the Prime Division coordinating organization will ask the appropriate Prime Division Finance organization for assistance in evaluating and negotiating the cost arrangements prior to release of the work and approval of the IDWA. The IDWA will contain a note that the cost estimate has been reviewed with appropriate Finance personnel, identified by name and organization number.
- C. Emergency Situations It is recognized that time may not always permit an advance estimate to be obtained through normal IDWA channels. In an emergency, an estimate may be obtained by telephone or TWX. The estimate must be obtained from the Support Division's Finance organization. The Prime Division coordinating organization will review the estimate with the appropriate Prime Division Finance organization prior to release of the work and approval of the IDWA. Related IDWA's will contain the following information:
 - 1. Name and organization of person in Support Division Finance from whom estimate was obtained.
 - 2. Name and organization of person in Prime Division Finance with whom estimate was reviewed.
 - 3. The "Reason for Placement of Work" section of the IDWA will contain an explanation of the emergency and why it was necessary to release the work before obtaining approval signatures on the IDWA by all parties concerned.

VII. IDWA REQUIREMENTS FOR SPECIFIC WORK TRANSACTIONS

A. Task Support

- Performing Employees Task Support may be performed only by distributable employees. The Prime Division Coordinating Administrator will ascertain this fact before negotiating the IDWA and releasing the work.
- Frequency of Issue Separate IDWA's are required for each Prime Division Government Contract, and may be released for portions thereof if desired.
- 3. All Task Support IDWA's will contain, or reference a Program Document which contains, a clearly defined statement of work.
- 4. Such IDWA's NORMALLY will be prepared and routed several weeks prior to the proposed starting date of the work, to allow orderly estimating, planning, procurement and scheduling by the Support Division.
- 5. Transactions in which cost is a factor in placement of the work will be handled as prescribed in Section VI., above.
- 6. All Task Support IDWA's for Government Contract work will be cost estimated. Required estimates will be prepared by the Support Division's Finance organization, not by the performing organization.
- 7. In cases where cost is NOT a factor in placement of Government Contract Task Support work, cost estimates will be obtained and approved by the Prime Division prior to the release of work to the Support Division, to the maximum possible extent. The following two exceptions may be applicable:
 - a. It is recognized that some types of recurring Task Support transactions may not lend themselves to advance cost estimates. Organizations responsible for releasing such work will notify the Group Director of Finance in writing, explaining the circumstances. The Director of Finance may grant authority for the organization concerned to release such work without advance estimates, provided that estimates can be obtained after-the-fact.

VII.A.7.a.

- NOTE: The "Administrative Agreements" section of the related IDWA will require the Support Division Finance organization to notify the Prime Division IDWA Registrar periodically of changes to the estimated cost.
- b. It is also recognized that an emergency situation may require the release of Task Support work without an advance estimate. Emergency work may be released to the Support Division in advance of the estimate if time is of the essence. The responsible organization will prepare the IDWA to follow as soon as possible. Such IDWA's will indicate that a cost estimate is required, and the "Reason for Placement of Work" section of the IDWA will contain a full explanation of the emergency and why it was necessary to release the work before obtaining the cost estimate and approval of the IDWA by all parties concerned.
- c. Estimates are best obtained by forwarding unapproved "advance" copies of the related IDWA through normal IDWA channels. This practice ensures that estimates will be prepared by Finance personnel. IDWA's for Government Contract work will contain one of the following statements (as applicable): "Work Package Negotiated" or "Work Package Subject to Negotiation (with the Government).

B. Direct Assist

In addition to the requirements of Section V (and VI if applicable), Direct Assist IDWA's released by members of Aerospace Group will conform to the following requirements:

- 1. Performing Employees Direct Assist may be performed only by distributable employees. The Prime Division Coordinating Administrator will ascertain this fact before negotiating the IDWA and releasing the work.
- 2. "Blanket" Direct Assist IDWA's
 - a. "Blanket" IDWA's may be released for each Prime Division Government Contract or portions thereof if desired. "Blanket" IDWA's may also be released for annual miscellaneous direct assist requirements, provided that cost is not a determining factor in placement of the work and that cost identification by IDWA is not required.
 - b. Separate "blanket" IDWA's must be released to each individual Support Division department or function receiving work instructions from the Prime Division.
- 3. "One-Time" Direct Assist IDWA's
 - a. "One-Time" IDWA's will be released for all Direct Assist work not covered by "blanket" IDWA.
 - b. If cost is a factor in placement of the work, refer to Section VI., above.
 - c. Separate IDWA's must be released to each individual Support Division department or function receiving work instructions from the Prime Division.
 - d. A separate IDWA is required for each job performed.

C. Identified Overhead

In addition to the requirements of Section V. (and VI. if applicable), Identified Overhead IDWA's released by members of Aerospace Group will conform to the following requirements:

- Performing Employees Identified Overhead may be performed only by distributable employees. The Prime Division Coordinating Administrator will ascertain this fact before negotiating the IDWA and releasing the work.
- 2. "Blanket" Identified Overhead IDWA's
 - a. "Blanket" IDWA's may be released for annual miscellaneous identified overhead requirements, provided that cost is not a factor in placement of the work and that cost identification by IDWA is not required.
 - b. Separate "blanket" IDWA's must be released to each individual Support Division department or function receiving work instructions from the Prime Division.
- 3. "One-Time" Identified Overhead IDWA's
 - a. "One-time" IDWA's will be released for all Identified Overhead work not covered by "blanket" IDWA.
 - b. If cost is a factor in placement of the work, refer to Section VI., above.
 - c. Separate IDWA's must be released to each individual Support Division department or function receiving work instructions from the Prime Division.
 - d. A separate IDWA is required for each job performed.

D. Service Support

In addition to the requirements of Section V. (and VI. if applicable), Service Support IDWA's released by members of Aerospace Group will conform to the following requirements:

- 1. Service Support IDWA's will be approved by both Prime and Support Divisions prior to the request of any work from the Support Division.
- The Prime Division Coordinating organization will write the IDWA, outlining the. general nature of the requested support and listing the Support Division organizations (budget number) providing the support. The Prime Division is required to write an IDWA only for services which it specifically requests. Services performed at the direction of Corporate Headquarters (such as maintenance of Corporate Manuals) will be documented by IDWA's from Headquarters to the applicable Support Division. If the costs of such services are to be allocated to other (benefiting) divisions rather than to Headquarters, the Support Division(s) involved will furnish an information copy of each related Headquarters IDWA to each appropriate benefiting division. Related invoices prepared by the Support Division will contain sufficient information to enable the various benefiting divisions to properly identify and distribute the costs. Services performed by one member of the Group for other members of the Group may be documented by a Directive from Group-level Management or by an "Intra-Group" Operating Procedure, if a large number of IDWA's would otherwise be required. It is essential, however, that there be written authority (IDWA or suitable Command Media) for the performance of all interdivisional service support and for the transfer of

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related costs.

- 3. The Support Division Coordinating Organization will:
 - a. Receive the IDWA through normal IDWA channels.
 - b. Coordinate with the Support Division Finance Cost Center organization (if the Support Division has a cost center system) to determine the performing cost centers involved, the basis of cost allocation to the Prime Division, and the type of reports required by Finance Cost Center.
 - c. Prepare and attach to the IDWA a list of the performing cost centers and basi of cost allocation to the Prime Division.
 - d. Revise such attachment in coordination with Finance Cost Center if the IDWA is revised by the Prime Division to request additional support.

E. Loans (Within Seattle-Renton Area)

In addition to the requirements of Section V. (and VI. if applicable) Loan IDWA's released by members of Aerospace Group will conform to the following requirements:

- 1. If the Prime Division (borrowing organization) and the Support Division (loaning organization) are both in the Seattle-Renton area, the borrowing organization will ascertain whether the employees involved are Full-Time General Overhead or Distributable personnel, prior to obtaining IDWA coverage. This is necessary to obtain the proper type of IDWA, as some Support Divisions may not loan their Full-Time General Overhead employees on a "blanket" IDWA. If cost is a factor in borrowing the employees, see Section VI., above.
- 2. "Blanket" IDWA's
 - a. Members of Aerospace Group may borrow personnel via "blanket" IDWA's <u>if</u> such IDWA's are acceptable to the Support Division.
 - b. Separate IDWA's are required for each individual Support Division department or function from which personnel are being borrowed. For example, if the Prime Division Coordinating Administrator wishes to borrow personnel from the Support Division's Facilities, Finance, Engineering and Industrial Relations Departments, four separate IDWA's are required.
 - c. If "blanket" IDWA's are used, the Prime Division borrowing organization must understand that surveillance of charging practices and cost identification by IDWA are not practical, and that accuracy of accounting charges released to the borrowed employees or to the loaning organization is the responsibility of the borrowing organization. Support Division loaning organization refer to Aerospace Office Instruction 104.2 for information on reporting time of employees on loan.

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VII. E. 3. "One-Time" IDWA's

If a "blanket" IDWA is not acceptable to either the Prime or Support Division, "one-time" Loan IDWA's must be prepared as follows:

- a. Separate IDWA's are required for each individual department or function from which personnel are being borrowed. For example, if the Prime Division Coordinating Administrator wishes to borrow personnel from the Support Division's Facilities, Finance, Engineering and Industrial Relations Departments, four separate IDWA's are required.
- b. A separate IDWA is required for each job performed. Several employees may be borrowed on a single IDWA if all employees involved are going to work on the same job (use the same accounting charge numbers), provided all employees on the IDWA are being borrowed from the same Support Division department or function, as required by a., above.
- c. Each "one-time" IDWA will list any Full-Time General Overhead employees being borrowed, by name, social security number, and Support Division home budget organization.
- d. Time Reporting of Loaned Employees by Support Division See Aerospace Office Instruction 104.2.

F. Loans (Outside Seattle-Renton Area)

In addition to the requirements of Section V. (and VI. if applicable) Loan IDWA's affecting a member or members of Aerospace Group outside the Seattle-Renton area will conform to the following requirements.

- 1. All requests to borrow personnel by members of Aerospace Group (other than Launch Systems Branch) in the Seattle-Renton area from a Support Division outside the Seattle-Renton area will be documented by "one-time" IDWA's, prepared as described in paragraph E.3., above. Note that if cost is a factor in borrowing the employees, Section VI. applies as well.
- 2. A member of Aerospace Group within the Seattle-Renton area which loans its employees (as a Support Division) to a Prime Division outside the Seattle area or to Launch Systems Branch-Seattle will obtain the related accounting charge numbers from the Seattle-area IDWA Registrar and will report the time charges of the loaned employees in accordance with Aerospace Office Instruction 104.2.
- NOTE: IDWA's released by BATC and LSB authorizing the loan of personnel by organizations in the Seattle area are special (area-wide) "blanket" IDWA's, approved (at the Group Vice President's direction) for the area as a whole. These special IDWA's are used because of timekeeping and labor distribution systems peculiar to BATC and LSB.
- IDWA and cost estimating requirements for personnel loans to BATC and LSB locations will be determined by agreement between the Prime and Support Divisions involved. Such IDWA's will conform to the requirements of Section IV.C.

G. Other Support

In addition to the requirements of Section V. (and VI. if applicable), Other Support IDWA's released by members of Aerospace Group will conform to the following requirements:

- 1. "One-Time" IDWA's will be released for all Other Support work.
- 2. If cost is a factor in placement of the work, refer to Section VI.
- Separate IDWA's must be released to each individual Support Division department or function receiving work instructions from the Prime Division.
- 4. A separate IDWA is required for each job performed.
- 5. If a particular job calls for a special pricing method (to include other than gross "division..." or "cost center" overhead), the IDWA will be prepared and routed as in Section VI., and in addition, the transaction will be reviewed and approved by the Directors of Finance in both Prime and Support Divisions. Coordinating Administrators negotiating such IDWA's will coordinate with appropriate Finance organizations from the beginning.

VIII. RESPONSIBILITIES

A. The Group Vice-President's Office will:

- 1. Delegate authority to approve IDWA's. NOTE: The authority to approve IDWA's does not "go with the job"; it is delegated specifically by the Group Vice-President and cannot be redelegated by his appointees.
- Maintain a current list of authorized IDWA Approvers for the Group and furnish copies of such list to the various IDWA Registrars within the Group and to the Corporate Controller.
- 3. Notify the Group IDWA Registrars and the Corporate Controller of changes in such lists on a timely basis.

B. Members of Aerospace Group Management will:

- 1. Not approve IDWA's unless their names appear on Exhibit "A" of this procedure.
- 2. Request the Group Vice-President to delegate approval authority to them if their jobs require. Such requests will be in writing and explain why the writer should be allowed to approve interdivisional work transactions.
- 3. Not perform work for, or loan personnel to, a Prime Division unless the Prime Division provides an IDWA number when requesting the work. Such IDWA numbers will be verified with the appropriate Support Division Coordinator prior to beginning work.
- 4. Not request work or borrow personnel from a Support Division without referencing an IDWA number obtained through proper Prime Division channels.

C. Aerospace Group Director of Finance will:

- 1. Appoint the IDWA Registrar for the members of Aerospace Group in the Seattle area (except Launch Systems Branch), and notify the Corporate Controller of any changes.
- 2. Review and approve/disapprove special pricing methods.
- 3. Approve or deny requests to release recurring Government Contract Task Support work without advance
- 4. Develop, maintain and monitor compliance with this procedure by all members of Aerospace Group to ensure that negotiation, administration and control of IDWA's meet the requirements of sound business practice.

D. Finance Manager, Missile and Information Systems Division will:

- 1. Appoint a Divisional IDWA Coordinator and notify the Seattle-Area IDWA Registrar of such appointment and any changes.
- 2. Develop, maintain and monitor compliance with Operating Procedures for the detailed preparation and internal routing of IDWA's originated by or affecting Missile and Information Systems Division.

NOTE: Such procedures must comply with all requirements of the Group procedure as set forth herein and are subject to review and approval by the Group Director of Finance.

E. Finance Manager, Space Division will:

- 1. Appoint an IDWA Registrar for each of the following:
 - a. Boeing Atlantic Center

 - b. Launch Systems Branch, Seattlec. Launch Systems Branch, Michoud
 - d. Launch Systems Branch, Huntsville, and notify the Corporate Controller of any changes.
- 2. Appoint a Divisional Coordinator for the Space Division, Seattle Area (excluding LSB) and notify the Seattle-Area IDWA Registrar of such appointment and any changes.
- 3. Develop, maintain and monitor compliance with Operating Procedures for the detailed preparation and internal routing of IDWA's originated by or affecting Space Division, Launch Systems Branch (individual locations) and the Atlantic Test Center.

NOTE: Such procedures must comply with all requirements of the Group procedure as set forth herein and are subject to review and approval by the Group Director of Finance.

VIII. F. IDWA Registrar will:

- 1. When acting on behalf of the Prime Divinion:
 - a. Assign IDWA numbers as prescribed by paragraph V.A., above, on request of Divisional or. Functional Coordinators, Coordinating Administrators, or other persons preparing IDWA's.
 - b. Receive ozalid prints of unapproved "advance" IDWA's for which estimates are required from the Support Division, transmit same to Support Division, receive estimates from Support Division, and return "advance" IDWA with estimate to the appropriate Coordinator.
 - c. Receive approved vellum master TDWA's from Coordinators, and review for compliance with this procedure.
 - d. Return unacceptable IDWA's to the appropriate Coordinator with a note of explanation.
 - e. Obtain review by Contracts or Contracts Administration, and other organizations, if required at his location, prior to release of IDWA's to the Support Division.
 - f. Make a file copy of acceptable IDWA's, noting thereon the date the vellum master was sent to the Support Division.
 - g. Transmit vellum masters of acceptable IDWA's to Support Division IDWA Registrar.
 - h. Maintain surveillance over all IDWA's released by organizations within his jurisdiction, contacting Prime Division Coordinators and Support Division IDWA Registrars as necessary to keep files accurate and updated.
 - 1. Upon receipt of executed IDWA from the Support Division, retain the vellum master in permanent file and send a copy to the appropriate Coordinator. Also send a copy to the person or group responsible for journalizing incoming invoices against the IDWA, such as Accounts Receivable. If the estimated cost for a Government Contract Task Support IDWA exceeds \$50,000, transmit an information copy to the appropriate Air Force Administrative Contracting Officer.
 - J. Prepare quarterly status reports of active Task Support and Direct Assist IDWA's, sending copies to the Corporate Controller, the Group Director of Finance and others as requested.
- 2. When acting on behalf of the Support Division:
 - a. Receive all incoming IDWA's to his location.
 - b. In event an unapproved "advance" IDWA is received for estimating purposes, transmit a copy to the appropriate Finance Estimating Section, and other organizations if requested, retaining a copy in a "Preliminary Estimates Pending" file. Transmit estimate to Prime Division IDWA Registrar when received or instruct Estimating to send the completed estimate to the Prime Division IDWA Registrar, as applicable.
 - c. In event an approved vellum master IDWA is received for coordination and execution, perform the following functions:
 - (1) Review for completeness and propriety. If incorrect, return the IDWA to the appropriate Prime Division IDWA Registrar for correction.
 - (2) Insert the appropriate Support Division accounting charge (when applicable), obtained from the Program Cost or Overhead Cost Units.
 - (3) Transmit the vellum master to Contract Administration for approval recommendation and then to the appropriate coordinator. Provide a copy to Finance Estimating (if the IDWA contains a dollar figure or indicates an estimate is required), and retain a file copy.
 - (4) If special reporting requirements are stated on the IDWA or appear necessary, coordinate to ensure that such reports will be provided.
 - (5) Upon receipt of the executed vellum master IDWA from the Coordinator, review for completeness, and transmit IDWA vellum master to the Prime Division, retaining a file copy, and transmitting copies (if required) to any other distribution such as Contracts and Accounts Receivable.
 - (6) Maintain surveillance over all support-type IDWA's affecting his location, contacting appropriate parties as necessary to keep files accurate and updated.
- 3. Serve as chairman of the Standing IDWA Committee at his location.

VIII.

- G. Divisional Coordinators, Missile and Information Systems and Space Divisions Seattle Area will:
 - 1. When acting on behalf of the Prime Division:
 - a. Obtain IDWA numbers from the IDWA Registrar (Seattle Area) and assist in preparation of IDWA's within his Division as required.
 - b. Obtain and review for his Division's requirements all IDWA's originated within his Division.
 - c. Transmit master vellum IDWA's to the Group IDWA Registrar (Seattle Area). In case of emergency, request permission from the Registrar to transmit IDWA's directly to the Support Division Registrar. (Specific permission is required in each such situation, and a copy of all such IDWA's will be sent to the Seattle-Area Registrar immediately.)
 - d. Receive a copy of executed IDWA's and route as required within his Division.
 - e. Maintain files as required.
 - f. Maintain surveillance over all IDWA's issued by his Division, notifying the Registrar promptly when work is completed on an IDWA, and arranging for revisions and new IDWA's to be issued on a timely basis.
 - 2. When acting on behalf of the Support Division:
 - a. Receive all Incoming IDWA's affecting his Division from the Group IDWA Registrar (Seattle Area).
 - b. Review for his Division's requirements, and route as required within his Division. (If the IDWA requires an estimate, it will be routed to his Division's Finance Estimating Section.)
 - c. Receive estimated and/or executed IDWA's, retain file copies as required, and transmit master vellums to the IDWA Registrar (Seattle Area),
 - 3. Serve as members of the Standing IDWA Committee.
- H. IDWA Approvers (Other than Missile and Information Systems and Space Divisions*) will:
 - Appoint a Functional Coordinator to control and coordinate IDWA's originated by or affecting organizations under their jurisdiction.
 - NOTE: Since it is expedient to have as few Functional Coordinators as possible, IDWA Approvers are encouraged and requested to appoint one individual Functional Coordinator to serve as many approvers as is practical.
 - 2. Notify the Group IDWA Registrar (Seattle Area) of such appointments and any future changes thereto.
 - 3. Appoint the Coordinating Administrator for each interdivisional work transaction in negotiation and each active IDWA.
 - 4. Refer problems concerning IDWA cost estimating and negotiation to the appropriate Finance organization.
 - 5. Initiate memos to the Group Vice-President requesting that approval authority be delegated to such other persons under their jurisdiction as the circumstances require.
- *Responsibilities of IDWA Approvers within Missile and Information Systems and Space Divisions will be given in the IDWA Operating Procedures issued by those Divisions.
- I. Functional Coordinators will:
 - 1. When acting on behalf of the Prime Division:
 - a. Obtain IDWA numbers from the appropriate IDWA Registrar and enter on related IDWA's if numbers have not been obtained by the Coordinating Administrator.
 - b. Assist when necessary in the preparation of IDWA's for organizations within their jurisdiction and perform internal coordination as necessary to see that IDWA's must the requirements of this procedure and are properly processed and approved.
 - c. Receive vellum master IDWA from Coordinating Administrator.

VIII. I. 1.

- d. Review for completeness of information and proper format.
- e. Obtain signature of IDWA Approver if not obtained by the Coordinating Administrator ..
- f. Retain a file copy and distribute copies to the Coordinating Administrator and others as may be required internally.
- g. Transmit the approved vellum master IDWA to the IDWA Registrar.
- h. Maintain surveillance over all IDWA's under his jurisdiction, contacting coordinating administrators as necessary to verify completions, cancellations, necessity for revisions, etc., and advise the IDWA Registrar of such changes in IDWA status.
- Upon receipt of his copy of an executed IDWA from the IDWA Registrar, retain a file copy and make internal distribution as required.
- 2. When acting on behalf of the Support Division:
 - a. Receive incoming master vellum IDWA from the IDWA Registrar.
 - b. Route to the Support Division Coordinating Administrator for review.
 - c. Obtain signatures of appropriate Support Division IDWA Approver if not obtained by the Coordinating Administrator.
 - d. Retain a file copy of the executed IDWA and make internal distribution as required.
 - e. Return vellum master IDWA to the IDWA Registrar.
 - f. Cooperate with the Coordinating Administrator and Accounting organizations in obtaining estimates or other accounting information.
- 3. Serve as members of the Standing IDWA Committee.
- J. Coordinating Administrators (including Persons Preparing IDWA's) will:
 - 1. When acting on behalf of the Prime Division:
 - a. Obtain TDWA numbers from the TDWA Registrar, and prepare IDWA's on standard forms using carbon backing (see Exhibit E), complying with the requirements of this procedure, in advance of release of work to the Support Division to the maximum extent possible. (TDWA forms may be obtained from Office Supply Counters.)
 - b. See that IDWA's requiring estimates contain a clearly defined statement of work and that such IDWA's are handled in accordance with Sections VX. and VII.A.7., as applicable, of this procedure.
 - c. Refer problems concerning IDWA cost estimating and negotiation to the appropriate Finance organization.
 - d. Obtain the assistance of the appropriate Finance functional organization in evaluation of cost estimates prior to release of work and approval of the IDWA in cases where cost is a determining factor in placement of the work.
 - e. Obtain signature of an IDWA Approver (as listed in Exhibit A to this procedure) and transmit. IDWA to the appropriate Functional Coordinator.
 - f. Maintain surveillance over all IDWA's within his jurisdiction, notifying the Functional Coordinator of work completion or cancellation, and preparing timely revisions if necessary after coordination with the Support Division.
 - 2. When acting on behalf of the Support Division:
 - a. Perform no interdivisional work or loan no personnel without first obtaining an IDWA number from the Prime Division and verifying such number with the appropriate Support Division Functional Coordinator. Obtain Support Division accounting charge number from IDWA Registrar or the appropriate Finance organization.
 - b. Notify Finance Estimating immediately if asked to begin work on a Task Support transaction before the estimate has been negotiated.

(315-003)

VIII. J. 2.

- c. Receive master vellum Prime-approved IDWA's from the Functional Coordinator.
- d. Review IDWA's for compliance with his organization's requirements.
- e. Assist Finance Estimating and other Accounting organizations as necessary.
- f. Obtain the signature of an IDWA Approver as listed in Exhibit A to this procedure, and return the IDWA to the Functional Coordinator.
- g. Maintain surveillance over all Support-type IDWA's under his jurisdiction, notifying the Prime Division Coordinating Administrator on a timely basis if it appears that an IDWA should be extended or revised, and notifying the Prime Division Coordinating Administrator promptly upon completion of the work.

K. Finance - Estimating Organizations will:

- When acting on behalf of the Prime Division, assist Coordinating Administrator in evaluating estimates submitted by the Support Division.
- 2. When acting on behalf of the Support Division:
 - a. Receive from the appropriate IDWA Registrar or Divisional Coordinator a copy of all unapproved "advance" IDWA's for purposes of providing an estimate to the Prime Division, and proceed as follows:
 - (1) Prepare estimate, contacting appropriate Support Division Program Cost or other Accounting organization and Support Division Coordinating Administrator as required.
 - (2) Send prepared estimate to the Support Division IDWA Registrar or to the Frime Division if so instructed by the Registrar.
 - b. Receive a copy of all approved Prime Division IDWA's which indicate that an estimate is required and proceed as in paragraph a. above.
 - c. Receive an information copy of all IDWA's containing a dollar figure in the "Estimated Total Cost" section of the IDWA form for comparison and control purposes.

L. Program Cost Accounting, Cost Center Accounting and Overhead Cost Organizations will:

Assist Finance - Estimating, Functional Coordinators and Coordinating Administrators as required in preparation or evaluation of estimates and in obtaining other accounting information.

M. Finance - Accounts Payable and Receivable Organizations will:

- When acting on behalf of the Prime Division, journalize no invoices for interdivisional work from Support Divisions unless such documents identify related costs by <u>TDWA</u> (except Service Support).*
- 2. When acting on behalf of the Support Division, render no invoices for interdivisional work to Prime Divisions unless such documents identify related costs by IDWA (except Service Support).*

*Mention of a Prime Division Contract Number is NOT sufficient -- contracts are agreements between the Prime Division and the customer which, in themselves, do not authorize any work by a Support Division.

N. Aerospace Group Central Contracts or Division Contract Administration Organizations will:

- When representing the Prime Division, review outgoing master vellum TDWA's to ensure incorporation
 of such terms and conditions of the prime contract as are pertinent to performance of the work
 covered by the IDWA.
- 2. When representing the Support Division, issue Work Orders, when applicable, authorizing activities covered in approved IDWA's or approved revisions thereto.

O. Aerospace Group Central Cost Accounting and Counterpart Organizations at Other Locations will:

- 1. Assign accounting charge numbers for all applicable TDWA's wherein a member of Aerospace Group is the Support Division.
- Coordinate as necessary with the appropriate TDWA Registrar and others to insure that Administrative
 Agreements on IDWA's omitting accounting charges provide for proper cost accumulation.
- 3. NOT assign accounting charges for support to Prime Divisions unless the person requesting the charge provides an IDWA number. Such IDWA number will be verified with the IDWA Registrar before releasing accounting charge numbers.

EXHIBIT A

July 1966.

AERCSPACE GROUP IDWA APPROVERS

L. A. Wood

A Central Staff J. H. Goldle N. W. Grigg H. D. Gunning	2-1200 2-1000
N. W. Grigg	
N. W. Grigg	
11. 17. Guillillie	
H. W. Neffner	2-1040
P. T. Smith	2-1100
L. A. Wood	2-9000
L. A. WOOd	2-1000
B. Advanced Marine Systems	
A. M. Gonnella	2-5830
D. A. Rahkonen	2-5830
C. Aerospace Group Operations	
J. W. Maillet	2 2522
N. McCormick	2-2500
C. T. O'Brien	2-4100
	2-1800
G. Snyder W. T. Sprake	2-5000
w. 1. Sprake	2-2540
D: Missile & Information Systems Divi	sion
F. E. Akin	2-4400
O. C. Boileau	2-1740
K. W. Brown	2-2200
C. R. Bumgardner	2-1771
R. R. Hearn	2-1775
F. A. Jendrick	2-1770
R. H. Jewett	2-1770
N. L. Krisberg	2-5070
F. W. Maxwell	2-1620
R. A. Montgomery	2-5800
G. D. Nible	2-2000
R. Plath	2-1770
M. P. Thompson	2-4800
E. Space Division	
R. L. Brock	2 5010
E. G. Czarnecki	2-5910 2-5950
R. A. Glaser	
V. W. ATCRET	2-5940
R. J. Helberg	2-1500
R. J. Helberg S. H. Hinckley	5-1000
R. J. Helberg S. H. Hinckley H. J. Longfelder	5-1000 2-5930
R. J. Helberg S. H. Hinckley	5-1000

5-1000

G. H. Stoner

	EXHIBIT	Α	
(Continue	d:d)

July 1966

F. Launch Systems Branch

D.	H.	Atherly		5-6100
B.	F.	Beckelman		5-9000
R.	A.	Cox		5-9030
R.	C.	Dunigan		5-1900
F.	H.	Matthews		5-3010
R.	H.	Nelson		5-1010
		Clark		5-1100
C.	A.	Wilkinson		5-7000

G. Boeing Atlantic Test Center

Α.	Μ.	Johnston		5-8000
C.	G.	Smith		5-8100

July 1966

EXHIBIT B

AEROSPACE GROUP IDWA REGISTRARS AND DIVISIONAL COORDINATORS

Seattle Area Registrar

C. H. Taylor

Missile and Information Systems
Division Coordinator

R. L. Miranda

2-9366

Space Division Coordinators

Lunar Orbiter - L. R. Davis

Other Programs - J. E. Jorgan

2-9450

Launch Systems Branch Registrars

Seattle Office - F. J. Thomas

2-9450

Michoud - T. A. Watson

5-1520

Boeing Atlantic Test Center Registrar

Huntsville - K. M. Power

W. E. Nelson 5-8150

5-9042

July 1966

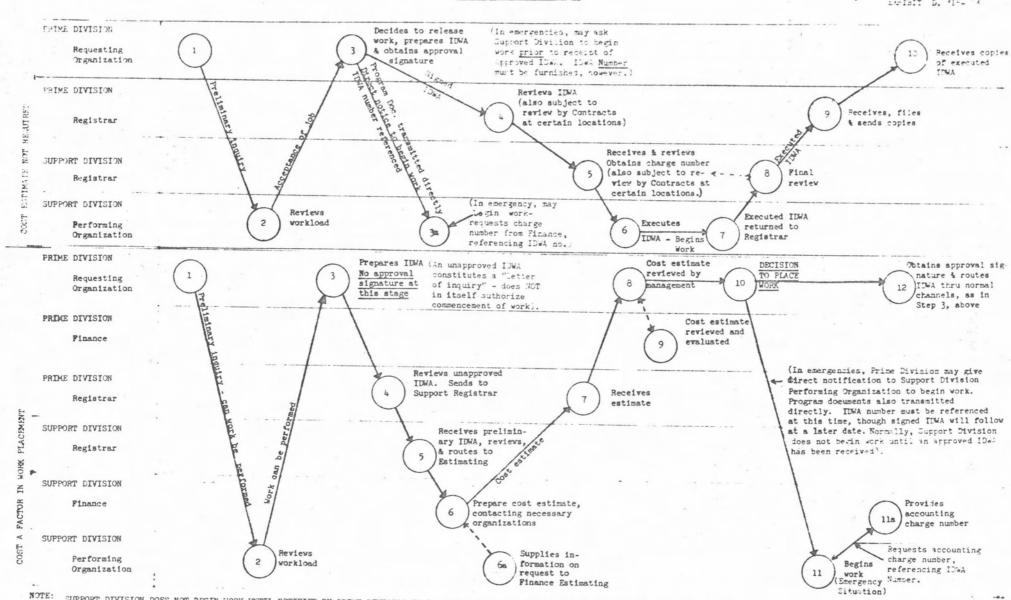
EXHIBIT C

FUNCTIONAL COORDINATORS AND APPROVERS SERVED (Excludes Missile and Information Systems and Space Divisions)

	Orgn.	Functional Coordinator	Orgn.
	2-1000	N. W. Grigg	2-1000
l Staff			
Goldie Grigg Gunning Neffner	2-1200 2-1000 2-1040 2-1100	P. B. Demitriades Not yet appointed """"""""""""""""""""""""""""""""""""	2-1200
Smith	2-9000	S. K. Burrill	2-9010
ed Marine Sys	tems		
Gonnella Rahkonen	2-5830 2-5830	Jan I. Anderson	2-5830
ace Group Ope	rations		
Maillet ormick O'Brien der	2-2500 2-4100 2-1830 2-5000	L. W. Meade G. S. Corning M. L. Williams Not yet appointed	2-2540 2-4192 2-1830 2-2540
	Goldie Grigg Gunning Neffner Smith ed Marine Sys Gonnella Rahkonen ace Group Ope Maillet ormick O'Brien	2-1000 1 Staff Goldie 2-1200 Grigg 2-1000 Gunning 2-1040 Neffner 2-1100 Smith 2-9000 ed Marine Systems Gonnella 2-5830 Rahkonen 2-5830 ace Group Operations Maillet 2-2500 ormick 2-4100 0'Brien 2-1830 der 2-5000	2-1000 N. W. Grigg 1 Staff Goldie 2-1200 P. B. Demitriades Grigg 2-1000 Not yet appointed Gunning 2-1040 " " " " Neffner 2-1100 " " " " Smith 2-9000 S. K. Burrill ed Marine Systems Gonnella 2-5830 Jan I. Anderson Rahkonen 2-5830 " " " ace Group Operations Maillet 2-2500 L. W. Meade ormick 2-4100 G. S. Corning O'Brien 2-1830 M. L. Williams der 2-5000 Not yet appointed

Over time erocedure

IDWA FLOW CHART



NOTE: SUPPORT DIVISION DOES NOT BEGIN WORK UNTIL NOTIFIED BY PRIME DIVISION THAT COST ESTIMATE HAS BEEN ACCEPTED AND THAT AN APPROVED IDWA WILL BE RELEASED.

1

THE BOEING COMPANY

INTERDIVISIONAL WORK AUTHORIZATION

0414		V. A.	Parking and Afficiation of the Control of the Contr	V. B.	
TO			FROM		
SUPPORT DIVISION III. C.			II. B.		
COORDINATING ORGN. III. D.		COORDINATING OWGH.	II. D.		
COORDINATE WITH III. E.		COORDINATE WITH	II. E.		
(Check One) IV. A. 20 DIRECT	PPORT CE LOANS	IV. OVERHEAD SUE B. 2. SERVICE (INC.	PORT HOENTIFY BY		
WORK DESCRIPTION: (INDICATE PROGRAM	(\$) OR MODEL(\$) INVOLV	ED)		1	
See p	oaragraph V. C.				
Note 1. IDWA Requirem	nents applicable	to specific types o	f transactions	are	
detailed by indi	vidual paragrap	hs in Section VII.			
		or informational po	STREET, CO. C.		
work, however,	the requireme	f cost is a factor in outs of Section VI and	oply to any rel	lated	
IDWA. Section Contract Task S	VII.A. 6 & 7 a ₁ Support.	oply to IDWA's cov	ering Governm	ne nt .	
				,	
See Section IV. for	the pricing meth	nod applicable to ea	ich specific tu	one of	
transaction.	the pricing men	iod applicable to ca	- specific ty	pe or	
Support Division Charge Numbers: (I S Complete Accounting charge a Support Division.	Support Division)	Task Support - Wortypes of transact	Division only. The Complete only of the Complete only on the Complete only on the Complete on	on) All other e Accounting	
This block must be completely filled in if type of transaction is Direct Contract work. Otherwise, insert letters "N/A". Calendar Date work begins.					
PRIME CON	TRACT OR BUDGET		STARTING DATE:	V. D.	
1. NUMBER	B. CONTRACT CLAUS AGREEMENT) COV A. RENT FREE U		ESTIMATED TOTAL	1.	
DEFENSE ORDER (D.O.) RATING 4. SUBJECT TO RENEGOTIATION ACT OF 1951: YESNO	B. USE OF GOVERNA	ENT TOOLING	See Note 2. above		
NO	C. TITLE INFO:		Otherwise, 1	e inserted by on if applicab nsert letters	
U3 4801 9100 REV. 11/63			N/A .	2-3010	

- 22 -

SUBJECT:

Space Division

VALIDATION OF S-IC TECHNICAL

MANUAL PROCEDURES

June 20, 1966

AFFECTED ORGANIZATIONS

S-IC Engineering S-IC Operations

Quality and Reliability Assurance

S-IC Systems Test

C. A. WILKINSON

MICHOUD MANAGER

I. PURPOSE

This procedure establishes the system for validation of procedures contained in technical manuals prepared for MSFC.

II. SCOPE

Validation of technical manual procedures consists in the accomplishment of the procedural task using equipment of the proper configuration. Procedures requiring validation are limited to certain specific operations and first level maintenance.

III. DEFINITIONS

- A. <u>Technical Manual</u> A publication prepared to MSFC specifications to support operations and first level maintenance of S-IC Stages and Schedule I GSE at Kennedy Space Center.
- B. <u>Technical Manual Procedure</u> That portion of a Technical Manual which provides instructions for the performance of a task.
- C. <u>Validation</u> The actual use of Technical Manual procedures by Company personnel to perform operations or maintenance tasks on the appropriate hardware, for the purpose of determining the accuracy and adequacy of the instructions prior to publication.
- D. <u>First Level Maintenance</u> Maintenance actions accomplished directly on the system-installed hardware, such as: "Fault isolation", "repair in place", "calibrate", "adjust", "service", "remove", "install", or "inspect".

IV. GENERAL

Validation of technical manual procedures must be accomplished at the earliest feasible date on the first equipment having the required configuration.

V. RESPONSIBILITIES

S-IC ENGINEERING -Logistics Engineering. Publications

S-IC ENGINEERING -Stage Design & Ground Systems Design

- S-IC ENGINEERING -Logistics Engineering, Publications
- S-IC SYSTEMS TEST

S-IC OPERATIONS -Quality & Reliability Assurance

S-IC ENGINEERING -Logistics Engineering, Publications

S-IC OPERATIONS -Quality and Reliability Assurance

- 1. Identifies and distributes technical manual procedures which require validation.
- 2. Reviews drafts of technical manual procedures within seven working days after receipt to insure that:
 - Engineering terminology is correct.
 - b. Information is factual and compatible with equipment design criteria and engineering drawings.
- 3. Indicates any necessary changes or additions.
- 4. Provides technical assistance during technical manual procedure validation when requested.
- 5. Evaluates and incorporates recommended changes.
- 6. Evaluates equipment design changes to determine the impact on validated procedures.
- 7. Assigns personnel to support other organizations in scheduling and performing validations.
- 8. Accomplishes validation of assigned technical manual procedures at test facilities.
- 9. Notifies Logistics Engineering Publications. prior to validation, so that Publications Engineer can participate.
- 10. In absence of Publications Engineer, records necessary changes, and gets Q&RA concurrence.
- 11. Ensures that equipment used for validation has the proper configuration.
- 12. Maintains marked copy of procedure, and distributes reproduced copies as required.
- 13. Corrects technical manual procedure errors.
- 14. Maintains validation records.
- 15. Observes all technical manual procedure validations and certifies the corrected procedure.
- 16. Prepares MSFC Form 71 for delivery of the complete technical manual to the customer.

Space Division

SUBJECT:

ALLOCATION OF CRITICALLY REQUIRED PURCHASED ITEMS

June 20, 1966 (Supersedes issue dated February 18, 1966)

AFFECTED ORGANIZATIONS

S-IC Program Executive S-IC Operations Materiel

Manufacturing Engineering

FROM COLUMNIA

C. A. WILKINSON MICHOUD MANAGER

REFERENCE:

Branch Directive 422.3, "Saturn

S-IC Program Equipment Control Board"

I. PURPOSE

To establish a system to assure allocation of critically required purchased items to the organization with the most urgent requirement.

II. SCOPE

This procedure is limited to Michoud purchased items which have been identified as critical. Hardware allocations to production requirements from spares stores must be approved by the Spare Parts Support Board. Allocation of production hardware to support critical spares requirements will be coordinated through the Equipment Control Board. The allocation of items between central and remote spares-supported organizations is excluded from this procedure and will be accomplished in accordance with the "S-IC Logistics Operating Manual". Industrial Facility Plant Equipment is excluded from this procedure.

III. DEFINITION

A critically required purchased item is one which, scheduled in accordance with designated uses, could impact schedules or cost in the event of actual or impending late delivery.

IV. GENERAL

The Equipment Control Board (ECB) will determine the allocation of critically required purchased items when a conflict exists. Materiel, Production Control, or Logistics Engineering-Spares will identify those items that require resolution and submit them to the ECB for action.

V. RESPONSIBILITIES

or Manufacturing, Production Control

- OPERATIONS Materiel 1. Identifies items which require allocation action by the ECB.
 - Submits Form LSB 1139, "Critically Required Purchased Item" to the ECB.
 - 3. Provides storage and accountability for critically required items until notified of allocation by the ECB.

EQUIPMENT CONTROL BOARD

4. Determines allocation of critically required purchased items based on overall program requirements.

S-IC PROGRAM EXECUTIVE

5. Obtains S-IC Program Executive approval on allocations where program schedules, as reflected in D5-11040-4, "Launch Systems Branch S-IC Program Schedules", are impacted.

EQUIPMENT CONTROL BOA RD

6. Completes Form LSB 1139, and distributes to Materiel, Production Control, and affected organizations.

or Manufacturing, Production Control

OPERATIONS - Materiel 7. Releases items as allocated by the ECB.

ENGINEERING -Logistics Engineering Upon receipt of a request to divert S-IC Logistics Spare Parts to critical production usage, releases these spare parts through action by the Spare Parts Support Board.

LAUNCH SYSTEMS BRANCH

Operating Procedure 422.20

SUBJECT:

Space Division

MAINTENANCE AND CONTROL OF LOG BOOKS FOR GOVERNMENT FURNISHED PROPERTY

July 15, 1966

MICHOUD MANAGER

AFFECTED ORGANIZATIONS

Michoud Contracts
S-IC Engineering
S-IC Operations
Manufacturing
Materiel

Quality and Reliability Assurance

S-IC Program Executive S-IC Systems Test

REFERENCES:

(a) Boeing Document D5-11593, "Launch Systems Branch Record System"

(b) Boeing Document D5-11044-1, "Government Furnished Property and Services (CPIF)"

(c) Boeing Document D5-13538, "S-IC Transfer and Delivery Data Packages"

(d) Operating Procedure 422.17, "F-1 Engine Log Book"

(e) Operating Procedure 812.2, "Time/Cycle and Age Life Reporting"

(f) Boeing Document D5-12713, "Time/Cycle Recording Requirements - Stage"

I. PURPOSE

This procedure establishes the responsibilities for the maintenance of log books for Government Furnished Property. It defines the information which must be recorded and provides controls for this information.

II. SCOPE

This procedure applies to all locations associated with the S-IC Program. It does <u>not</u> apply to F-1 Engine log books governed by reference (d), limited life data governed by reference (e), or Government furnished Manufacturer's Support Equipment.

III. GENERAL

Log books for Government Furnished Property are initiated by the contractor responsible for the manufacture of the hardware. The log books contain information relative to the hardware's history, configuration and operating parameters, and are maintained throughout the cycle of the hardware's use until stage delivery to the customer.

IV. RESPONSIBILITIES

ALL AFFECTED ORGANIZATIONS

1. Initiate instructions to support the requirements of this procedure.

MICHOUD CONTRACTS

2. Establish contractual requirements for log books and update contract documents as required.

S-IC ENGINEERING

3. Provide documentation required by reference (b).

S-IC OPERATIONS - Materiel

- 4. Record receiving information in the life history section of the log books.
- 5. Route the log books and parts to Operations Q&RA Receiving Inspection.
- 6. Obtain log books as required.

S-IC OPERATIONS - Q&RA (Receiving Inspection)

- 7. Review data packages received for Government Furnished Property to assure that required log books are available.
- 8. Notify Materiel Receiving when required log books are not available.
- 9. Record receiving inspection data as noted in Section 2 of the log book.
- 10. Reproduce one copy of the GFP Log Book after the above entries are made. Retain the copy with the hardware and route the master log book to Operations Q&RA (Configuration Accountability and Product Delivery).

S-IC SYSTEMS TEST or S-IC OPERATIONS -Manufacturing Engineering

- 11. In accordance with reference (a), prepare Planned Event Records for rework, test and installation of Government Furnished Property. The records will specify the configuration, modifications, or data to be entered in the log books as required by engineering documentation.
- 12. Record pertinent data in the log book work copies to provide a complete historical record.

S-IC OPERATIONS - Q&RA (Manufacturing and Test Inspection)

- 13. Verify the log book data is correct and complete.
- 14. Route the updated work copy of the log books to Q&RA Configuration Accountability and Product Delivery ten days prior to transfer or delivery of an S-IC stage.

S-IC OPERATIONS - Q&RA 1 (Configuration Accountability and Product Delivery) 1

- 15. Retain the master log books.
- 16. Update the master log books to include the data taken from the work copy prior to each transfer or delivery.
- 17. For stage transfers, include an updated work copy of each log book in the applicable Booster Summary Document per reference (c).
- 18. Include the master log books for the applicable S-IC Stage in the Acceptance Data Package in accordance with reference (c).

S-IC PROGRAM EXECUTIVE

19. Identify, coordinate, and allocate log book requirements in accordance with reference (b).

BRANCH DIRECTIVE LAUNCH SYSTEMS BRANCH

LSB 465.1

June 7

FROM:

SUBJECT:

Space Division

LAUNCH SYSTEMS BRANCH

"SPARE PARTS SUPPORT

BOARD" AND "S-IC LOGISTICS

OPERATING MANUAL"

R. H. NELSON GENERAL MANAGER

REFERENCE:

Schedule I, NAS8-5608, Logistics Requirements - Incentive Contract,

IN-I-V-S-IC-65-16, dated November 1, 1965

I. INTRODUCTION

For the Launch Systems Branch to correlate requirements for S-IC Logistics Support, it is necessary that all Michoud organizations have close interface with Huntsville, Mississippi Test Facility, and Kennedy Space Center (Boeing Atlantic Test Center).

II. AREAS AFFECTED

Michoud, Huntsville, Mississippi Test Facility.

III. PURPOSE

- A. Define the functions and responsibilities of the Spare Parts Support Board.
- B. Authorize the preparation and release of an "S-IC LSB Logistics Operating Manual" to consist of:
 - 1. "Logistics Operating Methods" (LOM's) released through the Spare Parts Support Board.
 - "Operating Agreements" (OA's) coordinated between LSB and BATC through the S-IC Program Executive's Office.
 - 3. Other applicable data.

IV. SCOPE

This Directive is applicable to all S-IC Logistics, including S-IC Logistics Spares.

V. THE SPARE PARTS SUPPORT BOARD

A. The Spare Parts Support Board is chaired by Logistics Engineering-Spares Manager and composed of representatives from the following: S-IC Logistics Engineering
Michoud Management Services
S-IC Operations
Manufacturing (Final Assembly)
Materiel
Quality and Reliability Assurance
S-IC Program Executive
S-IC Systems Test
Michoud Finance
Michoud Contract Administration
Huntsville Operations

The Board consists of the main Board and two support working groups:

- 1. Support Policy Working Group
- 2. Spare Parts Working Group
- B. The Spare Parts Support Board is the line of communication for accomplishing the S-IC Spares Support objectives. However, the Board cannot commit funds except through normal organizational channels.

VI. RESPONSIBILITIES

- A. The Spare Parts Support Board has the following responsibilities:
 - 1. To establish, maintain and control an integrated S-IC Logistics Spares Program in support of all postmanufacturing tests, refurbishment and launch phases of the S-IC Program.
 - 2. To direct required action, consistent with program objectives, to maintain proper S-IC Logistics Spares Support; and to ensure that internal Boeing and customer requirements are fully considered.
- B. All organizations involved in the Logistics Spare Parts Support Program will provide a representative on the Spare Parts Support Board who has the authority to commit his organization. Representatives to the Spare Parts Support Board are required to sign "Logistics Operating Methods" (LOM's) prior to publication in the "Logistics Operating Manual". Affected organizations publish Standard Operating Instructions, as required, in support of the LOM's.
- C. Detailed LOM's cannot be in conflict with regular LSB Operating Procedures. LOM's coordinated primarily for use at Michoud may be supplemented for organizational differences as required to adapt them for use at a particular site by providing the required coordinated inputs to the Michoud Logistics Engineering Manager.
- D. The S-IC Program Executive's Office is responsible for coordinating all "Operating Agreements" (OA's) between Michoud and Boeing Atlantic Test Center.

LAUNCH SYSTEMS BRANCH

Operating Procedure 500.3

R

R

SUBJECT:

GOVERNMENT-FURNISHED VEHICLES AND EQUIPMENT - LICENSING OPERATORS FOR AND USE OF

AFFECTED ORGANIZATIONS

All Organizations

August 23, 1966

(Supersedes issue dated

June 22, 1965)

FROM: Cawalkinson

MICHOUD MANAGER

I. PURPOSE

To establish a system for vehicle and equipment operator training, testing and issuance of permits, obtaining and using a personnel vehicle.

II. GENERAL

- A. Government-furnished vehicles and equipment will be operated only by personnel possessing regular or incidental Operator's Identification Cards. Personnel may operate only those vehicles or equipment indicated on the reverse of the Operator's Identification Card. Incidental Cards will expire three years from issue date. Material Handling Cards will expire at the end of a year. Renewals will be obtained by the same procedure as for original issue.
- B. All requests for use of government-furnished personnel vehicles will be directed to the Michoud Facilities Plant Services Organization. Plant Services will monitor Boeing usage of these vehicles.

III. DEFINITIONS

- A. (Government-furnished) Vehicle A motor vehicle, scooter, bicycle or electric powered vehicle used for transportation.
- B. <u>Personnel Vehicle</u> A vehicle that transports personnel (excludes bicycles and scooters).
- C. Material Handling Equipment Powered mechanical devices for handling materials. This includes, but is not limited to fork-lift trucks, cranes (overhead or mobile), tow tractors, roller conveyors, power jacks.
- D. <u>Physical Aptitude Test</u> Given by the Support Services Contractor to all operators. Test includes vision and hearing.
- E. Regular Operators Personnel whose duties require daily operation of vehicles and equipment.
- F. <u>Incidental Operators</u> Personnel whose duties require occasional operation of vehicles and equipment.

A

A

IV. RESPONSIBILITIES - LICENSING OPERATORS

Michoud Organizations

R

R

A

A. Determine employees requiring Incidental or Regular Operator's Identification Cards. So notify Industrial Relations. Material handling equipment training and testing is included in the scope of this paragraph.

Industrial Relations B. Schedule vehicle and equipment operator physical aptitude and written tests with the Support Services Contractor.

NOTE: Physical aptitude tests for Material Handling Equipment will be conducted by Facilities -Plant Services upon notification by Industrial Relations.

- C. Conduct road tests of vehicle and equipment operators (excluding Material Handling Equipment) in accordance with current NASA instructions.
- D. Issue Operator's Identification Cards to employees who successfully complete the physical aptitude and operator qualification tests.

Facilities

E. Test Material Handling Equipment operators. Notify Industrial Relations of results of qualification tests.

Michoud Organizations

- F. Assure that all vehicle or equipment operators have a valid "Michoud Contractor Vehicle Operator's Identification Card" and a valid residence state driver's license in their possession.
- G. Revoke Operator's Identification Cards for:
 - 1. Unauthorized use of vehicle or equipment.
 - 2. Abuse of vehicle or equipment.
 - 3. Accidents for which the driver is responsible.
 - 4. Repeated violation of safety rules, plant speed limits, and state or city traffic violations.
 - 5. Termination of employment.
- H. Return revoked Operator's Identification Cards to Industrial Relations.

Industrial Relations

- I. Maintain a Driver Qualification Record (MSFC form 592) master file of all licensed Branch employees at Michoud.
- J. Notify the Support Services Contractor of all Operator's Identification Cards issued, renewed or revoked.

PAGE 2 OF 4

L SB 1180 A (9/65)

V. RESPONSIBILITIES - OBTAINING AND USING GOVERNMENT-FURNISHED PERSONNEL VEHICLES

Michoud Organizations

A

- A. Submit requests to Michoud Facilities Plant Services Dispatcher for the following:
 - Local one-trip use of government-furnished personnel vehicles.
 - Transportation to and from motels, hotels and airports.
 - Special material pickups from local vendors and air freight to and from airports.
- B. Submit written justification to Michoud Facilities -Plant Services Material Handling Chief for the following:
 - 1. Daily assignment of personnel vehicles.
 - Trips away from local areas.
 - Special transportation requirements.
 - 4. Non-scheduled bus transportation within the Michoud area.
- C. The Vehicle and Equipment Operational Record (Form MR-T4) will be submitted to the Support Services Contractor Transportation Dispatcher daily. Gasoline receipts submitted will show the vehicle number.
- D. When an individual is involved in an accident, he will complete Standard Form 91, "Operator's Report of Motor Vehicle Accident", and obtain statements from each witness, and submit to Michoud Facilities Plant Services -- Material Handling Chief.
- E. Comply with applicable government regulations and special instructions from the Plant Services or Support Services Contractor Dispatchers.
 - NOTE: Government-furnished personnel vehicles will not be driven in the main factory building (Bldg. 103) except to and from the Material Handling Staging Area.
- F. Submit requirements to Facilities for estimated annual and quarterly usage.

Facilities

- G. Coordinate the requests listed in paragraph V. A. with the Support Services Contractor Transportation Dispatcher.
- H. Coordinate the requests listed in paragraph V. B. with the local NASA Transportation Office.
- Monitor Boeing usage of government-owned personnel vehicles.
- J. Submit forecasts to Management Services of usage on an annual and quarterly basis.

LAUNCH SYSTEMS BRANCH

Operating Procedure 500.7

SUBJECT:

Space Division

LAUNCH SYSTEMS BRANCH - GROUP

MANAGEMENT INFORMATION SYSTEM

June 27, 1966 (Supersedes issue dated

April 15, 1966)

AFFECTED ORGANIZATIONS

Branch Staff

All Michoud and Huntsville

Organizations

REFERENCE:

Branch Directive LSB 500.21,

"Development and Control of

Branch Management Report Systems"

FROM: R. H. NELSON GENERAL MANAGER

PURPOSE I.

> This procedure establishes the method and organizational responsibility for the preparation, approval and distribution of the monthly Launch Systems Branch Group Management Information System (GMIS) Report to Space Division Management. It provides guidelines for content of the GMIS Report with recommendations for length of narrative and numbers of charts, sets forth the monthly reporting timetable, and establishes the approval routing and signature requirements. The report shall be identified as "Limited" information (see Administrative Procedure 133, "Limited Information" for an explanation of proper handling).

II. FORMAT AND RESPONSIBILITIES

> The following outline includes recommendations for maximum length of narratives and identifies responsibilities for preparation.

NARRATIVE

- A. LSB Summary two pages prepared by the Launch Systems Branch General Manager for the Space Division General Manager.
- B. Michoud Activities two pages prepared by the Michoud Manager for the Launch Systems Branch General Manager including information on the following:
 - 1. Schedules I and I A (S-IC) Contract NAS8-5608
 - a. Contracts Management
 - b. Resources Management
 - c. Program Status
 - d. Program Extensions
 - e. Management Problems and Items of Special Interest
- C. Schedule II (Saturn V) Contract NAS8-5608 two pages prepared by the Huntsville Manager for the Launch Systems Branch General Manager including the following information:

- 1. Contracts Management
- 2. Resources Management
- 3. Program Status
- 4. Program Extensions
- 5. Management Problems and Items of Special Interest
- D. New Business Activity (excluding Contract NAS8-5608) two pages prepared by the Huntsville Manager for the Launch Systems Branch General Manager including information on the following:
 - 1. Highlights
 - 2. New Programs and Products
 - 3. New Business Proposal Activity
 - 4. Branch Portion of Company Sponsored Program (BPOCSP)

CHARTS - (including supporting data)

- A. Launch Systems Branch Summary
 - A-1 Product Objectives prepared by Huntsville PP&R
 - A-2 Sales Record and Ten Year Forecast prepared by Michoud PP&R from data assembled by Michoud Finance
 - A-3 Profit Record and Ten Year Forecast prepared by Michoud PP&R from data assembled by Michoud Finance
 - A-4 Personnel Requirements Forecast prepared by Huntsville PP&R from data assembled by Michoud Finance and Michoud Industrial Relations.
 - A-5 Business Performance prepared by Michoud PP&R from data assembled by Michoud Finance
 - A-6 Contract Cost Performance prepared by Michoud PP&R from data assembled by Michoud Finance
 - A-7 Cost Improvement Program prepared by Branch Planning and Reporting from data assembled by the Branch Cost Improvement Manager
 - A-8 Significant Problems prepared by Branch Planning and Reporting
- B. Schedules I and I A, NAS8-5608 suggested to include a maximum of four charts coded B-1, B-2, etc., as required including an S-IC Cost Performance Chart and a contract milestone chart.
- C. Schedule II, NAS8-5608 suggested to include two charts:
 - C-1 Saturn V Master Schedule Program Milestones
 - C-2 Saturn V Mission Support Cost Performance.

D. New Business Activity

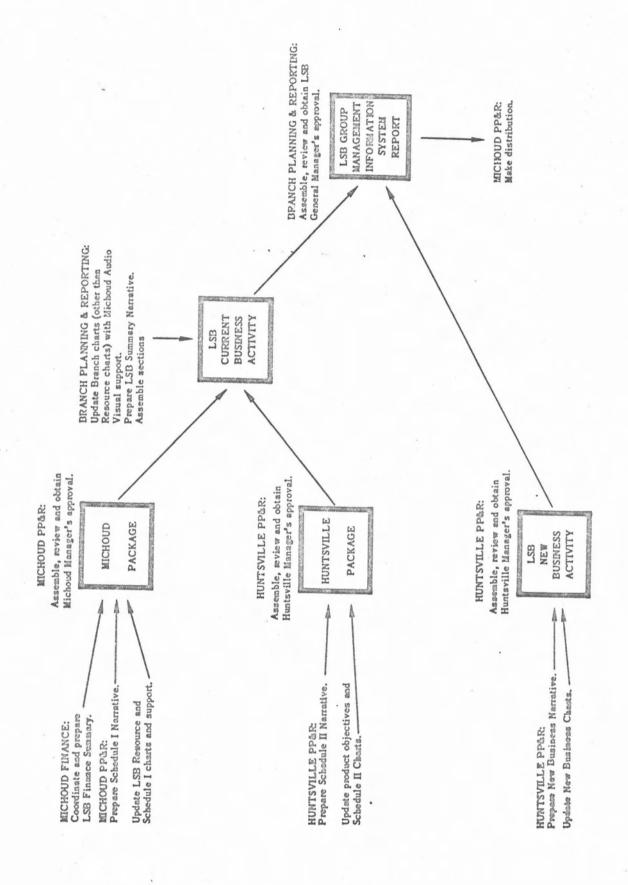
- D-1 Major New Business Program prepared by Huntsville PP&R
- D-2 196 New Business Program Funding prepared by Huntsville PP&R
- D-3 196 New Business Program Expenditures prepared by Huntsville PP&R
- D-4 Active Minor Contracts prepared by Huntsville PP&R
- D-5 Bid Proposal Activity prepared by Huntsville PP&R

III. TRANSMITTAL AND ASSEMBLY

Attachment (a) depicts the origin, routing and approval of the Michoud and Huntsville sections of the report, and the Branch Staff contribution, assembly and preparation of the report for the Branch General Manager's approval. Michoud and Huntsville sections shall be prepared in final form for incorporation into the Branch report and forwarded with a cover letter to the Branch General Manager over the Michoud and Huntsville Managers' signatures respectively with copies to the Branch Planning and Reporting Manager.

IV. REPORTING SCHEDULE AND DISTRIBUTION

Attachment (b) establishes the schedule for statement of work and financial data cutoffs. Branch Planning and Reporting will publish reporting schedules monthly in accordance with the requirements of the Space Division Planning and Management Information Office. The approved distribution of the GMIS Report is shown in attachment (c). Space Division copies will be distributed in Seattle in accordance with need.



July 29, 1966

To:

All Procedures Manual Holders

Subject:

Operating Procedure 500.7, "Launch Systems Branch - Group Management Information System"

This procedure (page 6) was revised to reflect the new distribution list for the Group Management Information System Report.

Please remove the existing page 6 and replace it with the attached revised page.

O. C. Afrenter

5-1640

LR-19

ATTACHMENT (b) 1966 GMIS REPORT SCHEDULE

, DDD0Dmmva DD0D	FINANCE DATA		
REPORTING PERIOD	Statement of Work Cut-off	Actuals Cut-off	
May 1 through May 31	April 22	April 28	
June 1 through June 30	May 20	May 26	
July 1 through July 31	June 24	June 30	
August 1 through August 31	July 22	July 28	
September 1 through September 30	August 19	August 25	
October 1 through October 31	September 23	September 29	
November 1 through November 30	October 21	October 27	
December 1 through December 31	November 18	November 23	
*			

Attachment (c) LAUNCH SYSTEMS BRANCH GMIS REPORT DISTRIBUTION LIST

Copy No.	Recipient
1) 2) 3) 4) 5) 6) 7) 8) 9) 10)	R. F. Watt
11 12 13 14 15 16 17 18 19 20-21 22 23 24 25 26 27-32 33 38	R. H. Nelson B. Larson C. A. Wilkinson H. J. McClellan R. C. Dunigan D. H. Atherly A. M. Johnston C. G. Smith J. G. Weber D. H. Creim E. Larson J. E. Berryman J. J. Rahn D. E. Serrill D. B. Jacobs Michoud Visual File Huntsville Business Planning Files (Attention: L. B. Bignold)

LAUNCH SYSTEMS BRANCH

LSB 500.20 Branch Directive Supplement No. 1

August 26, 1966

SUBJECT:

Space Division

LAUNCH SYSTEMS BRANCH

FINANCE SERVICES

REFERENCE:

Branch Directive LSB 500.20,

"Launch Systems Branch

Business Management Support"

- Till

R. H. NELSON GENERAL MANAGER

I. PURPOSE

This supplement identifies those financial functions requiring consolidation or consistency of planning, reporting, and control data necessary for overall Branch management purposes.

II. DIRECTIVE

The Michoud Finance Organization is responsible for all financial functions in connection with contract and/or programs for which technical and program direction has been assigned to Michoud. The Huntsville Finance Organization is responsible for all financial functions in connection with contract and/or programs for which technical and program direction has been assigned to Huntsville, except for those financial functions enumerated in Paragraph III below.

In those instances where overall Launch Systems Branch financial data or forecasts are required the Michoud Finance Manager will provide staff support to the Launch Systems Branch General Manager. This support will include issuance of schedules, formats, and ground rules for such data and the summarization and appraisal of Michoud and Huntsville financial data for presentation to the Launch Systems Branch General Manager for approval.

III. ASSIGNMENT

LSB 1180 (9/65)

Overall Launch Systems Branch responsibility for accomplishment of the following functions is assigned to the Michoud Finance Organization:

A. Pricing

- Summarize and appraise for the Launch Systems Branch General Manager's approval financial data for long-range planning forecasts.
- Summarize and appraise for the Launch Systems Branch General Manager's approval the T-1 and T-2 sales and earnings forecasts.
- 3. Develop and negotiate with the Customer the Launch Systems Branch overhead pricing rates.
- 4. Develop burden center rates and associated cost rates for transfer of costs to other Company locations.

- 5. Develop and negotiate fringe benefit rates.
- 6. Forecast indirect salary rates for the Launch Systems Branch.
- In coordination with Huntsville, develop pricing rates for sales from Simulation Center Computers.
- Establish guidelines for compatibility and consistency of all Branch - prepared cost proposals.

B. Financial Controls

- Summarize and appraise for the Launch Systems Branch General Manager's approval the annual indirect budgets and changes thereto.
- Submit Launch Systems Branch cost allocation data to Aerospace Group.
- 3. Process cost adjustment requests.
- 4. Collect and consolidate data for release of overall Launch Systems Branch financial reports required by the Branch General Manager.

C. Financial Systems

To assure consistency of accounting practices throughout the Branch:

- Approve Branch accounting charging practices including direct versus indirect determinations.
- 2. Control organization budget number assignments.
- Approve techniques utilized in the maintenance of the Launch Systems Branch targeting/budgeting system.

D. Accounting

- 1. Forecast cash requirements.
- 2. Maintain the general ledgers.
- 3. Prepare monthly financial statements, including balance sheet, profit and loss and trend statements.
- 4. Process journal vouchers and closing entries.
- 5. Maintain records on government-owned industrial facilities and company-owned assets.

- 6. Depreciate Launch Systems Branch company-owned property.
- 7. Process cash payments including:
 - a. Expense reports (including handling of travel deviations and follow-up on delinquencies).
 - b. Vendors invoices.
 - c. Payroll processing and control.
- 8. Conduct subcontract audits, termination claims audits, and vendor cost analysis as requested by Materiel.
- 9. Submit billings to the Customer.
- 10. Negotiate final overhead claims.
- 11. Support recorded cost to the NASA Auditors.
- 12. Maintain the authorized signature document for the Launch Systems Branch.
- 13. Comply with local, state and federal tax requirements and submit tax reports to Corporate Headquarters.
- 14. Coordinate Government audit findings and replies.

E. Treasury:

- 1. Reconcile bank accounts.
- 2. Control cash.
- 3. Comply with Writs of Garnishment and Tax Levies.
- 4. Conduct crèdit investigations and collections of delinquent amounts due.
- Maintain Group Insurance accounting and processing of premium payments.

F. Audit

- 1. Conduct internal audits.
- Coordinate with Company auditors and submit detailed accounting information as required.

Space Division

LAUNCH SYSTEMS BRANCH

LSB 500.20 Branch Directive Supplement No. 2

August 26, 1966

SUBJECT:

LAUNCH SYSTEMS BRANCH

INDUSTRIAL RELATIONS SERVICES

REFERENCE:

Branch Directive LSB 500.20,

"Launch Systems Branch Business

Management Support"

FROM: R. H. NELSON GENERAL MANAGER

I. PURPOSE

This supplement identifies those Industrial Relations functions requiring consolidation or consistency of planning, reporting, and control data necessary for overall Branch management purposes.

II. DIRECTIVE

The Michoud Industrial Relations organization is responsible for all Industrial Relations functions in connection with contracts and/or programs for which technical and program direction has been assigned to Michoud. The Huntsville Industrial Relations organization is responsible for all Industrial Relations functions in connection with contract and/or programs for which technical and program direction has been assigned to Huntsville.

In those instances where overall Launch Systems Branch Industrial Relations data or forecasts are required, the Michoud Industrial Relations Manager will provide staff support to the Launch Systems Branch General Manager. This staff support will include issuance of schedules, formats, and ground rules for the development of such data and the summarization of Michoud and Huntsville Industrial Relations data for presentation to the Launch Systems Branch General Manager for approval.

ASSIGNMENT III.

Manpower Reporting

In accordance with the direction provided by the Michoud Industrial Relations Manager, the Huntsville and Michoud Industrial Relations organizations will develop and report manpower information pertinent to their respective organizations.

B. Manpower Acquisition and Utilization

The Huntsville and Michoud Industrial Relations Managers will be jointly responsible for the establishment of a Launch Systems Branch manpower acquisition and distribution program, and for the planning and development of the Branch recruiting budget. This program will be reviewed quarterly by these Managers to ensure maximum utilization of Branch manpower and effective distribution and utilization of recruiting funds. The Michoud Industrial

Relations Manager will summarize and present this program to the Launch Systems Branch General Manager for approval.

C. Personnel Records

- 1. The Huntsville and Michoud Industrial Relations Organizations will individually develop and maintain personnel records required for the proper support of their respective location.
- 2. The Michoud Industrial Relations Organization will be responsible for the maintenance of mechanized personnel data systems which are a part of the Aerospace Group system, or which are the basis for meeting requirements for Branch level manpower reporting, or those essential to the administration of the Southeastern area hourly payroll.

LAUNCH SYSTEMS BRANCH

Operating Procedure 535.5

Space Division

August 1, 1966

SUBJECT:

REQUESTS TO NASA FOR USE OF MICHOUD ASSEMBLY FACILITY FOR OTHER THAN PRIME CONTRACT ACTIVITIES

AFFECTED ORGANIZATIONS

All Organizations

FROM: (

C. A. WILKINSON MICHOUD MANAGER

I. PURPOSE AND SCOPE

This procedure outlines the method of obtaining NASA approval to perform "other work" at the Michoud Assembly Facility.

DEFINITIONS II.

A. Other Work

"Other work" is all Government work other than the prime contract (NAS8-5608) activities granted by MSFC and administered by Manager. Michoud Assembly Facility. Commercial work is not included in the term "other work".

Support Services B.

Those services supplied by the support contractors and all other services supplied by NASA, i.e., utilities, communications, rented computer equipment, etc.

III. PROCEDURE

MICHOUD MANAGER 1. Recommends preparation and submittal of a bid, quotation or proposal in response to requests or inquiries by Government procurement agencies, other contractors or other Divisions.

MICHOUD CONTRACTS 2. With assistance of the other organizations, as required, determines the statement of work to be accomplished.

FACILITIES 3. Based on data developed in 2 above, and with assistance from other organizations, as required, prepares a facilities plan.

> 4. Develops appropriate support rate(s) based on the data developed in 2 above, and the type(s) of support services required.

With information provided as a result of 2, 3, and 4 above, prepares and submits "Request for NASA Concurrence to Submit Bid" (Exhibit A).

FINANCE

MICHOUD

CONTRACTS

MICHOUD CONTRACTS

- 6. Upon receipt of NASA concurrence, submits bid, quotation or proposal to soliciting agency; concurrently submits copy to NASA.
- Notifies NASA of contract award disposition and provides copies of each executed contract.
- 8. Authorizes work to begin on executed contract.

MANAGEMENT SERVICES

9. With assistance from using organizations, prepares a detailed support services plan. Serves as the focal point for all support services matters and monitors the support services program as set forth in Administrative Procedure 150.

FINANCE

- 10. Based on approved support services rate(s) applicable to individual contracts, determines the total monthly support services charges associated with "other work".
- 11. Reimburses NASA at the agreed upon rates, in accordance with contract, or as directed by the Manager, Michoud Assembly Facility.

Page 3 of 3

REQUEST FOR NASA CONCURRENCE

TO SUBMIT BID

RFP#	(Copy Attached) QUESTION	RESPONSE		COMMENTS	
1.	Is type of work acceptable?				
2.	Is Facility Plan acceptable?				School Confession and
3.	Are general purpose equipment requirements acceptable?				
4.	Is plan for application of service contractor charges acceptable?				
	PRELIMINARY APPI	ROVAL	:	(REQ'D. BY	

Aerospace Group

INTERDIVISIONAL OPERATING PROCEDURE

LSB 540.2 851-004

May 5, 1966

SUBJECT:

SECURITY - RELEASE OF CLASSIFIED INFORMATION
TO SUPPLIERS

Supersedes issue dated 3-4-65

AFFECTED ORGANIZATIONS

All Aerospace Group Organizations All Turbine Division Organizations

REFERENCE:

(a) Administrative Procedure 131, "Safeguarding Classified Information"

I. SUMMARY

This procedure sets forth the requirements and method governing the release of information classified TOP SECRET, SECRET, and CONFIDENTIAL to subcontractors, prospective subcontractors and suppliers, hereafter called suppliers; and the requirements for preparation of the Security Requirement Check List, DD Form 254 (U8 5000 5000), and Security Classification Specification for Contracts, DD Form 254-1 (U8 5010 1062). (Boeing divisions are handled as suppliers when inter-divisional work transactions involve classified information.)

II. GENERAL

- A. Suppliers may be furnished classified information on a "need-to-know" basis provided they have an appropriate facility security clearance granted by the Department of Defense. Physical release of classified information may be made only after verification through Security that a supplier can safeguard the classified information.
- B. The Boeing Company must advise suppliers of security requirements applicable to information to which they will have access in performance of the work to be accomplished. This requirement is not limited to the procurement of classified end items but includes those instances where, in the performance of a Boeing Purchase Order or Subcontracts:
 - 1. It is necessary for the Company to release classified data to a supplier; or,
 - 2. The supplier will develop classified information; or,
 - 3. The supplier will supply an item to his own specifications which are classified; or,
 - 4. The supplier will have access to classified information in possession of other parties; or,

May 5, 1966

- 5. A technical representative may, in the performance of his duties, work with or in an area containing classified items.
- C. Prior written approval of the Contracting Officer is required before subcontracting work involving cryptographic information and prior to the physical release of TOP SECRET material.

III. RESPONSIBILITIES

- A. Procurement Organizations will:
 - 1. Review all data in connection with subcontracted items and determine security requirements applicable to information to be released, produced or acted upon in connection with a Purchase Order or Subcontract.
 - a. If this determination cannot be made from a review of the data in his possession, the procurement organization buyer shall immediately contact the individual who initiated the request for the procurement and request from him information as to the security classification, if any, of the information to be released to, developed by, or acted on by the supplier.
 - b. Though it is primarily the responsibility of the organization initiating requirements necessitating any procurement from outside the Company involving classified information, to concurrently advise the procurement organization in writing of the security classification of information to be released to, developed by, or acted on by a supplier, it is the ultimate responsibility of the procurement organization to determine applicable security requirements and prepare the Security Requirement Check List, DD Form 254, (Exhibit I), or Security Classification Specification For Contracts, DD Form 254-1, (Exhibit II).
 - 2. Prior to granting physical custody of classified information, obtain from Security or remote location Security the facility security clearance status of suppliers; their ability to safeguard classified information; and the name and address of their cognizant DOD security office.

Verification of a supplier's facility clearance and storage capabilities may also be obtained from the current "Security Clearance and Safeguarding Capability of Contractors" listing published by Security. Such facility security clearance information shall be valid so long as there is an existing contractual relationship with the supplier involving classified information of the same or higher category or unless advised to the contrary by Security.

A memorandum will be submitted to Security or Remote Location Security when requesting facility security clearance status of a supplier, setting forth the complete name of the supplier, exact street address, and city and state in which located. Include available information such as description, quantity, end-item,

U3 4129 6020 REV. 9/61

May 5, 1966

and classification related to the procurement action. In emergency situations, requests may be made of Security by telephone; however, they must be immediately confirmed in writing.

NOTE: Purchase Orders involving classified matter may only be issued to a supplier facility which has a valid facility security clearance.

- 3. Request Security or Remote Location Security to initiate facility security clearances when needed for uncleared prospective suppliers or suppliers' representatives. Requests to Security to obtain a facility clearance for a supplier will be by memo and provide the information shown in Exhibit III.
- 4. When releasing classified data to a cleared prospective supplier, provide him with one copy of a "Security Requirement Check List," DD Form 254 (or DD Form 254-1). During precontract negotiations, security requirements do not require prior approval of the Government Contracting Officer; however, a copy of the DD Form 254 (or DD Form 254-1) must be provided to the Contracting Officer.
- Obtain prior written approval of the appropriate Government Contracting Officer before subcontracting work involving cryptographic information.
- Request Security obtain written approval of the Contracting Officer prior to releasing TOP SECRET material.
- 7. The following Materiel Typing Code 104 is to be incorporated on all existing and future Purchase Orders which have or will require preparation of DD Form 254 (or DD Form 254-1):

"In the event that Seller intends to utilize computer facilities on a shared-time basis with any other facilities or to lease time on computer facilities other than those which he may possess in his own secure facility and it is intended by Seller to utilize such computer facilities for the processing, storing, or otherwise handling of classified material furnished by Buyer or generated under this contract, Seller must furnish Buyer with written authorization from their cognizant Government security office approving the utilization of designated computer facility on a shared-time basis or approval of proposed leased computer facilities. These provisions shall also apply to computer facility arrangements between Seller and The Boeing Company.

8. When a Purchase Order is awarded involving classified information, provide one typed original copy of the completed DD Form 254 (or DD Form 254-1) to the appropriate Government Contracting Officer for his approval and signature. The DD Form 254 (or DD Form 254-1) will be accompanied by a memorandum reflecting the name, organization number, mail stop, and telephone number of the person submitting the form.

DD Form 254's (or DD Form 254-1's) prepared under NASA contracts for which contract administration has not been delegated to a local Administrative Contracting Officer (AFPRO), will be forwarded to Security for certification of facility clearance and safeguarding ability of the supplier and transmittal to the TMASA Security Classification Office for approval.

- 9. A Security Classification Specification For Contracts (DD Form 254-1) may be utilized in lieu of the DD Form 254 for research, consultant service, graphic arts service, or other procurement of services, provided a requirement does not exist for a breakdown of the classification of the various elements of the contract. The DD Form 254-1 cannot be used when the procurement is for services such as "feasibility studies" or "study requirements" unless classification guides are attached. A single DD Form 254 (or DD Form 254-1) may be used to cover a "call type" contract or other open purchase order. In such cases, an individual DD Form 254 (or DD Form 254-1) is not required for each call, purchase order, or similar request for services to be furnished under the contract.
- 10. The approved DD Form 254 (or DD Form 254-1) will be returned by the Government Contracting Officer for reproduction and will indicate the number of copies required by him for distribution. Sufficient copies will be prepared from the original to provide the Jovernment Contracting Officer with the number specified, and for internal distribution. Internal distribution will include one copy to the supplier, one copy to the organization initialing the order, and one copy to Security or Remote Location Security. The original copy and copies necessary for Procurement needs will be retained by the Procurement organization.
 - 11. Each time a revised DD Form 254 (or DD Form 254-1) or other security classification direction is received from the Government Contracting Officer, on which Boeing is the prime contractor or subcontractor, review all DD 254 and 254-1 Forms outstanding to suppliers performing work under the prime or subcontract. If the security requirements affecting suppliers have changed, within 30 days after receipt of the revised DD Form 254 or DD Form 254-1, process revised DD Form 254 and 254-1 Forms in the same manner as set forth in Paragraphs III.A.8 and 10. In instances where all material is being declassified, insert the following notation under "Remarks", item 15 of DD Form 254:

"This DD Form 254 (or DD Form 254-1) provides authority for declassifying material previously generated under this Purchase Order."

12. Upon receipt of a revised DD Form 254 (or DD Form 254-1) from the Government Contracting Officer, which in no way affects the security classification requirements of associated Purchase Orders and it is found not necessary to complete the action of Paragraph III.A.ll above, notify the appropriate Government

Contracting Officer by memorandum within 30 days after receipt of the revised DD Form 254 (or DD Form 254-1) that all outstanding DD Form 254's (or DD Form 254-1's) have been reviewed and that no change is necessary.

- 13. All active DD 254 and 254-1 Forms will be reviewed at least once each year to determine whether the classified information can be downgraded or declassified. The supplier will be informed of changes in each case by issuance of a revised DD Form 254 or 254-1, or in the event the review results in no change, by letter to that effect.
- 14. At the time classified information is first released to suppliers or prospective suppliers, provide for disposition of classified matter furnished to or developed by suppliers in connection with precontract negotiations or in the performance of a Purchase Order or Subcontract in accordance with the following schedule:
 - a. Prospective suppliers must return classified material to Boeing prior to the time set for receipt of bids or proposals if a request bid or proposal is not submitted.
 - b. If a bid or proposal is not accepted, prospective suppliers must return classified material to Boeing within 90 days after notification that the bid or proposal has not been accepted, unless the material has been destroyed or retention is authorized in accordance with requirements of the Department of Defense Industrial Security Manual. If retention is necessary, a request shall be submitted to Boeing for referral to the Contracting Officer for approval, in accordance with paragraph 5.1, DOD Industrial Security Manual.
 - c. At the completion or termination of a Purchase Order, Subcontract or whenever otherwise directed by Boeing:
 - (1) Return to Boeing that material furnished to or developed by the supplier which The Boeing Company deems to be of such significance from a proprietary or other point of view as to require stringent control by Boeing.
 - (2) Destroy that classified material furnished to or developed by the supplier for which provision has not been made requiring its return to Boeing, or which is not required by the supplier in accordance with (3) below.
 - (3) Advise Boeing of the classified material it has need to retain to complete records under provisions of Paragraph 5.1, DOD Industrial Security Manual. The request for retention shall be in writing and shall clearly indicate the justification for and the period of time retention is necessary. Requests for retention of TOP SECRET material shall identify the specific documents to be retained. Requests for retention of Secret material shall identify (by document or drawing number, issue number, and title) the specific documents

to be retained unless the supplier has obtained prior approval through The Boeing Company from the Contracting Officer to identify the material only by subject matter. Requests for retention of CONFIDENTIAL information (including CONFIDENTIAL - "MODIFIED HANDLING AUTHORIZED") need not identify the specific documents provided the material is identified by subject matter. When submitting a request for retention of documents by subject matter, the supplier shall indicate the approximate number of documents involved.

- 15. Upon completion, final delivery of goods or services, or termination of a Purchase Order or Subcontract, or where required, process a final DD Form 254 (or DD Form 254-1) in the same manner as set forth in Paragraphs III.A.8 and 10. The form is to reflect the classification requirements as of the time the Purchase Order or Subcontract is completed or terminated.
- 16. If applicable, upon completion or termination of a Purchase Order or subcontract, identify to the supplier the specific material which has been determined to be of such significance from a proprietary or other point of view that it requires return to Boeing.
- 17. Obtain from the appropriate Government Contracting Officer his approval or disapproval of the supplier's request to retain classified information.
- 18. Notify the supplier of Government Contracting Officer approval or disapproval.
- 19. When classified subcontracts under USAF Air Force Systems Command, Ballistic Systems Division prime contracts are involved:
 - a. Within 5 days notify the appropriate Government Contracting Officer of all partial or complete terminations of classified subcontracts.
 - b. Within 20 days notify the appropriate Government Contracting Officer of the completion of Classified contracts.
- 20. Maintain a log of all outstanding Purchase Orders and Sub-Contracts involving classified matter.

B. All Organizations will:

- When initiating procurement action involving classified information, ensure that the appropriate Boeing procurement activity is provided written notification of the security classification of all information to be released to or developed by suppliers.
- Provide assistance as requested, to the appropriate Boeing procurement activity in preparing DD Form 254, "Security Requirements Check List", or DD Form 254-1, "Security Classification Specification For Contracts."

- C. Industrial Relations Security or Remote Location Security will:
 - 1. When requested, determine if suppliers have the appropriate facility security clearance and the ability to safeguard classified information.
 - 2. Request the cognizant DOD security office initiate facility clearance action for prospective suppliers as necessary.
 - 3. Advise the requesting organization in writing of supplier's facility security clearance, ability to safeguard classified information, and the name and address of cognizant DOD security office.
 - 4. Obtain written approval of the appropriate Government Contracting Officer prior to giving physical custody of TOP SECRET information to suppliers.
 - 5. Initiate action to keep this procedure up to date.

IV. SUBCONTRACTING WITH CANADIAN OR UNITED KINGDOM INDUSTRY

- A. Under the U. S.-Canada or United Kingdom Industrial Security Agreements, subcontracts involving U.S. classified information may be placed in Canada with Canadian industry or United Kingdom with British industry. The security of the subcontracts will be governed by the appropriate regulations of the Canadian or United Kingdom Government. However, before classified information may be released to a Canadian or United Kingdom firm, approval must be obtained from the appropriate Government Contracting Officer.
- B. Procurement Organizations will:
 - 1. When pre-contract negotiations involve classified information:
 - a. Submit a request to the Government Contracting Officer concerned for approval to release classified information in order to conduct pre-contract negotiations which may lead to the award of any subcontract involving classified information to a contractor in Canada or the United Kingdom.
 - b. Include in the request the complete name of the supplier, exact street address, city and province in which located, prime contract concerned, security classification of end items involved in the subcontract, the highest degree of classified information required to be furnished in connection with the precontract negotiations and advice as to the channels which must be used in transmitting the classified information to the contractor.
 - c. For United Kingdom contracts only, the supplier will be advised that the special security requirements clause (attached as Exhibit IV) will be applicable to any classified contract awarded.

- d. Comply with the requirements of III.A.14, including subparagraphs, of this procedure.
- 2. When a Subcontract or Purchase Order is awarded:
 - a. If approval to release classified information to a Canadian or United Kingdom contractor has been obtained from the Government Contracting Officer for pre-contract negotiations, additional approval is not required upon award of the subcontract or Purchase Order. If approval of the Government Contracting Officer has not been obtained to release classified information to the Canadian or United Kingdom contractor, such approval will be obtained prior to the release of any classified information. The request should contain the information outlined in paragraph IV.B.l.b above.
 - b. Comply with the provisions of paragraphs III.A.8 through 20 of this procedure.
 - c. For United Kingdom contracts only, incorporate in all subcontracts or Purchase Orders awarded to United Kingdom firms the special security requirements clause attached as Exhibit IV.
- C. All affected organizations will perform those functions listed in Section III.B of this procedure.
- D. Industrial Relations Security or Remote Locations Security will perform those functions listed in Section III.C of this procedure.

V. SUBCONTRACTS ARISING FROM FOREIGN CLASSIFIED CONTRACTS

If awarded a foreign classified contract, The Boeing Company may, unless specifically prohibited therein, subcontract:

- A. Within the United States in accordance with the provisions of Section III of this procedure.
- B. Within the country of the contracting foreign government in accordance with instructions furnished by the designated agency of that government through the designated United States military department.
- C. Within any other country only with the permission of, and under the conditions agreed to by the contracting government, the government of the country of the subcontractor and the designated United States military department.

VI. FORMS

- A. Exhibit I contains instructions for the completion of a "Security Requirements Check List", DD Form 254, and copy of DD Form 254.
- B. Exhibit II contains instructions for the completion of a "Security Classification Specification For Contracts", DD Form 254-1, and a copy of DD Form 254-1.

- C. Exhibit IV contains the special Security requirements clause which must be incorporated in all subcontracts or purchase orders awarded to United Kingdom firms.
- D. Exhibit V contains the name and address and area of responsibility of each of the Defense Contract Administration Services Region (DCASR) offices which exercise industrial security cognizance over contractor activities.

EXHIBIT I

INSTRUCTION SHEET FOR ENTRIES ON SECURITY REQUIREMENTS CHECK LIST, DD FORM 254 (U8 5000 5000)

The Security Requirements Check List embodies the concept that the sensitive information itself shall be identified and assigned a proper classification rather than assigning a classification to media by which classified information could be, or would likely be, conveyed. This method of classifying information, rather than media, is intended to identify most precisely the functional matter which is to be protected, thus providing the answer to the question of "what is there about a specific item of hardware which causes it to be classified?"

Numbers and letters referred to below relate to the corresponding numbered and lettered items on DD Form 254.

- 1. Check appropriate block. Use Item 15 to indicate subcontracting beyond first tier.
- 2. Identify both prime and subcontract or purchase order.
- 3. Check appropriate block and insert effectivity date.
- 4. Check appropriate block. Facility Security Clearance must be the same or higher than the highest classification of information furnished to, developed by, or to which access is required by the supplier or consultant.
- 5. a-b. Enter the complete name and address of The Boeing Company. When Boeing is a subcontractor, identify the prime contractor.
- 6. a. Enter complete name and address of facility performing under the order. (If this facility is a second-tier subcontractor, make entry in Item 15, Remarks, reflecting that facility is a second-tier subcontractor to Boeing, and identify the subcontract or purchase order number of the prime contractor under which Boeing is working.)
- 7. Indicate the specific Government activity that will approve the Chack List for Subcontract; e.g., Air Force Plant Representative. Attn: CMRS, The Boeing Company, Seattle, Washington, or as reflected in Item 7 of DD Form 254 furnished to Boeing by the procuring activity.

EXHIBIT I (Continued)

- 8. Check each item "yes" or "no" to indicate if Defense Documentation Center (DDC) services were requested by the Contracting Officer or his representative, and if a DDC Field of Interest Register was issued. If it cannot be determined at the outset of the contract that access to DDC documents is necessary, insert "To be determined later". Do not mark "N/A" or leave blank.
- 9. Complete as necessary for adequate identification. Avoid use of classified terminology whenever practical. If the information to be entered is classified, indicate only its degree of classification and forward description by separate classified correspondence to avoid classifying the Check List.
- 10. Check the "Through" block and type "The Boeing Company, Public Relations, 1-1855, M/S 14-22, P. O. Box 3707, Seattle, Washington, 93124."
 - NOTE: The Public Relations Manager will advise the appropriate procurement organization of the action taken on suppliers requests for public release of information.
- 11. Cross out word(s) to indicate if Restricted Data per Atomic Energy Act of 1954 is involved in contract.
- 12. The type of information described below may be contained in media including, but not limited to, technical manuals, operational manuals, engineering notes and computations, and other kinds of military and contractor-generated material. Whenever classification requires an explanation, annotate the entry in Item 12 "See Remarks, Item 15."
 - a. Accuracy Precision with which the designed function is performed.
 - b. Altitude Indicate, as appropriate, sub-items such as:
 - (1) Maximum Altitude beyond which performance is not possible;
 - (2) Minimum Altitude below which performance is not possible;
 - (3) Optimum Altitude spread at which performance is most satisfactory or effective.
 - c. Counter Countermeasures Capability Design features of the end item which are intended specifically to overcome enemy interference. (Electronic countermeasures are those measures which are used to defeat an enemy's use of electronic devices. "Electronic countermeasures is not a Check List item since procurement of such equipment should be covered by its own Check List.")
 - d. <u>Depth</u> Indicate, as appropriate, sub-items such as: (1) Maximum-Depth below which performance is not possible; (2) Minimum-Depth above which performance is not possible; (3) Optimum-Depth spread at which performance is most satisfactory or effective.

EXHIBIT I (Continued)

- e. Design Information Technique, principle, or design feature, or the unique application thereof which in and of itself requires classification. The Design Information which requires protection MUST be specified.
- f. Formula or Material Chemical or physical nature of the ingredient(s) and their proportions, of which all or part of the end item is composed.
- g. Fuel/Propellant Source of Energy
 - (1) Type Identification of fuel/propellant.
 - (2) Consumption Amount of fuel/propellant required for operation with respect to time and distance.
 - (3) Capacity Amount of fuel/propellant carried for self consumption.
- h. <u>Lethality/Critical Effects</u> The ability to cause a specified degree of damage to the target or to incapacitate personnel, (including physical, physiological, and psychological effects).
- i. Maneuverability Ability to change position or direction.
- j. Operational Readiness (Alert) Time/Time Cycle Sequence and duration of important operations to be performed on or by the end item or specified component thereof during a normal cycle of function such as emplacement, loading and firing/launching, warmup prior to operation, etc.
- k. Orbit/Trajectory Path of Travel
- 1. Range Indicate, as appropriate, sub-items such as: (1) Maximum Greatest distance attainable; (2) Minimum Least distance attainable or allowable; and (3) Optimum Range spread at which performance is most satisfactory or effective.
- m. Reliability Probability that the design function will be performed at/for a specified time, and/or within specified limits.
- n. Resolution Ability to analyze characteristics of a complex nature (such as signals, targets, signature characteristics, etc.) and to distinguish between them.
- o. Signature Characteristics Acoustic, magnetics, thermal, radiological, mechanical, electromagnetic, etc., phenomena which are critical to the operation of the end item or a component thereof, or which identify or reveal its presence. (Insert specific type or types in such terms as Frequency, Band Width, Modulation, Coding, Sensitivity, Output Level, and the like.)

EXHIBIT I (Continued)

p. Speed/Velocity

- (1) Maximum Greatest speed/velocity attainable.
- (2) <u>Cruising</u> Speed/velocity at which greatest efficiency is attained.
- (3) Take-off or Launching Speed/velocity to initiate flight.
- (4) Landing Speed/velocity in terminating flight.
- (5) Acceleration and/or Deceleration Rate of change or velocity.
- q. System Capacity Maximum number of operations which the end item can perform simultaneously in carrying out its design function.
- r. Terminal Ballistics Effects and action of a missile or mine when it impacts or bursts at the target.
- s. Thrust Impelling force delivered.
 - (1) Class Maximum thrust expressed as an approximation or within a grouping.
 - (2) Specific Exact maximum thrust.
 - (3) Specific Impulse Amount of thrust in pounds that can be maintained for one second by one pound of fuel.
- t. Vulnerability Susceptibility to defeat by an enemy.
- 13. a. Classification of End Item Highest classification of information embodied in or revealed by the end item. If the end item is classified, the stages of assembly in which it will require protection may be listed in the remarks section (Item 15).
 - b. External View Level of classification of information obtainable by visual observation of the end item. The information may be included in or pertain to drawings, sketches, specifications or photographs, models, mockups, etc.
 - c. Military Application Use or purpose for which the end item is intended in sufficient detail that performance and/or tactical application is revealed or implied.
 - d. Numbers Contracted Total quantity of end items called for by contract.
 - e. Production and Program Schedules
 - f. Rate of Delivery Quantity of end items delivered per unit time.

EXHIBIT I (Continued)

- g. Numbers Delivered Total quantity of end items that have been accepted by the contracting officer or his authorized representative.
- h. Degree of Protection in Transit Security classification under which transportation regulation afford the degree of protection required. Governs inter and intra contractor plant transit as well as final delivery.
- i. Unit Cost (Note: Unit Cost will not be classified when other factors reveal the information to be safeguarded.)
- 14. Self-explanatory
- 15. a. When necessary, explanatory notes as to classification requirements will be identified by reference to specific items.
 - b. Completion date (or estimated completion date) of the contract will be shown in "Remarks".

Required Distribution - Self-explanatory

Additional	Dis	tri	bu'	ti	on:
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Hq.,	USAF	(AFSI	DC-C)	for	USAF	Contracts
BSD ((BSI)	for 1	BSD C	ontra	cts	
SSD	(SSIS)	for	SSD	Conti	acts	
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EXHIBIT I (Continued)

(See paragraph 6-1 Armed Forces Indu trial Security Regu tion)	SECURITY REQ	MENT OF DEFENSE UIREMENTS CHECK LIST ATION SPECIFICATIONS) CTS INVOLVING CLASSIFIED IN		See Section II, In Security Manual I Juarding Classifi mation)	or Sale	p=		
THIS CHECK LIST IS FOR:	CONTRACT HUMBER OR OTHER IDENTIFICATION NUMBER (Prime contracts must be shown for all subcontracts)	THIS CHECK LIST IS: (See note below)	DATE	4. FACILITY S CLEARANCE FOR CONTRI FORMANCE OF CESS TO CLI	CT P	RED ER-		
PRIME CONTRACT	A PRIME	ORIGINAL CHECK		TOP SEC	MET			
b. SUBCONTRACT (IJee IJem 15 to Identify further mubcontracting)	b. SUBCONTRACT	b. REVISED CHECK LIST (Supersedes all previous lists)		b. SECRET				
C. INVITATION TO BIO OR RE- OUEST FOR PROPOSAL	C. INVITATION TO BID OR REQUEST FOR PROPOSAL	FINAL CHECK LIST FOR CONTRACT TERM- INATION OR COMPLE- TION		CONFID	ENTIA	L		
M. HAME AND ADDRE	SS OF PRIME CONTRACTOR	b. NAME AND AUDRESS OF	COGNIZANT SEC	URITY OFFICE				
A NAME AND ADDRE	SS OF SUBCONTRACTOR (il applicable)	b. NAME AND ADDRESS OF	COGNIZANT SEC	URITY OFFICE		-		
(Use Item 1	5 to identify further subcontracting)							
7. SECURITY REQUIREMENTS CHECK LIST FOR SUBCONTRACTING FROM THIS PRIME CONTRACT SUBCONTRACT WILL BE APPROVED BY			8. DEFENSE DOCUMENTATION CENTER					
		a. REQUESTED	#. REQUESTED			но		
- ADDRESS		b. APPROVED						
		C. FIELD OF INTEREST RE	EGISTER ISSUED					
, GENERAL IDENTIFI correspondence)	CATION OF THE PROCUREMENT FOR W	HICH THIS CHECK LIST APPLIE	S ([cleeeilied, co	emplete this Item	by seg	erat		
O. PROPOSED PUBLI	CITY RELEASES SHALL DE SUBMITTED	FOR APPROVAL PRIOR TO REL	EASE DIREC	T THROUGH	1 (Spec	illy)		
O THE OFFICE OF SI	ECURITY REVIEW, OFFICE OF THE SEC Y MANUAL.	RETARY OF DEFENSE FOR REV	NEW IN ACCORDA	NCE WITH THE				
1. RESTRICTED DAT	A IS/IS NOT INVOLVED IN THIS CONTRA	CT. (Il involved, check AEC/DO	D Classification On	uide)		-		
Jata (Nomma Jb and c	Check Lists (New Ja) are authority for contractors to remar ordance with the provisions of paragra	k the regraded classified infor	mation. Such act	evised and Fin- tions by contrac	1 Che	ck		
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PAGE 15 OF 23

PAGE 1 OF PAGES

EXHIBIT II

INSTRUCTION SHEET FOR ENTRIES ON SECURITY CLASSIFICATION SPECIFICATIONS FOR CONTRACTS, DD FORM 254-1 (U8 5010 1062)

The Security Classification Specification For Contracts is used in lieu of a DD Form 254, Security Requirements Check List, where a requirement does not exist for a breakdown of the classification of the various elements of the contract.

Numbers and letters referred to below relate to the corresponding numbered and lettered items on the DD Form 254-1.

- 1. Self explanatory
- 2. Self explanatory
- 3. Self explanatory
- 4. Self explanatory
- 5. Self explanatory
- 6. Check appropriate block, e.g., A.(2) for initial notification to the subcontractor at the time the contract is let, B whenever a revision to the security requirements is made subsequent to the initial direction, or C upon completion, termination of the contract, or when classification requirements have been canceled by appropriate government authority prior to completion of the contract. Enter applicable date opposite the block checked.
- 7. a. Enter the highest level of classified information to which access will be required in performance of the subcontract.
- 7. c. Self explanatory
- 8. Enter:
 - a. A short, concise explanation of the work to be performed on the subcontract.
 - b. When necessary to provide classification guidance for "feasibility studies" or "study requirements" as noted in Section III.9 of this procedure:

"Information originated in performance of this contract will be classified in accordance with the provisions of the (applicable guide, e.g., Master Security Classification Guide, WS133A and WS133B, (Minuteman I & II), dated 7 January 1965), which is incorporated herein by reference."

It is to be noted that any time a classification guide is incorporated in the DD Form 254-1 by reference, a copy of the classification guide must be furnished with the DD Form 254-1 to the subcontractor.

EXHIBIT II (Continued)

c. Name and address of the cognizant security office of the subcontractor. (See Exhibit V).

9. Enter:

AFPRO (appropriate symbol, e.g., CMRSSK), The Boeing Company, P. O. Box 3707, Seattle, Washington 98124, or the government activity indicated on the DD Form 254 received by Boeing from the processing activity.

- 10. Typed or stamped name and title of approving official should be placed in the lower portion of this block.
- 11. Check appropriate blocks for distribution made. Type additional distribution required not reflected on the form in the upper portion of the block. Distribution for the DD Form 254-1 is the same as for the DD Form 254 (See Exhibit I).

EXHIBIT II (Continued)

	ENT OF DEFENSE		See Section II, Industrial Security Mana Seleguarding Classified Information.	ual for	
SECURITY CLASSIFICATION SPECIFICATION FOR CONTRACTS (Used in Lieu of DD Form 254)		RACTS	DATE PREPARED		
CONTRACTOR (Name and Address)			2. PRIME CONTRACT NUMBER		
			3. SUBCONTRACT NUMBER		
CONTRACT EXPIRATION DATE	S. SHORT TITLE OF PROCURE	ENT			
THIS SPECIFICATION IS:			DATE OF ASSIGNMENT		
A. ORIGINAL ASSIGNMENT FOR					
X (2) SUBCONTRACT					
B REVISED ASSIGNMENT					
C FINAL ASSIGNMENT					
with the classification assi c. Proposed publicity releases The Boeing Company, Pub- or	gned. shall be submitted for approv	al prior to	22, P.O. Box 3707, Senttle		
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Cognizant Security Office Prime Contractor: The Bo	ce of Contractor (Item	1):	90124	124	
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Cognizant Security Office Prime Contractor: The Be Security Requirements Cl The Boeing Company, Seat CONTRACTING ACTIVITY AND AD DISTRIBUTION OF COPIES	ce of Contractor (Item being Company, 7755 E. neck Lists for subconta	1): Margina racting	l Way, Seattle, Wash. 98	124 FPR,	

DD FORM 254-1

GPO ::88-913

EXHIBIT III

To:

Security

2-1860

11-75

Subject:

Request for Facility Security Clearance

It is requested that the following facility be cleared for the purpose indicated below:

Name and Address: (Physical location - not P. O. Box No.)

Official to contact:

RFP or Prime Contract No .:

RFQ, Subcontract, or Purchase Order No .:

Highest classification to which access will be required:

Subject matter of work requiring clearance:

(Name, Organization No., M/S, and phone number of Supervisor requesting facility clearance.)

EXHIBIT IV

Special Security Requirements Clause to be Incorporated in all United Kingdom Subcontracts or Purchase Orders

"Condition A -

- (1) Except with the consent in writing of the (insert the name of the designated U.K. Department) the Contractor shall not disclose the Contract or any provision thereof, or any Specification, Plan, Drawing, Pattern, Sample, or information issued or furnished by or on behalf of (insert the name of the contracting U.S. Military Department) in connection therewith to any person, other than a person employed or engaged by the Contractor in the carrying-out of the Contract or any subcontractor, supplier, or other person concerned with the same.
- (2) Any disclosure to any person permitted under Clause (1) of this Condition shall be made in confidence and shall extend so far only as is necessary for the purposes of the Contract.

Condition B -

- (1) Where any information in connection with the Contract has been designated in writing by (insert the name of the contracting U. S. Military Department) as classified information -
 - (a) the contractor shall not disclose that information, shall not permit that information to be disclosed, and shall take all practicable measures to prevent that information being disclosed, to any person (whether an employee of the Contractor or not) who is not a person to whom the Contractor is currently permitted by (insert the name of the designated U.K. Department) in Her Majesty's Government in the United Kingdom to disclose classified information; and
 - (b) the Contractor shall protect that information, grade for grade, in the manner and to the extent required by (insert the name of the designated U. S. Department) aforesaid.
- (2) The Contractor's obligation under this Condition shall apply as well after as before the completion or determination (termination) of the Contract.
- (3) Any breach by the Contractor of his obligations under this Condition shall entitle (insert the name of the contracting U. S. Military Department) (without prejudice to any other right or remedy of that Department) forthwith to determine (terminate) the Contract by notice in writing to the Contractor.

NOTE: In the event of any inconsistency or conflict between Conditions A and B, the provisions of Condition B shall prevail."

EXHIBIT V

OPERATIONAL AREAS - DEFENSE CONTRACT ADMINISTRATION SERVICES REGIONAL OFFICES

ATLANTA

DCASR, Atlanta

3100 Maple Drive N. E. Atlanta, Georgia 30305 States of: North Carolina, South Carolina,

Georgia, Tennessee, Mississippi,

Alabama, and Florida.

BOSTON

DCASR, Boston 666 Summer Street Boston, Mass. 02210

States of: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, and New York north

of Orange and Putnam counties.

CHICAGO

DCASR, Chicago O'Hare International Airport

P. O. Box 8758

Chicago, Illinois 60666

States of: Wisconsin, Indiana, and Illinois north of the counties of Adams, Brown, Cass, Menard, Sangamon, Macon, Moultrie, Douglas, and

Edgar.

CLEVELAND

DCASR, Cleveland 1367 East 6th Street Cleveland, Ohio 44114

States of: Ohio, Kentucky, plus Erie, Mercer,

and Crawford counties of Penn-

sylvania.

DALLAS

DCASR, Dallas

500 So. Ervay Street Dallas, Texas 75201

States of: New Mexico, Texas, Oklahoma,

Arkansas, and Louisiana.

DETROIT

DCASR, Detroit

1580 East Grand Boulevard Detroit, Michigan 48211

State of: Michigan

LOS ANGELES

DCASR, Los Angeles

11099 So. La Cienaga Boulevard Los Angeles, California 90045

States of: Arizona, Nevada (Clark County

only), California - southern area to include San Luis Obispo,

Kern, and San Bernardino counties to the north.

SAN FRANCISCO

DCASR, San Francisco 866 Malcolm Road

Burlingame, California 94010

States of: Washington, Idaho, Montana,

Oregon, California - northern and central areas to include Monterey, Kings, Tulare, and Inyo counties to the south - Nevada, excluding

Clark County, and Utah.

EXHIBIT V (continued)

NEW YORK

DCASR, New York

770 Broadway
New York City, New York 10003

States of: New York - counties of Putnam,
Orange, Westchester, Bronx,
Manhattan, Queens, Kings,
Rockland, Richmond, Nassau, and
Suffolk - New Jersey north of
Ocean, Burlington, and Mercer
counties.

PHILADELPHIA

DCASR, Philadelphia
2800 So. 20th Street
P. O. Box 7478
Philadelphia, Pa. 19101

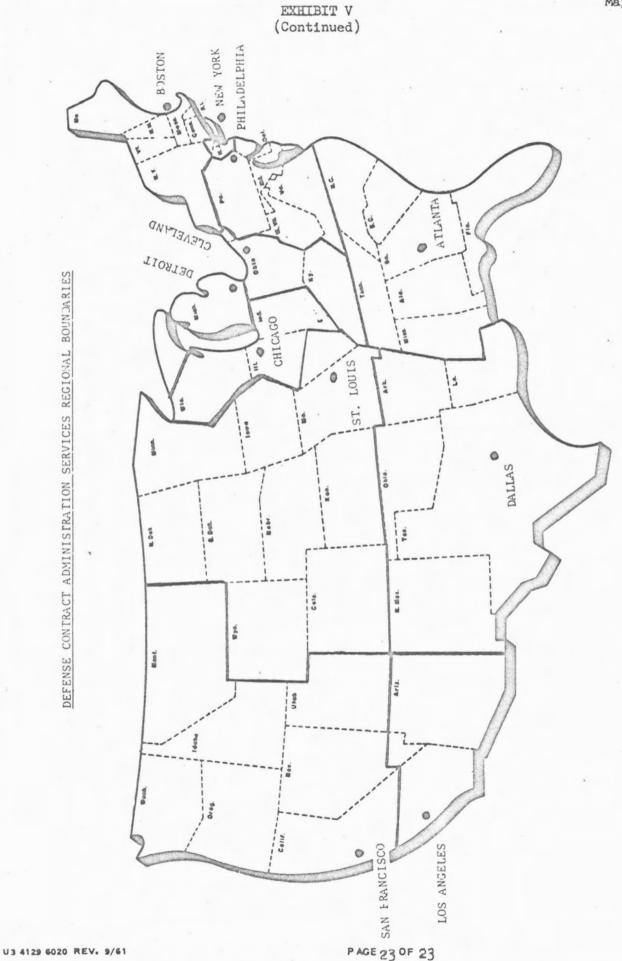
States of: Virginia, West Virginia,
Delaware, Maryland, Pennsylvania
(less counties of Erie, Crawford,
and Mercer), New Jersey south of
the counties of Monmouth,
Middlesex, Somerset, and
Hunterdon; and District of
Columbia.

ST. LOUIS

DCASR, St. Louis

4300 Goodfellow Boulevard
St. Louis, Missouri 63120

States of: Wyoming, Colorado, North Dakota,
South Dakota, Nebraska, Kansas,
Minnesota, Iowa, Missouri, and
the counties of Adams, Brown,
Cass, Menard, Sangamon, Macon,
Moultrie, Douglas, and Edgar,
and all counties south in
Illinois.



THE RESIDENCE AND THE RESIDENC

Space Division LAUNCH SYSTEMS BRANCH LSB 550.2 Supplement No. 1 Michoud Directive

SUBJECT:

MICHOUD SAFETY COUNCIL CHARTER

July 15, 1966

(Supersedes issue dated

March 31, 1966

REFERENCE:

Michoud Directive LSB 550.2.

"S-IC Executive Safety Council"

C. A. WILKINSON

MICHOUD MANAGER

I. INTRODUCTION

A Michoud Safety Council is established to implement the policies of the S-IC Executive Safety Council. It will be composed of members of management called Safety Directors designated to represent each Michoud Organization Manager on safety matters. The Council will ensure that the Line Safety Program is administered in accordance with Administrative Procedure 632, "Control of Industrial Hazards", Management Directive 550.4, "Michoud Plant Safety and Traffic Control" and Document D5-10024, "Line Control Safety Program - Saturn". The Council will also resolve problems which are of mutual concern to the organizations represented and refer proposals and problems to the S-IC Executive Safety Council which require action at that level.

The Council will review the safety audits made by Health and Safety, Systems Test, and Quality and Reliability Assurance, and assure that corrective action is taken on each reported deficiency.

Although the Michoud Safety Council will primarily support the Line Control Safety Program, it will participate in other safety activities such as:

- 1. Accident prevention campaigns
- Safety award programs
- Michoud Civil Defense and emergency planning

II. DEFINITIONS

General Safety Practices, Special Safety Procedures, Organization Safety Plans and the Line Safety Program are terms applicable to the Michoud Safety Council. These terms are defined by Michoud Directive 550.2.

III. DIRECTION AND RESPONSIBILITIES

The Chairman of the Michoud Safety Council, appointed by the S-IC Executive Safety Council, will establish the agenda, time and place for meetings. He will convene the Council at least once each calendar month. He will preside over the meetings and transmit minutes of the

meeting to the Chairman of the S-IC Executive Safety Council, Council members, and other interested members of management. He will present all proposals for new General Safety Practices which effect the majority of Michoud employees to the S-IC Executive Safety Council for approval. He will refer unresolved problems to the S-IC Executive Safety Council and adjust membership as necessary to assure that all organizations are properly represented.

B. Safety Directors will:

- Be appointed by organization managers to administer and enforce line control safety practices and regulations within their respective organization.
- 2. Attend Michoud Safety Council meetings and participate in campaigns, programs and planning initiated by the Council.
- 3. Coordinate organization safety plans and Special Safety Procedures with the Council and Health and Safety prior to release.
- 4. Advise the Chairman of the safety matters pertaining to General Safety Practices, Special Safety Procedures and the Line Safety Program which should be included in the meeting agenda.
- 5. Implement organization safety plans.
- 6. Report on the corrective action taken relative to the Health and Safety, Systems Test, and Quality and Reliability safety audits of his organization. The report will be due at the regular meeting following the Council's review of the audit.
- C. Health and Safety will provide a secretary to the Council. He will assist the Chairman with preparation of the meeting agenda and minutes. He will also maintain overall surveillance of the Boeing Michoud safety program and suggest improvement to the Council or individual Safety Directors. Individual assistance in operation of the Line Safety Program, training and accident/incident investigation will be provided the Safety Directors by Health and Safety on request.

SUBJECT:

Space Division

PROOF LOAD TEST, LOAD-BEARING EQUIPMENT

AFFECTED ORGANIZATIONS

Facilities Industrial Relations Operations

Manufacturing

Quality and Reliability Assurance

S-IC Systems Test

July 15, 1966 Supersedes issue dated November 23, 1964

FROM: S. C. A. WILKINSON

MICHOUD MANAGER

I. PURPOSE AND SCOPE

- A. This procedure defines and assigns responsibility for proof load testing of all load-bearing equipment at the Michoud Assembly Facility and the Mississippi Test Facility (MTF).
- B. Classification of equipment and actual proof load testing of facilities-type load-bearing equipment will be accomplished in accordance with Facilities SOI 550.3 (Michoud) and SOI 550.4 (MTF).
- C. Actual proof load testing of subject GSE equipment outlined in paragraphs IV. A. and IV. C. 2. will be accomplished in accordance with the applicable Operations SOI.

II. DEFINITIONS

- A. Load Bearing Equipment Equipment used to raise or lift objects or personnel including slings, hoists, cranes, spreader bars, lifting eyes on dollies, and all movable load-bearing components or accessories to such equipment. Does not include hand-operated, mobile floor jacks, fork trucks, trailers and dollies, etc.
- B. Proof Load Test A test to demonstrate minimum safety integrity for all load-bearing equipment, consisting of an application of a load equal to or greater than the established working capacity.
- C. Proof Load Test Program A testing and inspection program in which test loads are applied and visual inspections are made on subject equipment, on a scheduled basis.

III. GENERAL

A. The use and testing of subject equipment will comply with safety codes specified by Industrial Relations. Employees <u>must</u> observe safety precautions as specified in Boeing procedures, directives and manuals.

B. Load-bearing Equipment will be used for the designed purposes only. Under no circumstances will any component (wire, rope, sling or shackle) be removed for any purpose.

IV. RESPONSIBILITIES

A. All Using Organizations

- 1. Comply with prescribed safe working loads identified on the equipment or in applicable documentation.
- 2. Maintain a complete inventory of all equipment.
- 3. Notify Facilities, Proof Load Test, by memo, of all surplused or scrapped load-bearing equipment.
- 4. Prohibit the use of equipment on which certification period has expired.
- Request a waiver from Health and Safety if a piece of equipment cannot be released for proof load test.
- 6. Visually inspect all handling equipment before each use. Notify the appropriate proof load test organization when any piece of equipment shows abnormal wear or damage.
- 7. Ensure that employees are properly qualified to use material handling equipment.
- 8. Upon notification, send equipment due for test to the appropriate proof load test organization.
- B. Michoud Facilities Plant Services will proof load test all facilities-type load-bearing equipment at Michoud as outlined below. The Facilities Organization at MTF will be responsible for the accomplishment of the tasks outlined below for the Mississippi Test area. Actual testing will be conducted by the MTF Support Services Contractor and the MTO Test Operations Organization.

Facilities-Proof Load Test

- Performs the required visual inspections and proof load tests, with the exception of the forward handling rings, actuators, fin and fairing containers, GSE personnel platforms, S-IC rotational brace, and stage attach fittings, which will be accomplished by Operations - Equipment and Final Assembly.
- Notifies the controlling shops (those organizations which have been issued and are directly responsible for equipment covered in this procedure) prior to the date testing is required.
- Specifies the inspection and testing category of subject equipment.

- 4. Furnishes Health and Safety with a report on all test failures or unsafe conditions. Tags unsafe or damaged equipment with a "Do Not Operate" tag (S-550-5-3).
- 5. Where applicable, stamps the date of the next scheduled proof load test and the assigned number of the proof load test coordinator on the attached metal tag (UT 1037).
- 6. Visually inspects and proof load tests all new or repaired handling equipment.
- 7. Consults with the appropriate organization when equipment condition indicates that design changes or replacement may be desirable.
- 8. Requires a non-destructive inspection (radiographic, magnetic particle, etc.) after initial proof load test and after rework of Category II, III, and V equipment.
- 9. Requires a non-destructive test on all vendor-supplied or reassembled load-bearing equipment.

C. Operations

- 1. Quality and Reliability Assurance:
 - a. Non-destructively tests (radiographic, magnetic particle, etc.) all new load-bearing equipment. Stamps each item with the date and inspector number before releasing to stores or use.
 - b. Non-destructively tests any item of equipment upon the request of the appropriate proof load test organization.
 - c. Inspects to the drawing, all new load-bearing equipment which must be reassembled.
 - d. Inspects all equipment rework.
- 2. Equipment and Final Assembly (Michoud only)
 - a. Performs visual inspection and proof load tests on the forward handling rings, actuators, fin and fairing containers, GSE personnel platforms and stage attach fittings. This will be accomplished as outlined in Paragraph IV.B. above.
 - b. Coordinates with the Rotation Brace vendor for periodic proof load test of the brace.

- D. Industrial Relations Health and Safety
 - Maintain surveillance of design requirements and specifications of all subject equipment to insure that the use and testing of this equipment complies with safety codes specified by Health and Safety.
 - Give technical support on specific proof load test operations and training, as requested.
 - Grant waivers when warranted, notifying Facilities, Proof Load Test accordingly.

LAUNCH SYSTEMS BRANCH

Operating Procedure 550.4

SUBJECT:

Space Division

DESIGN, FABRICATION AND MAINTENANCE

OF LOAD-BEARING EQUIPMENT

July 15, 1966 (Supersedes issue dated November 23, 1964)

AFFECTED ORGANIZATIONS

Engineering Facilities Finance

Industrial Relations

Operations

Manufacturing

Materiel

Quality and Reliability Assurance

S-IC Systems Test

FROM: C. A. WILKINSON MICHOUD MANAGER

I. PURPOSE AND SCOPE

This procedure outlines the responsibilities for designing, fabricating, and maintaining load-bearing equipment located at the Michoud Assembly Facility and the Mississippi Test Facility.

II. DEFINITION

<u>Load-Bearing Equipment</u> - Equipment used to raise or lift objects or personnel, including slings, hoists, cranes, spreader bars, lifting eyes on dollies, and all movable load-bearing components or accessories to such equipment. Does not include hand-operated, mobile floor jacks, fork trucks, trailers and dollies.

III. GENERAL

Load-bearing equipment will be used for the designed purposes only. Under no circumstances will any component (wire, rope, sling, shackle, etc.) be removed and used for any other purpose.

IV. RESPONSIBILITIES - MICHOUD ASSEMBLY FACILITY

A. All Affected Organizations

- Incorporate applicable standard safety criteria in their intraorganization documentation and manuals.
- 2. Obtain the approval of Industrial Relations Health and Safety for non-standard safety criteria.
- 3. Maintain all load-bearing equipment assigned to them.

B. Facilities

- 1. Designs or approves the design and/or procurement of all subject equipment categorized as general purpose equipment. Fabricates load-bearing equipment as required. Assists other organizations in design or fabrication when requested.
- 2. Operates the Proof Load Test Facility. Consults with the appropriate organization when equipment condition indicates that design changes or replacement may be desirable.

C. Industrial Relations

- Provides, recommends, and monitors standard and non-standard safety criteria for load-bearing equipment and accessories in compliance with Company policy and governmental or legal requirements.
- 2. Maintains a surveillance of all subject equipment to ensure that the design, fabrication, use, and maintenance of this equipment complies with applicable safety standards.

D. Finance - Property and Material Surveillance

- 1. Maintains accountability records for all equipment obtained under this procedure.
- Identifies and tags all Industrial Facilities in accordance with Operating Procedure 310.2, "Receipt and Identification -Industrial Facilities".

E. Engineering

Designs or approves the design and/or procurement of all Stageoriented equipment falling within the scope of this procedure.

F. Operations

- 1. All Manufacturing Organizations
 - a. Design, fabricate, and maintain all subject equipment designated as Contract Tools and notify Facilities -Proof Load Test when Contract Tools are repaired or reworked.
 - Report completion of locally fabricated tools to Facilities.
 - c. Comply with Section III.

- 2. Quality and Reliability Assurance
 - a. Inspects the fabrication, repair or rework of all subject equipment designated as Contract or experimental Tools for compliance with applicable drawings, documents, and specifications.
 - b. Performs radiographic, magnetic particle, dye penetrant, or other non-destructive inspection after the initial proof load test, major rework, or at the request of Facilities - Proof Load Test.
- 3. Materiel Receiving and Stores

Notifies Facilities - Proof Load Test upon receipt of all supplier-furnished load-bearing equipment.

V. RESPONSIBILITIES - MISSISSIPPI TEST FACILITY (MTF)

- A. The Facilities, Industrial Relations and Finance Organizations at MTF are responsible for the accomplishment at MTF of all tasks assigned in paragraphs IV. A., B., and C. of this procedure as applicable.
- B. The Quality and Reliability Assurance and Materiel Organizations at MTF are responsible for the accomplishment at MTF of all tasks assigned in paragraphs IV.F.2. and 3. above.
- C. The Test Operations Organization at MTF
 - 1. Is responsible for "user maintenance" of all subject equipment.
 - Notifies Facilities Proof Load Test if repaired or reworked equipment needs a proof load test.

LSB 550.7 Michoud Directive

SUBJECT:

EVACUATION INSTRUCTIONS - MICHOUD

August 23, 1966

ROM: Cowilla

C. A. WILKINSON MICHOUD MANAGER

I. INTRODUCTION

The Michoud plant must be able to react quickly to situations which require the evacuation of its personnel (for example, fires, power failures, chemical spills, explosions or other disasters). These evacuations may involve only a portion of the work force but must always be accomplished in a manner that assures: (1) the safety of personnel and property (2) prompt return to normal operations at a minimum cost to the Company.

II. GENERAL

The Company does not want to restrict the use of good judgment by a person sensing and reporting trouble, regardless of his rank. This person may choose immediately to evacuate a dangerous area. People should be requested to go to a certain location and wait there for further instructions. Report the emergency by phoning 5-2333. Situations which warrant evacuation of personnel fall into two categories:

- A. Those where immediate action is necessary
 - 1. The person reporting the trouble has the prerogative to evacuate personnel from the danger area.
 - Organization managers and area supervisors have the prerogative to evacuate additional personnel if the situation warrants it.
 - 3. Security and Safety personnel arriving on the scene may also choose to order immediate evacuation of areas.
- B. Those where no immediate danger is present

In this situation, these guidelines apply:

- 1. The Michoud Manager makes the decision to evacuate when major portions of the work force are affected.
- 2. The Michoud Manager will decide if employees are to be sent home or are not to report for a work shift.
- The Michoud Manager's instructions to evacuate an area or to excuse a work shift will be given through line management channels.

4. Repeat instructions for evacuation and/or release of personnel will be given by public address, other means of rapid communications, or by Security and Safety personnel if the situation warrants.

III. RESPONSIBILITIES

A. Organization Managers will:

- 1. Evaluate the condition causing the evacuation and retain only those employees who are necessary. Give clear instructions and direction.
- Assure that they have the means of rapidly disseminating information to their employees either by runner or by "bull-horn" announcements.

NOTE: Assume that telephones and public address systems would be inoperative.

 Assure that each supervisor maintains a current telephone listing of employees' home phones.

B. Public Relations will:

- Assure that required commercial broadcasts are made to inform employees when to return to work in the event week-end or off-shift notification is required.
- 2. Prepare any written or public address communications that may be needed.

C. Industrial Relations will:

- 1. Assist the Michoud Manager in notifying his organization managers of emergency and/or evacuation instructions.
- 2. Assist the Public Relations Manager in disseminating employee information messages.
- Provide portable speakers (bull-horns) to the organizations most likely to require them for effective emergency announcements.
- 4. Inform Labor Relations of all situations which may result in evacuation of personnel.

Space Division

SUBJECT:

AUDIT OF S-IC SAFETY PROGRAM

August 23, 1966

AFFECTED ORGANIZATIONS

S-IC Engineering

Facilities

Industrial Relations S-IC Operations

S-IC Systems Test

C. A. WILKINSON

MICHOUD MANAGER

I. PURPOSE

This procedure explains the responsibilities for implementing the Safety Audit Program. Safety Audits are conducted to assess the adequacy of safety planning, safety command media and safety practices that bear directly upon personnel and equipment safety.

II. SCOPE

The provisions of this procedure shall apply to all S-IC activities.

III. GENERAL

- A. "In-depth" safety audits shall be conducted by Industrial Relations within each major S-IC organization. "In-depth" safety audits will involve a review of:
 - 1. Line Control Safety Program participation.
 - 2. Compliance with Company safety command media and accepted safety standards.
 - 3. Adequacy of internal operating instructions for using equipment and performing tests.
 - 4. Action taken to correct previously reported safety deficiencies.
 - 5. Development of safety program and emergency plans.
 - 6. Awareness of documented safety requirements and compliance with these requirements.
 - 7. Facilities safety deficiencies.
 - 8. Tooling safety deficiencies.
 - 9. Use, maintenance, and storage of protective equipment.
 - 10. Use, storage, and disposal of hazardous materials.
- B. Periodic comprehensive safety audits of S-IC Systems Test organizations will be conducted under the direction of the Systems Test Reliability and Safety Supervisor.

- C. Quality and Reliability Assurance will conduct supplemental safety audits of Operations, Engineering, and Facilities Organizations. These audits are for the purpose of evaluating the adequacy of and degree of compliance with safety command media and the elimination of previously reported safety deficiencies. These audits are conducted on a "team basis" with participation by line management.
- D. Undesirable conditions will be made known concurrently to all affected organizations and to that level of management which can assure corrective action in all areas and all shifts involved.
- E. Personnel assigned as auditors have the authority to investigate and report findings. Corrective action must be initiated by management.

IV. PROCEDURE

A. Affected Organizations:

- 1. Designate a representative at each location (inplant and remote sites) to act as a contact point for the auditor and coordinate audit activities and results within his organization.
 - NOTE: It is recommended that the organizations Safety Director and/or Area Safety Supervisor be designated this responsibility.
- 2. Help auditors determine the existence of safety program deficiencies.
- 3. In response to an audit report of an unsatisfactory condition, take appropriate action to alleviate the condition. The organization's representative shall coordinate the required corrective action.
- 4. Notify the auditor by memo of actions that have, or will be taken to resolve each deficiency. This will include estimated completion dates for each item and will be forwarded within one month following publication of the audit report.

B. Operations - Quality and Reliability Assurance:

- Develop audit check lists from command media that bear directly upon personnel and equipment safety and from Industrial Relations "in-depth" safety audits.
- 2. Assign qualified supervisors and/or quality engineers to audit teams.
- Contact the designated representative of the organization to be audited prior to starting the audit and coordinate the activity with all affected organizations.
- 4. Perform audits on a random, non-scheduled basis. Average frequency will be one audit of an organization per quarter.

- 5. Discuss findings with the affected organizations and Health and Safety to reach a mutual understanding of problem areas and possible immediate resolution prior to submitting reports of deficiencies.
- 6. Compile audit reports incorporating all findings and recommendations.
- 7. Submit a report of each audit to the cognizant line manager with copies to other affected organizations, to members of the Michoud Safety Council and to Industrial Relations Health and Safety.
- 8. Accomplish follow-up audits as required to assure that committed corrective action has been initiated and/or completed.
- C. Industrial Relations Health and Safety:
 - 1. Contact the organizational representatives prior to conducting "in-depth" safety audits.
 - 2. Act as technical consultant as required for Q&RA and Systems Test audits to resolve questionable practices noted during safety audits.
 - 3. Furnish Q&RA and Systems Test copies of all "in-depth" Safety Audits and related correspondence in order that appropriate follow-up action can be taken.
 - 4. Discuss findings with the affected organizations to reach a mutual understanding of problem areas and possible immediate resolution prior to submitting reports of deficiencies.
 - NOTE: "In-depth" audits are conducted of all S-IC organizations on a random scheduled basis. At least one audit will be scheduled each month. Scheduling will be coordinated with Systems Test and Q&RA to avoid needless overlap in audit functions and to enable auditing on a cooperative basis where possible.
- D. Systems Test Reliability and Safety:
 - 1. Perform safety audits of S-IC Systems Test Organizations.
 - Submit a report of each audit to the cognizant line manager with copies to other affected organizations, to members of the Michoud Safety Council and to Industrial Relations - Health and Safety.

Operating Procedure 605.8

SUBJECT:

Space Division

REINSPECTION REQUEST

July 15, 1966 (Supersedes issue dated

June 9, 1965)

AFFECTED ORGANIZATIONS

All Organizations

REFERENCE:

Boeing Document D2-4800, "Quality Control Manual"

C. A. WILKINSON MICHOUD MANAGER

I. PURPOSE

This procedure describes the use of the "Reinspection Request", form S-680-75-27.

II. SCOPE

The Reinspection Request is used to authorize, control and record outof-sequence inspection of items known or suspected of being nonconforming due to inspection discovery, drawing or planning changes, damage or age expiration, or periodic inspection limitations.

III. GENERAL

- A. Quality and Reliability Assurance conducts all reinspections, rejecting nonconforming materials on an Unplanned Event Record (form S-812-65-16), and recording acceptance of items on the Reinspection Request form.
- B. Nonconforming material is rejected and disposed of in accordance with Operating Procedure 605.1, "Materials Review Board S-IC Program". Nonconforming Government Furnished Equipment is processed in accordance with Operating Procedure 527.3, "Government Furnished Property" and Logistics Operating Method No. 15, "Providing Spares Support for Government Furnished Property (GFP)".
- C. Material stored in Parts Control Areas (PCA's) and Material Stores Areas (MSA's) which is known or suspected to be non-conforming is held in the storage area until accepted by Quality and Reliability Assurance (Q&RA), routed to a segregated area, or released for rework on an order issued by Manufacturing Engineering.
- D. Reinspection Requests are handled on an expedited basis with special effort to prevent production stoppages.

- E. Every precaution should be taken to avoid the indiscriminate use of the Reinspection Request form. When doubt exists of the need for reinspection, the requesting organization conducts a preliminary investigation to establish a specific reason for the reinspection.
- F. Rework resulting from a reinspection must be coordinated immediately with the responsible Manufacturing Engineering organization.

IV. RESPONSIBILITIES

S-IC OPERATIONS -Manufacturing Engineering

- Initiate Reinspection Request form when a drawing change, planning change, or the results of a test indicate that previously accepted material could be nonconforming.
- Issue planning work orders as required for rework or retest necessary as a result of reinspection.
- S-IC OPERATIONS Materiel or Manufacturing
 (Production Control)
- 3. Initiate a Reinspection Request when:
 - a. Age limitations or periodic inspection requirements have expired.
 - b. The pink copy of a properly validated Unplanned Event Record (UER) is received bearing the note, "Stores Check Required".
 - c. Material is damaged.
 - Items are improperly identified and/or packaged.
 - e. Items are in storage without evidence of accomplishment of inspections and tests.
 - f. Correspondence with a vendor indicates items in storage may be discrepant.
- S-IC OPERATIONS -Quality and Reliability Assurance
- 4. Receive, process and coordinate all Reinspection Requests from all organizations.
- 5. Conduct reinspection of materials stored in PCA's and MSA's under its jurisdiction or in adjacent stores areas.
- 6. Validate all Reinspection Requests or furnish the originator with the reason for not doing so (e.g., duplicate request by another organization).

S-IC OPERATIONS -Quality and Reliability Assurance

- 7. When the nature of a discrepancy found in a product component or contract tool indicates that it may exist in parts in a PCA, MSA or shop area, initiate the Reinspection Request for the affected stores area.
- 8. Review all Reinspection Requests to determine if parts still in fabrication on open orders require special inspection. If required, notify the affected Q&RA organization.
- S-IC OPERATIONS All Organizations
- 9. Provide assistance to Q&RA or Materiel in obtaining location and recovery of materials requiring reinspection.

S-IC SYSTEMS TEST

- 10. Initiate a Reinspection Request when it is suspected that previously accepted material could be nonconforming.
- 11. Issue planning work orders as required for rework or retest as a result of reinspection of materials.
- 12. At remote test bases, comply as appropriate with all provisions of this procedure.

ALL ORGANIZATIONS

- 13. Initiate a Reinspection Request whenever it is determined that a need exists.
- 14. Route all Reinspection Requests to, and coordinate with, Quality and Reliability Assurance.

Space Division

SUBJECT:

LAUNCH SYSTEMS BRANCH

Operating Procedure 650.1 SECTION I

June 24, 1966

(Supersedes issue dated August 12, 1965)

AFFECTED ORGANIZATIONS

ANALYSIS OF FAILURES -

PRODUCTION HARDWARE

Contracts Systems Test Engineering Operations Materiel

MICHOUD MANAGER

Quality and Reliability Assurance

REFERENCES:

(a) Operating Procedure 605.1, "Nonconforming Materials -Materials Review"

(b) Operating Procedure 605.5, "Failure Flash Report"(c) Operating Procedure 605.6, "Corrective Action Request -Preparation, Routing, Follow-up"

(d) Operating Procedure 527.3, "Government Furnished Property"

(e) Operating Procedure 730.1, "Software Delivery - Documentation and Transmittal of Data Required by Contract, S-IC Program"

I. PURPOSE

This procedure establishes the system and organizational responsibilities for the detection, recording, investigation, analysis, reporting, and follow-up of failures to production S-IC stage and GSE hardware.

II. SCOPE

- This procedure applies to all areas under Boeing control at Michoud, Α. MTF, MSFC, and to all Boeing outplant locations handling S-IC hardware. It is not applicable at KSC pending negotiations on handling of failed hardware at that location.
- Failures which occur in Qualification Test shall be processed in accordance with Section II of this procedure, "Analysis of Failures - Qualification Test". Failures occurring during Reliability Test will be processed in accordance with Section III of this procedure "Analysis of Failures - Reliability Test".
- Failures which occur to GFP shall be processed in accordance with reference (d). After permission to conduct failure analysis is granted by the customer, the analysis shall be conducted in accordance with this procedure.

DEFINITION III.

Failed hardware is defined as that which has once been accepted by Boeing and placed in stores for use and which subsequently fails to perform to its established requirements.

IV. GENERAL

- A. Analysis of all failures is required in order to determine the cause and mode of failure so that prompt and effective corrective action can be taken (reference c). The work priority assigned to a particular analysis will be based on the failure classification: Critical failures will receive priority handling; non-critical failures will be scheduled with routine work.
- B. Supplier furnished items will not be opened or disassembled for analysis without the knowledge of Materiel in order to assure that warranties are not voided.
- C. Accurate reporting on failed production hardware is required so that failure rates can be determined for reliability assessment, logistics, and other purposes. "Failures" which occur prior to an item being accepted and placed in stores for use may be analyzed to determine the cause, but are not classed as failures in the determination of failure rates.

V. RESPONSIBILITIES

The organizations listed in the following sub-paragraphs have the primary responsibility for the listed functions. Normally, the decisions made by each organization will be arrived at in consultation with the other organizations involved and will reflect a mutual agreement. The organizational responsibilities and the "work flow" associated with failure analyses are shown in Figure 1 and outlined below.

A. Detection and Recording

Quality and Reliability Assurance, in conjunction with Test Personnel, shall:

- 1. Validate UER's prepared in accordance with management directive LSB 812.1 and D5-11593.
- 2. Determine whether the reported condition is a nonconformance or a probable failure.
- 3. Process nonconformances in accordance with reference (a) and related procedures.
- 4. Record the necessary information on probable failures on the UER form. Record that on-site investigation is required to determine the cause of failure, and present the validated UER to the liaison engineering group for further action.

B. Investigation and Identification

- Liaison Engineering, upon receipt of a validated UER requesting on-site failure investigation, in conjunction with Design and Test Personnel, shall:
 - (a) Assure that a complete and thorough investigation is conducted to assure that:

- (1) The trouble is isolated to the lowest "remove and replace" level of hardware.
- (2) The failure is identified as a primary or secondary failure.
- b. Establish the failure priority by determining if the failure is critical (those affecting flight mission, safety, or delivery), or non-critical.
- c. Prepare a Failure Flash Report (reference b) on those failures determined to be critical, and submit the completed Failure Flash Report to the Reliability Data Center for distribution.
- d. Establish the need for additional analysis of the item at a test laboratory.
 - (1) If the cause of failure has been identified by the on-site investigation, document all findings and conclusions on the UER, and assure hardware disposition in accordance with reference (a) and related procedures.
 - (2) If the cause of failure has not been identified by the on-site investigation, document all findings on the UER, check "Anal Req'd Yes" and record "Route for Failure Analysis" on the UER, and route the UER to the Central Discrepany Control Area (CDCA). The failed item will be routed to the CDCA, except where item size or nutplant location indicate that on-site analysis or direct transportation to the analysis site is preferable.
- 2. Quality and Reliability Assurance CDCA, shall:
 - a. Receive and hold UER's and hardware routed for Failure Analysis.
 - b. Forward both to the designated test laboratory upon receipt of the Additional Analysis Requirements.
- C. Analyses and Reporting
 - 1. Design Engineering, upon receipt of a UER or other information that indicates failure analysis is required, shall:
 - a. Review the failure and on-site investigation information, and establish the additional analysis requirements to assure a thorough analysis and that failure information is not destroyed prior to determining the cause of failure.
 - b. Designate the test laboratory to conduct the analysis.
 - c. Establish a schedule for conduct of the analysis and release of the laboratory test report in accordance with the failure classification and priority.
 - d. Distribute copies of the "Additional Analysis Requirements" to the designated test laboratory, the CDCA, the Reliability Data Center, and to Materiel (for supplier items).
 - e. Review the completed laboratory analysis report to evaluate the findings, and assure that the mode and cause of failure have been identified.
 - f. Prepare the Failure Analysis Report, including recommendations for corrective action, and forward the report original to the Reliability Data Center.

- The designated Test Laboratory, upon receipt of the additional analysis requirements and the failed item and UER, shall:
 - a. Prepare an analysis test procedure.
 - b. Perform the analysis in accordance with the procedure.
 - c. Prepare a laboratory test report documenting the analysis findings and conclusions, and forward the completed report to Design.
 - d. Upon completion of the analysis, obtain final disposition of the hardware in accordance with reference (a) and related procedures.

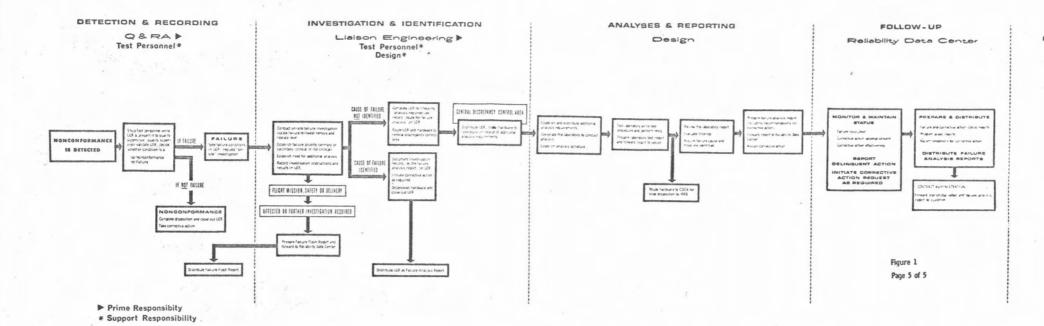
D. Follow-Up

- Quality and Reliability Assurance Reliability Data Center, shall:
 - a. Receive
 - (1) preliminary copies of validated UER's
 - (2) completed Failure Flash Reports
 - (3) copies of completed UER's
 - (4) copies of completed Additional Analysis Requirements
 - (5) the original copy of each completed Failure Analysis
 Report
 - b. Monitor the failure analysis function and prepare, maintain, and distribute status reports based upon the data received.
 - c. Report to appropriate management any delinquent actions in accomplishing investigations and analyses.
 - d. Distribute
 - (1) Failure Flash Reports, including direct transmission to the customer
 - (2) Failure Analysis Reports, including UER's noted as Failure Analysis Reports when additional laboratory testing is not required, and prepare transmittal letters where customer distribution is required.
 - (3) Failure, Failure Analysis, and Corrective Action Status Reports.
- 2. Contracts will:

Forward transmittal letters and failure analysis reports to the customer (reference e).

- 3. All Organizations shall:
 - a. Initiate or assign corrective action as required to assure correction of problems noted during the investigations and analyses and to assure non-recurrence of problems (reference c).
 - b. Release or revise Standard Operating Instructions to implement this procedure.

FAILURE ANALYSIS WORK FLOW CHART



Space Division

LAUNCH SYSTEMS BRANCH

Operating Procedure 820.2

SUBJECT:

PART CARD TRANSFERS - MICHOUD

August 10, 1966

(Supersedes issue dated February 16, 1966)

AFFECTED ORGANIZATIONS

* S-IC Operations Manufacturing

Industrial Engineering

S-IC Systems Test

MICHOUD MANAGER

REFERENCE:

Branch Operating Procedure 371.11, "Interorganizational

Work Authorizations"

I. PURPOSE AND SCOPE

To establish a system for the transfer of Part Card work and related budgets between the Operations and Systems Test Organizations.

II. GENERAL

- Part Cards are prepared by Operations for the procurement, fabrication and/or assembly of all S-IC Stage hardware for all configuration codes; "V", "F", "G", "H", or "J" and S-IC Stage ground support equipment. Installation responsibility codes are applied on each Part Card as follows:
 - Code "C", "E", "F", or "S" for Operations responsibility 1.
 - Code "T" for Systems Test responsibility
- B. The specific organizational responsibility assignments listed on the Part Cards are in accordance with the general organizational responsibilities assigned per Program Directive - Operations Number 200.
- The transfer of organizational responsibility assignments listed on Part Cards may be accomplished through approval by Operations of Part Card "re-coding" by Systems Test (or vice versa) and the completion of an Interorganizational Work Authorization (IOWA) to transfer budget and work responsibility.

III. DEFINITIONS

- Configuration Codes A.
 - 1. "V" - Common to all configurations
 - 2. "F" - Factory Delivery
 - 3. "G" - Static Test
 - 4. "H" - Refurbishment
 - "J" Flight 5.
- Installation Responsibilities
 - "C" Containers
 - "E" Electrical/Electronic
 "F" Final Assembly 2.
 - 3.
 - "S" Structures
 - "T" Systems Test

IV. RESPONSIBILITIES

OPERATIONS -Manufacturing Engineering Prepares all Part Cards for all configuration codes ("V", "F", "G", "H", or "J"), applies installation responsibility codes and routes to Operations -Production Control for distribution.

OPERATIONS -Production Control Reproduces, sorts, and distributes Part Cards to appropriate Manufacturing Engineers and routes two copies of each Part Card that contains "T" responsibility code to Systems Test.

SYSTEMS TEST

- 3. Reviews all "T" coded Part Cards received from Operations along with Engineering documentation. This review results in either:
 - a. Concurrence; in which case the Part Cards will be filed by reference, or;
 - b. Non-concurrence; in which case the "T" installation code will be crossed out and the appropriate Operations installation code applied. This will be done only after coordinating with the appropriate Manufacturing Engineering organization to ensure Operations can support the installation at some point other than as coded. One copy of the Part Card will be returned to Operations Industrial Engineering along with the related IOWA.
- 4. Prepares and issues IOWA to Operations for all installation code changes. IOWA's are prepared in accordance with the referenced procedure.

OPERATIONS -Manufacturing Engineering Coordinates with Systems Test on work they desire to transfer back to Operations.

OPERATIONS -Industrial Engineering

- 6. Receives the Manufacturing Engineering coordinated work transfer Part Cards and IOWA's from Systems Test and records work assignment that is to be transferred to Operations. Obtains concurrence of Manufacturing Industrial Engineering.
- 7. Signs off Part Cards that authorize Operations work and routes to the appropriate Production Control Unit. Signs off related TOWA's to accomplish the necessary work and budget transfers.

OPERATIONS -Manufacturing Engineering 8. Receives Part Cards from Production Control that Systems Test has recoded as Operations installation responsibility and releases required planning paper.

SYSTEMS TEST

Provides user need dates to Operations for each "G", "H", or "J" configuration hardware item for each stage.

SYSTEMS TEST

10. Furnishes Parts List Pages (PLP's) to Operations for each "G" and "H" installation 30 days prior to required date.

OPERATIONS -Manufacturing

- 11. Schedules the processing of "G", "H", or "J" configuration hardware to meet user dates. Notifies Systems Test, after receipt of Parts List Pages, if the PLP parts will be delivered on need dates and, if not, estimates how soon thereafter the parts will be available.
- 12. From Systems Test's PLP's selects "G" or "H" configuration hardware for issuance and routing to Systems Test on their need dates.
- 13. Stores, accounts for, and maintains configuration of all hardware completed prior to Systems Test requirements dates. Provides IOWA and MorTP and IR to Systems Test for after-delivery changes that are the responsibility of Operations (i.e., "F" or "V" configuration changes or modifications).
- 14. Prepares a traveler statement at the completion of final assembly which defines what "T" coded installations were accomplished and what Operations coded installations were not. In the latter case, provides a work schedule and an IOWA to Systems Test for any work that Operations desires Systems Test to perform to complete Operations coded installations.

SYSTEMS TEST

- 15. Performs all Operations coded work transferred with Stage from Operations when covered by IOWA, if accepted by Systems Test as a responsibility.
- 16. Prepares and issues IOWA to Operations for all "T" coded installations that Systems Test desires Operations to perform to Systems Test schedules.

OPERATIONS -Manufacturing

17. Responds to requests by Systems Test to perform "T" coded installations when appropriate IOWA from Systems Test is received.

SYSTEMS TEST

- 18. Maintains "F" or "V" stage configurations after receipt from Operations, in accordance with IOWA and MorTP and IR. (Only "F" or "V" stage configuration changes or modifications require IOWA from Operations).
- 19. Maintains "G", "H", and "J" stage configurations.

SYSTEMS TEST, OPERATIONS -Manufacturing

20. Comply with Change Board commitments for change incorporation.