DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
TEST PROGRAM SET (TPS) AND OPERATIONAL TEST PROGRAM SET (OTPS) ACCEPTANCE TEST PROCEDURES (ATPs)	DI-ATTS-80282B

3. DESCRIPTION / PURPOSE

3.1 This Data Item Description (DID) establishes the criteria and acceptance procedures to demonstrate that the OTPS elements meet performance characteristics as defined in the contract.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
970211	N/PMA-260		

7. APPLICATION / INTERRELATIONSHIP

7.1 This DID contains the format and content preparation instructions for the data product generated by the specific and discrete task requirements as delineated in the contract.

7.2 This DID is related to DI-ATTS-80281A TPS Integration Logbook, DI-ATTS-80283B, TPS/OTPS Acceptance Test Report (ATR), DI-ATTS-80284B Test Program Set Documentation (TPSD), and DI-ATTS-80285B Engineering Support Data (ESD).

7.3 This DID supersedes DI-ATTS-80282A.

8. APPROVAL LIMITATION	8a. APPLICABLE FORMS	8b. AMSC NUMBER
		N7236

10. PREPARATION INSTRUCTIONS

10.1 Format. Contractor format acceptable.

10.2 Contents. The ATP shall contain:

a. List of applicable documents
b. Test requirements and test conditions for each item
c. List of test equipment required
d. Type of test (FCA. PCA, etc.)
e. Fault insertion list and failure reporting method
f. Accept/reject criteria
g. Duties and responsibilities of test personnel
h. Step-by step procedures to be followed to conduct the test
i. Data sheets identifying the item to be tested and whether the item was accepted/rejected and any associated corrective action
j. A signature/date cover sheet to include the contractor program manager, quality assurance personnel, test engineer, and Government representative

(continued on page 2)

11. DISTRIBUTION STATEMENT

Distribution Statement A: Approved for public release; distribution is unlimited.

Block 10, Preparation Instructions (continued)

10.3 Acceptance Test Procedures (ATPs). The ATP shall be in two parts. Part I shall be the First Article OTPS/TPS Acceptance Test Procedures and Part II shall be the Production OTPS/TPS Acceptance Test Procedures delineated as follows:

10.3.1 Part 1 - First Article OTPS/TPS ATP. (See figure 1) Part I shall address the step-by-step method which the contractor recommends for use in first article testing of the OTPS/TPS. The procedure shall determine that all contractual requirements have been met. Part I shall include:

a. Functional Configuration Audit (FCA)
b. Physical Configuration Audit (PCA)
c. Transportability

10.3.1.1 The following content shall be used for Part I:

SECTION 1 - Functional Configuration Audit (FCA). (See figure 2 thru 4)

This section shall contain the procedures to verify that the OTPS/TPS has achieved the performance specified in the contract. The test procedures shall include:

a. OTPS/TPS Design Verification Test (DVT)
b. Integration Logbook review
c. Test Program documentation
   - Operational Test Program Set Instruction (OTPI)
   - Master Test Program Set Index (MTPSI)
   - Engineering Support Data (ESD)
d. Maintainability Demonstration

The DVT shall contain the procedures to verify that the OTPS/TPS meets the required ambiguity group size. Figure 4 provides a sample Fault Selection List. Columns are identified as follows:

Column (1) Fault Number - This represents a unique identifier for each item contained in the respective list of faults. The initial number of faults listed to be inserted is to be twice the number as specified in the contract.

Column (2) Failure Symptom - The failure symptom represents the effect of the implemented failure mode.

Column (3) Failure Mode - This describes the UUT performance that is degraded as a result of the fault insertion.

Column (4) Fault Callout - This is the detected TPS defect a result of the fault insertion.

The Maintainability Demonstration procedure shall be included in its entirety or by reference if it is a separate deliverable.

SECTION 2 - Physical Configuration Audit (PCA) . (See figure 5)

This section shall contain the procedures to verify that the initial product configuration baseline and acceptance is in compliance with the requirements as specified in the contract. The PCA shall include a review for completeness of the following hardware and software documentation:

a. Technical Data Package
b. Technical manual/with Group Assembly Parts List (GAPL)
c. Test program documentation
d. LSA data: Provisioning technical documentation

SECTION 3 - Transportability Demonstration . (See figure 6)

This section shall define the level of testing that shall be performed to verify the performance requirements of the OTPS/TPS.

10.3.2 Part II - Production OTPS/TPS ATP. (See figure 7) Part II shall address the step-by-step method which the contractor recommends for use in testing each OTPS/TPS produced after the first article to determine that all contractual requirements have been met.

10.3.2.1 The following format shall be used for Part II:

SECTION 1 - Testing Requirements.

This section shall contain the test to be performed to verify the performance of the OTPS/TPS. Specific level of testing shall be identified with precise functions to be tested. Each level of testing shall address operator actions, displays, and any other requirements for evaluation. Test procedures for PART II shall include:

a. ID self test
b. UUT end-to-end test

SECTION 2 - Test Program Documentation.

This section shall contain the procedures to verify the completeness of the OTPS/TPS documentation. The procedures shall include a review of the following documentation:

a. Operational Test Program Instruction
b. Master Test Program Set Index

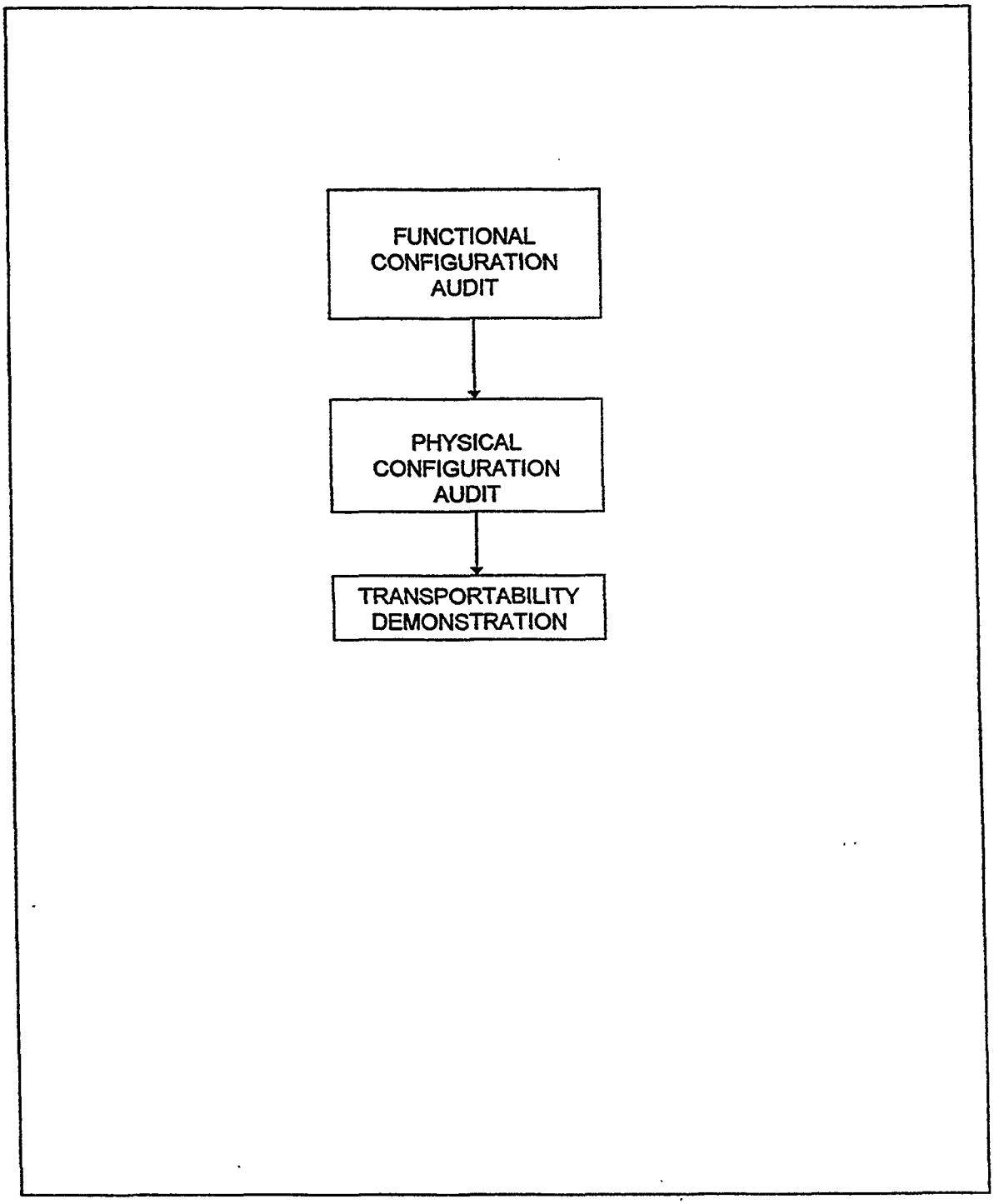

FIGURE1. First Article OTPS/TPS Acceptance Test Procedure Sample

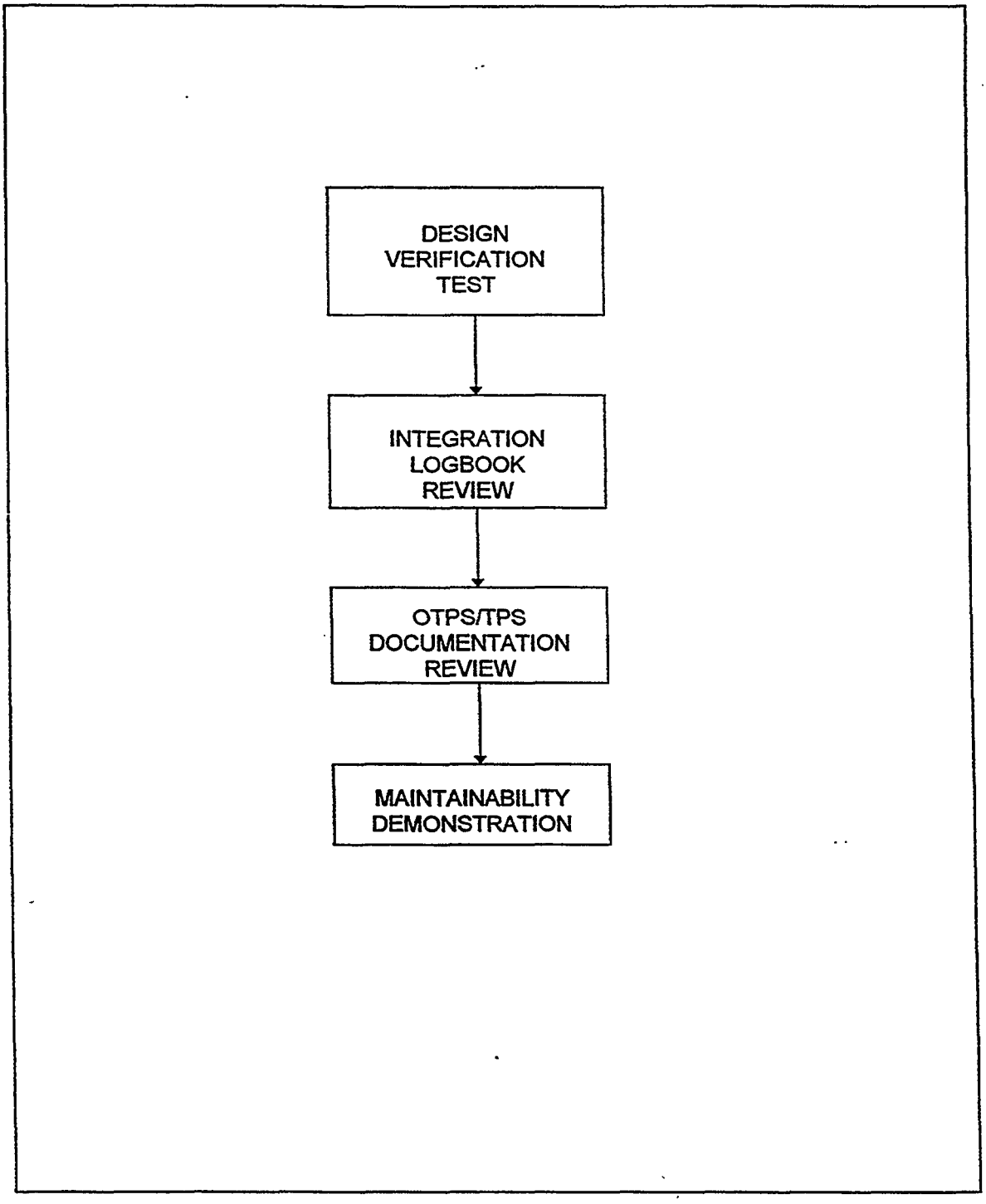

FIGURE 2. First Article OTPS/TPS Functional Configuration Audit Sample

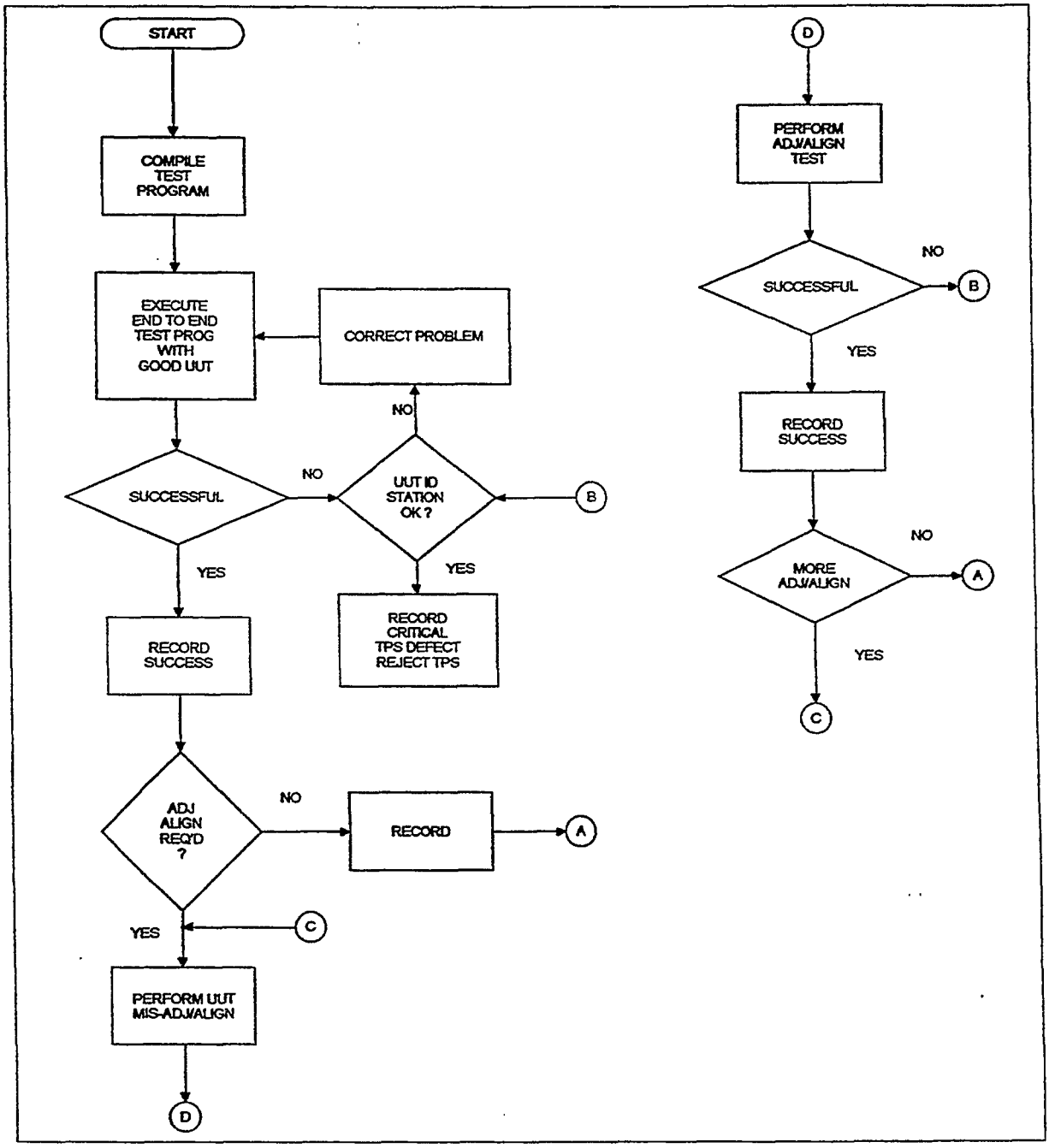

FIGURE 3. OTPS/TPS Design Verification Test Flow Chart Sample

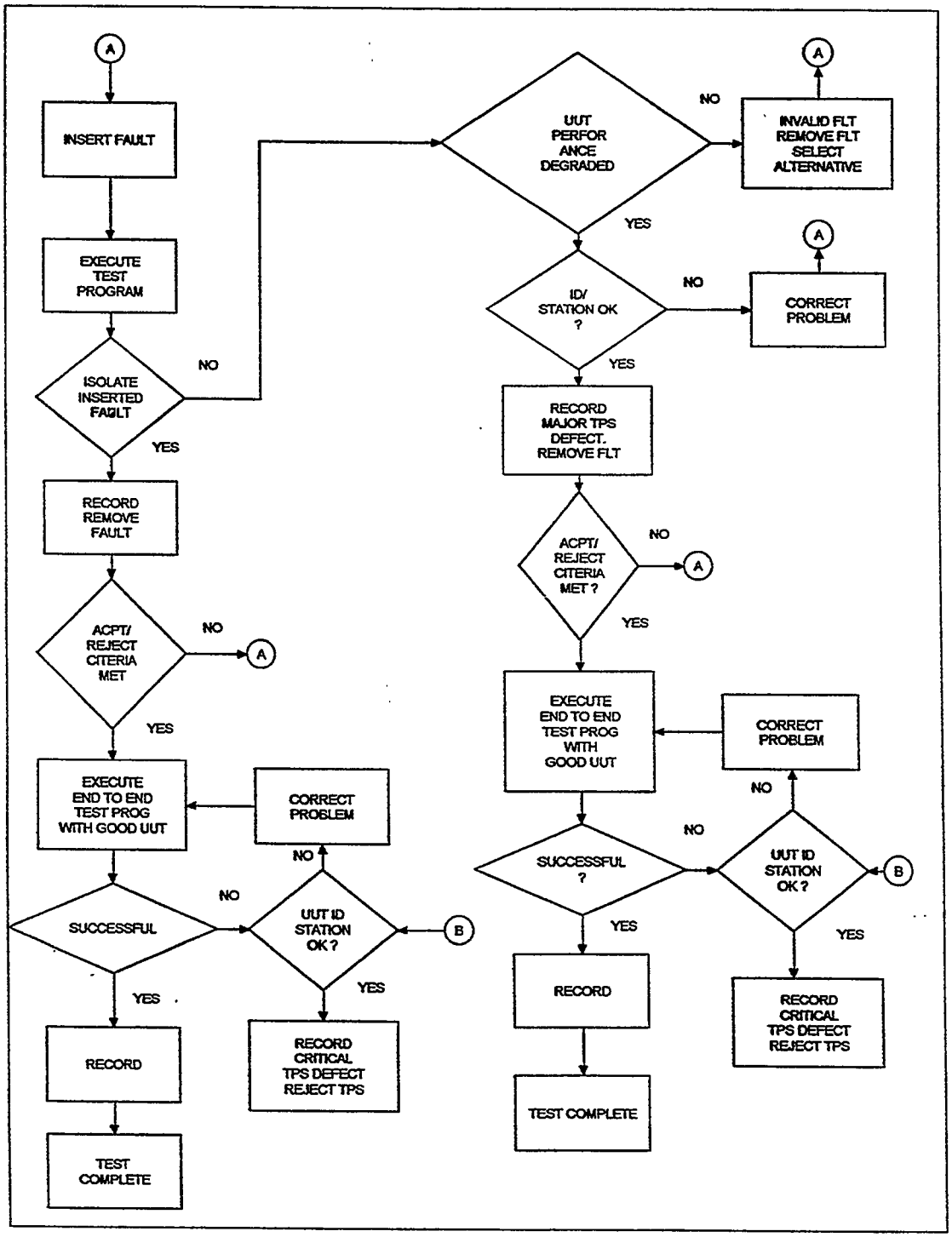

FIGURE 3. OTPS/TPS Design Verification Test Flow Chart Sample -continued

FAULT SELECTION LIST

FAULT NUMBER	FAILURE SYMPTOM	FAILURE MODE	FAULT CALLOUT

FIGURE 4. Fault Selection List

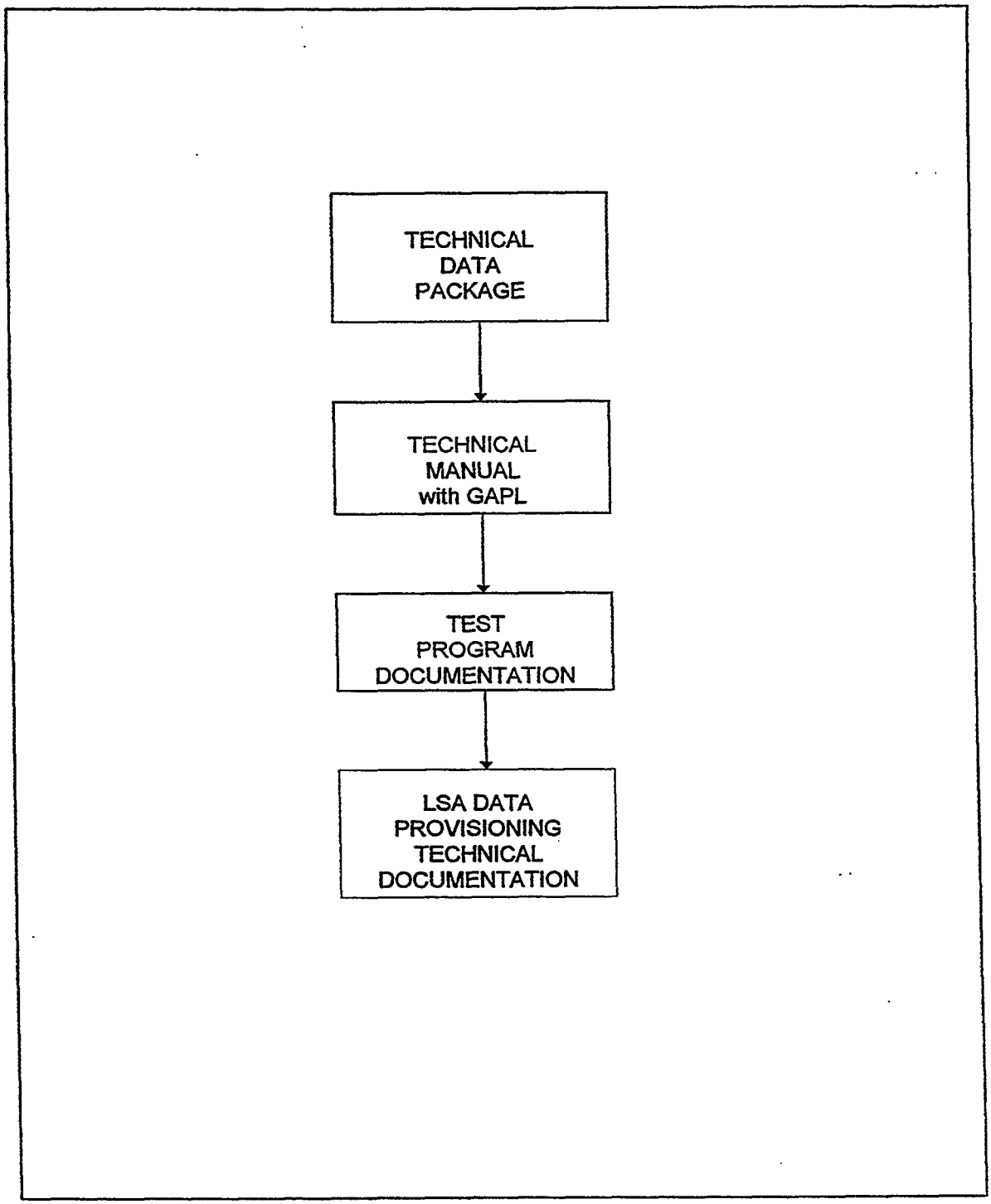

FIGURE 5. First Article OTPS/TPS Physical Configuration Audit Sample

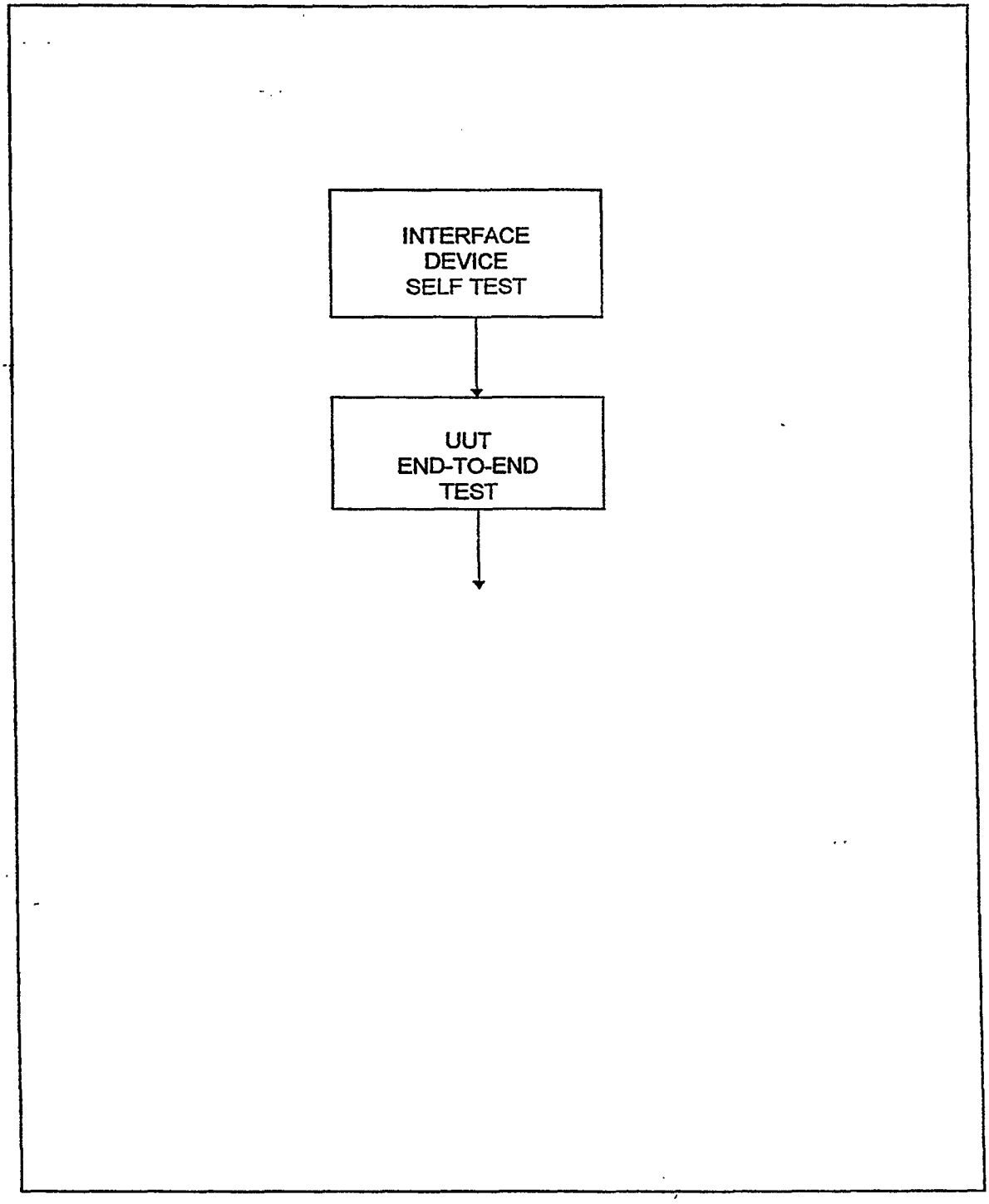

FIGURE 6. First Article OTPS/TPS Transportability Demonstration Sample

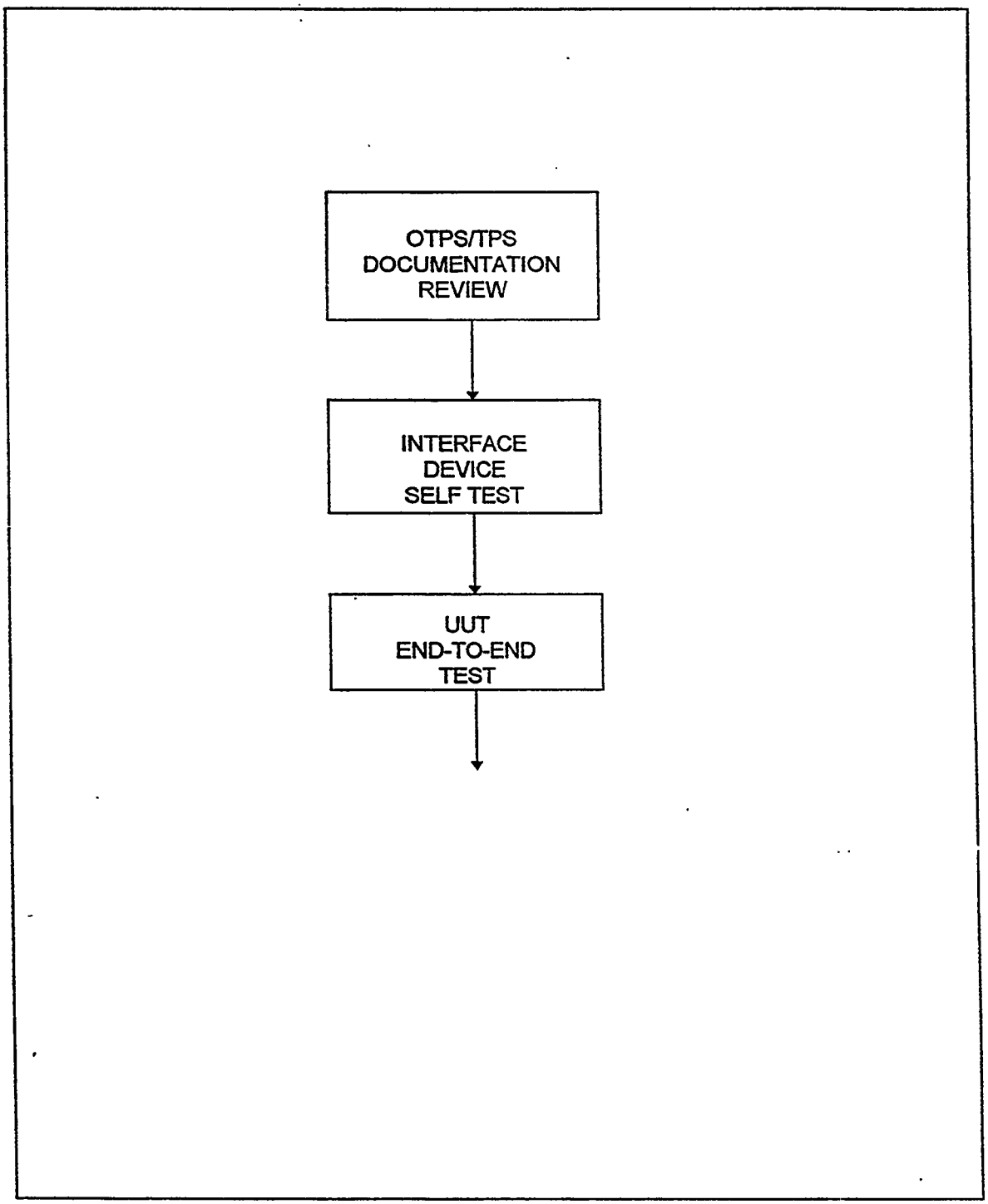

FIGURE 7. First Article OTPS/TPS Physical Configuration Audit Sample