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Final Report

DEVELOPMENT OF AIR FORCE FLIGHT SAFETY MODELS

Volume 7

A-37

AIRCRAFT

(Includes Documentation for T-37 Model)

October 1975

Prepared for

SERVICE ENGINEERING DIVISION
SAN ANTONIO AIR LOGISTICS CENTER
Kelly Air Force Base, Texas

Under Contract F09603-72-A-1132-SA01

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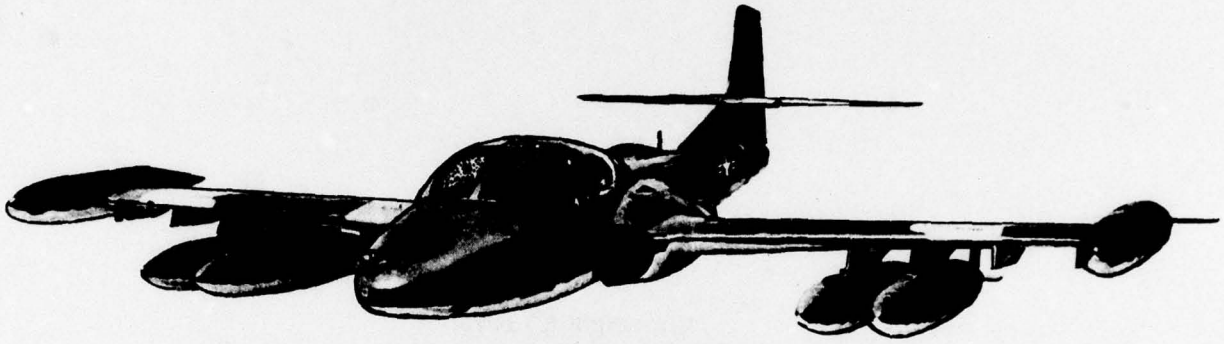

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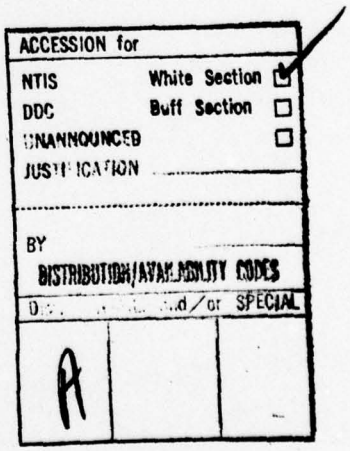
ABSTRACT

A general description of the Flight Safety Prediction Technique, and the documentation associated with its specific application to both the A-37 and T-37 aircraft, are presented.



GLOSSARY

This glossary presents general definitions of terms used in this report. The reader will find certain of these terms defined in somewhat different words in the text, depending on the context of the discussion; but the meaning will be consistent with the definitions given here.

Criticality – A numerical index of the significance of equipment failure history relative to aircraft safety. As an analysis parameter, it can be considered proportional to the likelihood that an item will fail and thereby cause an accident. It is the product of the failure probability and the sensitivity of an equipment item.

Dependency – See link dependency.

FSPT – Flight Safety Prediction Technique

Flight Phases – Discrete segments of the aircraft mission profile. For present purposes, the flight phases are defined as 1) startup and taxi, 2) takeoff, 3) climb, 4) cruise, 5) tactics, 6) cruise, 7) descend, 8) land, and 9) taxi and shutdown.

Functional Analysis – The determination of equipment relationships to aircraft functions performed, and the interrelationships of these functions.

Functional Link – The simplest form of functional relationship in which one function is dependent upon the next lower function.

Functional Path – The compilation of functional links, in sequence, through which a function is identified as being dependent upon another.

Link Dependency – The conditional probability of a dependent function failing, given that a particular function it is dependent upon has failed.

Provisory Condition – Operation of an aircraft in a mode or environment such that the safety-related importance of certain equipments is increased. Provisory conditions include icing, night flight, supersonic flight, etc.

Provisory Factor – The probability that a provisory condition exists. Also used to describe the coded notation used to indicate that a functional relationship is dependent on a particular provisory condition.

Safety Sensitivity – Same as "sensitivity".

Sensitivity – A quantitative indication of the degree of safety degradation to be expected if a function or piece of equipment fails. The more specific terms are "functional sensitivity" or "equipment item sensitivity".

Sensitivity Path – A particular sequence of functional dependencies (beginning at the top level in the hierarchical structure) through which a function or piece of equipment derives a sensitivity value. Equipment and functional sensitivity values are often derived through several such sensitivity paths.

FOREWORD

This document is part of a 16-volume report describing the application to specific aircraft types of ARINC Research Corporation's Flight Safety Prediction Technique (FSPT). The technique was developed under previous Air Force contracts (see Appendix A). The present effort, undertaken in 1972 under Contract F09603-72-A-1132-SA01, has led to further refinement of the FSPT through its broad application to many different types of aircraft. The flight safety models generated for these aircraft are presented in individual volumes of this report as follows:

Volume	Aircraft	Volume	Aircraft
2	T-38	10	B-52G, H
3	F-111A, FB-111A	11	C-130E
4	A-7D	12	KC-135
5	F-4D, E; and RF-4C	13	C-5A
6	C-141	14	T-39
7	A-37	15	F-15
8	O-2	16	UH-1N Helicopter
9	OV-10		

Volume 16 will document the results of a feasibility study of extending the FSPT to rotary-wing aircraft.

Volume 1, an overall summary of the contractual effort, will be issued at the end of the contract period.

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1
INTRODUCTION

The Flight Safety Prediction Technique developed by ARINC Research Corporation provides for assessment of the impact on flight safety of the failure of specific items of equipment within an aircraft. In the FSPT, mathematical modeling procedures are applied for processing aircraft-equipment failure data to yield a quantified index ranking safety-related problems on the basis of their likelihood of occurrence and the resulting degradation in the aircraft's capability to fly.

The ranking factor is called "criticality", which in its simplest form is the product of the failure probability and flight-safety sensitivity of an equipment. (A more detailed definition appears in Section 2 and Appendix B.) The failure probability inputs are from basic failure-data sources, AFM 66-1 and 65-110. The sensitivity estimates are derived by the following process:

a. Systematic analysis of aircraft functions to determine those essential to flight safety

b. Identification of the hardware required to perform these functions

c. Evaluation of the safety significance of the hardware in performing these essential aircraft functions.

The criticality values resulting from this approach provide a relative ranking of all malfunctions with respect to their safety significance. Figure 1-1 is a simplified example of how three equipment items would be ranked on the combined basis of their failure probability and safety sensitivity. This figure illustrates an example in which item A has the highest failure probability, but due to the low sensitivity value is ranked below item B in criticality.

The methodology has the ability to rank malfunction problems currently and continuously by their accident potential. This ranking, based on criticality assessment, can provide the basic parameters necessary for:

a. Identifying equipment items whose failure history and application pose a threat to aircraft safety

b. Quantifying the degree of threat associated with each equipment item

c. Evaluating and tracking the effectiveness of modifications to the aircraft

d. Assessing safety benefits versus the cost of proposed aircraft modifications, changes in maintenance or flight operations, or alternative aircraft designs.

In this report, Section 4 and Appendix D pertain specifically to the A-37 aircraft. The remainder of the document provides support information that will make the A-37 data, and the method by which the data were obtained, more meaningful to the general reader.

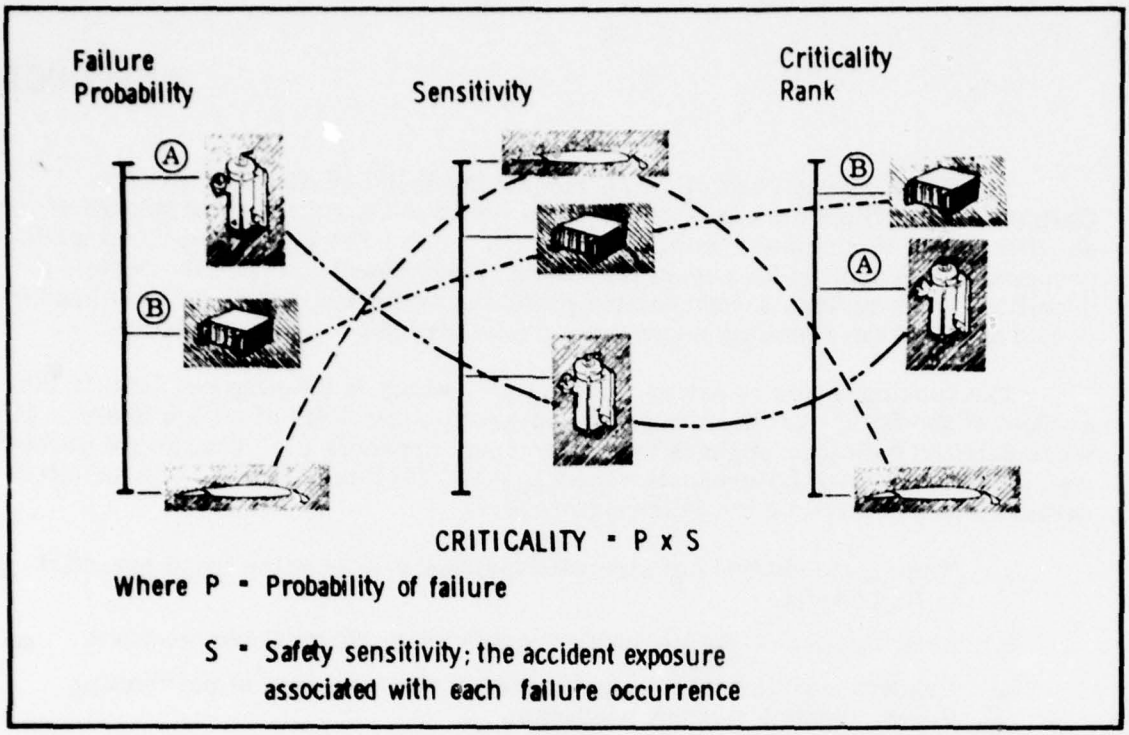


Figure 1-1. Example of Criticality Ranking Process

Section 2 presents an overview of the development and utilization of the Flight Safety Prediction Technique; Section 3 discusses the steps associated with generating a safety model for calculating the safety criticality of verious equipments of an aircraft; and Section 4 describes how the safety model for the A-37 aircraft was developed. Appendix A summarizes the contractual history of the development of the FSPT; Appendix B discusses mathematical considerations underlying the technique; Appendix C discusses FSPT documentation methods; and Appendix D presents functional relationship diagrams and a listing of keypunch cards that comprise the safety model documentation for the A-37 and T-37 aircraft.

2
METHODOLOGY UNDERLYING FSPT

This section discusses the basic definitions and mathematical concepts associated with the Flight Safety Prediction Technique.

2.1 DEFINITION OF SAFE AIRCRAFT

To develop a relative measure of aircraft safety degradation resulting from specific equipment malfunctions, it is first necessary to define a "safe" aircraft. For purposes of the FSPT assessments, an aircraft is assumed to be in a safe condition if it is operating within its prescribed performance limits. Conversely, an aircraft operating (or about to operate) outside these limits is considered to be unsafe – in a condition where property damage and personal injury may result.

The safety prediction methodology does not attempt to assess the extent of possible personal injury or aircraft damage resulting from an unsafe condition. Neither does the concept consider ejection capability, parachutes, life rafts, etc., which do not make an aircraft safer per se but provide for the survivability of the aircrew when the aircraft is unsafe. Collision is also excluded from consideration because of the complexity of the interrelationships between pilot, aircraft equipment, ground surveillance, and traffic density.

2.2 MATHEMATICAL BASIS OF FSPT

The probability of an accident caused by the failure of an element can be expressed as the probability of the element failing multiplied by the conditional probability that the failure of the element will cause an accident. Stated in equation form:

$$P(\mathcal{A}, j) = P(j)P(\mathcal{A}|j) \tag{1}$$

where

$P(\mathcal{A}, j)$ = Probability of an accident due to failure of just the j^{th} element*

$P(j)$ = Probability that element j fails

$P(\mathcal{A}|j)$ = Probability of an accident given that the j^{th} element fails.

This equation reflects the basic relationships addressed in the FSPT where:

a. The criticality of the j^{th} element is an estimate of $P(\mathcal{A}, j)$

b. The sensitivity of the j^{th} element is an estimate of $P(\mathcal{A}|j)$

*In this and subsequent discussions, unless otherwise stated, expressions such as "failure of the j^{th} element" should be interpreted to mean: failure of only the j^{th} element, assuming all other elements are not failed.

Because an element's effect on safety may depend on the mission phase (see Section 3.2.1), the above model can be expanded to:

$$P(\mathcal{A}, j) = \sum_{k=1}^{N} P_{j,k}\, P(\mathcal{A} | j, k) \qquad (2)$$

where

N = Number of mission phases

$P_{j,k}$ = Probability that the j^{th} element is failed in the k^{th} phase

$P(\mathcal{A} | j, k)$ = The j^{th} element's sensitivity in the k^{th} phase.

To identify the importance of discrete elements to aircraft safety, a flight profile consisting of nine distinct phases was defined. The phases are discussed in Section 3.2.1.

To utilize equation 2, it was necessary to develop a method for obtaining the values of $P(\mathcal{A} | j, k)$, the probability that a malfunction in element j during mission phase k will result in an accident. This method in turn requires the estimation of two parameters: the probability of accident if a major function is not available during each mission phase, and the dependence of the major function on subfunctions and elements during each such phase*. Each function and equipment item thus derives its sensitivity value from its relationship to the major function(s) dependent upon it.

2.3 SENSITIVITY ASSIGNMENTS

A great deal of information is available on the causes of aircraft accidents, but little exists from which to make the sensitivity assignments $[P(\mathcal{A} | j)]$. These assignments are therefore largely subjective, based on the analyst's knowledge of the system and any information he may have on previous accident history. The sensitivity assigments are reviewed (and revised as necessary) by an Air Force/contractor team working on a particular model to ensure that consistent criteria have been followed. The team review and negotiation of sensitivity assignments is the mechanism by which the value becomes sufficiently objective for use with the model. This negotiation considers all of those top level functions as a group and reassigns sensitivity values as necessary to assure that the most objective proportionality is attained for the particular aircraft model. The same major-function sensitivity values are used for major functions on all aircraft models where configuration and mission profiles permit.

The development of criticality rankings for the various elements (j's) is dependent upon the ability to quantify the failure probability $[P(j)]$ and the element sensitivity $[P(\mathcal{A} | j)]$ for each element. Since the intent of the concept is to provide a relative safety ranking of all malfunctions, it is not necessary to develop absolute

*For a more detailed discussion of the mathematics of the FSPT, see Appendix B.

values for $P(A|j)$. If the sensitivity values developed are correct relative to each other, a proper criticality ranking will be established. It is intended that criticality be an index proportional to $P(A,j)$ and therefore provide the same relative rank ordering of elements. The major reasons for proportionality, rather than equality, are:

a. The FSPT does not account for the effect of extraordinary pilot intervention to prevent an accident in case of equipment malfunction.

b. Criticality quantification was limited in its treatment of simultaneous occurrence of independent, primary failures.

c. Operational and malfunction data yield only a proportional estimate of the required information.

While strict proportionality cannot be mathematically proven, it is believed that the criticality rankings provide reasonable relative measures of equipment problem potential.

3
MODEL DEVELOPMENT

Figure 3-1 summarizes the approach to the assessment of flight-safety criticality of aircraft equipment. The first contractor activity is the identification of all functions the aircraft is expected to perform and the determination of their interrelationships. Next, each functional relationship is documented; and then sensitivity assignments are made at the major functional levels (below these levels, link dependency values are estimated; see discussion, Section 3.2.2). This process is carried out until each work unit code associated with a major function has been identified with respect to the function performed and dependencies have been estimated. Computer processing calculates the safety sensitivity for each work unit coded item, combines these values with the operation and failure data input by the Air Force, and produces the equipment criticality ranking.

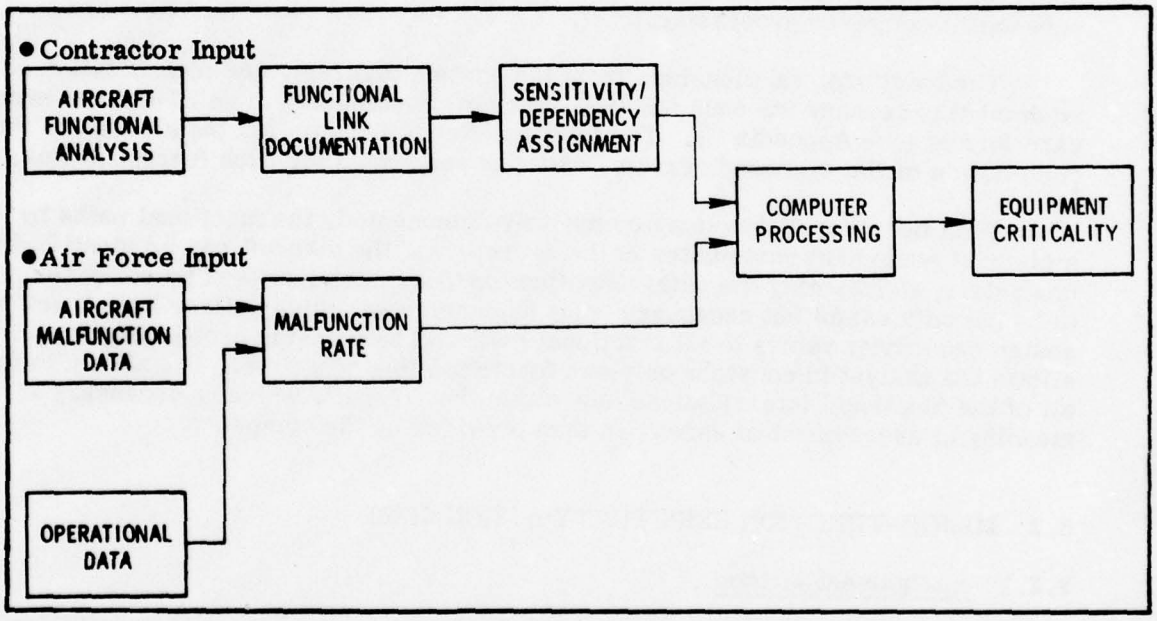


Figure 3-1. Activities and Data Inputs to Flight Safety Criticality Assessment

The steps in this process are discussed in greater detail in the following sections.

3.1 FUNCTIONAL ANALYSIS

Functional analysis entails the systematic identification of the relationships of hardware to the functions performed by the aircraft and documented in the aircraft technical orders. Tabulated for each aircraft function are the equipments necessary for its performance as well as all outputs required for other systems. The complexity of the functional interdependencies of an aircraft requires the use of a systematic

accounting procedure, as discussed below, to assure that all relationships have been identified and that no functional paths have been overlooked.

Certain top-level functions (comprised of both "primary" and "major" functions) have been defined as applicable to all aircraft types, and serve as the starting point for a safety analysis. Figure 3-2 lists these top level functions with the primary function of Flight Control expanded to show its typical major functions. Below the major function level, differences in aircraft types result in function identification and structuring specifically suited to each aircraft. In Figure 3-2, for instance, the major function Roll Control is subdivided into Left Roll and Right Roll, and further into aileron and spoiler actuation subfunctions. This structure is that applicable to an F-4 aircraft, in which ailerons have an extremely limited upward travel and lift is primarily lost through spoiler operation. Finally, each item in the aircraft WUC ("-06") manual is identified with respect to the function it performs. *

Every function and every WUC included in the model receives an "alpha designator" unique to that aircraft model. Due to the large number of alpha designators required in a model, an indenturing system is utilized to prevent duplication. However, the location in the hierarchal structure and the number of characters in the alpha designators are often independent, since such correlation is not necessary for subsequent computer processing.

The functional relationships from the system diagram, and identification of the equipment necessary for each function, are next documented in an 80-column punchcard format (see Appendix C). The total functional diagram for the aircraft is then a compilation of the system diagrams, with one punchcard for each functional link.

With the aircraft functions completely documented, the functional paths by which a piece of equipment contributes to the operation of the aircraft can be identified by computer. Performing the path-identification/documentation task by computer proves to be not only useful but necessary – the human analyst could neither keep track of nor assign sensitivity values to all functional paths. The machine processing capability allows the analyst to consider only one functional link at a time. The ability to follow all of the functional interrelationships within the aircraft, which is necessary for meaningful assessment of safety, is then provided by the computer.

3.2 MAJOR-FUNCTION SENSITIVITY ASSIGNMENT

3.2.1 Assignment Method

As stated earlier, the sensitivity of a function or equipment item is an estimate of the probability that its failure will cause an accident. From functional analysis of the aircraft under consideration, major functions are identified and are assigned sensitivity values for each phase of the mission.

*Certain WUC items in the "-06" manual may not be included in the safety model, these items being either 1) eliminated by TCTOs; 2) purely structural items in the 11000 series; 3) necessary only for survivability or ejection; 4) of lower indenture than the LRU level, where computer data screening eliminates failure reports.

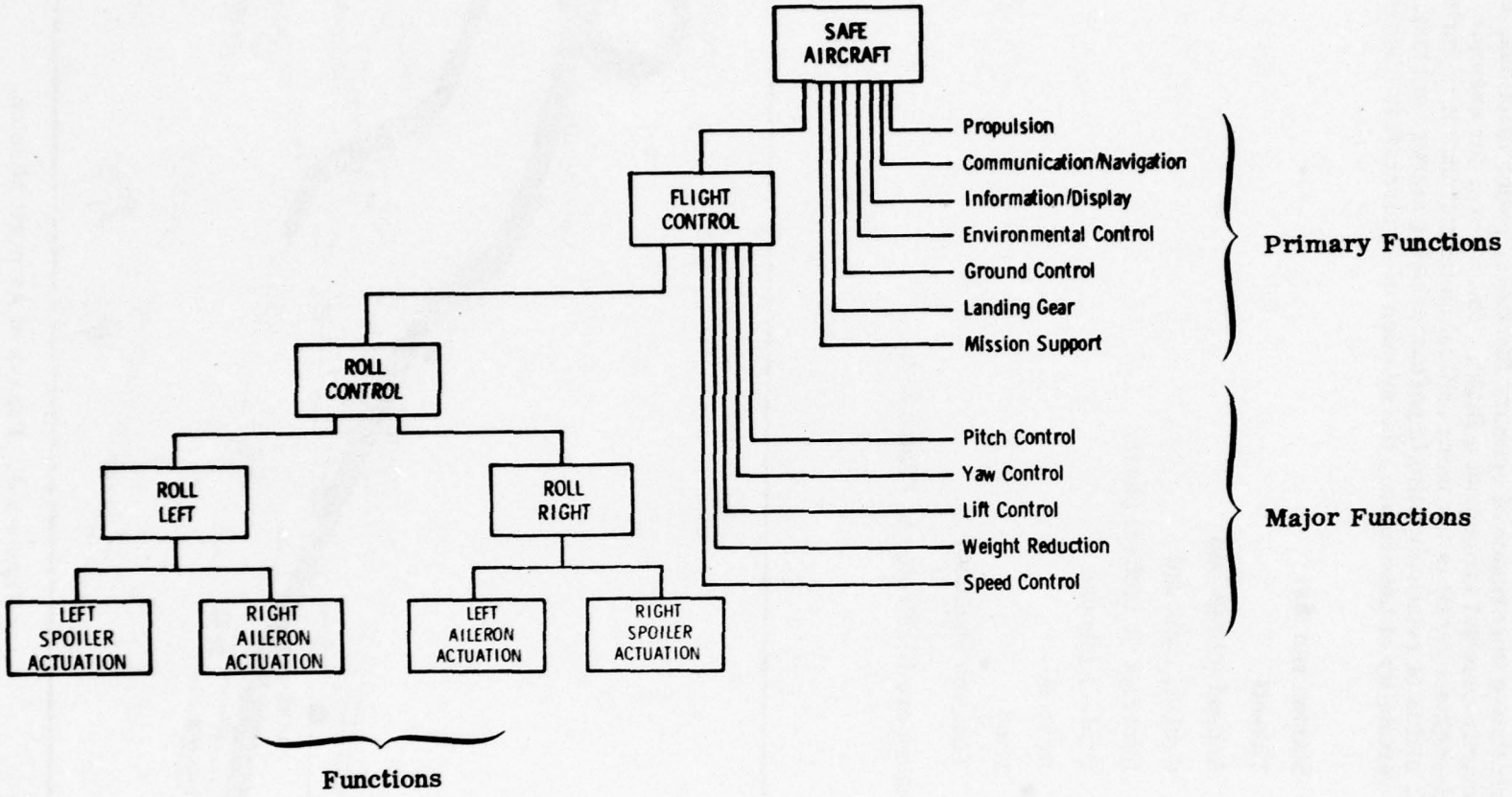


Figure 3-2. Hierarchical Structure of Aircraft Functions

The relative importance of primary functions, major functions, and functions is not necessarily constant throughout a flight. The failure, for example, of one engine of a multi-engine aircraft is far more critical on takeoff than it is during the rest of the flight, and is of relatively little importance during startup and taxi. To accommodate this variability of importance, the mission of an aircraft is divided into nine flight phases:

1. Startup and taxi
2. Takeoff
3. Ascend (climb-out)
4. Cruise, outbound
5. Intercept or tactical phase
6. Cruise, inbound
7. Descend
8. Land
9. Taxi and shutdown

These phases are illustrated in Figure 3-3.

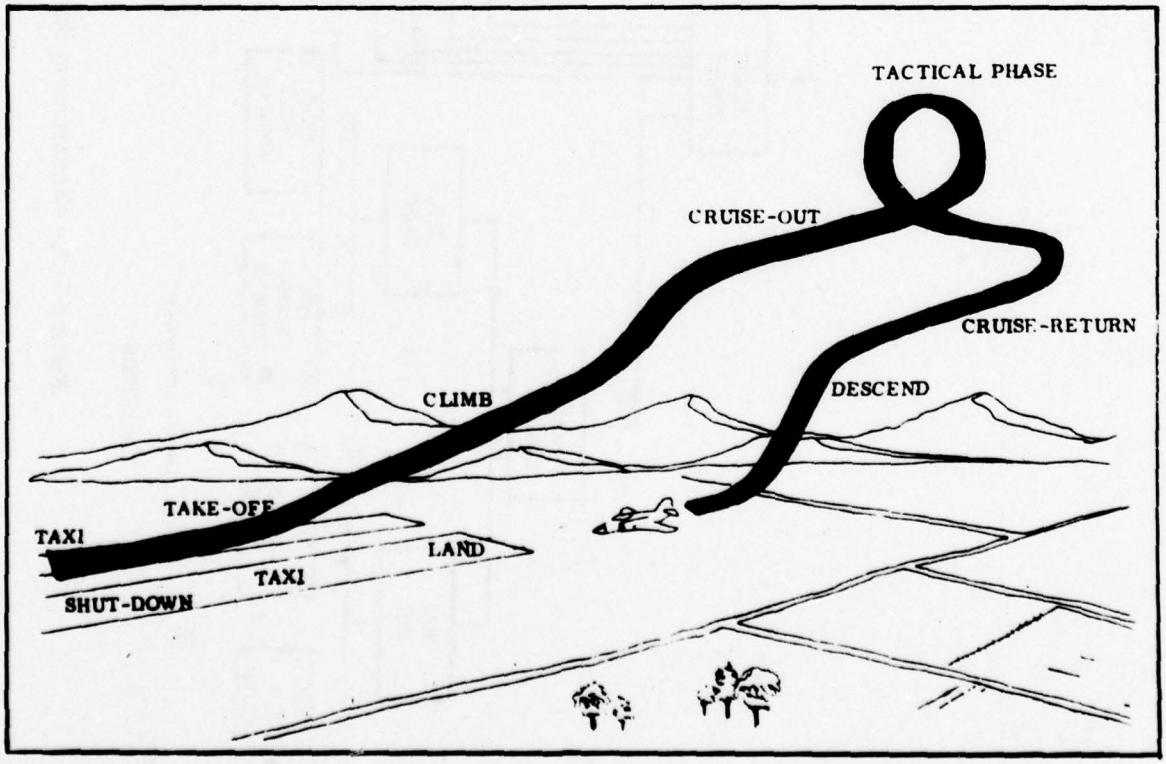


Figure 3-3. Phases of Aircraft Mission

A sensitivity value is assigned for each of the phases, and represents the best estimate of the likelihood that the aircraft will enter a hazardous mode if the function is not present in that phase. The numerical values assigned are proportional rather than absolute, and range from 0.0 to 1.0. The keypunch card format limits this assignment to increments of 0.1. Increments smaller than 0.1, when required, were assigned by defining a quasi-function for insertion between the major function and its dependent primary function.

3.2.2 Link Dependency Assignment

"Link dependency" is defined as the probability that the loss of a function will result in the loss of a dependent function. (For a more detailed discussion of this term, see Appendix B.) The assignment of link dependency values requires knowledge of the operation of specific aircraft because it is concerned only with functional levels below the "major" category. At this lower level, no evaluation is made of the impact on flight safety of the loss of functions. Instead, the effect of the loss of one function on the performance of another function becomes the evaluation criterion. Like sensitivities, link dependency values are assigned in increments of 0.1. Additionally, the method of attenuation used in assigning sensitivity values can also be applied to link dependencies.

3.2.3 Provisory Factors

The sensitivity of major functions with respect to aircraft safety, and at the lower levels the link dependency between functions, can be dependent on external influences and aircraft operating conditions. To accommodate these external influences, a set of provisory factors has been identified. An example would be a windshield anti-ice system, which has a safety sensitivity close to 1.0 during landing under icing conditions but a negligible effect on a dry, warm day.

Under such circumstances, the procedure is to assign the "worst case" value (assuming the condition exists). During model exercise the likelihood that the condition exists can be "read-in", thereby allowing the sensitivity value to be assigned by the computer based on the likelihood of the condition and the probability that the higher level function will therefore be lost. Table 3-1 lists the standard provisory factors used in FSPT models.

3.2.4 Computer Processing

Documentation of a flight safety analysis by ARINC Research thus consists of functional diagrams, coded functional tabulations, a functional data processing card deck, and a machine-prepared printout of the card deck data. Under this contract, the documentation is then sent to San Antonio Air Logistics Center for review by MMER personnel and representatives of the Air Logistics Center responsible for the particular aircraft (if other than SA/ALC).

SA/ALC processes the functional data card deck utilizing a number of computerized operations. First, a functional deck edit is accomplished to identify certain format or logic errors that may exist. Next, a path identification/documentation run is made that traces all possible paths associated with each function and calculates the numerical sensitivities by flight phase down to the WUC level. Then, a path combination run is made taking into account the dependence of more than one major function on a particular WUC. Finally, failure information from the 66-1 data system and numerical factors for provisory conditions are input and a WUC criticality list by rank order is generated by the computer.

TABLE 3-1. PROVISORY FACTOR CODES

Code	Provisory Condition
A	Icing conditions
B	Adverse speed/altitude operations
C	Runway stopping distance/confined area (Helicopter)
D	Night operation
E	IFR conditions
F	Supersonic flight
G	Rain
H	Solo flight
I	Loss of function for which indication is provided
K	Normal system failed
T	Flame-out
X	Fire
Y	Cold weather
2	One of three available units is required
3	Two of three available units are required
4	One of four available units is required
5	Two of four available units are required
6	Three of four available units are required
8	Four of eight available units are required

An additional product generated by the computer is a two-part criticality trend analysis. Part I contains the criticality rankings and linear regression analysis by WUC for the previous 12 months. Part II contains plots of the criticalities and regression lines for the 25 WUCs top-ranked according to safety criticality.

3.2.5 Model Maintenance

Each time an aircraft type for which a safety model has been developed undergoes a modification, the effects of the changes on the model must be evaluated. Technical order and WUC revisions must be incorporated into the model. Removal of existing hardware, the installation of new hardware, or design improvements may change link dependencies and sensitivity assignments. The update procedure should follow the same general steps as outlined for the initial analysis effort.

Existing block diagrams and a printout of the functional card deck form the baseline for change identification. Functional relationships should be reviewed to determine the impact of changes on the documented safety analysis. Diagrams should be revised to reflect functional differences, WUC changes should be noted, and all differences listed on a flight-safety functional tabulation sheet. The functional deck printout can be used for manual indication of what the changes are and where they occur. New data cards are prepared and the functional deck updated by the removal of obsolete cards and the insertion of new cards. From this point on, the computer is again utilized to edit the functional deck, perform path identification/documentation, and calculate sensitivities for each WUC.

Block diagrams and other affected portions of the specific aircraft safety analysis report should be updated and revised pages issued that reflect these changes. Maintaining an accurate and updated model is important to obtaining an accurate assessment of the safety significance of hardware failures.

4
A-37/T-37 MODEL DEVELOPMENT

The FSPT models for the A-37 and T-37 aircraft have been developed under two contracts. The first contract (F41608-71-C-0576) covered the T-37 aircraft and was completed in June 1971. Results of that effort are documented in ARINC Research publication 697-01-1-1118.

The second (present) contract applies to the A-37 aircraft. Model development for the A-37 was initiated in January 1974, and the completed documentation was submitted to SA/ALC for computer edit in June 1974.

While there was no requirement to rework the T-37 model under the present contract, that model has been modified to reflect improved modeling techniques developed subsequent to the initial effort. Appendix D of this publication includes the documentation for the T-37 model.

The aircraft flight manual and maintenance technical orders provided the information on aircraft system operation. The A-37 model developed represents the aircraft configured to the latest time compliance technical orders documented in the manuals supplied by SA/ALC. Table 4-1 lists the manuals and their revision status applicable to the A-37 models.

A single functional documentation deck of 80-column punchcards having "37" in columns 2, 3 was used for the two versions of the aircraft. Cards having a blank in column 1 are common to both aircraft. When the common cards are combined with those having an "A" in column 1, the resulting deck documents the A-37 aircraft. Similarly the common cards together with the cards containing a "T" in column 1 document the T-37 Aircraft.

The A-37 safety model was developed by ARINC Research for all systems except the landing gear. The landing gear diagram and functional documentation cards were produced by MMER/SA/ALC, and interface documentation for the landing gear was a joint effort by SA/ALC and ARINC Research.

Because of the vulnerability of the functional logic/sensitivity documentation to such errors as omission of links, duplication of cards, and keypunching, quality reviews were conducted at various critical points in the model development. In addition to keypunch verification, each card was checked against the functional link shown on the original rough draft and the final functional diagram and the diagrammed link was checked off. Missing or duplicated functional links were thus identified. Work unit codes used in the model were checked off against the WUC manual to assure completeness.

The quality reviews were first conducted by the organizations responsible for the subsystems prior to merging and computer verification of the respective aircraft decks by SA/ALC. Following the merging of the Air Force/ARINC Research decks and computer verification at SA/ALC, a second quality review was performed by representatives of ARINC Research and SA/ALC. Finally, the first criticality

printout obtained from application of actual aircraft data was reviewed to identify any items whose sensitivity appeared to be unreasonable. In such cases the paths were traced manually and changes made if an erroneous relationship was found.

Appendix C presents the methods and standards used in documenting an FSPT aircraft model. Appendix D presents the FSPT documentation of the A-37 and T-37 aircraft, which covers both the SA/ALC and ARINC Research portion of the models.

TABLE 4-1. A-37 SYSTEM DOCUMENTATION

Publication No.	Title	Revision/Date
1A-37A-1	A-37A Aircraft Flight Manual	Change 10, 1 May 1972
1A-37A-2-3	Hydraulically Generated Systems and Utility Systems	Change 14, 1 Mar 1972
1A-37A-2-5	Power Plant & Fuel System	Change 17, 1 Sept 1972
1A-37A-2-6	Instruments, Radio Communication, and Navigation Equipment	Change 14, 1 Mar 1972
1A-37A-2-7	Electrical System	Change 15, 1 May 1968
1A-37A-2-8	Wiring Diagrams and Data	Change 16, 1 Sept 1972
1A-37A-2-9	Organizational Maintenance Armament and Photographic Equipment	Change 4, 1 Mar 1972
1A-37A-06	A-37A Work Unit Code Manual	Change 4, 15 Feb 1972

APPENDIX A

HISTORICAL SUMMARY OF FSPT

HISTORICAL SUMMARY OF FSPT

In 1965, the desirability and practicability of quantifying the significance of specific equipment malfunctions relative to flight safety was explored in a feasibility study conducted by ARINC Research Corporation for the Air Force. The feasibility of a safety-quantification approach, which has subsequently become known as Flight Safety Prediction Technique (FSPT), was demonstrated; and the method was developed and refined in a series of studies, as follows:

Study Phase	Subject/Date	Sponsor*/Publication No.
I	Feasibility Study, September 1965 to June 1967 (Phase I)	Sacramento Air Materiel Area (SMNE), Contract AF09(603)62335, SM-67-2; publication 705-01-1-777
II-A	Technique Development, October 1967 to July 1968 (Phase II-A)	San Antonio Air Materiel Area (SANEW), Contract AF09(603)-67-A-0267-SA01; publication 734-01-1-895
II-B	Technique Development, July 1968 to July 1969 (Phase II-B)	San Antonio Air Materiel Area (SANEW), Contract F09(603)-68-A-0317-SA01; publication 754-01-1-985 (Revision 1)
	FSPT System Documentation for the F-4C and T-37 Aircraft, October 1970 to June 1971	San Antonio Air Materiel Area (MMER) Contract F41608-71-C-0576; publication 697-01-1-1118

In the Phase II-B study, the FSPT was applied to the F-106 aircraft. Concurrent with Phase II-B, the U.S. Naval Safety Center contracted ARINC Research to extend the methodology to produce a flight safety criticality model for the F-4J aircraft. The results of this effort are documented in ARINC Research Publication 753-01-3-982 (Revision 1).

In 1970, ARINC Research was contracted to develop suitable input data to permit the application of the technique to the T-37 and F-4C aircraft. These data were derived in the form of mathematical model functional documentation as input to the basic computer program developed and applied to the F-106.

In 1972, ARINC Research Corporation was awarded a contract, with the subsequent modifications in 1973 and 1974, to apply the Flight Safety Prediction Technique to 15 aircraft, working jointly with cognizant Air Logistics Centers. Aircraft to which the FSPT has been applied under this latter contract (F09603-72-A-1132-SA01) include:

a. T-38

b. F-111A and FB-111A

*The office symbols of Service Engineering at the Sacramento and San Antonio Air Materiel Areas are now SM/ALC/MME and SA/ALC/MME, respectively.

c. A-7D

d. F-4D, E; RF-4C

e. C-141

f. A-37

g. O-2

h. OV-10

i. B-52G, H

j. C-130E

k. KC-135

l. C-5A

m. T-39

n. F-15

o. UH-1N Helicopter*

*Feasibility study of adaptation of FSPT to rotary-wing aircraft.

APPENDIX B

FORMULATION OF CRITICALITY-ASSESSMENT TECHNIQUE

FORMULATION OF CRITICALITY-ASSESSMENT TECHNIQUE

To implement the basic safety model defined in Section 2.2, it is necessary to develop a submodel for the probability that a malfunction in element j during mission phase k will result in an accident. This submodel in turn requires that we estimate two parameters: the probability of accident if a major function is not available during each mission phase, and the dependence of the major function on element j during each mission phase.

The first parameter is termed "functional sensitivity" and is estimated for each major function. The functional analysis performed in this task established for an aircraft the following hierarchal scheme:

Aircraft

Primary functions

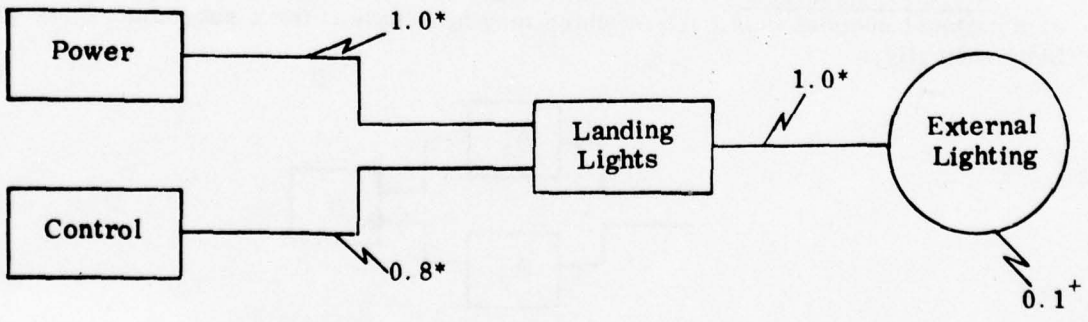
Major functions

Function

Elements (Work Unit Codes)

A primary function would be one such as Flight Control. Major functions under Flight Control would include Pitch Control and Yaw Control.

The second parameter, "link dependency," is a vehicle for showing the influence of each functional-path element on the performance of a major function. For example, if the major function being considered is External Lighting, the following diagram illustrates the nature of functional sensitivity and link dependency values.



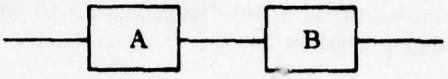
*Link dependencies
+Functional sensitivity

The 0.8 value means that failure of the Control function will result in loss of the Landing Light function 80% of the time. The 0.1 functional sensitivity value denotes that loss of external lighting will result in an accident 10% of the time. The values must be interpreted in a proportional sense, in that the actual accident probability is dependent upon external factors (see Section 3.2.3).

The remainder of this appendix discusses the procedures and model used to obtain element sensitivities; e.g., in the above example, the accident probability given that a Work Unit Code in the Control function malfunctions.

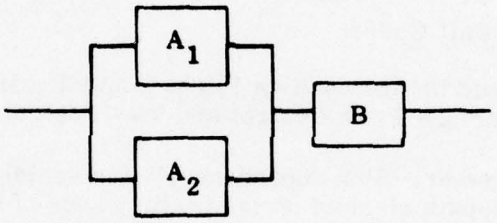
Three principal types of functional relationship--series, redundant, and parallel--were identified as representing the major forms to consider in modeling element sensitivity.

Series Relationship – A function having only one input. Schematically,



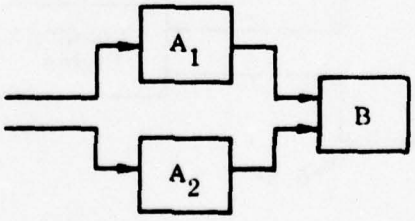
which indicates that outside of its own elements, the success of function B is only affected by the success of function A.

Functional Redundancy – A function having one or more backup functions that can provide the required inputs to successor functions. Schematically,



where A_1 and A_2 represent a functional redundancy in that either may provide the necessary input to B.

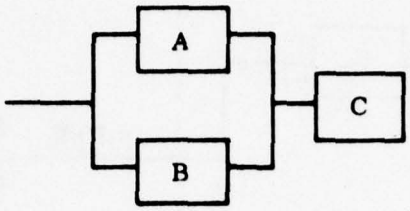
Parallel Functions – Two or more functions independent of each other in terms of functional success, but each of which may be required for a successor function. Schematically,



B will generally require both A_1 and A_2; but A_1 does not depend on A_2, nor does A_2 depend on A_1.

In some cases the distinction between functional redundancy and parallel paths is very slight, and may depend on mission phase. For example the four engines of a plane can be considered to be a redundant configuration providing inputs to the primary propulsion function during cruising, but would generally be considered to be parallel functions during takeoffs requiring full power.

In general, given a schematic relationship of the form,

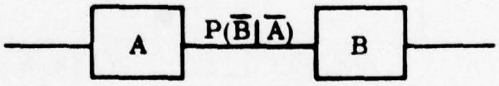


we can say that A and B are in a functionally redundant configuration if the success probability of C is the same if 1) A and B are successful, 2) A only is successful, or 3) B only is successful. If, for example, C is more likely to be successful if both A and B are successful, rather than A or B alone, then the relationship is one of parallel paths.

It is noted that the model will also account for element redundance and parallel elements through inputs such as $P(\overline{A}|i_a)$, representing the probability that the A^{th} function fails given that the i_a^{th} element in A has failed. If i_a is a parallel element, the probability would depend on mission requirements and other parallel-element states.

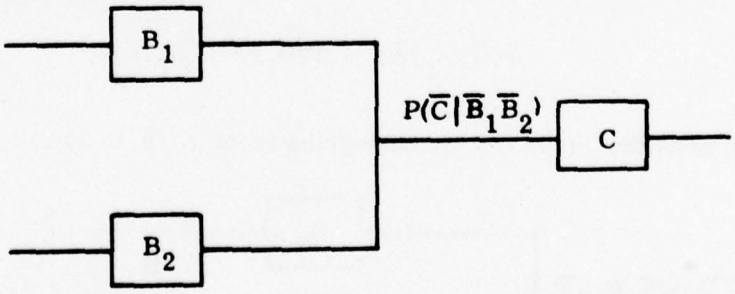
Link dependency is the conditional probability of a functional failure, given the failure of immediate predecessor functions. The link dependencies applicable to the three basic designs defined above are shown below.

Series Relationship

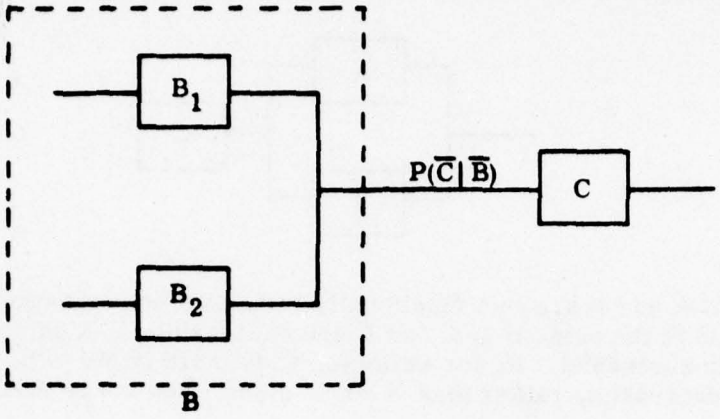


Link dependency = $P(\overline{B}|\overline{A})$ = probability that B fails given that A fails.

Functional Redundancy

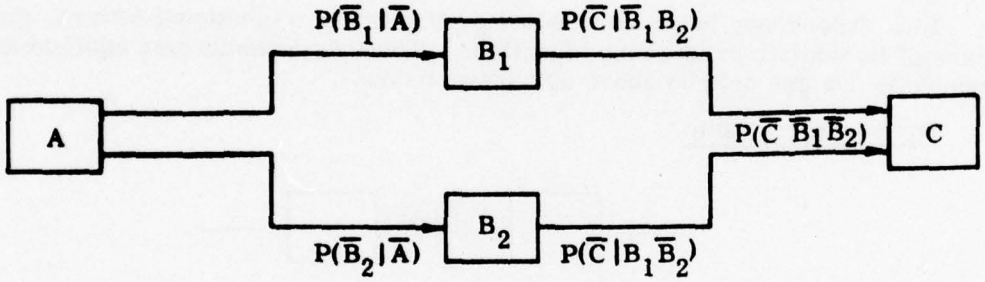


equivalent to



where $\bar{B} = \bar{B}_1\bar{B}_2$

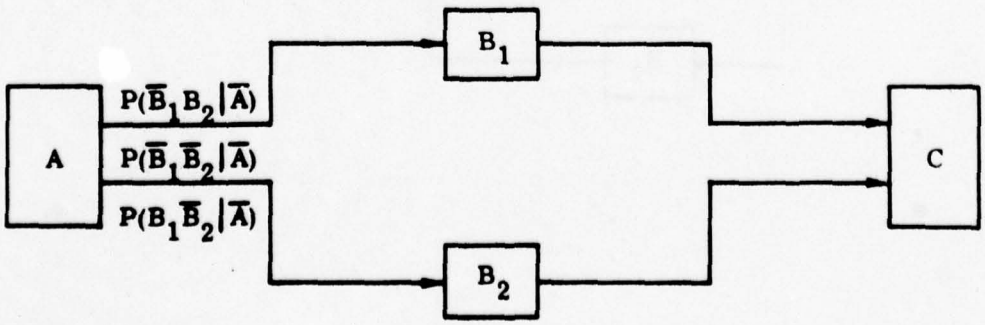
Parallel Functions



We shall generally assume that the dependencies of B_1 with respect to A, and of B_2 with respect to A, are independent of each other, so that

$$P(\bar{B}_1\bar{B}_2|\bar{A}) = P(\bar{B}_1|\bar{A})P(\bar{B}_2|\bar{A})$$

We then can consider three link dependencies from A to B as follows:



noting that

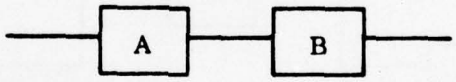
$$P(\overline{B}_1|\overline{A}) = P(\overline{B}_1 B_2|\overline{A}) + P(\overline{B}_1\overline{B}_2|\overline{A})$$

$$P(\overline{B}_2|\overline{A}) = P(B_1\overline{B}_2|\overline{A}) + P(\overline{B}_1\overline{B}_2|\overline{A})$$

Models are shown below for determining the sensitivity of elements within a function for each of the three basic designs. The following basic assumptions apply:

a. Except for cases where an element has a redundant or parallel counterpart or is located in a function with a redundant or parallel function, only the element under consideration shall be assumed to have failed initially. Thus the expression $P(\mathcal{A}|i_a)$, representing the accident probability given failure of the i^{th} Work Unit Code element, is based on the assumption that no other element has failed unless element i is in some redundant or parallel configuration. For cases in which there are redundant or parallel counterparts, failures of such counterpart elements or functions are considered in accordance with their occurrence probabilities.

b. The success of all immediate predecessors ensures the success of a function, provided that the function experiences no element failures. Thus for the series function relationship



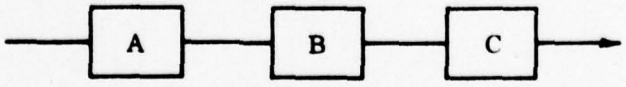
we assume

$$P(\overline{B}|A) = 0,$$

provided B experiences no element failures. If an element in function A is under consideration, the latter provision is always true by assumption "a."

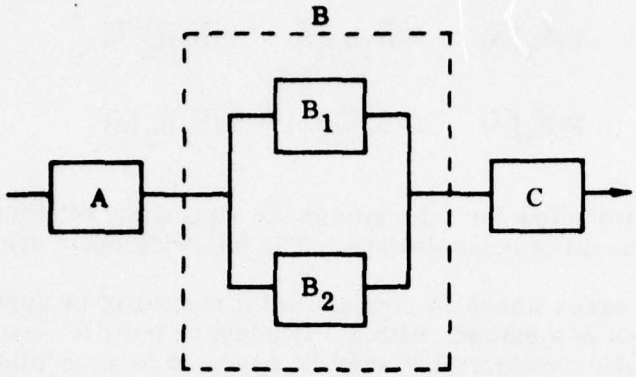
The element sensitivity models are:

Series Relationship



$$P(\mathcal{A}|i_a) = P(\overline{A}|i_a)\,P(\overline{B}|\overline{A})\,P(\overline{C}|\overline{B})\,P(\mathcal{A}|\overline{C})$$

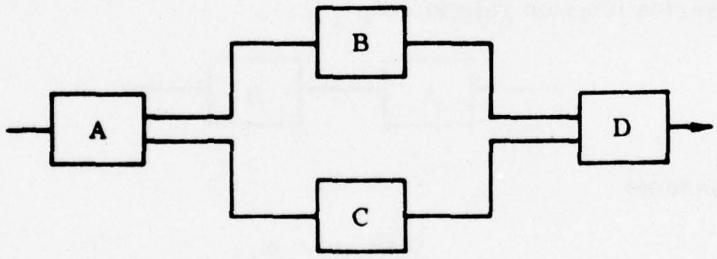
Functional Redundancy



$$P(\mathcal{A}|i_a) = P(\overline{A}|i_a)\,P(\overline{B}|\overline{A})\,P(\overline{C}|\overline{B})\,P(\mathcal{A}|\overline{C})$$

$$P(\mathcal{A}|i_{b1}) = P(\overline{B}_1|i_{b1})\,P(\overline{B}_2)\,P(\overline{C}|\overline{B})\,P(\mathcal{A}|\overline{C})$$

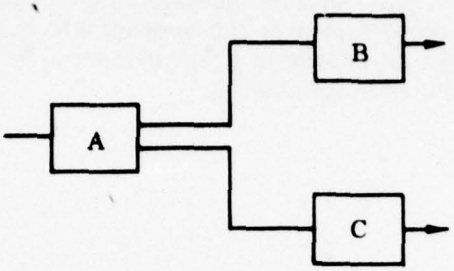
Parallel Functions



$$P(\mathcal{A}|i_a) = P(\overline{A}|i_a)\{P(\overline{BC}|\overline{A})\,P(\overline{D}|\overline{BC}) + P(B\overline{C}|\overline{A})\,P(\overline{D}|B\overline{C}) + P(\overline{BC}|\overline{A})\,P(\overline{D}|\overline{BC})\}\,P(\mathcal{A}|\overline{D})$$

$$P(\mathcal{A}|i_b) = P(\overline{B}|i_b)\{P(\overline{C}|i_b)\,P(\overline{D}|\overline{BC}) + P(C|i_b)\,P(\overline{D}|\overline{BC})\}\,P(\mathcal{A}|\overline{D})$$

A case not explicitly incuded in the above three basic functional relationships is one for which a function is in two paths, e.g.,



then

$$P(\mathcal{A}|i_a) = P(\overline{C}|i_a)P(B|i_a)P(\mathcal{A}|\overline{C}B) + P(C|i_a)P(\overline{B}|i_a)P(\mathcal{A}|C\overline{B})$$

$$+ P(\overline{C}|i_a)P(\overline{B}|i_a)\{1 - P(\overline{\mathcal{A}}|\overline{C})P(\overline{\mathcal{A}}|\overline{B})\}$$

where it is assumed that the effects of loss of the major functions in accident occurrence are independent of each other.

Use of Numerical Provisory Factors for Partially Redundant Systems

The numerical provisory factors (see Table 3-1) are used where more than two identical functions are involved in a redundancy. For example, aircraft with more than two engines often have identical and independent systems for hydraulic pressurization, and for electrical power generation, one driven by each engine. If the aircraft can be operated safely with one or more of such systems in a failed state, one of the numeric codes is utilized in assigning link dependency values. Consider, for example, the following:

If N identical and independent units* are available and at least M are required for safe operation, where $0<M<N$, then the provisory factor of a given unit, say U_j, is the probability that the failure of U_j will cause the aircraft to enter an unsafe state. This is the probability that exactly M-1 of the remaining N-1 units will be in an unfailed state. This probability can be calculated by the formula for the binomial distribution, and is given by

$$P(U_j) = \binom{N-1}{M-1} p^{(M-1)} q^{(N-M)}$$

where $P(U_j)$ = probability that failure of the j^{th} unit will cause the aircraft to enter an unsafe state, and

M = Number of units required

N = Number of units available

p = Probability that a single unit will be in an unfailed state

q = Probability that a single unit will be in a failed state or (1-p)

*Units may be either elements, element assemblies, or functions.

Assignment of link dependencies to N identical and independent units of which only M are required proceeds as follows. The value assigned to each unit is the dependency of the higher level function on receiving an output from M of the units (usually 1.0). The provisory factor is the appropriate numeric code. In the evaluation of the path sensitivity, the computer is programmed to select the binomial formula that corresponds to the provisory factor listed.

APPENDIX C

FSPT DOCUMENTATION METHODS

FSPT DOCUMENTATION METHODS

Because of the extreme complexity of aircraft, it is necessary to develop a computerized method to identify and document all possible paths associated with each function as well as to determine the safety sensitivity associated with each path. A computer routine has been devised that takes the data from the functional card deck and traces and documents all paths. For each WUC, it also computes the flight-phase sensitivities for each path in which the WUC is present. The resulting computer printout provides a combined functional path sensitivity.

C.1 ALPHA CODING

As each system of the aircraft is functionally diagrammed, the functional blocks are assigned an "alpha code". This code aids the analyst in the bookkeeping tasks of functional diagramming and provides the computer with an identification of the elements to be processed. For standardization among aircraft, nine top-level functions have been defined and each has been assigned an initial or first-alpha designator. Each block in the functional diagram carries the same initial alpha as the top level function. Subsequent letters added to the initial alpha uniquely identify each block.

The only restrictions placed on the assignment of alpha codes are that:

a. All characters in a code must be a letter of the alphabet, and

b. The maximum number of characters in one code is seven.

C.2 ALPHA CODING AND COMPUTER PROGRAM COMPATIBILITY

Additional rules for alpha coding required to obtain the desired results from computer processing include:

a. When a WUC item operates in the same mode to perform more than one function, the same alpha code is used in each application.

b. When a WUC item operates in a different mode to perform each of more than one function, a different alpha designator is assigned for each operating mode.

C.3 FUNCTIONAL TABULATION

The "Flight Safety Functional Tabulation" sheet is used to code the safety model for keypunching. The sheets are coded as follows (refer to Figure C-1) for an example).

a. Columns 1 through 3. Used to identify the aircraft represented by the model. For certain aircraft modeled under this contract more than one model – designation series MDS – was included. For instance, a single functional deck was created for four MDSs of the F-4 aircraft. Cards with "F4b"* in columns 1-3 were common to all aircraft. For example,

*b = blank

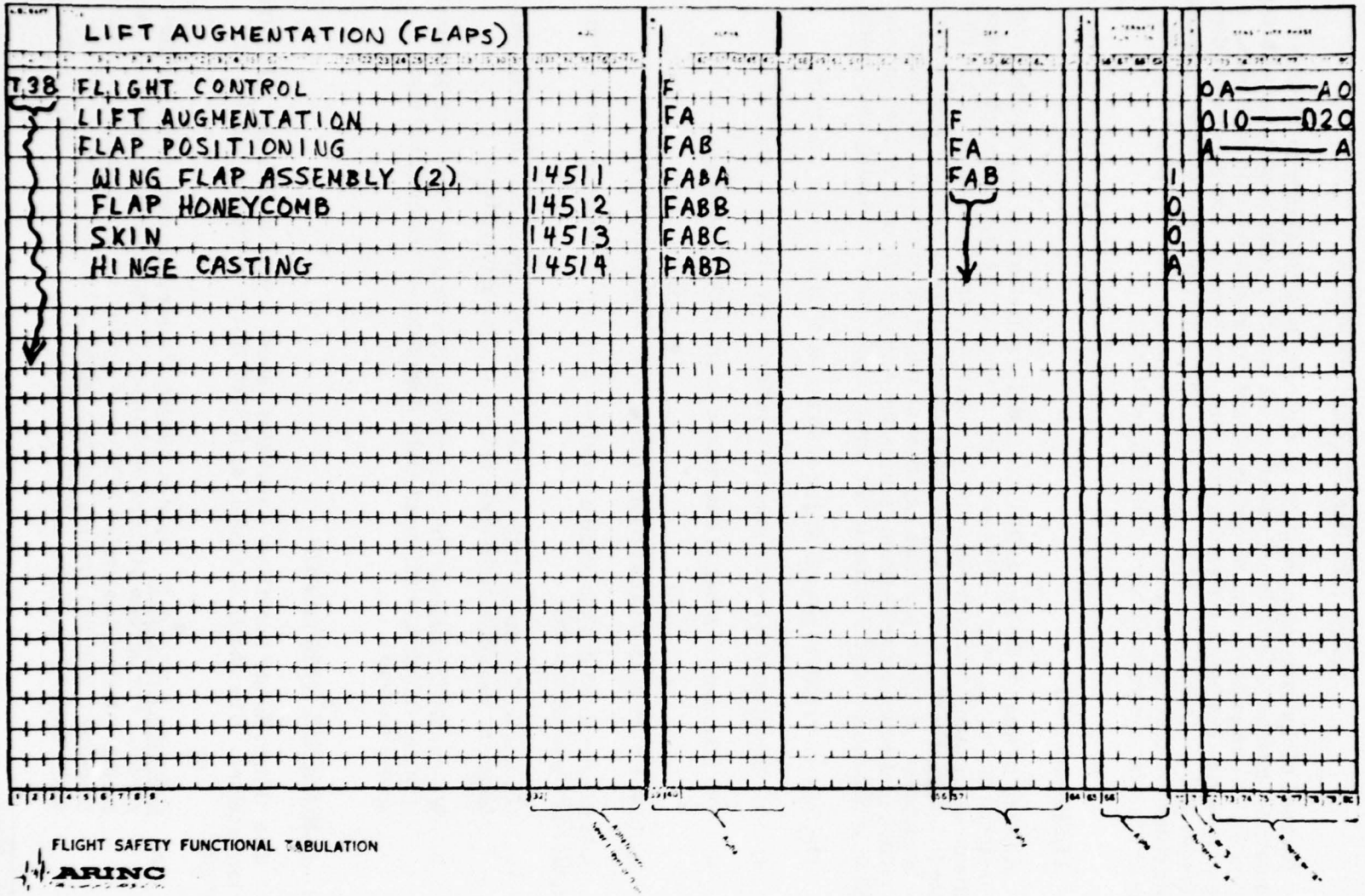


Figure C-1. Flight Safety Functional Tabulation

when these cards are combined with those carrying "F4E" in columns 1-3, then it produces an F-4E FSPT model deck.

b. Columns 4 through 31. Contain the title of the function or the WUC item.

c. Columns 32 through 36. Contain the left-justified WUC number.

d. Columns 37 and 38. Blank

e. Columns 39 through 46. Contain the assigned alpha designator for the function and/or the WUC. Column 39 contains either an L or an R, or is blank. The L and R designate left and right for those instances when the function and/or WUC pertains to the left or right side of the aircraft.

f. Columns 47 and 48. Blank.

g. Columns 49 through 55. Normally left blank, but are used after a deck is operational to substitute the data on a card for that stored in the computer by punching the line record number in this field.

h. Columns 56 through 63. Identify the dependent functions for either the function or specific WUCs being coded. Column 56 may contain L, R or blank for the same purpose as that of column 39.

i. Column 64. Contains the alphanumeric code of the "provisory factor" applicable to the link value assigned.

j. Columns 65 through 69. Contain the alpha designator of a function that is an alternate for the function being coded. (Column 65 is used for "L" or "R" as in Column 39.) The presence of the "alternate alpha" flags the importance of the link dependency as being affected by the success probability of the alternate function.

k. Column 70. Contains the work unit code dependency value (1 = 0.10; 2 = 0.20; ....A = 1.0). This value is applicable to all flight phases.

l. Column 71. Contains special instructions to the computer through the use of letters F, S, or being blank. Cards with an "S" or "blank" in column 71 are used in sensitivity computations. Cards with an "F" document a functional relationships which, although present in the system, would produce an erroneous sensitivity value when combined with other nonindependent paths (having the same function in common at some higher level). The "F" prevents the computer from including the link in the sensitivity calculations.

m. Columns 72 through 80. Contain functional dependencies for each of nine flight phases as described in Section 3.2.1 of the text. Coding is the same as for column 70.

C.4 DIAGRAM CONSTRUCTION

The diagrams produced under the contract document the functional interrelationship of the aircraft systems considered in the model. In the interest of extending the useful life of the diagrams, WUC items are not shown, thereby eliminating the necessity of updating the diagrams with each (and sometimes frequent) change to the WUC manual.

As discussed earlier in this report, the diagrams represent the hierarchal structure of the paths from which the sensitivity values are derived. The diagrams, although consistent with the system schematic and reliability block diagrams, are not equivalent due to this hierarchal method of documentation. In the actual system, signals and/or fluids pass from one component to the next and are thus documented in schematics; conversely, the hierarchal approach only identifies the components that must operate to achieve a given function, independent of the direction and/or sequence of signal flow. This approach directly addresses the system impact of a component failure without the necessity of identifying the intrasystem secondary failures. Each line connecting functions on the diagram is documented by a punchcard, with the lower function providing the "alpha designator" and the higher function's alpha designator indicator as the "dependent function".*

*The card deck also documents functional relationships not shown on the diagram; the work unit codes (mentioned earlier) and the "S" cards discussed in paragraph C.3.1.

APPENDIX D

FSPT DOCUMENTATION OF A-37 AIRCRAFT
(Including Documentation for T-37 Aircraft)

FSPT DOCUMENTATION OF A-37 AIRCRAFT

This appendix contains the functional relationship diagrams and a listing of the keypunch cards that comprise the documentation of the A-37 and T-37 FSPT safety models.

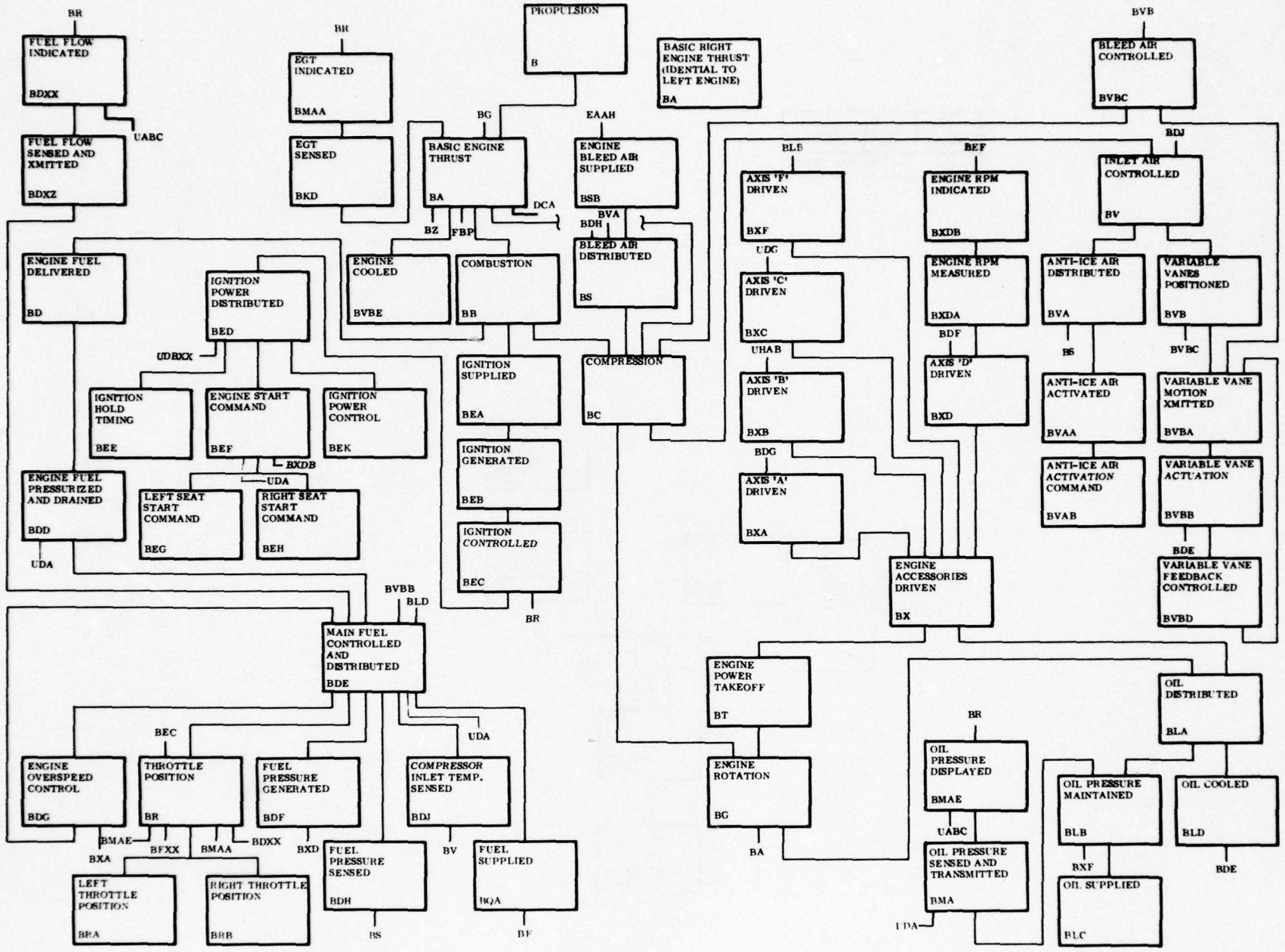
D.1 DIAGRAMS

The diagrams illustrating the functional relationships considered in the A-37 and T-37 safety models will be found on pages D-5 through D-19, and are listed below:

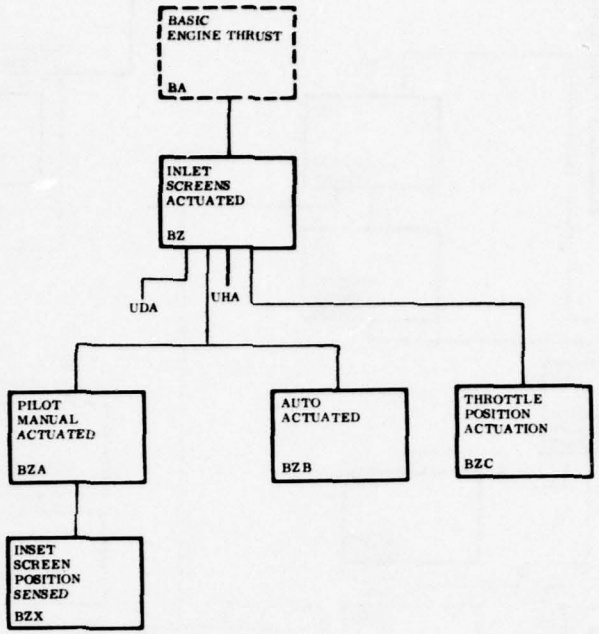
Aircraft		Title	Page
A-37	T-37		
X		Propulsion	D-5
X		Propulsion	D-6
	X	Propulsion	D-7
	X	Propulsion	D-8
X		Propulsion	D-9
X		Comm/Nav/Ident	D-10
	X	Comm/Nav/Ident	D-11
X	X	Information & Display	D-12
X	X	Environment	D-13
X	X	Flight Control	D-14
X	X	Flight Control	D-15
X	X	Ground Control	D-16
X	X	Landing Gear	D-17
X		Mission Support	D-18
X	X	Utilities (Electric & Hydraulic)	D-19

D.2 CARD LISTING

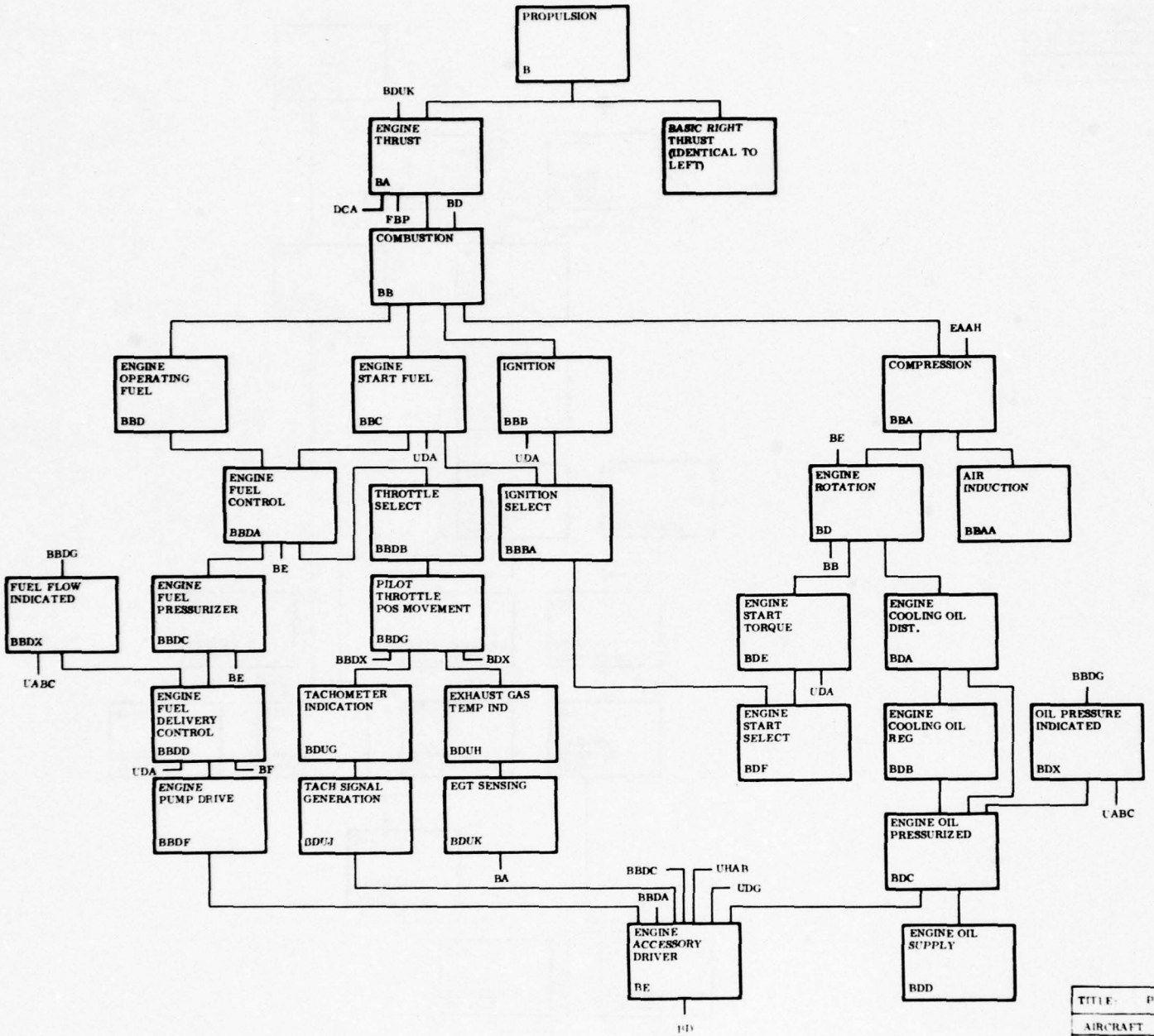
Pages D-21 through D-72 are a reproduction of the combined A-37/T-37 punchcard listing. The listing is alphabetical by "alpha designator", and the format is that of the 80-column punchcard itself as described in Appendix C. At the top of each page the card columns are printed vertically; for example, column 34 is printed "$\frac{3}{4}$".



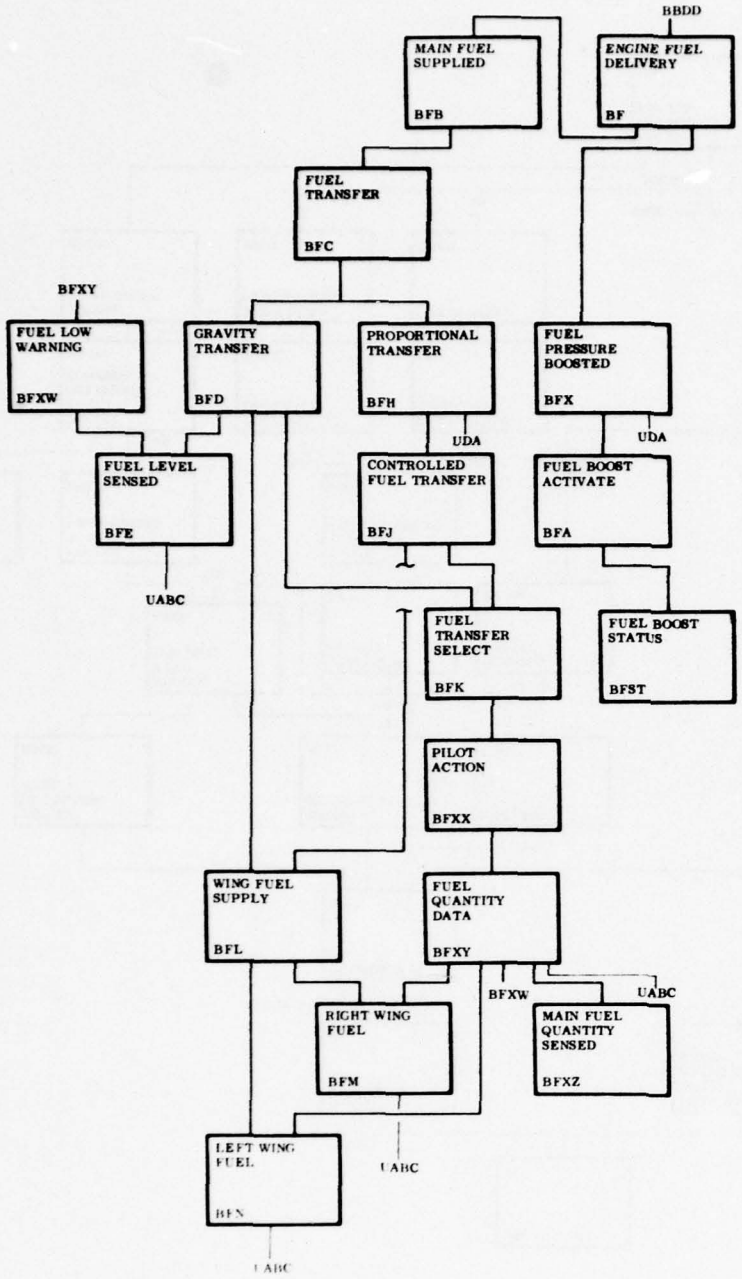
TITLE: PROPULSION		
AIRCRAFT	DATE	DIAGRAM
A-37	SEPT. 75	B-1



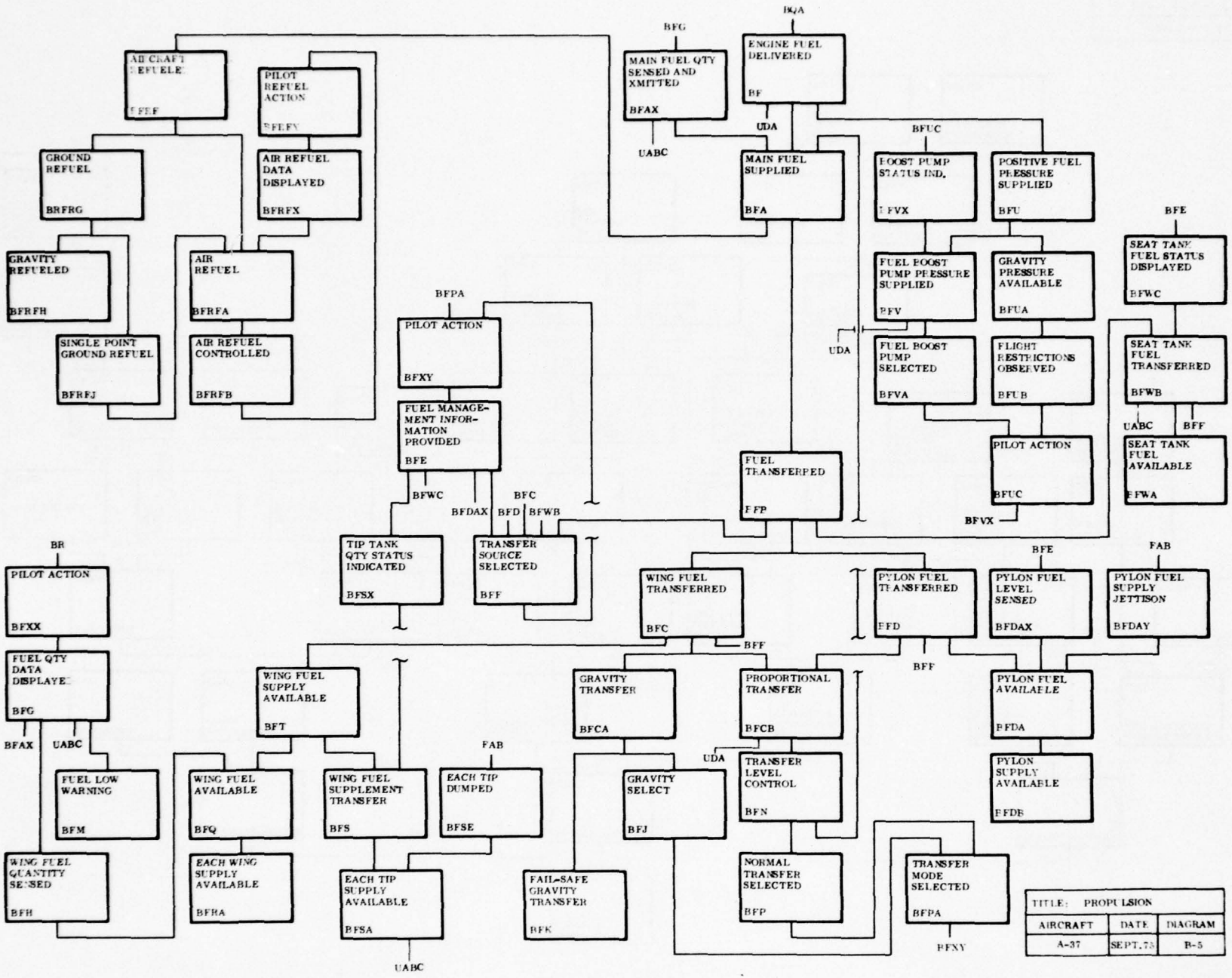
TITLE: PROPULSION		
AIRCRAFT	DATE	DIAGRAM
A-37	SEPT.75	B-2

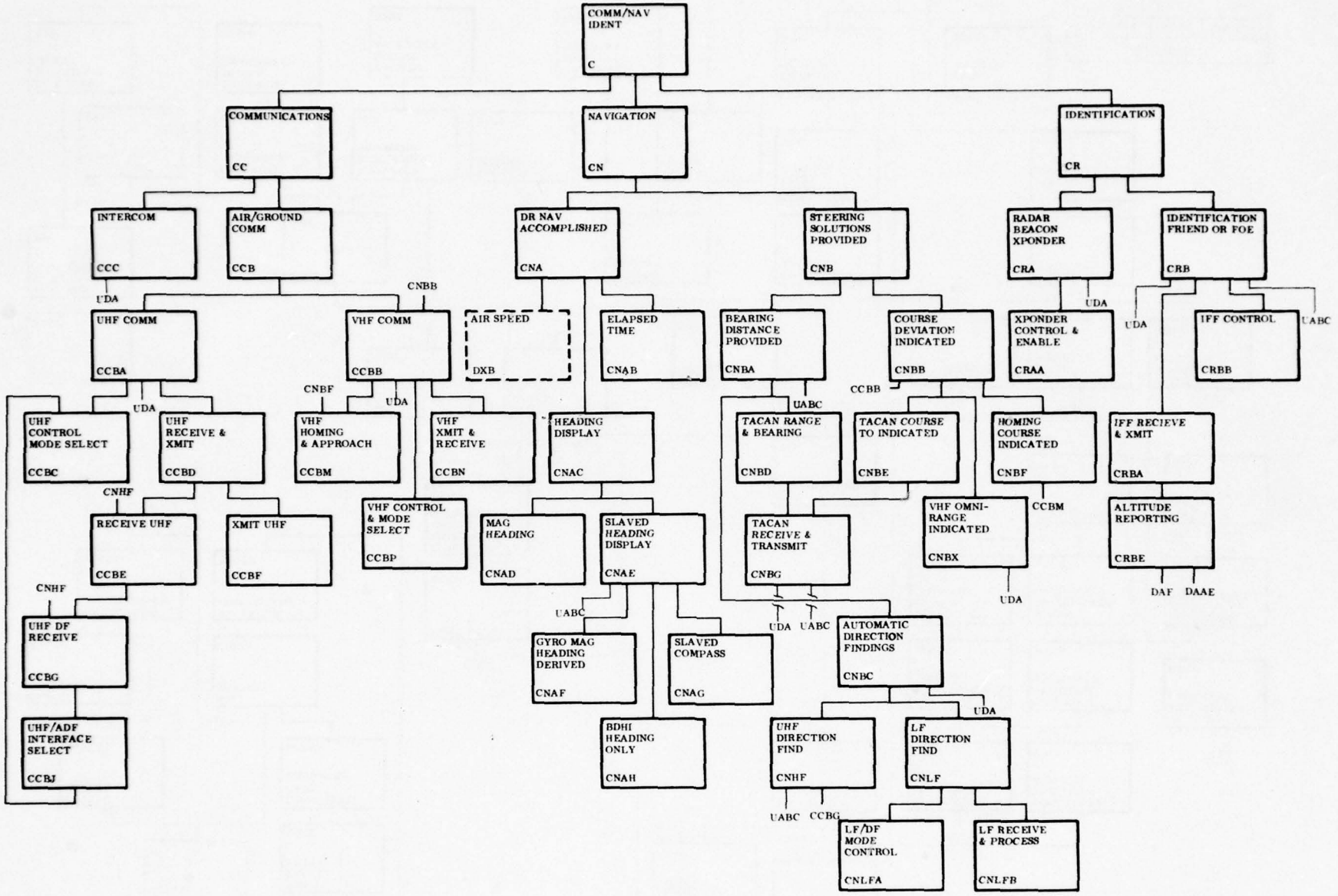


TITLE: PROPULSION		
AIRCRAFT	DATE	DIAGRAM
T-37	SEPT. 73	1-3

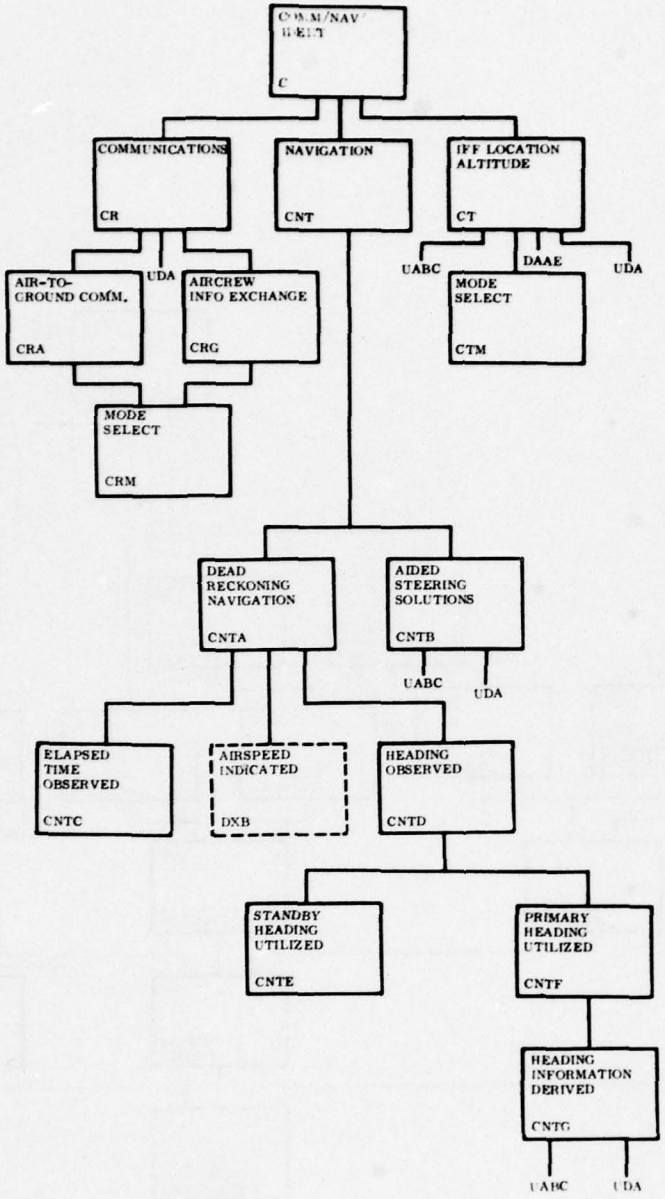


TITLE: PROPULSION		
AIRCRAFT	DATE	DIAGRAM
T-37	SEPT. 75	B-4

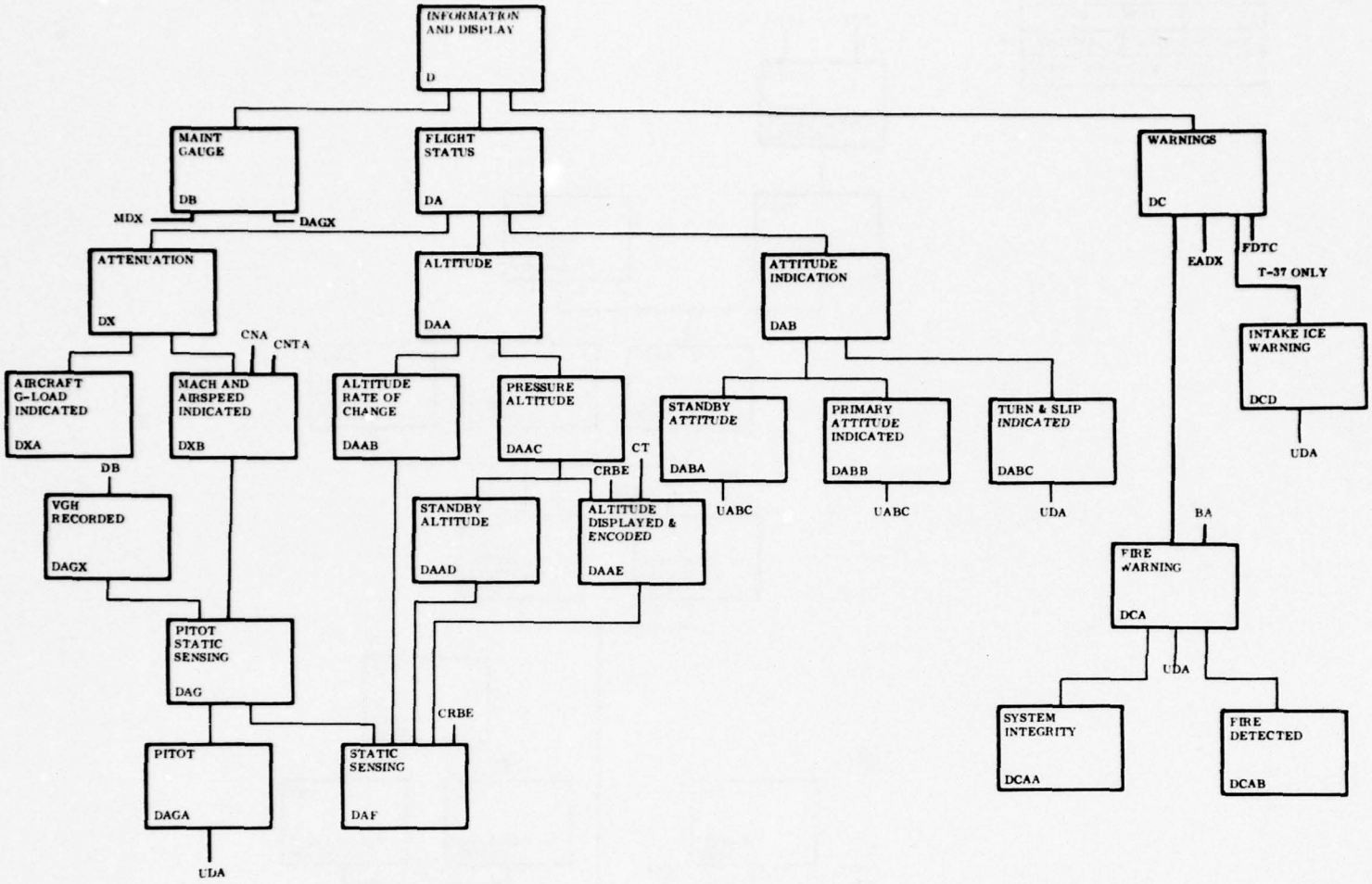

AIR CRAFT REFUELE
BFEF
PILOT REFUEL ACTION
BFEFY
GROUND REFUEL
BFRFG
AIR REFUEL DATA DISPLAYED
BFRFX
GRAVITY REFUELED
BFRFH
AIR REFUEL
BFRFA
SINGLE POINT GROUND REFUEL
BFRFJ
AIR REFUEL CONTROLLED
BFRFB
BFG
MAIN FUEL QTY SENSED AND XMITTED
BFAX
UABC
BQA
ENGINE FUEL DELIVERED
BF
UDA
MAIN FUEL SUPPLIED
BFA
BFUC
BOOST PUMP STATUS IND.
BFVX
POSITIVE FUEL PRESSURE SUPPLIED
BFU
BFE
SEAT TANK FUEL STATUS DISPLAYED
BFWC
FUEL BOOST PUMP PRESSURE SUPPLIED
BFV
GRAVITY PRESSURE AVAILABLE
BFUA
UDA
FUEL BOOST PUMP SELECTED
BFVA
FLIGHT RESTRICTIONS OBSERVED
BFUB
SEAT TANK FUEL TRANSFERRED
BFWB
UABC
BFF
PILOT ACTION
BFUC
BFVX
SEAT TANK FUEL AVAILABLE
BFWA
BFPA
PILOT ACTION
BFXY
FUEL MANAGE-MENT INFOR-MATION PROVIDED
BFE
BFWC
BFDAX
BFC
BFD
BFWB
FUEL TRANSFERRED
BFP
TIP TANK QTY STATUS INDICATED
BFSX
TRANSFER SOURCE SELECTED
BFF
BR
PILOT ACTION
BFXX
WING FUEL TRANSFERRED
BFC
PYLON FUEL TRANSFERRED
BFD
BFE
PYLON FUEL LEVEL SENSED
BFDAX
FAB
PYLON FUEL SUPPLY JETTISON
BFDAY
BFF
BFF
FUEL QTY DATA DISPLAYED
BFG
BFAX
UABC
WING FUEL SUPPLY AVAILABLE
BFT
GRAVITY TRANSFER
BFCA
PROPORTIONAL TRANSFER
BFCB
PYLON FUEL AVAILABLE
BFDA
FAB
UDA
FUEL LOW WARNING
BFM
WING FUEL AVAILABLE
BFQ
WING FUEL SUPPLEMENT TRANSFER
BFS
EACH TIP DUMPED
BFSE
GRAVITY SELECT
BFJ
TRANSFER LEVEL CONTROL
BFN
PYLON SUPPLY AVAILABLE
BFDB
WING FUEL QUANTITY SENSED
BFH
EACH WING SUPPLY AVAILABLE
BFRA
EACH TIP SUPPLY AVAILABLE
BFSA
UABC
FAIL-SAFE GRAVITY TRANSFER
BFK
NORMAL TRANSFER SELECTED
BFP
TRANSFER MODE SELECTED
BFPA
BFXY
TITLE: PROPULSION
AIRCRAFT
DATE
DIAGRAM
A-37
SEPT. 73
B-5



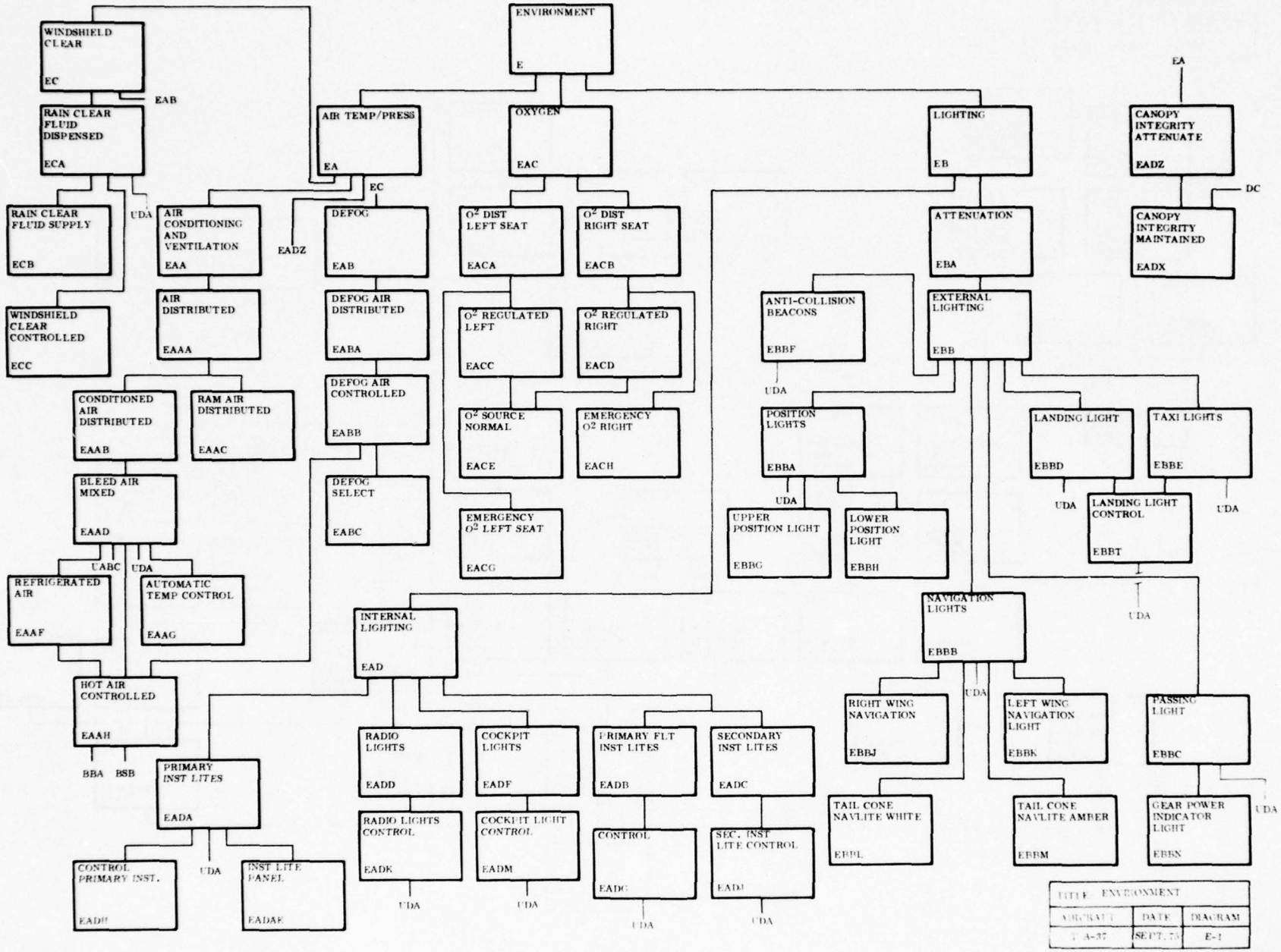
TITLE: COMM/NAV IDENT		
AIRCRAFT	DATE	DIAGRAM
A-37	SEPT. 75	C-1

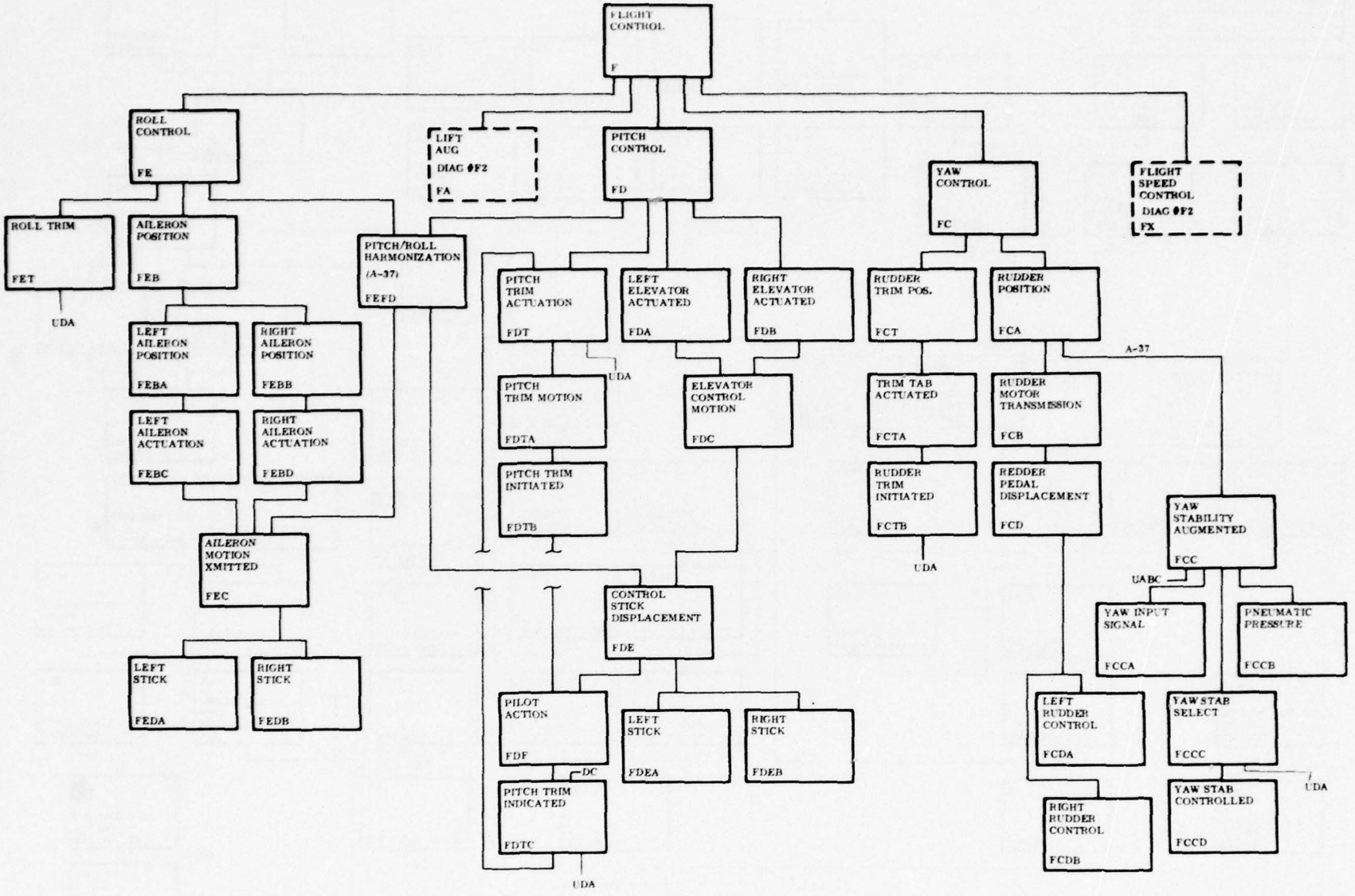


TITLE: COMM/NAV/IDENT		
AIRCRAFT	DATE	DIAGRAM
T-37	SEPT. 73	C-2

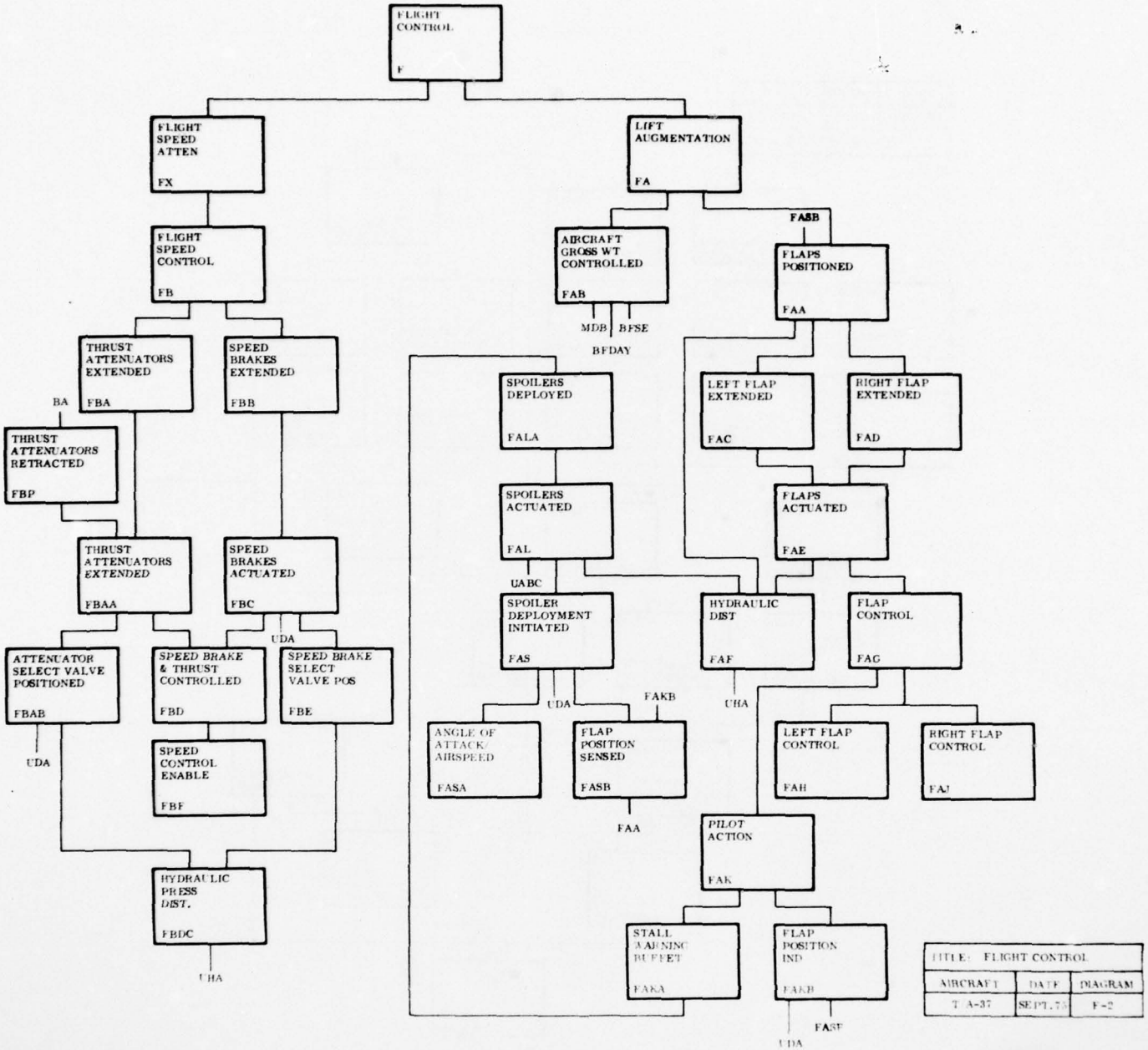


TITLE: INFORMATION & DISPLAY		
AIRCRAFT	DATE	DIAGRAM
T-37	SEPT. 75	D-1

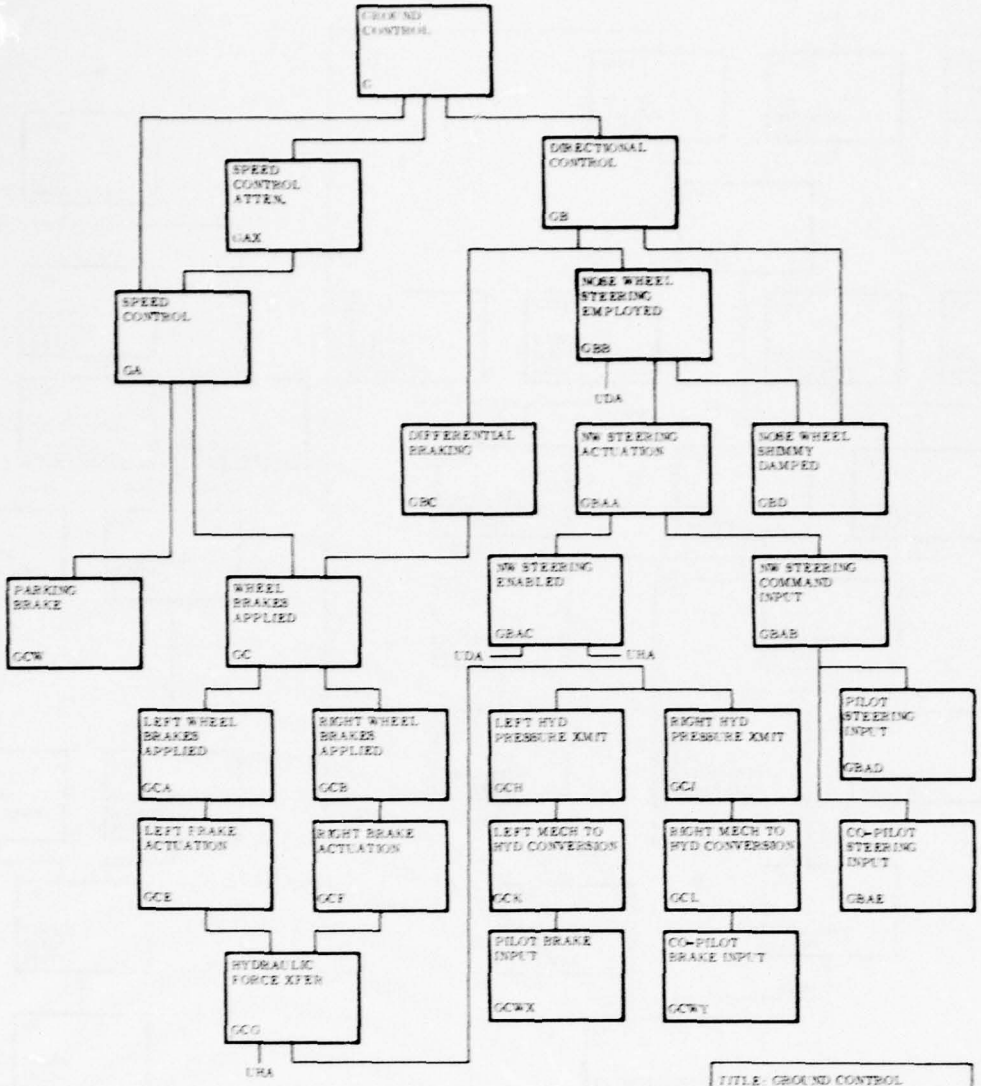

ENVIRONMENT
E
WINDSHIELD CLEAR
EC
EAB
RAIN CLEAR FLUID DISPENSED
ECA
RAIN CLEAR FLUID SUPPLY
ECB
UDA
WINDSHIELD CLEAR CONTROLLED
ECC
AIR TEMP/PRESS
EA
EC
AIR CONDITIONING AND VENTILATION
EAA
EADZ
AIR DISTRIBUTED
EAAA
CONDITIONED AIR DISTRIBUTED
EAAB
RAM AIR DISTRIBUTED
EAAC
BLEED AIR MIXED
EAAD
UABC
UDA
REFRIGERATED AIR
EAAF
AUTOMATIC TEMP CONTROL
EAAG
HOT AIR CONTROLLED
EAAH
BBA
BSB
PRIMARY INST LITES
EADA
CONTROL PRIMARY INST.
EADH
UDA
INST LITE PANEL
EADAE
DEFOG
EAB
DEFOG AIR DISTRIBUTED
EABA
DEFOG AIR CONTROLLED
EABB
DEFOG SELECT
EABC
OXYGEN
EAC
O2 DIST LEFT SEAT
EACA
O2 DIST RIGHT SEAT
EACB
O2 REGULATED LEFT
EACC
O2 REGULATED RIGHT
EACD
O2 SOURCE NORMAL
EACE
EMERGENCY O2 RIGHT
EACH
EMERGENCY O2 LEFT SEAT
EACG
INTERNAL LIGHTING
EAD
RADIO LIGHTS
EADD
RADIO LIGHTS CONTROL
EADK
UDA
COCKPIT LIGHTS
EADF
COCKPIT LIGHT CONTROL
EADM
UDA
PRIMARY FLT INST LITES
EADB
CONTROL
EADG
UDA
SECONDARY INST LITES
EADC
SEC. INST LITE CONTROL
EADJ
UDA
LIGHTING
EB
ATTENUATION
EBA
ANTI-COLLISION BEACONS
EBBF
UDA
EXTERNAL LIGHTING
EBB
POSITION LIGHTS
EBBA
UDA
UPPER POSITION LIGHT
EBBG
LOWER POSITION LIGHT
EBBH
LANDING LIGHT
EBBD
UDA
TAXI LIGHTS
EBBE
UDA
LANDING LIGHT CONTROL
EBBT
NAVIGATION LIGHTS
EBBB
UDA
RIGHT WING NAVIGATION
EBBJ
LEFT WING NAVIGATION LIGHT
EBBK
TAIL CONE NAVLITE WHITE
EBBL
TAIL CONE NAVLITE AMBER
EBBM
PASSING LIGHT
EBBC
GEAR POWER INDICATOR LIGHT
EBBN
UDA
EA
CANOPY INTEGRITY ATTENUATE
EADZ
DC
CANOPY INTEGRITY MAINTAINED
EADX
TITLE: ENVIRONMENT
AIRCRAFT
A-37
DATE
SEPT. 75
DIAGRAM
E-1



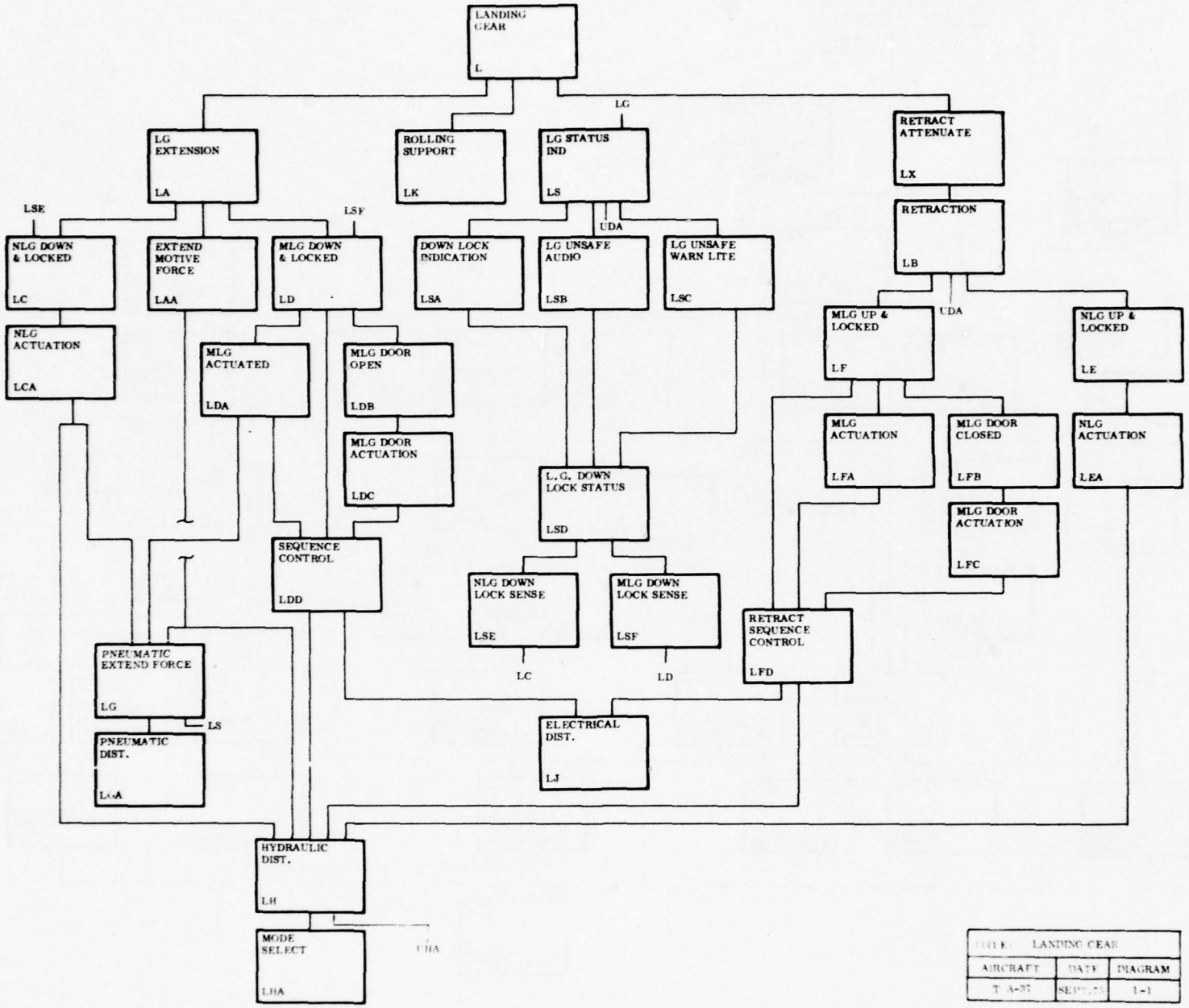
TITLE: FLIGHT CONTROL		
AIRCRAFT	DATE	DIAGRAM
T A-37	SEPT. 75	F-1



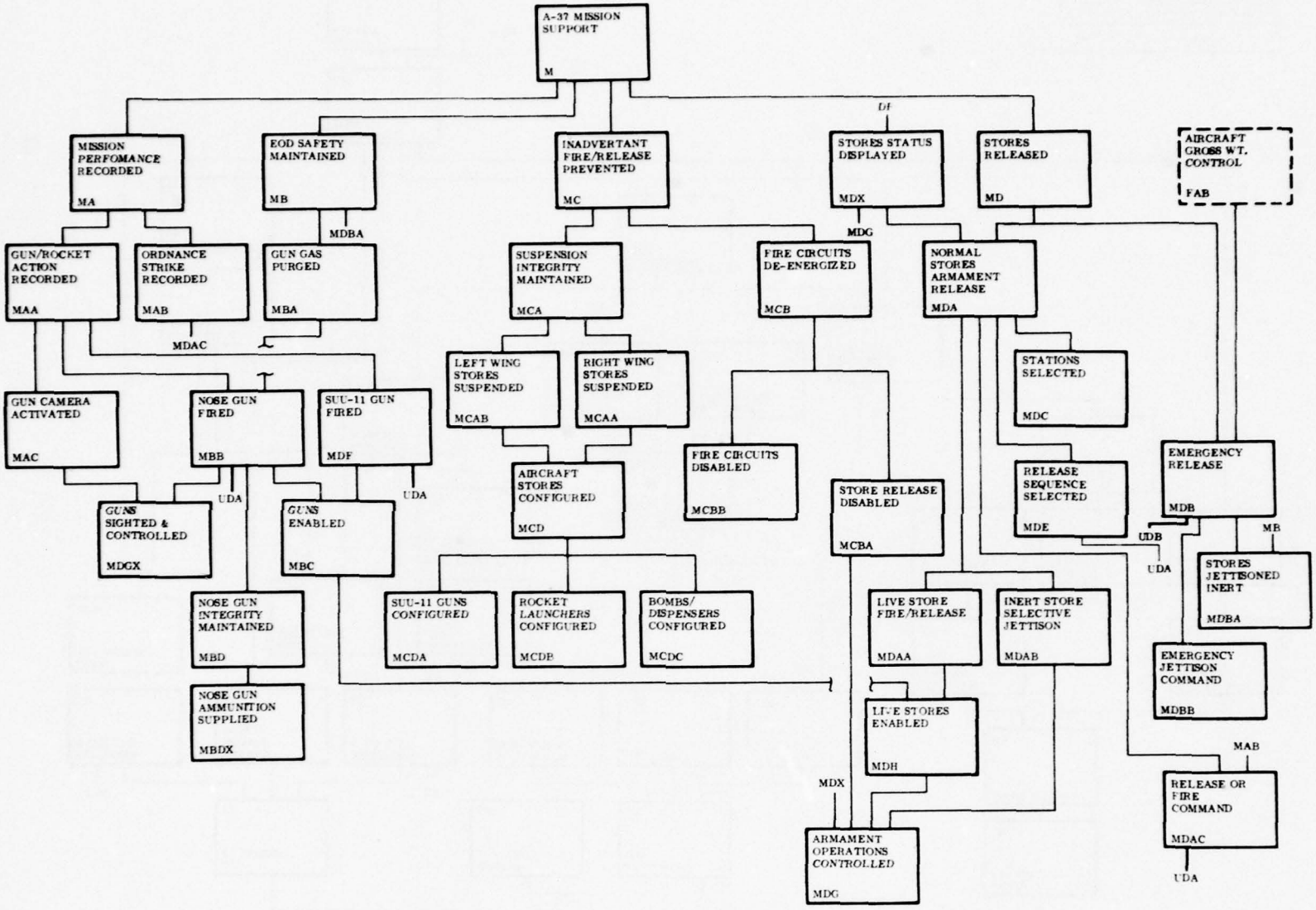
TITLE: FLIGHT CONTROL		
AIRCRAFT	DATE	DIAGRAM
T-37	SEPT. 73	F-2



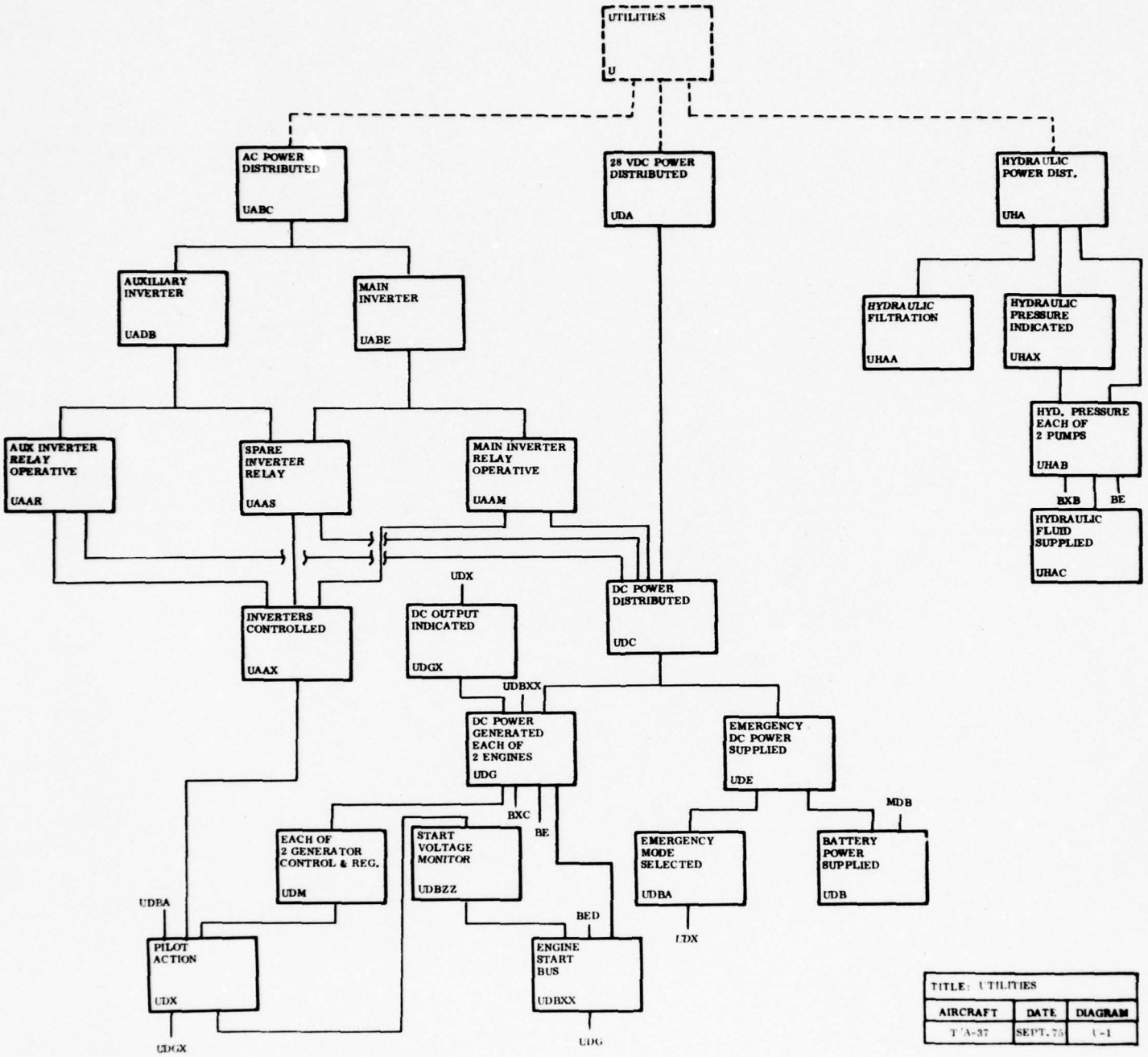
TITLE: GROUND CONTROL		
AIRCRAFT	DATE	DIAGRAM
T/A-37	SEPT. 71	G-1



TITLE: LANDING GEAR		
AIRCRAFT	DATE	DIAGRAM
T-37	SEPT 73	1-1



TITLE: MISSION SUPPORT		
AIRCRAFT	DATE	DIAGRAM
A-37	SEPT. 73	M-1



TITLE: UTILITIES		
AIRCRAFT	DATE	DIAGRAM
T-37	SEPT. 75	U-1

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0000000001111111111222222222233333333334444444444555555555566666666677777777778
1234567890123456789012345678901234567890123456789012345678901234567890123456789
 37  PROPULSION                                  B                                AAAAAAAAA
A37  BASIC LEFT ENGINE THRUST                    BA              B                041111110
T37L. ENGINE THRUST                              BA              B                041111120
T37                                              BA              BDUK             FAAAAAAAAA
A37  BASIC LEFT ENGINE THRUST                    BA              BG               FAAAAAAAAA
A37  BASIC LEFT ENGINE THRUST                    BA              BKD              FAAAAAAAAA
T37DIFFUSER                          23FAA       BAA             BA               A
T37CONE                              23FAB       BAB             BA               A
T37TAIL PIPE                         23FAC       BAC             BA               A
T37ADJUSTMENT TABS                   23FAD       BAD             BA               C
T37CLAMP                             23FAE       BAE             BA               A
T37HOUSING REAR BEARING              23FAF       BAF             BD               A
T37REAR BEARING                      23FAG       BAG             BD               A
T37REAR BEARING COVER                23FAH       BAH             BD               A
T37REAR BRNG.LABYRINTHSEAL HSNG      23FAJ       BAJ             BD               2
T37REAR BEARING LABYRINTH SEAL       23FAK       BAK             BD               2
T37REAR BEARING STUDDING ASSY.       23FAL       BAL             BD               A
T37SPIDER ASSEMBLY                   23FAM       BAM             BD               1
T37REAR BEARING SUPPORT              23FAN       BAN             BD               A
A37  ENGINE DRAIN  LINE              23PAE       BAP             BA               1
A37   STARTER COVER DUCT             23PAD       BAQ             BA               0
A37   QUICK DISCONNECT               23PAC       BAR             BA               1
A37   FRONT  ENGINE  MOUNT           23PAB       BAS             BA               8
A37   ENGINE TRUNNION MOUNTS         23PAA       BAT             BA               8
A37   TAIL PIPE CLAMP                23DAU       BAU             BA               1
A37   TAIL PIPE                      23DAT       BAV             BA               8
A37   EXHAUST CONE, CASING           23DAS       BAW             BA               5
A37   STRUT CENTER BODY              23DAB       BAX             BA               A
A37   THERMOCOUPLE BOSS              23DAC       BAY             BA               C
A37   CENTER BODY EXHAUST            23DAA       BAZ             BA               A
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PGG095.J1R1 DATE = 09/17/75 FLIGHT SAFETY PREDICTION TECHNIQUE

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000000000111111111122222222223333333333444444444455555555556666666666777777777 8
123456789012345678901234567890123456789012345678901234567890123456789012345678 90
A37  COMBUSTION                                BB              BA                AAAAAAAAA
T37L. ENGINE COMBUSTION                        BB              BA                AAAAAAAAA
T37 ENGINE COMBUSTION                          BB              BD               FAAAAAAAAA
T37   ENGINE COMPRESSION                       BBA             BB                AAAAAAAAA
A37   AFT INNER FLANGE          23BEV        BBA             BB               0
T37 ENGINE COMPRESSION                         BBA             EAAH              F555555555
T37AIR INDUCTION                               BBAA            BBA               AAAAAAAAA
T37BAFFLE                       23BAA        BBAAA           BBAA             1
T37DUCT AIR INTAKE              23BAB        BBAAB           BBAA             1
T37TUBE                         23BAC        BBAAC           BBAA             1
T37HOUSING ASSEMBLY             23BAD        BBAAD           BBAA             1
T37GUIDE VANE STRUT             23BAE        BBAAE           BBAA             1
T37CASE                         23BAF        BBAAF           BBAA             1
T37  TORQUE TUBE                23LAH        BBAAG           BBAA             1
T37  TORQUE TUBE                23LAH        BBAAH           BBAA             1
T37  BEARING BLOCK              23LAL        BBAAJ           BBAA             1
T37HOUSING COMPRESSOR           23CAA        BBAB            BBA              A
T37COMPRESSOR ROTOR ASSEMBLY    23CAB        BBAC            BBA              A
T37COMPRESSOR ROTOR             23CAC        BBAD            BBA              A
T37COMPRESSOR INDUCER           23CAD        BBAE            BBA              A
T37CAGE TURBINE SHAFT FWD. BRNG 23CAE        BBAF            BD               A
T37BEARING MAIN THRUST          23CAF        BBAG            BD               A
T37HOUSING MAIN THRUSTOIL SEAL  23CAG        BBAH            BDA              A
T37OIL SEAL                     23CAH        BBAJ            BDA              A
T37HSG.ACC.DRIVE SHAFT GEAR BNG 23CAJ        BBAK            BE               A
T37BEARING BALL                 23CAK        BBAL            BD               A
T37BEARING ROLLER               23CAL        BBAM            BD               1
T37COUPLING                     23CAN        BBAN            BBA              A
T37RADIAL DIFFUSER              23CAP        BBAP            BBA              A
T37COMPRESSOR COVER             23CAQ        BBAQ            BBA              A
T37COMPRESSOR COVER LAB.SEAL    23CAR        BBAR            BD               A
T37FRONT SHAFT LABYINTH SEAL    23CAS        BBAS            BBA              2
T37FIRE SEAL                    23CAT        BBAT            BD               A
T37STARTER ADAPTER              23BAG        BBAU            BDE              A
A37   STAGE 8 VANE RETAINER     23BEZ        BBAV            BB               0
T37STARTER DRIVE AIR INLET SECT 23BAH        BBAV            BDE              A
T37ENGINE MOUNT %LEFT<          23KAC        BBAW            BA               2
A37   COMB SECTION STRUT        23BEY        BBAW            BB               2
T37ENGINE MOUNT (RIGHT)         23KAC        BBAX            BA               2
A37   INNER BAND                23BEX        BBAX            BB               0
T37ENGINE MOUNT %REAR<          23KAC        BBAY            BA               2
A37   OUTER BAND                23BEW        BBAY            BB               0
A37   AFT OUTER FLANGE          23BEU        BBAZ            BB               0
T37L. ENGINE IGNITION                        BBB             BB      T          OOAAAAAAO
A37   INNER FWD FLANGE          23BET        BBB             BB               0
T37 ENGINE FUEL CONTROL                      BBBA            BB      T          SOOAAAAAAO
T37IGNITION SELECT                           BBBA            BBB              FAAAAAAAAA
T37 IGNITION SELECT                          BBBA            BBC              FAAAAAAAAA
T37IGNITION SWITCH              42236        BBBAA           BBBA             A
T37IGNITION COIL                23JAC        BBBB            BBB              A
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00000000011111111112222222222333333333344444444445555555555666666666677777777778
12345678901234567890123456789012345678901234567890123456789012345678901234567890
T37IGNITOR PLUG                  23JAD   BBBC          BBB          A
T37RELAY                         23JAE   BBBD          BBB          A
T37IGNITION HARNESS              23JAF   BBBE          BBB          A
T37TIME DELAY RELAY              23JAG   BBBF          BBB          A
T37L. ENGINE STARTING FUEL               BBC           BB     T       OCAAAAAAO
A37   OUTER FWD FLANGE           23BES   BBC           BB           0
T37STARTING FUEL NAZZLE          23GAE   BBCA          BBC          A
T37SOLENOID STARTING FUEL        23GAJ   BBCB          BBC          A
T37L. ENGINE OPERATING FUEL              BBD           BB             AAAAAAAAA
A37   P-3 PAD                    23BER   BBD           BB           0
T37 ENGINE FUEL CONTROL                  BBDA          BB             SAAAAAAAAA
T37L. ENGINE FUEL CONTROL                BBDA          BBC            FAAAAAAAAA
T37 ENGINE FUEL CONTROL                  BBDA          BBD            FAAAAAAAAA
T37FUEL CONTROL ASSEMBLY         23GAB   BBDAA         BBDA         A
T37FUEL SYSTEM DRAIN             23GAF   BBDAB         BBDA         0
T37FUEL BY-PASS VALVE            23GAG   BBDAC         BBDA         1
T37DELTACATOR                    23GAH   BBDAD         BBDA         A
T37FUEL CONTROL LEVER            23LAJ   BBDAE         BBDA         A
T37THROTTLE SELECT                       BBDB          BBDA           021111110
T37THROTTLE CONTROL LEVER PILOT  11622   BBDBA         BBDB         2
T37THROTTLE CONTROL LEVER INST.  11622   BBDBB         BBDB         4
T37QUADRANT INSTRUCTOR           11621   BBDBC         BBDB         4
T37TORQUE TUBE %PILOT TO INST<   1162A   BBDBD         BBDB         1
T37TORQUE TUBE                   1162A   BBDBE         BBDB         A
T37  THROTTLE  LINKAGE           11623   BBDBEZ        BBDB         7
T37BELLCRANK%PILOT QUADRANT<     11624   BBDBF         BBDB         2
T37BELLC-ANK%PILOT QUADRANT<     11624   BBDBG         BBDB         A
T37BELLCRANK%PILOT QUADRANT<     11624   BBDBH         BBDB         A
T37BELLCRANK%PILOT QUADRANT<     11624   BBDBJ         BBDB         A
T37BELLCRANK%PILOT QUADRANT<     11624   BBDBK         BBDB         2
T37BELLCRANK%PILOT QUADRANT<     11624   BBDBL         BBDB         2
T37PUSH ROD %PILOT QUADRANT<     11625   BBDBM         BBDB         2
T37PUSH ROD %PILOT QUADRANT<     11625   BBDBN         BBDB         A
T37PUSH ROD %PILOT QUADRANT<     11625   BBDBP         BBDB         A
T37PUSH ROD %PILOT QUADRANT<     11625   BBDBQ         BBDB         A
T37IDLER                         11626   BBDBR         BBDB         A
T37CABLE ASSEMBLY LH CONTROLEX   11627   BBDBS         BBDB         A
T37QUADRANT PILOT                11621   BBDBT         BBDB         0
T37L. ENGINE FUEL PRESSURIZER            BBDC          BBDA           AAAAAAAAA
T37FUEL PUMP -1                  23GAC   BBDCA         BBDC         1
T37FUEL PUMP -2                  23GAC   BBDCB         BBDC         1
T37FUEL FILTER                   23GAD   BBDCC         BBDC         2
T37L. ENGINE FUEL DELIVERY CONT          BBDD          BBDC           AAAAAAAAA
T37 ENGINE FUEL DEL CONTROL              BBDD          BBDX           FAAAAAAAAA
T37MOTORIZED SHUT-OFF VALVE      46228   BBDDA         BBDD         0
T37  ENGINE PUMP DRIVE                   BBDF          BBDD           AAAAAAAAA
T37PILOT TROTTLE POS MOVEMENT            BBDG          BBDB           555555555
T37TUBE FUEL                     23AAT   BBDGX         BBD          A
T37FUEL CARBON SEAL              23AAU   BBDH          BBD          A
T37BUSHING FUEL DIST. TUVE       23CAM   BBDJ          BBD          A
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0000000001111111111222222222233333333334444444444555555555566666666677777777778
1234567890123456789012345678901234567890123456789012345678901234567890123456789
T37 FUEL FLOW INDICATED                    BBDX        BBDG          111111111
T37 FUEL FLOW TRANSMITTER       23MCB      BBDXY       BBDX        5
T37 FUEL FLOW INDICATOR         23MCA      BBDXZ       BBDX        3
A37   SCAVENGE  PAD              23BEQ      BBE         BB          0
T37HOUSING TURBINE              23DAA      BBE         BD          A
A37   BLEED AIR PAD             23BEP      BBF         BB          0
T37AXIAL DIFFUSER               23DAB      BBF         BB          5
A37   LEAKAGE AIR DUCT PAD      23BEN      BBG         BB          0
T37ADAPTER                      23DAC      BBG         BB          2
A37   FUEL NOZZLE PAD 12 EACH   23BEM      BBH         BB          2
T37DRAIN                        23DAD      BBH         BB          0
A37   GEARBOX SUPPORT BRACKET   23BEL      BBJ         BB          A
T37INNER SHELL                  23DAE      BBJ         BB          5
A37   HEAT SHIELD               23BEK      BBK         BB          5
T37OUTER SHELL                  23DAF      BBK         BB          5
A37   COMBUSTION VIEWPORT COVER 23BFQ      BBL         BB          0
T37PRIMARY AIR SWIVEL VANE      23DAG      BBL         BB          5
A37   COMBUSTOR DRAIN BOSS      23BFP      BBM         BB          5
T37INTERMEDIATE LABYRINTH SEAL  23DAH      BBM         BD          2
A37   IGNITER PLUG BOSS         23BFN      BBN         BB          5
T37HOSE CDP                     23DAJ      BBN         EAAH        5
A37   LOWER SHAFT SHLD INS BLKT 23BFM      BBP         BB          0
T37FILTER CDP                   23DAK      BBP         EAAH        2
A37   UPPER SHAFT SHLD INS BLKT 23BFL      BBQ         BB          0
T37FUEL DISTRIBUTOR             23EAK      BBQ         BBD         A
A37   SHAFT SHIELD              23BFK      BBR         BB          0
T37FUEL DISTRIBUTOR TUBE        23EAL      BBR         BBD         A
A37   INNER COMBUSTION CASING   23BFJ      BBS         BB          0
T37BUSHING FUEL TUVE NOZZLE     23EAM      BBS         BBC         A
A37   INNER COMBUSTION SHELL    23BFG      BBT         BB          0
T37REAR ENGINE MOUNT BOLT       23KAG      BBT         BB          A
A37   OUTER COMBUSTION SHELL    23BFF      BBU         BB          0
A37   COWL AND DOME ASSY        23BFE      BBV         BB          0
A37   COMBUSTION LINER ASSY     23BFD      BBW         BB          8
A37   LOWER INSULATION BLANKET  23BFC      BBX         BB          2
A37   UPPER INSULATION BLANKET  23BFB      BBY         BB          2
A37   CASING OUTER              23BFA      BBZ         BB          8
A37   COMPRESSION                          BC          BA            AAAAAAAAA
A37   COMPRESSION                          BC          BB           FAAAAAAAAA
A37   COMPRESSION                          BC          BS           FAAAAAAAAA
A37   COMPRESSION                          BC          BVBC         F111111111
A37   BLEED VALVE MOUNT PAD     23BBY      BCA         BC          1
A37   COMPRESSOR SPACER STAGE 6 23BCN      BCAA        BC          0
A37   COMPRESSOR SHAFT AND SEAL 23BC8      BCAAK       BC          0
A37   STAGE 1 RETAINING RING    23BC7      BCAAL       BC          0
A37   STAGE 1 RETAINING PIN     23BC6      BCAAM       BC          0
A37   RUBBING SEAL RUNNER  AFT  23BC3      BCAAN       BC          0
A37   COMPRESSOR DRIVE SHAFT    23BC2      BCAAP       BC          0
A37   COMPRESSOR BLADE STAGE 8  23BC1      BCAAQ       BC          0
A37   COMPRESSOR BLADE STAGE 7  23BCZ      BCAAR       BC          0
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A37   COMPRESSOR BLADE STAGE 6 23BCY    BCAAS          BC          0
A37   COMPRESSOR BLADE STAGE 5 23BCX    BCAAT          BC          0
A37   COMPRESSOR BLADE STAGE 4 23BCW    BCAAU          BC          0
A37   COMPRESSOR BLADE STAGE 3 23BCV    BCAAV          BC          0
A37   COMPRESSOR BLADE STAGE 2 23BCU    BCAAW          BC          0
A37   COMPRESSOR BLADE STAGE 1 23BCT    BCAAX          BC          0
A37   LABYRINTH SEAL STAGE 8   23BCS    BCAAY          BC          0
A37   COMPRESSOR SPACER STAGE 723BCQ    BCAAZ          BC          0
A37   COMPRESSOR SPACER STAGE 523BCL    BCAB           BC          0
A37   COMPRESSOR SPACER STAGE 423BCJ    BCAC           BC          0
A37   COMPRESSOR SPACER STAGE 323BCG    BCAD           BC          0
A37   COMPRESSOR SPACER STAGE 223BCE    BCAE           BC          0
A37   BLEED HOLE               23BB7    BCAEJ          BC          0
A37   DISK STAGE 8             23BCR    BCAF           BC          0
A37   DISK STAGE 7             23BCP    BCAG           BC          0
A37   DISK STAGE 6             23BCM    BCAH           BC          0
A37   DISK STAGE 5             23BCK    BCAJ           BC          0
A37   DISK STAGE 4             23BCH    BCAK           BC          0
A37   DISK STAGE 3             23BCF    BCAL           BC          0
A37   DISK STAGE 2             23BCD    BCAM           BC          0
A37   SHAFT DISK STAGE 1       23BCC    BCAN           BC          0
A37   SEAL LABYRINTH           23BCB    BCAP           BC          0
A37   RUBBER RUNNING SEAL      23BCA    BCAQ           BC          3
A37   COMPRESSOR ROTOR ASSY    23BC0    BCAR           BC          A
A37   STATOR VANE KEY          23BB8    BCAS           BC          1
A37   BODY BOLT HOLES          23BB6    BCAT           BC          0
A37   AIR SCROLL               23BB5    BCAU           BC          0
A37   COMPRESSOR BLADE LAND    23BB4    BCAV           BC          0
A37   HORIZONTAL FLANGE        23BB3    BCAW           BC          0
A37   AFT FLANGE               23BB2    BCAX           BC          0
A37   FORWARD FLANGE           23BB1    BCAY           BC          0
A37   INSULATION BLANKET       23BBZ    BCAZ           BC          0
A37    COMP SHROUD STAGE 2     23BBX    BCB            BC          0
A37    COMP SHROUD STAGE 1     23BBV    BCC            BC          0
A37   STAGE 2 RING SHROUD      23BBW    BCD            BC          0
A37   STAGE 1 RING SHROUD      23BBU    BCE            BC          0
A37   VANE SEGMENT STAGE 2     23BBN    BCF            BC          0
A37   VANE SEGMENT STAGE 1     23BBL    BCG            BC          0
A37   VANE SEGMENT STOP STAGE7 23BBT    BCH            BC          0
A37   VANE SEGMENT STOP STAGE6 23BBS    BCJ            BC          0
A37   VANE SEGMENT STOP STAGE5 23BBR    BCK            BC          0
A37   VANE SEGMENT STOP STAGE4 23BBQ    BCL            BC          0
A37   VANE SEGMENT STOP STAGE3 23BBP    BCM            BC          0
A37   VANE SEGMENT STOP STAGE2 23BBM    BCN            BC          0
A37   VANE SEGMENT STOP STAGE1 23BBK    BCP            BC          0
A37   STAGE 7 STATOR SECTOR    23BBJ    BCQ            BC          0
A37   STAGE 6 STATOR SECTOR    23BBH    BCR            BC          0
A37   STAGE 5 STATOR SECTOR    23BBG    BCS            BC          0
A37   STAGE 4 STATOR SECTOR    23BBF    BCT            BC          0
A37   STAGE 3 STATOR SECTOR    23BBE    BCU            BC          0
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A37   STAGE 2 STATOR SECTOR     23BBD   BCV          BC          0
A37   STAGE 1 STATOR SECTOR     23BBC   BCW          BC          0
A37   COMP CASING LOWER HALF    23BBB   BCX          BC          A
A37   COMP CASING UPPER HALF    23BBA   BCY          BC          A
A37   COMPRESSOR STATOR ASSY    23BBO   BCZ          BC          A
A37 FUEL DELIVERY               23      BD           BB            AAAAAAAAA
T37L. ENGINE ROTATION           23      BD           BBA           AAAAAAAAA
T37 ENGINE ROTATION             23      BD           BE           FAAAAAAAAA
T37L. ENGINE COOLING OIL DIST.  23      BDA          BD            999999999
T37ANTILEAK VALVE               23HAJ   BDAA         BDA         1
T37OIL PRESSURE LINE            23HAN   BDAB         BDA         A
T37OIL SCAVANGE LINES           23HAP   BDAC         BDA         1
T37OIL FILTER ASSY              23HAC   BDAD         BDB         5
T37QUICK DISCONNECT             23KAD   BDAE         BDA         A
T37L. ENGINE COOLING OIL REG.   23      BDB          BDA           555555555
T37BY-PASS VALVE                23HAE   BDBA         BDB         A
T37PRESSURE REGULATOR VALVE     23HAH   BDBB         BDB         A
T37 ENGINE OIL PRESS.           23      BDC          BDA           AAAAAAAAA
T37L. ENGINE OIL PRESSURIZATION 23      BDC          BDB          FAAAAAAAAA
T37 ENGINE OIL PRESSURIZED      23      BDC          BDX          FAAAAAAAAA
T37PUMP ASSEMBLY OIL            23HAB   BDCA         BDC         A
T37SHAFT OIL PUMP               23HAD   BDCB         BDC         A
A37 FUEL  PRESSURE & DRAINED    23      BDD          BD            100000001
T37L. ENGINE OIL SUPPLY         23      BDD          BDC           AAAAAAAAA
T37ACCUMULATOR DRAIN VALVE      23HAF   BDDA         BDD         0
T37ACCESSORY ACCUMULATOR        23HAG   BDDB         BDB         1
T37OIL TANK                     23HAK   BDDC         BDD         A
T37OIL TANK FILLER              23HAL   BDDD         BDD         0
T37OIL TANK PENDULOUS HOSE      23HAM   BDDE         BDD         A
T37OIL SUPPLY LINE              23HAQ   BDDF         BDD         A
T37ANTILEAK VALVE               23AAR   BDDG         BDD         1
A37   PRESS./DRAIN VALVE ASSY   23EAC   BDDX         BDD         A
A37 FUEL CONTROL AND DIST.      23      BDE          BA           SAAAAAAAAA
T37START TORQUE                 23      BDE          BD      T      000000000
A37 FUEL CONTROL AND DIST.      23      BDE          BDD          FAAAAAAAAA
A37 FUEL CONTROL AND DIST.      23      BDE          BDG          FAAAAAAAAA
A37 FUEL CONTROL AND DIST.      23      BDE          BDXZ         FAAAAAAAAA
A37 FUEL CONTROL AND DIST.      23      BDE          BLD          FAAAAAAAAA
A37 FUEL CONTROL AND DIST.      23      BDE          BVBB         FAAAAAAAAA
T37STARTER COVER                23KAB   BDEA         BDE         1
A37   HIGH PRESSURE FUEL FILTER 23EAK   BDEV         BDE         0
A37   FUEL HOSE                 23EAL   BDEW         BDE         2
A37   FUEL CONTROL TUBE         23EAK   BDEX         BDE         2
A37   FUEL CONTROL FILTER       23EAG   BDEY         BDE         0
A37   FUEL CONTROL              23EAA   BDEZ         BDE         A
T37 ENGINE START SELECT         23      BDF          BBBA          AAAAAAAAA
A37 FUEL PRESSURE GENERATED     23      BDF          BDE           AAAAAAAAA
T37L. ENGINE START SELECT       23      BDF          BDE          FAAAAAAAAA
T37SWITCH STARTER               42235   BDFA         BDF         A
T37STARTER RELAY                42213   BDFB         BDF         A
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A37   FUEL PUMP FILTER          23EAH   BDFX            BDF          0
A37   FUEL PUMP                23EAB   BDFZ            BDF          A
T37INLET NOZZLE TURBINE        23EAA   BDG             BD           A
A37  OVERSPEED  CONTROLLED             BDG             BDE            011111110
A37   ENGINE GOVERNOR          23EAJ   BDGZ            BDG          2
T37TURBINE ROTOR HUB           23EAB   BDH             BD           2
A37  FUEL PRESSURE SENSED              BDH             BDE            AAAAAAAAA
T37BLADES                      23EAC   BDJ             BD           A
A37 COMPRESSOR INLET TEMP SENSE        BDJ             BDE            555555555
A37    SENSOR WIRE HARNESS     23HAQ   BDJY            BDJ          5
A37    T-2 SENSOR              23HAM   BDJZ            BDJ          A
T37FRONT SHAFT                 23EAD   BDK             BD           A
T37INTERMEDIATE SHAFT          23EAE   BDL             BD           A
T37REAR SHAFT                  23EAF   BDM             BD           A
T37BALANCE ASSEMBLY            23EAG   BDN             BD           5
T37DISC TURBINE LABYINTH       23EAH   BDP             BD           5
T37COMPRESSOR SPACER           23EAJ   BDQ             BD           2
T37  TACHOMETER INDICATION             BDUG            BBDG           111111111
T37  TACHOMETER INDICATOR      23MAA   BDUGA           BDUG         8
T37  EXHAUST GAS TEMP IND              BDUH            BBDG           111111111
T37  EXHAUST GAS TEMP INDICATOR23MDA   BDUHA           BDUH         A
T37  TACHOMETER SIGNAL GENERATR        BDUJ            BDUG           AAAAAAAAA
T37  TACHOMETER GENERATOR      23JAB   BDUJA           BDUJ         8
T37  EXHAUST GAS TEMP SENSED           BDUK            BDUH           AAAAAAAAA
T37  EXHAUST GASSPOOL RESISTOR 23MDB   BDUKA           BDUK         8
T37  THERMOCOUPLE HARNESS      23MDC   BDUKB           BDUK         8
T37  THERMOCOUPLE PROBE        23MDD   BDUKC           BDUK         8
T37  FIREWALL CONNECTOR        23MDE   BDUKD           BDUK         8
A37   LFT FUEL NOZZLES 6 EACH  23EAF   BDW             BB           1
A37   LFT FUEL NOZZLE MANIFOLD 23EAE   BDX             BB           A
T37 OIL PRESSURE INDICATED             BDX             BBDG           222222222
A37 FUEL FLOW INDICATED                BDXX            BR      I BDF  555555555
A37   FUEL FLOW INDICATOR      23KDQ   BDXXZ           BDXX         3
T37 OIL PRESSURE TRANSMITTER   23MBB   BDXY            BDX          5
T37 OIL PRESSURE INDICATOR     23MBA   BDXZ            BDX          3
A37 FUEL FLOW SENSED AND XMITTD        BDXZ            BDXX           AAAAAAAAA
A37   FUEL FLOW XMITTER        23KDB   BDXZZ           BDXZ         7
A37   RT FUEL NOZZLES  6 EACH  23EAF   BDY             BB           1
A37   RT FUEL NOZZLE MANIFOLD  23EAD   BDZ             BB           A
T37 ENG. ACCESSORY DRIVE               BE              BB            SAAAAAAAAA
T37 ENG. ACCESSORY DRIVE               BE              BBDA          FAAAAAAAAA
T37 ENG. ACCESSORY DRIVE               BE              BBDC          FAAAAAAAAA
T37 ENGINE ACCESSORY DRIVE             BE              BBDF          FAAAAAAAAA
T37L. ENGINE ACCESSORY DRIVE           BE              BDC           FAAAAAAAAA
T37 ENG. ACCESSORY DRIVE               BE              BDUJ          FAAAAAAAAA
T37 ENG. ACCESSORY DRIVE               BE              UDG            AAAAAAAAA
T37 ENG. ACCESSORY DRIVE               BE              UHAB           AAAAAAAAA
A37  IGNITION SUPPLIED                 BEA             BB      T      00AAAAA00
T37HOUSING ACCESSORY DRIVE CASE23AAA   BEA             BE           A
A37   IGNITION CIRCUIT BREAKER 23HAZ   BEAX            BEA          5
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A37 ' PLUG MAIN IGNITOR          23HAD   BEAY          BEA          2
A37   LEAD MAIN IGNITION         23HAB   BEAZ          BEA          2
T37GEAR ACCESSORY DRIVEN SPRU    23AAB   BEB           BE           A
A37  IGNITION GENERATED                  BEB           BEA            AAAAAAAAA
A37   IGNITION EXCITER           23HAA   BEBZ          BEB          A
T37SPACER                        23AAC   BEC           BE           1
A37  IGNITION CONTROLLED                 BEC           BEB            AAAAAAAAA
A37   IDLE CUT OFF SWITCH        9923A   BECZ          BEC          5
A37  IGNITION POWER DISTRBTED            BED           BEC            AAAAAAAAA
T37SHAFTGEAR STARTER/GEN. DRIVE23AAD     BED           UDG          A
A37    IGNITION CONTROL RELAY    23HAY   BEDZ          BED          5
T37GEAR ASSY FUEL PUMP DRIVEN    23AAE   BEE           BBDF         A
A37  IGNITION HOLD TIMING                BEE           BED            111111111
A37    TIME DELAY RELAY           23HAI   BEEZ          BEE          5
T37GEAR FUEL PUMP DRIVEN         23AAF   BEF           BBDF         A
A37 ENGINE START COMMAND                 BEF           BED            AAAAAAAAA
T37GEAR FUEL CONTROL UNIT IDLER23AAG     BEG           BBDA         A
A37 LEFT START COMMAND                   BEG           BEF      BEH   111111111
A37  PILOT START SWITCH          42235   BEGZ          BEG          A
T37GEAR FUEL CONTROL UNIT DRIVE23AAH     BEH           BBDA         A
A37 RIGHT START COMMAND                  BEH           BEF            111111111
A37   CO-PILOT START SWITCH      42235   BEHZ          BEH          2
T37GEAR FUEL PUMP DRIVE          23AAJ   BEJ           BBDF         A
A37 IGNITION POWER CONTROLLED            BEK           BED            AAAAAAAAA
T37GEAR FLUID POWER PUMP DRIVE   23AAK   BEK           UHAB         A
A37   POWER TRANSFER RELAY       42213   BEKZ          BEK          7
T37GEAR OIL PUMP DRIVE SPUR      23AAL   BEL           BDC          A
T37SHAFTGEAR OIL PUMP DVN.BVL.   23AAM   BEM           BDC          A
T37BEARING BALL                  23AAN   BEN           BE           A
T37SHAFT ACCESSORY DRIVE         23AAP   BEP           BE           A
T37SHAFT GEAR OIL PUMP DRIVE     23AAQ   BEQ           BDC          A
T37COVER ACCESSORY DRIVE         23AAS   BER           BE           1
T37GEAR TACHOMETER DRIVE         23AAV   BES           BDUJ         A
A37 ENGINE FUEL DELIVERED                BF            B              S08AAAAA60
T37  ENGINE FUEL DELIVERED               BF            B              S08AAAAA60
T37  ENGINE FUEL DELIVERED               BF            BBDD           FAAAAAAAAA
A37 ENGINE FUEL DELIVERED                BF            BQA            FAAAAAAAAA
A37   MAIN FUEL SUPPLIED                 BFA           BF               AAAAAAAAA
A37   MAIN FUEL SUPPLIED                 BFA           BFAX           FAAAAAAAAA
A37   MAIN FUEL SUPPLIED                 BFA           BFN            FAAAAAAAAA
T37  FUEL BOOST ACTIVATION               BFA           BFX              AAAAAAAAA
A37  MAIN FUEL QUANTITY SENSED           BFAX          BFG              777777777
A37   FUSE-TANK QUANTITY PROBE   51722   BFAXZ         BFAX         A
A37     DE-FUELING VALVE         46223   BFAY          BFA          0
A37     FUSELAGE FUEL CELL       46121   BFAZ          BFA          A
T37   BOOST PUMP SWITCH          46316   BFAZ          BFA          2
A37     RESERVOIR                46112   BFAZZ         BFA          2
T37  MAIN FUEL SUPPLIED                  BFB           BF               AAAAAAAAA
A37   FUEL TRANSFERRED                   BFB           BFA              008888800
T37FUSELAGE CELL                 46121   BFBA          BFB          A
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T37DEFUELING VALVE                46223   BFBB        0650    BFB          0
T37FUSELAGE VENT VALVE            46227   BFBC                BFB          2
A37      SELECTOR VALVE           46222   BFBX                BFB          A
A37      FOUR LEVEL FLOAT SW      46315   BFBY                BFB          A
A37      FUEL SELECTOR RELAY      46215   BFBZ                BFB          5
A37   WING FUEL TRANSFERRED               BFC                 BFB            000577555
T37   WING FUEL TRANSFER                  BFC                 BFB            008888800
A37   GRAVITY FUEL TRANSFER               BFCA                BFC    K BFCB  AAAAAAAAA
A37   ANNUNCIATOR PANEL           4431A   BFCAW               BFCA         2
A37   MASTER CAUTION LIGHT        44318   BFCAX               BFCA         1
A37      GRAVITY TRANS LIGHT      4431A   BFCAY               BFCA         1
A37      BY-PASS  VALVE,GRAVITY   46224   BFCAZ               BFCA         A
A37    PROPORTIONAL TRANSFER             BFCB                BFC      BFCA  111111111
A37    PROPORTIONAL TRANSFER             BFCB                BFD            AAAAAAAAA
A37      BY-PASS VALVE,PROP FEED46224     BFCBX               BFCB         5
A37      FUEL PROPORTIONER  2EA   46212   BFCBY               BFCB         2
A37      PROPORTIONER MOTOR 2EA   46312   BFCBZ               BFCB         1
T37    MOTORIZED SHUTOFF VALVES   46228   BFCZ                BFC          5
A37    PYLON FUEL TRANSFERRED            BFD                 BFB            0C1000000
T37   GRAVITY TRANSFER                   BFD                 BFC    K BFH   AAAAAAAAA
A37   PYLON FUEL AVAILABLE               BFDA                BFD            AAAAAAAAA
T37GRAVITY FEED                   46224   BFDA                BFD          8
A37   PYLON FUEL AVAILABLE               BFDA                BFDAX          FAAAAAAAAA
A37   PYLON FUEL AVAILABLE               BFDA                BFDAY          FAAAAAAAAA
A37 PYLON FUEL LEVEL SENSED              BFDAX               BFE            111111111
A37    4-LEVEL FLOAT SWITCH       46315   BFDAXZ              BFDAX        A
A37 PYLON FUEL JETTISON                  BFDAY               FAB            F000000CA0
A37   PYLON SUPPLY AVAIL EA WING         BFDB                BFDA           555555555
A37         INTM PYLON AIR TUBE  46136   BFDBJ               BFDB         5
A37         INTM PYLON QWIK DCNX46134    BFDBK               BFDB         2
A37         INTM PYLON       FIN 46133   BFDBL               BFDB         0
A37         INTM PYLON TANK      46132   BFDBM               BFDB         A
A37         INTM PYLON SWAYBRACE1131D    BFDBN               BFDB         2
A37         INTM PYLON FAIRING   1131C   BFDBP               BFDB         0
A37         INTM PYLON           11318   BFDBQ               BFDB         8
A37         INBD PYLON AIR TUBE  46136   BFDBR               BFDB         5
A37         INBD PYLON QWIK DCNX46134    BFDBS               BFDB         2
A37         INBD PYLON TANK FIN  46133   BFDBT               BFDB         0
A37         INBD PYLON TANK      46132   BFDBU               BFDB         A
A37         INBD PYLON SWAYBRACE1131D    BFDBV               BFDB         2
A37         INBD PYLON FAIRING   1131C   BFDBW               BFDB         0
A37         INBD PYLON           11318   BFDBX               BFDB         8
A37    BY-PASS TUBE ASSY         9946H   BFDBY               BFDB         5
A37    CROSS-OVER TUBE           9946G   BFDBZ               BFDB         5
T37   GRAVITY FEED MICRO SWITCH  46317   BFDX                BFD          2
T37   FUEL LEVEL SENSED                  BFE                 BFD            111111111
T37   FUEL LEVEL SENSED                  BFE                 BFXW           FAAAAAAAAA
A37   FUEL MGT INFO PROVIDED             BFE                 BFXY           AAAAAAAAA
T37FLOAT SWITCH ASSEMBLY          46318   BFEA                BFE          8
T37LOW LEVEL RELAY                46314   BFEB                BFE          A
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A37     ANUNCIATOR PANEL          4431A   BFEZ              BFE             2
A37   TRANSFER SOURCE SELECT              BFF               BFB              777777777
A37   TRANSFER SOURCE SELECT              BFF               BFC             FAAAAAAAAA
A37   TRANSFER SOURCE SELECT              BFF               BFD             FAAAAAAAAA
A37   TRANSFER SOURCE SELECT              BFF               BFE             F111111111
A37   TRANSFER SOURCE SELECT              BFF               BFWB            FAAAAAAAAA
A37    TRANSFER SOURCE  SEL SW  4631B     BFFZ              BFF             2
A37   FUEL QUANTITY DATA DISP             BFG               BFXX             AAAAAAAAA
A37     TRANSFER  RELAY           51726   BFGV              BFG             5
A37     FUEL IND. TEST SWITCH     51725   BFGW              BFG             0
A37     FUEL IND. POWER UNIT      51724   BFGX              BFG             A
A37     FUEL QTY SELECT SWITCH    51723   BFGY              BFG             5
A37     FUEL QTY INDICATOR        51721   BFGZ              BFG             3
T37    PROPORTIONAL TRANSFER              BFH               BFC      BFD     111111111
A37   WING FUEL QUANTITY SENSED           BFH               BFG              333333333
T37PROPORTIONER PUMP            46212   BFHA              BFH             6
T37PROPORTIONER MOTOR           46312   BFHB              BFH             8
A37    RIGHT CELL 2 QTY PROBE   51722   BFHW              BFH             2
A37    RIGHT CELL 5 QTY PROBE   51722   BFHX              BFH             2
A37    LEFT CELL 2 QTY PROBE    51722   BFHY              BFH             2
A37    LEFT CELL 5 QTY PROBE    51722   BFHZ              BFH             2
A37    GRAVITY FUEL SELECT              BFJ               BFCA             111111111
T37 CONTROLLED FUEL TRANSFER            BFJ               BFH              AAAAAAAAA
A37      GRAVITY FEED RELAY     46313   BFJY              BFJ             A
T37 FLOAT SW ASSY  4631C        46318   BFJZ              BFJ             8
A37      GRAVITY FUEL SEL SWITCH46311   BFJZ              BFJ             A
T37 FLOAT SW ASSY  46318        4631C   BFJZA             BFJ             8
A37    FAIL SAFE GRAVITY XFER           BFK               BFCA             111111111
T37   TRANSFER SELECT                   BFK               BFD             FAAAAAAAAA
T37   TRANSFER SELECT                   BFK               BFJ              AAAAAAAAA
T37GRAVITY SWITCH               46311   BFKA              BFD             8
T37GRAVITY FEED RELAY           46313   BFKB              BFD             5
A37      FLOAT SWITCH ASSY  L-4 46315   BFKZ              BFK             A
T37   WING FUEL SUPPLY                  BFL               BFC             SAAAAAAAAA
T37WING FUEL SUPPLY                     BFL               BFD             FAAAAAAAAA
T37WING FUEL SUPPLY                     BFL               BFJ             FAAAAAAAAA
A37    FUEL LOW WARNING                 BFM               BFG              111111111
T37RIGHT WING FUEL SUPPLY               BFM               BFL              555555555
T37 RIGHT WING FUEL SUPPLIED            BFM               BFXY            FAAAAAAAAA
T37RIGHT LEADING EDGE CELL#2    46125   BFMA              BFM             5
T37INTERCONNECT #4 TO #2        46114   BFMAA             BFM             5
T37CHECK VALVE #4 TO #2         46226   BFMAB             BFM             0
T37VENT LINE #4 TO #2           46116   BFMAC             BFM             0
T37RIGHT INTERSPAR CELL #4      46124   BFMB              BFM             5
T37INTERCONNECT #5 TO #4        46114   BFMBA             BFM             2
T37INTERCONNECT |5 TO |4        46114   BFMBB             BFM             2
T37INTERCONNECT |3 TO |4        46114   BFMBC             BFM             2
T37CHECK VALVE |5 TO |4         46226   BFMBD             BFM             0
T37CHECK VALVE |5 TO |4         46226   BFMBE             BFM             0
T37CHECK VALVE |3 TO |4         46226   BFMBF             BFM             0
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T37VENT LINE |5 TO |4              46116   BFMBG           BFM          2
T37ACCESS COVER CELL |4           46115   BFMBH           BFM          0
T37RIGHT INTERSPAR CELL |5        46124   BFMC            BFM          4
T37INTERCONNECT |6 TO |5          46114   BFMCA           BFM          1
T37INTERCONNECT |6 TO |5          46114   BFMCB           BFM          1
T37CHECK VALVE |6 TO |5           46226   BFMCC           BFM          0
T37CHECK VALVE |6 TO |5           46226   BFMCD           BFM          0
T37VENT LINE |6 TO |5             46116   BFMCE           BFM          2
T37ACCESS COVER CELL |6           46115   BFMCF           BFM          0
T37RIGHT TIP TANK |3              46126   BFMD            BFM          4
T37INTERCONNECT |6 TO |3          46114   BFMDA           BFM          2
T37CHECK VALVE |6 TO |3           46226   BFMDB           BFM          0
T37VENT LINE |7 TO |3             46116   BFMDC           BFM          2
T37PLUNGER ROD FILLER CAP         46111   BFMDD           BFM          0
T37FILLER CAP                     46113   BFMDE           BFM          5
T37DUMP %TIP TANK<                4622C   BFMDF           BFM          5
T37FILLER ASSEMBLY                46117   BFMDG           BFM          0
T37RIGHT INTERSPAR CELL |6        46124   BFME            BFM          2
T37INTERCONNECT |7 TO |6          46114   BFMEA           BFM          2
T37INTERCONNECT |7 TO |6          46114   BFMEB           BFM          2
T37CHECK VALVE |7 TO |6           46226   BFMEC           BFM          0
T37CHECK VALVE |7 TO |6           46226   BFMED           BFM          0
T37VENT LINE |7 TO |6             46116   BFMEE           BFM          2
T37ACCESS COVER CELL |6           46115   BFMEF           BFM          0
T37RIGHT INTERSPAR CELL |7        46124   BFMF            BFM          2
T37WING VENT VALVE                4622A   BFMFA           BFM          0
T37ACCESS COVER CELL |7           46115   BFMFC           BFM          0
A37  ANNUNCIATOR PANEL            4431A   BFMX            BFM          2
T37 FLOAT SWITCH                  4622B   BFMX            BFM          0
A37  MASTER CAUTION LIGHT         44318   BFMY            BFM          1
A37     FLOAT SWITCH ASSY  L-4    46315   BFMZ            BFM          A
A37   TRANSFER LEVEL CONTROL              BFN             BFCB           AAAAAAAAA
T37   LEFT WING FUEL SUPPLY               BFN             BFL            555555555
T37 LEFT WING FUEL SUPPLIED               BFN             BFXY          FAAAAAAAAA
T37   PLUNGER ROD FILLER CAP      46111   BFNA            BFN          0
T37   ACCESS COVER  CELL  7       46115   BFNAM           BFN          0
T37   WING VENT VALVE  46222      4622A   BFNAN           BFN          0
T37   LEFT INTERSPAR CELL  7      46122   BFNAP           BFN          2
T37   ACCESS COVER CELL  6        46115   BFNAQ           BFN          0
T37   VENT LINE   7 TO  6         46116   BFNAR           BFN          2
T37   CHECK VALVE   7 TO  6       46226   BFNAS           BFN          0
T37   CHECK VALVE   7 TO  6       46226   BFNAT           BFN          0
T37   INTERCONNECT    7 TO 6      46114   BFNAU           BFN          2
T37   INTERCONNECT    7 TO 6      46114   BFNAV           BFN          2
T37   LEFT INTERSPAR CELL  6      46122   BFNAW           BFN          2
T37   FILLER ASSY                 46117   BFNAX           BFN          0
T37   TIP DUMP VALVE              4622C   BFNAY           BFN          5
T37   FILLER CAP                  46113   BFNAZ           BFN          0
T37 FLOAT SWITCH                  4622B   BFNAZZ          BFN          0
T37   VENT LINE   7 TO  3         46116   BFNB            BFN          2
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T37   CHECK VALVE    6 TO  3     46226   BFNC              BFN          0
T37   INTERCONNECT   6 TO  3     46114   BFND              BFN          2
T37   LEFT TIP TANK    .3        46126   BFNE              BFN          4
T37   ACCESS COVER    5          46115   BFNF              BFN          0
T37   VENT LINE    6 TO  5       46116   BFNG              BFN          2
T37                6 TO  5       46226   BFNH              BFN          0
T37   CHECK VALVE    6 TO  5     46226   BFNJ              BFN          0
T37   INTER CONNECT    6 TO  5   46114   BFNK              BFN          2
T37   INTER CONNECT    6 TO  5   46114   BFNL              BFN          2
T37  LEFT INTERSPAR CELL  5      46112   BFNM              BFN          4
T37      ACCESS COVER CELL  4    46115   BFNN              BFN          0
T37      VENT LINE    5 TO  4    46116   BFNP              BFN          2
T37       CHECK VALVE  3 TO  4   46226   BFNQ              BFN          0
T37       CHECK VALVE  5 TO 4    46226   BFNR              BFN          0
T37       CHECK VALVE  5 TO 4    46226   BFNS              BFN          0
T37                3 TO 4        46114   BFNT              BFN          2
T37       INTER CNX  5 TO  4     46114   BFNU              BFN          2
T37  LEFT INTERSPAR CELL  4      46122   BFNV              BFN          5
T37   VENT LINE #4 TO #2         46116   BFNW              BFN          2
T37   CHECK VALVE #4 TO #2       46226   BFNX              BFN          0
T37       INTER CNX #4 TO #2     46114   BFNY              BFN          5
T37       LEAD EDGE CELL         46123   BFNZ              BFN          5
A37    FLOAT SWITCH ASSY  L-2-3 46315   BFNZ              BFN          A
A37  NORMAL TRANSFER SELECT                BFP               BFN            AAAAAAAAA
A37  TRANSFER MODE SELECT                  BFPA              BFJ            FAAAAAAAAA
A37  TRANSFER MODE SELECT                  BFPA              BFP            AAAAAAAAA
A37   TRANSFER MODE SELECT SW   4631B     BFPAZ             BFPA         A
A37   WING INT FUEL AVAILABLE             BFQ               BFH            FAAAAAAAAA
A37   WING INT FUEL AVAILABLE             BFQ               BFT            888888888
A37  EACH WING SUPPLY AVAILABLE            BFRA              BFQ            555555555
A37   CHECK VALVE CELL 6-5  2EA46226     BFRAA             BFRA         0
A37        FILLER  CAP          46113   BFRAAS            BFRA         0
A37        FILLER  ASSY         46117   BFRAAT            BFRA         0
A37     ACCESS COVER  CELL 7    46115   BFRAAU            BFRA         0
A37     ACCESS COVER  CELL 6    46115   BFRAAV            BFRA         0
A37     ACCESS COVER  CELL 5    46115   BFRAAW            BFRA         0
A37     ACCESS COVER  CELL 4    46115   BFRAAX            BFRA         0
A37     CHECK VALVE CELL  7-6 2E46226   BFRAAY            BFRA         0
A37     CHECK VALVE CELL  6-3   46226   BFRAAZ            BFRA         0
A37   CHECK VALVE CELL 3-5      46226   BFRAB             BFRA         0
A37   CHECK VALVE CELL 3-4      46226   BFRAC             BFRA         0
A37   CHECK VALVE CELL 5-4  2EA46226    BFRAD             BFRA         0
A37   CHECK VALVE CELL 4-2      46226   BFRAE             BFRA         0
A37   VENT LINE  CELL 7-6       46116   BFRAF             BFRA         1
A37   VENT LINE  CELL 6-3       46116   BFRAG             BFRA         1
A37   VENT LINE  CELL 6-5       46116   BFRAH             BFRA         1
A37   VENT LINE  CELL 4-5       46116   BFRAJ             BFRA         1
A37   VENT LINE  CELL 4-2       46116   BFRAK             BFRA         1
A37        INTER-SPAR CELL 7    46122   BFRAL             BFRA         2
A37        INTER-SPAR CELL 6    46122   BFRAM             BFRA         2
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A37          INTER-SPAR CELL 5    46122   BFRAN            BFRA          2
A37          INTER-SPAR CELL 4    46122   BFRAP            BFRA          A
A37          LE CELL32            46123   BFRAQ            BFRA          1
A37          LE CELL 2            46123   BFRAR            BFRA          A
A37   CELL 3- CELL 5 INTCNX       46114   BFRAS            BFRA          2
A37   CELL 7- CELL 6 INTCNX  2EA46114   BFRAT            BFRA          2
A37   CELL 6- CELL 3 INTCNX       46114   BFRAU            BFRA          2
A37   CELL 6- CELL 5 INTCNX  2EA46114   BFRAV            BFRA          2
A37   CELL 3- CELL 4 INTCNX       46114   BFRAW            BFRA          2
A37   CELL 5- CELL 4 INTCNX  2EA46114   BFRAX            BFRA          2
A37   CELL 4- CELL 2 INTCNX       46114   BFRAY            BFRA          8
A37   CELL 2- FUSELAGE INTCNX     46114   BFRAZ            BFRA          8
A37 AIRCRAFT REFUELED                     BFRF             BFA             000001000
A37 AERIAL REFUEL                         BFRFA            BFRF            AAAAAAAAA
A37 AERIAL REFUEL                         BFRFA            BFRFJ           FAAAAAAAAA
A37 AERIAL REFUEL                         BFRFA            BFRFX           FAAAAAAAAA
A37   RT PYLON FLOAT SWITCH       46421   BFRFAA           BFRFA         0
A37   RT PYLON CHECK VALVE        46413   BFRFAAX          BFRFA         0
A37   RT PYLON PRE-CHECK VALVE    46225   BFRFAAY          BFRFA         0
A37   RT PYLON SHUT-OFF VALVE     9946J   BFRFAAZ          BFRFA         0
A37   RT MAIN CHECK VALVE         46413   BFRFAB           BFRFA         0
A37   RT MAIN PRE-CHECK VALVE     46225   BFRFAC           BFRFA         0
A37   RT MAIN SHUT-OFF VALVE      9946J   BFRFAD           BFRFA         0
A37   RT MAIN FLOAT SWITCH        46421   BFRFAE           BFRFA         0
A37   RT  TIP CHECK VALVE         46413   BFRFAF           BFRFA         0
A37   RT  TIP PRE-CHECK VALVE     46225   BFRFAG           BFRFA         0
A37   RT  TIP SHUT-OFF VALVE      9946J   BFRFAH           BFRFA         1
A37   RT  TIP FLOAT SWITCH        46421   BFRFAJ           BFRFA         1
A37   LEFT PYLON CHECK VALVE      46413   BFRFAK           BFRFA         0
A37   LEFT PYLON PRE-CHECK VALVE 46225   BFRFAL           BFRFA         0
A37   LEFT PYLON SHUT-OFF VALVE  9946J   BFRFAM           BFRFA         0
A37   LEFT PYLON FLOAT SWITCH    46421   BFRFAN           BFRFA         0
A37   LEFT MAIN PRE CHECK VALVE  46225   BFRFAP           BFRFA         0
A37   LEFT MAIN SHUT-OFF VALVE   9946J   BFRFAQ           BFRFA         0
A37   LEFT MAIN FLOAT SWITCH     46421   BFRFAR           BFRFA         0
A37   LEFT TIP CHECK VALVE       46413   BFRFAS           BFRFA         0
A37   LEFT TIP PRE-CHECK VALVE   46225   BFRFAT           BFRFA         0
A37   LEFT TIP SHUT-OFF VALVE    9946J   BFRFAU           BFRFA         1
A37   LEFT TIP FLOAT SWITCH      46421   BFRFAV           BFRFA         1
A37    AIR REFUEL MANIFOLD       46414   BFRFAW           BFRFA         5
A37    AIR REFUEL CHECK VALVE    46413   BFRFAX           BFRFA         0
A37    AIR REFUEL PROBE          46412   BFRFAY           BFRFA         8
A37    AIR REFUEL BOOM           46411   BFRFAZ           BFRFA         8
A37 AIR REFUEL CONTROLLED                 BFRFB            BFRFA           AAAAAAAAA
A37    AIR REFUEL SWITCH         46421   BFRFBZ           BFRFB         5
A37 GROUND RE-FUEL                        BFRFG            BFRF            000000000
A37 GRAVITY RE-FUEL                       BFRFH            BFRFG           111111111
A37   FILLER CAP                46113   BFRFHY           BFRFH         1
A37   FILLER ASSY               46117   BFRFHZ           BFRFH         1
A37 SINGLE POINT REFUEL                   BFRFJ            BFRFG           111111111
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A37  GROUND REFUEL ADAPTER      9946K   BFRFJZ          BFRFJ          1
A37 AIR REFUEL DATA DISPLAYED           BFRFX           BFRFY           111111111
A37   AIR REFUEL LIGHTS         46422   BFRFXZ          BFRFX          0
A37 PILOT REFUEL ACTION                 BFRFY           BFRFB           333333333
A37   WING FUEL SUPPLEMENT AV           BFS             BFSX           FAAAAAAAAA
A37   WING FUEL SUPPLEMENT AV           BFS             BFT             222222222
A37   EACH TIP SUPPLY TRANS             BFSA            BFS             555555555
A37   EACH TIP SUPPLY TRANS             BFSA            BFSE           FAAAAAAAAA
A37     TIP TANK DUMP VALVE     46228   BFSAS           BFSA           5
A37     TIP TANK FILLER ASSY    46117   BFSAT           BFSA           0
A37     TIP TANK VENT LINES     46116   BFSAU           BFSA           2
A37     TIP TANK TO CELL 7 CNX  46114   BFSAV           BFSA           A
A37     TIP TANK       RELAY    46215   BFSAW           BFSA           A
A37     TIP TANK XFER PUMP      46214   BFSAX           BFSA           A
A37     TIP TANK FIN            46135   BFSAY           BFSA           0
A37     TIP TANK                46131   BFSAZ           BFSA           A
A37  EACH TIP FUEL DUMPED              BFSE            FAB     K BFS   000000000
A37   DUMP SWITCH               46318   BFSEY           BFSE           A
A37   DUMP VALVE                46228   BFSEZ           BFSE           A
T37  FUEL BOOST STATUS                  BFST            BFA     I BFX   111111111
T37   BOOST FAIL LIGHT          44317   BFSTY           BFST           2
T37   BOOST PUMP PRESS. SWITCH  4631A   BFSTZ           BFST           5
A37  TIP TANK FUEL QTY SENSED           BFSX            BFE             111111111
A37    R TIP PRESSURE SWITCH    46317   BFSXY           BFSX           5
A37    L TIP PRESSURE SWITCH    46317   BFSXZ           BFSX           5
T37   BYPASS INDICATOR          46234   BFT             BF             0
A37   WING FUEL SUPPLY AVAILABL         BFT             BFC             AAAAAAAAA
A37   POSITIVE FUEL PRESSURE            BFU             BF              AAAAAAAAA
T37   T-HANDLE                  46318   BFU             BF             0
A37   GRAVITY PRESSURE AVAILBLE         BFUA            BFU     K BFV   AAAAAAAAA
A37   FLIGHT RESTRICTIONS OBSVD         BFUB            BFUA            AAAAAAAAA
A37   PILOT ACTION                      BFUC            BFUB            AAAAAAAAA
A37   PILOT ACTION                      BFUC            BFVA           FAAAAAAAAA
A37     FUSELAGE VENT VALVE     46227   BFUZ            BFU            5
T37   DRAIN VALVE               46233   BFV             BF             0
A37   BOOST PUMP PRESSURE SUPP          BFV             BFU      BFUA   111111111
A37   BOOST PUMP PRESSURE SUPP          BFV             BFVX           FAAAAAAAAA
A37   FUEL BOOST PUMP SELECTED          BFVA            BFV             050000000
A37     BOOST PUMP SWITCH       46316   BFVAZ           BFVA           A
A37 BOOST PUMP STATUS IND               BFVX            BFUC     BFV    111111111
A37 ATTENUATER                          BFVXA           BFVX            111111111
A37  ANNUNCIATOR PANEL          4431A   BFVXV           BFVXA          2
A37  MASTER CAUTION LIGHT       4431B   BFVXW           BFVX           1
A37   BOOST PUMP PRESS SW       4631A   BFVXY           BFVX           8
A37   FUEL BOOST OFF LIGHT      4431A   BFVXZ           BFVX           5
A37     FUEL BOOST PUMP  46211  46213   BFVY            BFV            8
A37     FUEL BOOST PUMP  46213  46211   BFVZ            BFV            8
T37   RESERVOIR                 46112   BFW             BF             1
A37 SEAT TANK FUEL AVAILABLE            BFWA            BFWB            AAAAAAAAA
A37    SEAT TANK ASSY           9946F   BFWAZ           BFWA           A
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A37  SEAT TANK FUEL TRANSFER                BFWB          BFB            000000000
A37  SEAT TANK FUEL TRANSFER                BFWB          BFWC           FAAAAAAAAA
A37    SEAT TANK TO FUSL-INTCNX 9946E       BFWBX         BFWB         A
A37    SEAT TANK XFER PUMP      9946D       BFWBY         BFWB         A
A37    SEAT TANK XFER SEL SWITCH9946C       BFWBZ         BFWB         A
A37 SEAT TANK FUEL STATUS DISP              BFWC          BFE              111111111
A37    FUEL LEVEL PRESSR SWITCH46317        BFWCZ         BFWC         A
T37  FUEL PRESSURE BOOSTED                  BFX           BF               111111111
T37    STRAINER ELEMENT          46232      BFXA          BF           1
T37  FUEL LOW WARNING                       BFXW          BFXY             AAAAAAAAA
T37    FUEL LOW LEVEL LIGHT      44311      BFXWY         BFXW         5
T37    FLOAT SWITCH ASSY 4631C 46318        BFXWZ         BFXW         8
T37  PILOT ACTION                           BFXX          BFK              AAAAAAAAA
A37 PILOT ACTION                            BFXX          BR               000000000
A37  PILOT ACTION                           BFXY          BFF              AAAAAAAAA
A37  PILOT ACTION                           BFXY          BFPA           FAAAAAAAAA
T37 FUEL QUANTITY DATA DISPLAY              BFXY          BFXX             111111111
T37              CONNECTOR        51726     BFXYU         BFXY         2
T37              TEST SWITCH      51725     BFXYV         BFXY         0
T37              POWER UNIT       51724     BFXYW         BFXY         8
T37              SELECT SW        51723     BFXYX         BFXY         8
T37              PROBE      2 EA  51722     BFXYY         BFXY         2
T37    FUEL QTY INDICATOR         51721     BFXYZ         BFXY         2
T37 MAIN FUEL QUANTITY SENSED               BFXZ          BFXY             555555555
T37    FUEL BOOST PUMP            46211     BFXZA         BFX          8
T37    BOOST PUMP DRAIN           46225     BFXZB         BFX          0
T37    FUEL QUANTITY PROBE        51722     BFXZZ         BFXZ         5
T37    FUEL STRAINER              46231     BFY           BF           1
T37    MANUAL SHUTOFF VALVE       46221     BFZ           BF           0
A37    MANUAL SHUTOFF VALVE       46221     BFZA          BF           0
A37    FUEL STRAINER              46231     BFZB          BF           0
A37    FUEL STRAINER ELEMENT      46232     BFZC          BF           0
A37    FUEL STRAINER DRAIN VALVE46233       BFZD          BF           0
A37    FUEL STRAINER BAFFLES      46234     BFZE          BF           0
A37    FUEL STRAINER LINER        46235     BFZF          BF           0
A37 ENGINE ROTATION                         BG            BC               AAAAAAAAA
A37  EIGINE ROTATION                        BG            BT             FAAAAAAAAA
A37    TURBINE ROTOR BLADE,STG 223CBK       BGA           BG           A
A37    SEAL RUBBING               23CA2     BGAD          BG           1
A37    ROLLER BEARING             23BAK     BGAE          BG           2
A37    RUBBING SEAL RUNNER        23CBM     BGAF          BG           1
A37    TURBINE BAFFLE  STG 2      23CBL     BGAG          BG           0
A37    TURBINE BAFFLE  STG 1      23CBH     BGAH          BG           0
A37    TURBINE TORQUE RING        23CBF     BGAJ          BG           5
A37    LABYRINTH SEAL             23CBC     BGAK          BG           2
A37    OUTER TURBINE SEAL         23CBB     BGAL          BG           1
A37    BODY BOUND BOLT HOLES      23CAX     BGAM          BG           0
A37    AFT CASING FLANGE          23CAV     BGAN          BG           0
A37    FWD CASING FLANGE          23CAU     BGAP          BG           0
A37    CARBON RUBBING SEAL        23BEJ     BGAQ          BG           1
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A37   BEARING SUPPORT SEAL      23BEH  BGAR          BG          1
A37   BALL BEARING OIL NOZZLE   23BEG  BGAS          BG          2
A37   BEARING SUPPORT MI-D      23BEF  BGAT          BG          2
A37   BALL BEARING MI-D         23BEE  BGAU          BG          3
A37   VANE SEGMENT STG 8 STOP   23BED  BGAV          BG          C
A37   VANE SEGMENT  STAGE 8     23BEC  BGAW          BG          2
A37   STATIONARY STG 8 SEAL     23BEB  BGAX          BG          1
A37   STATIONARY INNER SEAL     23BEA  BGAY          BG          1
A37   MAIN FRAME ASSEMBLY       23BE0  BGAZ          BG          A
A37   STAGE 2 TURBINE WHEEL     23C6J  BGB           BG          8
A37   STAGE 1 TURBINE BLADE     23C6G  BGC           BG          A
A37   STATIONARY TURBINE SEAL   23CAE  BGD           BG          1
A37   TURBINE INTER STG SEAL    23CBE  BGE           BG          1
A37   STAGE 1 TURBINE WHEEL     23CBD  BGF           BG          8
A37   REAR RUBBING SEAL         23CBA  BGG           BG          1
A37   TURBINE INLET HEAT SHIELD 23CAY  BGH           BG          2
A37   HORIZONTAL CASING FLANGE  23CAW  BGJ           BG          0
A37   STG 2 PRESS-NOZZLE VANE   23CAT  BGK           BG          3
A37   STG 1 PRESS-NOZZLE VANE   23CAS  BGL           BG          3
A37   A-15 HORN                 23CAR  BGM           BG          0
A37   SEAL SUPPORT INS BLANKET  23CAQ  BGN           BG          0
A37   STG 2 TURBINE NOZZLE      23CAN  BGP           BG          5
A37   STG 2 SECTOR SHROUD SEAL  23CAM  BGQ           BG          1
A37   STG 2 SECTOR SHROUD       23CAL  BGR           BG          0
A37   STG 1 SECTOR SHROUD SEAL  23CAK  BGS           BG          1
A37   STG 1 SECTOR SHROUD       23CAJ  BGT           BG          0
A37   REAR BEARING SUPPORT      23CAG  BGU           BG          2
A37   REAR ROLLER BEARING       23CAF  BGV           BG          3
A37   REAR SUPPORT SEAL         23CAD  BGW           BG          1
A37   STG 1 TURBINE NOZZLE      23CAC  BGX           BG          5
A37   LOWER TURBINE CASING      23CAB  BGY           BG          A
A37   UPPER TURBINE CASING      23CAA  BGZ           BG          A
A37 EXHAUST GAS TEMP SENSED             BKD           BMAA          AAAAAAAAA
A37   FIRE WALL CNX THERMO HARN 23KDH  BKDW          BKD         5
A37   RESISTOR TRIMMER          23KDP  BKDX          BKD         5
A37   SENSOR WIRING HARNESS     23KDN  BKDY          BKD         5
A37   EGT SENSOR 8 EACH         99238  BKDZ          BKD         2
A37 OIL DISTRIBUTED                     BLA           BG            AAAAAAAAA
A37 OIL DISTRIBUTED                     BLA           BX           FAAAAAAAAA
A37   BEARING OIL NOZZLE        23BAL  BLAS          BLA         2
A37   OIL SLINGER               23BC4  BLAV          BLA         3
A37   CARBON RUBBING SEAL       23BAM  BLAW          BLA         1
A37   OIL FILTER                23FAB  BLAX          BLA         0
A37   REAR RUBBING SEAL         23CBA  BLAY          BLA         1
A37   BALL BEARING OIL NOZZLE   23BEG  BLAZ          BLA         3
A37 OIL PRESS GENERATED                 BLB           BLA           AAAAAAAAA
A37 OIL PRESS GENERATED                 BLB           BMA          FAAAAAAAAA
A37  OIL COLLECTOR                23BAJ  BLBW          BLB         0
A37  SCAVENGE AND LUBE TUBE       23FAF  BLBX          BLB         C
A37  SCAVENGE AND AIR TUBE        23FAE  BLBY          BLB         U
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A37  PUMP ASSEMBLY  LUBE/SCAVNG 23FAA   BLBZ          BLB          A
A37 OIL SUPPLIED                       BLC           BLB          AAAAAAAAA
A37   OIL DIP STICK              23FAZ   BLCT          BLC          0
A37   FILLER TUBE                23FAM   BLCU          BLC          0
A37   TANK DRAIN PLUG            23FAL   BLCV          BLC          0
A37   TANK FILLER CAP            23FAK   BLCW          BLC          0
A37   OIL TANK FILLER NECK       23FAJ   BLCX          BLC          0
A37   OIL PRESS RELIEF VALVE     23FAH   BLCY          BLC          1
A37   OIL TANK ASSY              23FAG   BLCZ          BLC          A
A37 OIL COOLED                         BLD           BLA          555555555
A37   THERMOSTAT COOLER FLOW     23FAD   BLDY          BLD          1
A37   OIL COOLER                 23FAC   BLDZ          BLD          3
A37 OIL PRESSURE SENSED  XMIT          BMA           BMAE         AAAAAAAAA
A37 EXHAUST GAS TEMP INDICATED         BMAA          BR           000000000
A37   EXHAUST GAS TEMP INDICATE 23KDM   BMAAZ         BMAA         3
A37 OIL PRESSURE INDICATED             BMAE          BR      I BLB  111111111
A37   OIL PRESSURE INDICATOR     23KDK   BMAEZ         BMAE         3
A37   TRANSMITTER OIL PRESSURE   23KDA   BMAZ          BMA          A
A37  FUEL SUPPLIED                     BQA           BDE          AAAAAAAAA
A37   FUEL SHUTOFF T HANDLE      46318   BQAW          BQA          0
A37   ENGINE FUEL MANIFOLD TEE   9946B   BQAX          BQA          5
A37        ENG SHUTOFF VALVE     46228   BQAY          BQA          0
A37   FUEL LINE STRAINER TO FC   9946A   BQAZ          BQA          1
A37  THROTTLE POSITION                 BR            BDE          AAAAAAAAA
A37  THROTTLE POSITION                 BR            BEC          FAAAAAAAAA
A37 LEFT THROTTLE POSITION             BRA           BR      BRB  111111111
A37   LEFT CABLE ASSY CONTROLEX 11627   BRAT          BRA          2
A37   LEFT TORQUE TUBE           11626   BRAU          BRA          0
A37   LEFT PUSH-ROD              11625   BRAV          BRA          2
A37   LEFT BELLCRANK             11624   BRAW          BRA          3
A37   LEFT LINKAGE               11623   BRAX          BRA          2
A37   LEFT THROTTLE CONT LEVER   11622   BRAY          BRA          1
A37   LEFT THROTTLE QUADRANT     11621   BRAZ          BRA          8
A37 RIGHT THROTTLE POSITION            BRB           BR      K BRA  AAAAAAAAA
A37   RIGHT CONTROLEX CABLE ASS 11628   BRBT          BRB          2
A37   RIGHT TORQUE TUBE          11626   BRBU          BRB          0
A37   RIGHT PUSH-ROD             11625   BRBV          BRB          2
A37   RIGHT BELLCRANK            11624   BRBW          BRB          3
A37   RIGHT LINKAGE              11623   BRBX          BRB          2
A37   RIGHT THROTTLE CONT LEVER 11622   BRBY          BRB          1
A37   RIGHT THROTTLE QUADRANT    11621   BRBZ          BRB          8
A37   DISCONNECT ROD END         23KBJ   BRZ           BR           A
A37 ENGINE BLEED AIR DIST              BS            BDH          555555555
A37 ENGINE BLEED AIR DIST              BS            BSB          F555555555
A37 ENGINE BLEED AIR DIST              BS            BVA          F555555555
A37  ENGINE BLEED AIR SUPPLIED         BSB           EAAH         111111111
A37   ASPIRATOR TUBE CONNECTOR  23GAL   BSW           BS           2
A37   ANTI-ICE TUBE             23GAK   BSX           BS           A
A37   FWD RETAINING RING        23GAF   BSY           BS           1
A37   BLEED AIR TUBE            23GAC   BSZ           BS           8
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A37 POWER TAKEOFF                          BT              BX              AAAAAAAAA
A37   SHAFT GEAR                  23BDF    BTJ             BT              0
A37   HEAT SHIELD  LUBE SEAL      23BDQ    BTK             BT              0
A37   HEAT SHIELD RADIAL SHAFT    23BDP    BTL             BT              0
A37   RADIAL DRIVE SHAFT          23BDN    BTM             BT              0
A37   FRONT BRNG OIL NOZZLE       23BDM    BTN             BT              0
A37   SUMP TUBE ASSY              23BDL    BTP             BT              0
A37   OIL TUBE ASSY               23BDK    BTQ             BT              0
A37   BALL BEARING RADIAL DRIVE   23BDJ    BTR             BT              0
A37   RADIAL DRIVE BRNG HOUSING   23BDH    BTS             BT              0
A37   RADIAL DRIVE ROLLER BRNG    23BDG    BTT             BT              0
A37   AXIAL BEARING SUPPORT       23BDE    BTU             BT              0
A37   BALL BEARING                23BDD    BTV             BT              0
A37   BEVEL SHAFTGEAR DRIVER      23BDC    BTW             BT              0
A37   HOUSING ASSY                23BDB    BTX             BT              0
A37   INSULATION BLANKET          23BDA    BTY             BT              0
A37   POWER TAKEOFF ASSY          23BDO    BTZ             BT              A
A37 INLET AIR CONTROLLED                   BV              BC                111111111
A37 INLET AIR CONTROLLED                   BV              BDJ               FAAAAAAAAA
A37 ANTI.ICE AIR DISTRIBUTED               BVA             BV      A         AAAAAAAAA
A37 ANTI.ICE AIR ACTIVATED                 BVAA            BVA               AAAAAAAAA
A37   ANTI-ICE MANIFOLD           23BAD    BVAAX           BVAA            2
A37   ANTI-ICE VALVE SOLENOID     23HAU    BVAAY           BVAA            5
A37   ANTI-ICE VALVE              23HAT    BVAAZ           BVAA            5
A37 ANTI-ICE ACTIVATE                      BVAB            BVAA              AAAAAAAAA
A37   CONNECTOR THERMOCOUPLE      23HAW    BVABY           BVAB            8
A37   ICE DETECTION PROBE         23HAV    BVABZ           BVAB            A
A37 VARIABLE VANES POSITIONED              BVB             BV                AAAAAAAAA
A37 IGV MOTION TRANSMITTED                 BVBA            BVB               AAAAAAAAA
A37 IGV MOTION TRANSMITTED                 BVBA            BVBC              FAAAAAAAAA
A37 IGV MOTION TRANSMITTED                 BVBA            BVBD              FAAAAAAAAA
A37   ACTUATOR ROD END  2 EACH    23JAP    BVBAW           BVBA            3
A37   ACTUATOR LEVER 2 EACH       23JAF    BVBAX           BVBA            2
A37    SYNCHRONIZING CABLE        23JAJ    BVBAY           BVBA            2
A37   ACTUATOR BELLCRANK 2 EACH   23JAG    BVBAZ           BVBA            2
A37 IGV ACTUATION                          BVBB            BVBA              AAAAAAAAA
A37   ACTUATOR FUEL TUBE          23JAL    BVBBX           BVBB            2
A37   ACTUATOR FUEL HOSE          23JAK    BVBBY           BVBB            5
A37   IGV ACTUATOR 2 EACH         23JAB    BVBBZ           BVBB            3
A37 BLEED AIR CONTROLLED                   BVBC            BVB               111111111
A37   BLEED AIR VALVE ASSY        23JAM    BVBCZ           BVBC            7
A37 FEEDBACK CONTROL                       BVBD            BVBB              AAAAAAAAA
A37   ROD END                     23JAP    BVBDY           BVBD            2
A37   FEED BACK CABLE             23JAH    BVBDZ           BVBD            5
A37 ENGINE COOLED                          BVBE            BA                111111111
A37   STAGE 1 COOLING DEFLECTOR   23CAH    BVBEZ           BVBE            1
A37   ADJUSTABLE LINKS  2 EACH    23JAN    BVBW            BVB             0
A37   RING ASSY LUG  DETACHABLE   23JAE    BVBX            BVB             0
A37   RING ASSY BUTTONS MIPLON    23JAD    BVBY            BVB             0
A37   ACTUATOR RING ASSY          23JAC    BVBZ            BVB             8
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A37   BEARING HOUSING              23BAC   BVQ              BV              1
A37   INLET GUIDE VANES 15 EA.     23JAA   BVR              BV              1
A37   OUTER GUIDE VANE BUSHING     23BAP   BVS              BV              2
A37   INNER GUIDE VANE BUSHING     23BAN   BVT              BV              2
A37   SHROUD AND SEAL              23BAH   BVU              BV              0
A37   SUMP COVER                   23BAG   BVV              BV              0
A37   PLUNGER  DOME                23BAF   BVW              BV              1
A37   PARABOLIC DOME               23BAE   BVX              BV              0
A37   FRONT FRAME STRUT            23BAB   BVY              BV              0
A37   FRONT FRAME CASING           23BAA   BVZ              BV              3
A37 ACCESSORY GEARBOX DRIVEN               BX               BA               SAAAAAAAAA
A37 ACCESSORY GEARBOX DRIVEN               BX               BXA              FAAAAAAAAA
A37 ACCESSORY GEARBOX DRIVEN               BX               BXB               AAAAAAAAA
A37 ACCESSORY GEARBOX DRIVEN               BX               BXC               AAAAAAAAA
A37 ACCESSORY GEARBOX DRIVEN               BX               BXD              FAAAAAAAAA
A37 ACCESSORY GEARBOX DRIVEN               BX               BXF              FAAAAAAAAA
A37 DRIVE AXIS A ENABLED                   BXA              BDG               111111111
A37   SHAFT GUIDE COVER            23ABJ   BXAP             BXA             0
A37   SHAFT SHIELD GUIDE           23ABH   BXAQ             BXA             0
A37   RETAINING RING               23ABG   BXAR             BXA             1
A37  ROLLER BEARING HOUSING        23ABF   BXAS             BXA             A
A37  ROLLER BEARING                23ABE   BXAT             BXA             A
A37  BEVEL SHAFTGEAR               23ABD   BXAU             BXA             A
A37  BEARING RETAINER              23ABC   BXAV             BXA             A
A37  BALL BEARING                  23ABB   BXAW             BXA             A
A37  BEARING HOUSING               23ABA   BXAX             BXA             A
A37  AXIS A DRIVE GROUP            23ABO   BXAY             BXA             A
A37  ACCESSORY GEARBOX ASSY        23AAC   BXAZ             BXA             A
A37 DRIVE AXIS B  ENABLED                  BXB              UHAB               AAAAAAAAA
A37   AFT RUBBING SEAL             23ACL   BXBM             BXB             1
A37   BALL BEARING  HOUSING        23ACK   BXBN             BXB             A
A37   BALL BEARING  RETAINER       23ACH   BXBP             BXB             A
A37   BALL BEARING                 23ACJ   BXBQ             BXB             A
A37   BEVEL GEAR                   23ACG   BXBR             BXB             A
A37   SHAFT GEAR                   23ACF   BXBS             BXB             A
A37   ROLLER BEARING               23ACE   BXBT             BXB             A
A37   RING SEAL MATING             23ACD   BXBU             BXB             1
A37   BALL BEARING HOUSING         23ACC   BXBV             BXB             A
A37   FWD RUBBING SEAL             23ACB   BXBW             BXB             1
A37   HOUSING SEAL                 23ACA   BXBX             BXB             1
A37   AXIS B DRIVE GROUP           23ACO   BXBY             BXB             A
A37   ACCESSORY GEARBOX ASSY       23AAO   BXBZ             BXB             A
A37  DRIVE AXIS  C  ENABLED                BXC              UDG               AAAAAAAAA
A37   FWD COVER PAD                23ADM   BXCL             BXC             0
A37   FWD SEAL HOUSING             23ADL   BXCM             BXC             1
A37   FWD RUBBING SEAL             23ADK   BXCN             BXC             1
A37   FWD MATING RING              23ADJ   BXCP             BXC             1
A37   FWD BALL BEARING HOUSING     23ADH   BXCQ             BXC             A
A37   FWD BALL BEARING             23ADG   BXCR             BXC             A
A37   SHAFT GEAR                   23ADF   BXCS             BXC             A
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A37   AFT BALL BEARING          23ADE   BXCT          BXC          A
A37   AFT MATING RING           23ADD   BXCU          BXC          1
A37   AFT RUBBING SEAL          23ADC   BXCV          BXC          1
A37   BALL BEARING HOUSING      23ADB   BXCW          BXC          A
A37   AFT PAD COVER             23ADA   BXCX          BXC          0
A37   AXIS C DRIVE GROUP        23ADO   BXCY          BXC          A
A37   ACCESSORY GEARBOX ASSY    23AAO   BXCZ          BXC          A
A37  DRIVE AXIS@D@ENABLED               BXD           BDF            AAAAAAAAA
A37  DRIVE AXIS@D@ENABLED               BXD           BXDA           FAAAAAAAAA
A37 ENGINE RPM MEASURED                 BXDA          BXDB           AAAAAAAAA
A37   TACHOMETER GENERATOR      23HAH   BXDAZ         BXDA         A
A37 ENGINE RPM INDICATED                BXDB          BEF            555555555
A37   TACHOMETER INDICATOR      23KDF   BXDBZ         BXDB         3
A37   RUBBING SEAL              23AEF   BXDS          BXD          1
A37   SEAL/BEARING HOUSING      23AEE   BXDT          BXD          A
A37   AFT BALL BEARING          23AED   BXDU          BXD          A
A37   SHAFT GEAR                23AEC   BXDV          BXD          A
A37   FWD BALL BEARING          23AEB   BXDW          BXD          A
A37   MATING RING               23AEA   BXDX          BXD          1
A37   AXIS D  DRIVE GROUP       23AEO   BXDY          BXD          A
A37   ACCESSORY GEARBOX ASSY    23AAO   BXDZ          BXD          A
A37  DRIVE AXIS F  ENABLED              BXF           BLB            AAAAAAAAA
A37   SHAFT GEAR                23AGC   BXFR          BXF          A
A37   BALL BEARING RETAINER     23AGG   BXFS          BXF          A
A37   RETAINING RING            23AGF   BXFT          BXF          A
A37   BALL BEARING              23AGE   BXFU          BXF          A
A37   BALL BEARING HOUSING      23AGD   BXFV          BXF          A
A37   ROLLER BEARING            23AGB   BXFW          BXF          A
A37   ROLLER BEARING HOUSING    23AGA   BXFX          BXF          A
A37   AXIS F DRIVE GROUP        23AGO   BXFY          BXF          A
A37   ACCESSORY GEARBOX ASSY    23AAO   BXFZ          BXF          A
A37   RIGHT OIL NOZZLE          23AAG   BXT           BX           2
A37   LEFT OIL NOZZLE           23AAF   BXU           BX           2
A37   FWD  OIL SCAVENGE TUBE    23AAE   BXV           BX           5
A37   REAR OIL SCAVENGE TUBE    23AAD   BXW           BX           5
A37   CASE BAFFLE               23AAC   BXX           BX           0
A37   GEARBOX CASE              23AAB   BXY           BX           3
A37   GEARBOX COVER             23AAA   BXZ           BX           1
A37   INLET SCREENS ACTUATED            BZ            BA             011000000
A37  PILOT MANUAL ACTUATED              BZA           BZ     K BZB   111111111
A37   CONTROL SWITCH            11341   BZAZ          BZA          8
A37   AUTOMATIC ACTUATED                BZB           BZ     K BZA   111111111
A37    LANDING GEAR SQUAT SW.   11342   BZBZ          BZB          1
A37   THROTTLE POSITION ACTUATE         BZC           BZ             111111111
A37    THROTTLE LIMIT SWITCH 2E11345    BZCZ          BZC          2
A37   INLET SCREEN POS SENSED           BZX           BZA            111111111
A37  ANNUNCIATOR PANEL          4431A   BZXW          BZX          2
A37  MASTER CAUTION LIGHT       4431B   BZXX          BZX          1
A37     POSITION LIGHT          11344   BZXY          BZX          2
A37     POSITION SWITCH         11343   BZXZ          BZX          5
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A37      AIR INLET SCREENS 2EA   11327   BZZA              BZ              1
A37     INLET SCREEN ACTUATOR    11331   BZZB              BZ              A
A37     INLET SCREEN CONT VALVE  11332   BZZC              BZ              8
A37  COMM/NAV/IDENT                      C                                 AAAAAAAAA
T37COMMUNICATIONS-IFF                    C                                 AAAAAAAAA
A37  COMMUNICATIONS                      CC                C       E       011111120
A37  AIR / GROUND COMM                   CCB               CC              111111111
A37  UHF COMMUNICATIONS                  CCBA              CCB       CCBB  111111111
A37  VHF COMMUNICATION                   CCBB              CCB     K CCBA  AAAAAAAAA
A37  VHF XMIT & RECEIVE                  CCBB              CNBB            AAAAAAAAA
A37  UHF CONTROL / MODE SELECT           CCBC              CCBA            AAAAAAAAA
A37  UHF CONTROL / MODE SELECT           CCBC              CCBJ           FAAAAAAAAA
A37 ARC 150 CONTROL              63614   CCBCU             CCBC            5
A37   ARC 109 FREQ RELAY SWITCH63525   CCBCV             CCBC            2
A37   ARC 109 CONTROL           63512   CCBCW             CCBC            5
A37   ARC 51  WATT METER        63318   CCBCX             CCBC            0
A37   ARC 51  CONTROL           63312   CCBCY             CCBC            5
A37   ARC 133 CONTROL           63112   CCBCZ             CCBC            5
A37  UHF XMIT & RECEIVE                  CCBD              CCBA              AAAAAAAAA
A37  ARC 109 ADAPTER             63517   CCBDA             CCBD            0
A37  RF TRANSLATOR               63518   CCBDAV            CCBD            1
A37  ARC 109 RELAY               63524   CCBDAW            CCBD            2
A37  ARC 109 COAX CABLE          63523   CCBDAX            CCBD            2
A37  ARC 109 RACK                63522   CCBDAY            CCBD            0
A37  ARC 109 TERMINAL STRIP      63521   CCBDAZ            CCBD            1
A37  ARC 109 BLOWER              63516   CCBDB             CCBD            1
A37  ARC 109 RCVR / XMTR  6311563515   CCBDC             CCBE            5
A37 ARC 150 RCVR-XMTR            63611   CCBDCA            CCBE            5
A37  ARC 109 MOUNT               63514   CCBDD             CCBD            0
A37  ARC 109 POWER SUPPLY        63513   CCBDE             CCBE            8
A37 ARC 150 POWER SUPPLY         63615   CCBDEA            CCBE            8
A37  ARC 109 ANTENNA             63511   CCBDF             CCBD            5
A37   ARC-51 RELAY               63414   CCBDG             CCBD            2
A37   ARC-51 COAX CABLE          63413   CCBDH             CCBD            2
A37   ARC-51 RACK                63412   CCBDJ             CCBD            0
A37   ARC-51 TERMINAL STRIP      63411   CCBDK             CCBD            1
A37   ARC-51 BLOWER              63317   CCBDL             CCBD            1
A37   ARC-51 RCVR / XMTR  6311563315   CCBDM             CCBE            5
A37   ARC-51 MOUNT               63314   CCBDN             CCBD            0
A37   ARC-51 POWER SUPPLY        63313   CCBDP             CCBD            8
A37   ARC-51 ANTENNA             63311   CCBDQ             CCBD            5
A37   ARC 133 RELAY              63215   CCBDR             CCBD            2
A37   ARC 133 COAXIAL CABLE      63213   CCBDS             CCBD            2
A37   ARC 133 RACK               63212   CCBDT             CCBD            0
A37   ARC 133 TERMINAL STRIP     63211   CCBDU             CCBD            1
A37   ARC 133 ANTENNA SHIELD     63117   CCBDV             CCBD            1
A37    ARC 133 ANTENNA           63111   CCBDW             CCBD            5
A37    ARC 133 MOUNT             63114   CCBDX             CCBD            0
A37    POWER SUPPLY              63113   CCBDY             CCBD            8
A37    ARC 133 RCVR / XMTR6331563115   CCBDZ             CCBE            5
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1234567890123456789012345678901234567890123456789012345678901234567890123456789 0
A37  RECEIVE UHF                          CCBE              CCBD              888888888
A37  RECEIVE UHF                          CCBE              CNHF              AAAAAAAAA
A37  XMIT UHF                             CCBF              CCBD              222222222
A37 ARC 150 RCVR-XMTR              63611  CCBFS             CCBF          5
A37  ARC 109 XCVR / XMTR           63515  CCBFT             CCBF          5
A37  ARC 51  XCVR / XMTR           63315  CCBFU             CCBF          5
A37  ARC 133 XCVR / XMTR           63115  CCBFW             CCBF          5
A37    POWER SUPPLY ARC 109        63513  CCBFX             CCBF          8
A37 ARC 150 POWER SUPPLY           63615  CCBFXA            CCBF          8
A37    POWER SUPPLY ARC 51         63313  CCBFY             CCBF          8
A37    POWER SUPPLY ARC 133        63113  CCBFZ             CCBF          8
A37  UHF / DF RECEIVE                     CCBG              CCBE           FAAAAAAAAA
A37  UHF / DF RECEIVE                     CCBG              CNHF             333333333
A37   MOUNT                        71514  CCBGW             CCBG          0
A37   ANTENNA HOUSING ARA-50       71513  CCBGX             CCBG          0
A37   AMPLIFIER  ARA-50            71512  CCBGY             CCBG          8
A37   ANTENNA ARA-50               71511  CCBGZ             CCBG          8
A37  UHF / DF INTERFACE SELECT            CCBJ              CCBG             AAAAAAAAA
A37 ARC 150 CONTROL                63614  CCBJW             CCBG          5
A37   ARC 109 CONTROL              63512  CCBJX             CCBG          5
A37   ARC 51  CONTROL              63312  CCBJY             CCBG          5
A37   ARC 133 CONTROL              63112  CCBJZ             CCBG          5
A37  VHF HOMING & APPROACH                CCBM              CCBB           FAAAAAAAAA
A37  VHF HOMING & APPROACH                CCBM              CNBF             333333333
A37    ANTENNA MOUNT               71415  CCBMW             CCBM          0
A37    ARA-56 ANTENNA PH BOX       71414  CCBMX             CCBM          5
A37    ARA-56 ANTENNA COUPLER      71413  CCBMY             CCBM          8
A37    ARA-56 ANTENNA              71412  CCBMZ             CCBM          5
A37  VHF XMIT / RECEIVE                   CCBN              CCBB             AAAAAAAAA
A37              ANTENNA           62213  CCBNS             CCBN          5
A37              MOUNT             62212  CCBNT             CCBN          0
A37    WILCOX 807 RCVR / XMTR      62211  CCBNU             CCBN          8
A37    FM 622 MOUNT  ASSY          62116  CCBNV             CCBN          0
A37    FM 622 RACK ASSY            62115  CCBNW             CCBN          0
A37    FM 622 ANTENNACOUPLER       62114  CCBNX             CCBN          2
A37    FM 622 ANTENNA              62113  CCBNY             CCBN          5
A37    FM 622 RCVR / XMTR          62111  CCBNZ             CCBN          8
A37  VHF CONTROL & MODE SELECT            CCBP              CCBB             AAAAAAAAA
A37    WILCOX CONTROL              71111  CCBPY             CCBP          8
A37    FM-622 CONTROL PANEL        62112  CCBPZ             CCBP          8
A37  INTERCOMMUNICATIONS                  CCC               CC               000000000
A37    ELECTRICAL CONNECTOR        64114  CCCW              CCC           2
A37    INTERCOMM CONTROL           64113  CCCX              CCC           2
A37    MICROPHONE SWITCH           64112  CCCY              CCB           1
A37    JUNCTION BOX                64111  CCCZ              CCC           2
A37    KEYING CIRCUIT              64117  CCX               CCB           8
A37    HEADSET  CORD ASSEMBLY      64116  CCY               CCB           5
A37    HEADSET %PERS EQUIP< 2EA    64115  CCZ               CCB           5
A37  NAVIGATION                           CN                C        E        001222240
A37   D/P NAVIGATION USED                 CNA               CN       K CNB    AAAAAAAAA
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12345678901234567890123456789012345678901234567890123456789012345678901234567890
A37  ELAPSED TIME OBSERVED                CNAB          CNA             111111111
A37     CLOCK                  51212     CNABZ         CNAB         2
A37  AIRCRAFT HEADING OBSERVED            CNAC          CNA             AAAAAAAAA
A37  MAG HEADING                          CNAD          CNAC     CNAE   111111111
A37 ATTENUATER                            CNADA         CNAD            111111111
A37    COMPASS CORRECTION CARD 51214      CNADY         CNAD         0
A37    STAND BY COMPASS        51211      CNADZ         CNADA        7
A37  GYRO SLAVED MAG HEADING              CNAE          CNAC     CNAD   111111111
A37  GYRO-MAG HEADING DERIVED             CNAF          CNAE            AAAAAAAAA
A37   S.3A DIRECTIONAL GYRO C. 51223      CNAFU         CNAF         8
A37   COMPASS AMP              51224      CNAFV         CNAF         5
A37   SLAVING CUT OUT SW       51225      CNAFW         CNAF         2
A37   REMOTE MAGNETIC DETECTOR 51222      CNAFX         CNAF         8
A37   8-7A AMP                 51226      CNAFY         CNAF         2
A37   SOLID STATE AMP          51227      CNAFZ         CNAF         2
A37  SLAVED COMPASS INDICATED             CNAG          CNAE            111111111
A37     V.8 INDICATOR          51221      CNAGZ         CNAG         7
A37  BDHI HEADING BEZEL OBSERVD           CNAH          CNAE            111111111
A37     BDHI BEZEL             51228      CNAHZ         CNAH         7
A37  STEERING SOLUTIONS PROVID            CNB           CN       CNA    111111111
A37  BEARING / DISTANCE PROVIDE           CNBA          CNB             555555555
A37    BDHI INDICATOR          51228      CNBAZ         CNBA         7
A37 COURSE DEVIATION INDICATED            CNBB          CNB             555555555
A37  AUTOMATIC DIRECTION FIND             CNBC          CNBA     CNBD   111111111
A37   TACAN RANGE & BEARING               CNBD          CNBA            111111111
A37 TACAN COURSE TO INDICATED             CNBE          CNBB            555555555
A37   INDICATOR  DEV     71316 71315      CNBEY         CNBE         2
A37   INDICATOR  COURSE  71310 7131C      CNBEZ         CNBE         2
A37  VHF HOMING COURSE INDICATD           CNBF          CNBB            333333333
A37     INDICATOR              71411      CNBFY         CNBF         5
A37     INDICATOR              7141A      CNBFZ         CNBF         5
A37  TACAN RECEIVE & XMIT                 CNBG          CNB              S222222222
A37  TACAN RECEIVE & XMIT                 CNBG          CNBD             FAAAAAAAAA
A37  TACAN RECEIVE & XMIT                 CNBG          CNBE             F555555555
A37   AN/ARN.65 ANTENNA COUPLER 71318     CNBGS         CNBG         5
A37   AN/ARN.65 RCV'R / XMTR    71317     CNBGT         CNBG         8
A37   AN/ARN.65 PHASE DETECT    71314     CNBGU         CNBG         5
A37   AN/ARN.65 CONTROL PANEL   71313     CNBGV         CNBG         5
A37   AN/ARN.65 CHANGE.OVER SW  71312     CNBGW         CNBG         8
A37   AN/ARN.65 ANTENNA         71311     CNBGX         CNBG         8
A37   AN/ARN.65 MOUNT           7131B     CNBGY         CNBG         0
A37   AN/ARN.65 RELAY           7131A     CNBGZ         CNBG         5
A37  VHF OMNI.RANGE INDICATED             CNBX          CNBB            333333333
A37    WILCOX 806A INDICATOR    7131C     CNBXV         CNBX         3
A37  UHF DIRECTION FINDING                CNHF          CNBC     CNLF   111111111
A37    INDICATOR FREQ           63116     CNHFY         CNHF         2
A37    INDICATOR FREQ           63316     CNHFZ         CNHF         2
A37  LF DIRECTION FINDING                 CNLF          CNBC            111111111
A37  LF / DF MODE CONTROL                 CNLFA         CNLF            AAAAAAAAA
A37  LF / DF RECEIVE & PROCESS            CNLFB         CNLF            555555555
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A37   ARN.83 POWER SUPPLY        71618   CNLFBS          CNLFB        8
A37    ARN 83 MOUNT              71617   CNLFBT          CNLFB        0
A37    ARN 83 TRANSFER RELAY     71616   CNLFBU          CNBC         5
A37    ARN 83 QUAD CORRECT       71615   CNLFBV          CNLFB        2
A37    ARN 83 SENSE ANTENNA      71614   CNLFBW          CNLFB        4
A37    ARN 83 LOOP ANTENNA       71613   CNLFBX          CNLFB        2
A37    ARN 83 RECEIVER           71612   CNLFBY          CNLFB        8
A37    ARN 83 CONTROL PANEL      71611   CNLFBZ          CNLFA        2
T37  NAVIGATION                         CNT             C       E         001222210
T37  DR NAVIGATION UTILIZED              CNTA            CNT     K CNTB    AAAAAAAAA
T37  AIDED STEERING SOLUTIONS            CNTB            CNT       CNTA    111111111
T37    MAGNETIC INDICATOR        71118   CNTBS           CNTB         2
T37    COURSE INDICATOR          71117   CNTBT           CNTB         2
T37    ANTENNA COUPLER           7111A   CNTBU           CNTB         2
T37    ANTENNA                   71111   CNTBV           CNTB         5
T37    CONTROL                   71112   CNTBW           CNTB         5
T37    INSTRUMENTATION UNIT      71113   CNTBX           CNTB         5
T37    MOUNT                     71114   CNTBY           CNTB         0
T37    COLLINS VHF PCVR          71115   CNTBZ           CNTB         8
T37  ELAPSED TIME OBSERVED               CNTC            CNTA           555555555
T37     CLOCK                    51212   CNTCZ           CNTC         1
T37 AIRCRAFT HEADING OBSERVED            CNTD            CNTA           AAAAAAAAA
T37   STANDBY HEADING USED               CNTE            CNTD      CNTF 111111111
T37 ATTENUATER                           CNTEA           CNTE           111111111
T37      COMPASS CORR CARD        51214   CNTEY           CNTE         0
T37      STANDBY COMPASS 2EA      51211   CNTEZ           CNTEA        5
T37 PRIMARY HEADING USED                 CNTF            CNTD      CNTE 111111111
T37    HEADING INDICATOR V-8      51221   CNTFZ           CNTF         8
T37 HEADING INFO DERIVED                 CNTG            CNTF           AAAAAAAAA
T37    SOLID STATE AMP  51226    51227   CNTGU           CNTG         5
T37   8.7A AMPLIFIER    51227    51226   CNTGV           CNTG         5
T37   CUT.OUT SWITCH             51225   CNTGW           CNTG         5
T37   COMPASS AMP                51224   CNTGX           CNTG         8
T37   DIRECTIONAL GYRO           51223   CNTGY           CNTG         7
T37   REMOTE MAG DETECTOR        51222   CNTGZ           CNTG         8
A37  IDENTIFICATION                      CR              C              000000000
T37COMMUNICATIONS                        CR              C       E      011111120
A37  RADAR BEACON XPONDER                CRA             CR             555555555
T37AIR TO GROUND COMM                    CRA             CR             111111111
A37   XPONDER CONTROL & ENABLE           CRAA            CRA            AAAAAAAAA
T374NTENNA                       63111   CRAA            CRA          5
A37       CIRCUIT BREAKER        72115   CRAAY           CRAA         5
A37       XPONDER  SWITCH        72114   CRAAZ           CRAA         2
T37CONTROL                       63112   CRAB            CRA          5
T37POWER SUPPLY                  63113   CRAC            CRA          8
T37MOUNT                         63114   CRAD            CRA          0
T37FREQUENCY CARD                63116   CRAF            CRA          0
T37TERMINAL STRIP                63211   CRAG            CRA          5
T37EQUIPMENT RACK                63212   CRAH            CRA          2
T37COAXIAL CABLE                 63213   CRAJ            CRA          8
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12345678901234567890123456789012345678901234567890123456789012345678901234567890
T37RELAY                          63215   CRAK            CRA             5
A37  COMPARATOR                   65DAD   CRAS            CRA             0
A37  POWER SUPPLY TEST            65DAC   CRAT            CRA             0
A37  MODE GENERATOR               65DAB   CRAU            CRA             0
A37  MAIN FRAME ASSY              65DAA   CRAV            CRA             0
A37  TRANSPONDER TEST SET         65DAO   CRAW            CRA             0
A37   ANTENNA                     72113   CRAX            CRA             5
A37   MOUNT                       72112   CRAY            CRA             0
A37   TRANSPONDER ASSY            72111   CRAZ            CRA             8
A37 IDENTIFICATION FRIEND /FOE            CRB             CR                AAAAAAAAA
A37  IFF XMIT / RECEIVE                   CRBA            CRB               AAAAAAAAA
A37  SIGNAL PROCESSOR             65BCK   CRBAF           CRBA            5
A37  T.SEC COMPUTER KIT           65BCN   CRBAG           CRBA            0
A37  RECEIVER                     65BCM   CRBAH           CRBA            5
A37  TRANSMITTER                  65BCL   CRBAJ           CRBA            5
A37  MODE  4 PROCESSOR            65BCJ   CRBAK           CRBA            5
A37  ENCODE GATE                  65BCH   CRBAL           CRBA            2
A37  POWER SUPPLY                 65BCG   CRBAM           CRBA            5
A37  DE.CODER                     65BCF   CRBAN           CRBA            1
A37  CLOCK ENCODER                65BCE   CRBAP           CRBA            5
A37  ENCODER CONTROL              65BCD   CRBAQ           CRBA            5
A37  VIDEO.AMP DETECTOR           65BCC   CRBAR           CRBA            2
A37   APX.64 MOUNT                65AAE   CRBAS           CRBA            0
A37   APX.72 MOUNT                65BAE   CRBAT           CRBA            0
A37 APX 64 XPONDER                65CAO   CRBAU           CRBA            8
A37   APX.72 XPONDER              65DAO   CRBAV           CRBA            8
A37   APX.64 ANTENNA              65AAD   CRBAW           CRBA            5
A37 APX 72 ANTENNA                65BAD   CRBAX           CRBA            5
A37   APX.64 XMTR RCVR            65ABO   CRBAY           CRBA            8
A37 APX 64 RCVR-XMTR              65ACO   CRBAYA          CRBA            8
A37   APX.72 XMTR RCVR            65BBO   CRBAZ           CRBA            8
A37 APX 72 RCVR-XMTR              65BCO   CRBAZA          CRBA            8
A37  IFF CONTROL                          CRBB            CRB               AAAAAAAAA
A37   APX.64 ANTENNA SW COAX      65AAB   CRBBU           CRBB            2
A37   APX.72 ANTENNA SW COAX      65BAB   CRBBV           CRBB            2
A37   APX.64 ANTENNA SELECT SW    65AAC   CRBBW           CRBB            5
A37   APX.72 ANTENNA SELECT SW    65BAC   CRBBX           CRBB            5
A37   APX.64 CONTROL              65AAA   CRBBY           CRBB            5
A37   APX.72 CONTROL              65BAA   CRBBZ           CRBB            5
A37  ALTITUDE REPORTING                   CRBE            CRBA              555555555
A37    AAU 21 ALTITUDE ENCODER    51122   CRBEZ           CRBE            8
T37RECEIVER TRANSMITTER           63115   CRDE            CRA             8
T37AIRCREW INFO EXCHANGE                  CRG             CR                000000000
T37INTERPHONE FILTER              6411A   CRGA            CRG             2
T37INTERPHONE FILTER              6411A   CRGB            CRG             2
T37ELECTRICAL CONNECTOR           64114   CRGC            CRG             2
T37ELECTRICAL CONNECTOR           64114   CRGD            CRG             2
T37ELECTRICAL CONNECTOR           64114   CRGE            CRG             2
T37ELECTRICAL CONNECTOR           64114   CRGF            CRG             2
T37ELECTRICAL CONNECTOR           64114   CRGH            CRG             2
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T37ELECTRICAL CONNECTOR          64114   CRGJ          CRG          2
T37ELECTRICAL CONNECTOR          64114   CRGK          CRG          2
T37PERSONAL EQUIPMENT            64115   CRGL          CRG          2
T37PERSONAL EQUIPMENT            64115   CRGM          CRG          2
T37HEADSET CORD ASSEMBLY         64116   CRGN          CRA          1
T37HEADSET CORD ASSEMBLY         64116   CRGO          CRA          1
T37RELAY RE 94A                  64117   CRGP          CRG          5
T37MODE SELECT                           CRM           CRA            AAAAAAAAA
T37MODE SELECT                           CRM           CRG           FCCCCCCCCC
T37MICROPHONE SWITCH             64112   CRMA          CRM          1
T37MICROPHONE SWITCH             64112   CRMB          CRM          1
T37CONTROL C 824A                64118   CRMC          CRM          5
T37CONTROL C 824A                64118   CRMD          CRM          5
T371FF-LOCATION-ALTITUDE                 CT            C              CCCCCCCCC
T37MODE SELECT                           CTM           CT             AAAAAAAAA
T371FF CONTROL C6280 EMER        65BCA   CTME          CTM          8
T371FF CONTROL C6280 NORMAL      65BCA   CTMN          CTM          1
T37MOUNT              EMER       65BAC   CTREB         CT           2
T37 TEST SET 1843 APX EMER       65BDD   CTREC         CT           C
T37ANTENNA AT 7411A        EMER  65BAE   CTRED         CT           5
T37 R3VR-XMTR EMERG              65BBD   CTTEA         CT           5
T37SWITCH ANT MAN SELECT EMER    65BAG   CTTEB         CT           8
 37  INFORMATION & DISPLAY               D                            AAAAAAAAA
 37  FLIGHT STATUS                       DA            D              CIIIIIIBC
 37  ALTITUDE                            DAA           DA       E     CCAIIIAAC
 37  ALTITUDE RATE CHANGE                DAAB          DAA            111111111
 37    RATE OF CLIMB INDICATOR 51123     DAABZ         DAAB         5
 37  PRESSURE ALTITUDE                   DAAC          DAA            888888888
 37  STANDBY ALTITUDE INDICATE           DAAD          DAAC     K DAAE  AAAAAAAAA
 37     ALTIMETER            51122     DAADZ         DAAD         8
A37  ALTITUDE DISPLAY 1 ENCODE           DAAE          CR8E           111111111
T37  ALT DISPLAY ENCODE                  DAAE          CT             111111111
 37  ALTITUDE DISPLAY 1 ENCODE           DAAE          DAAC     DAAD  111111111
A37    ALTIMETER AAU/21          51124   DAAEZ         DAAE         8
 37 ATTITUDE INDICATED                   DAB           DA       E     CCCCCCCAC
 37  STANDBY ATTITUDE INDICATED          DABA          DAB      K DABB  AAAAAAAAA
A37  ATTITUDE IND  51132         51138   DABAY         DABA         5
 37   ATTITUDE IND   51138      51132   DABAZ         DABA         5
 37  PRIMARY ATTITUDE INDICATED          DABB          DAB      DABA  111111111
T37   VERTICAL GYRO               51135   DABBU         DABB         2
 37   2NTERLOCK RELAY             51136   DABBV         DABB         5
A37   GYRO FAST ERECT SWITCH      9951A   DABBW         DABB         2
A37   CUT.OFF GYRO MC.1           51137   DABBX         DABB         2
A37    MD.1 GYRO %SWITCH RATE<    51134   DABBY         DABB         8
A37    MM.3 ATTITUDE INDICATER    51133   DABBZ         DABB         5
 37  TURN & SLIP INDICATED               DABC          DAB            111111111
 37    TURN & SLIP INDICATOR     51131   DABCZ         DABC         5
A37    STATIC PRESSURE SENSED            DAF           CRBE          FAAAAAAAAA
 37   STATIC SENSING                     DAF           DAA           SAAAAAAAAA
 37   STATIC SENSING                     DAF           DAAB          FAAAAAAAAA
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 37   STATIC SENSING                        DAF          DAAD          FAAAAAAAAA
 37   STATIC SENSING                        DAF          DAAE          FAAAAAAAAA
 37   STATIC SENSING                        DAF          DAG           FAAAAAAAAA
 37     STATIC TUBING              51144    DAFX         DAF         5
 37     STATIC DRAIN  2 EACH       51143    DAFY         DAF         0
 37     STATIC PORT   2 EACH       51145    DAFZ         DAF         5
 37  PITOT STATIC SENSING                   DAG          DAGX          FAAAAAAAAA
 37   PITOT STATIC SENSEING                 DAG          DXB            AAAAAAAAA
 37  PITOT SENSING                          DAGA         DAG            AAAAAAAAA
 37     PITOT HEAD                 51141    DAGAW        DAGA        8
 37     PITOT TUBE                 51142    DAGAX        DAGA        5
 37     PITOT CNX TUBING           51144    DAGAY        DAGA        5
 37     PITOT DRAIN PORT           51146    DAGAZ        DAGA        0
 37   VGH RECORDED                          DAGX         DB             111111111
 37     MAGAZINE MAG TAPE          55AAC    DAGXX        DAGX        8
 37     FLIGHT DATA RECORDER       55AAB    DAGXY        DAGX        8
 37     TRANSMITTER ACCELEROMETR   55AAA    DAGXZ        DAGX        8
 37  MAINTENANCE GUAGES/ IND                DB           D              000000000
 37  WARNING INFORMATION                    DC           D              AAAAAAAAA
 37  FIRE WARNING                           DCA          BA             AAAAAAAAA
 37  FIRE WARNING                           DCA          DC      X      AAAAAAAAA
 37  SYSTEM INTEGRITY MAINT'ND              DCAA         DCA            111111111
T37    FLASHER ASSY               49114    DCAAW        DCAA        0
T37    MOUNT ASSY                 49117    DCAAX        DCAA        0
 37    TEST  SWITCH               49115    DCAAY        DCAA        0
 37    CONTROL SWITCH             49118    DCAAZ        DCAA        5
 37  FIRE DETECTED                          DCAB         DCA            AAAAAAAAA
T37    OVER HEAT DETECTOR 2EA     49112    DCABY        DCAB        5
 37    FIRE DETECT CABLE  4EA     49111    DCABZ        DCAB        5
T37  OVERHEAT LIGHTS 2EA          44315    DCAVX        DCA         8
 37  R.FIRE DETECTION LIGHT       44314    DCAY         DCA         8
 37  L.FIRE DETECTION LIGHT       44314    DCAZ         DCA         8
T37  INTAKE ICE WARNING                     DCD          DC      A      AAAAAAAAA
T37    ICE WARNINGINTERPRETER     44427    DCDX         DCD         7
T37    ICE WARNING LITE           44312    DCDY         DCD         8
T37    ICE DETECT PROBE           44426    DCDZ         DCD         8
 37  ATTENUATION                            DX           DA             111111111
 37  AIRCRAFT G.LOAD INDICATE               DXA          DX             000050000
 37    ACCELEROMETER              51111    DXAZ         DXA         5
A37   AIRSPEED OBSERVED                     DXB          CNA            555555555
T37 MACH AIRSPEED INDICATED                 DXB          CNTA           888888888
 37  MACH & AIRSPEED INDICATED              DXB          DX             0A1010140
 37     AIRSPEED IND  2EA          51121    DXBZ         DXB         1
 37ENVIRONMENTAL CONTROL SYS                 E                           AAAAAAAAA
 37 AIR TEMP / PRESSURE                      EA           E              011111120
 37AIRCONDITIONING--VENTILATION              EAA          EA             001111100
 37DISTRIBUTION OF AIR                       EAAA         EAA            AAAAAAAAA
 37DISTRIBUTION OF CONDIT AIR                EAAB         EAAA           111111111
 37AIR OUTLET                    41113       EAABA        EAAB        1
 37AIR VALVE                     41125       EAABB        EAAB        1
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 37DISTRIBUTION VALVE              41141   EAABC          EAAB          1
 37PILOTTO TUBE                    41144   EAABD          EAAB          0
 37DISTRIBUTION OF RAM AIR                 EAAC          EAAA   K EAAB  AAAAAAAAA
 37AIR SCOOP %UPPER<               41124   EAACA          EAAC          1
 37RAM AIR VALVE                   41123   EAACB          EAAC          A
 37AIR OUTLET                      41126   EAACC          EAAC          1
 37MISING BLEED AIR                        EAAD          EAAB           AAAAAAAAA
T37CONTROL WIRE MIXING VALVE       41138   EAADA          EAAD          1
 37MIXING MUFF                     41142   EAADB          EAAD          A
 37WATER SEPARATOR                 41122   EAADC          EAAD          1
T37WATER SEPARATOR SOCK            41127   EAADD          EAAD          1
 37MODULATING VALVE                41131   EAADE          EAAD          5
 37TEMPERATURE SELECTOR VALVE      41136   EAADF          EAAD          5
 37SELECTOR SWITCH                 41137   EAAEA          EAAA          A
 37REFRIGERATED AIR                        EAAF          EAAD           AAAAAAAAA
 37COOLING TURBINE                 4112A   EAAFA          EAAF          8
 37HEAT EXCHANGER                  41121   EAAFB          EAAF          5
T37DUCT RAM AIR %LOWER<            41128   EAAFC          EAAF          1
 37TEMPERATUR CONTROL-AUTOMATIC            EAAG          EAAD           111111111
 37TEMPERATURE CONTROLLER          41134   EAAGA          EAAG          A
 37THERMISTOR                      41135   EAAGB          EAAG          A
 37  HOT AIR CONTROL                       EAAH          EAAD           AAAAAAAAA
 37HOT AIR CONTROL                         EAAH          EAAF           FAAAAAAAAA
 37  HOT AIR CONTROL                       EAAH          EABB           AAAAAAAAA
 37AIRBLEED ASSEMBLY               41111   EAAHA          EADH          A
 37CHECK VALVE-LEFT ENGINE         41114   EAAHB          EAAH          1
 37SHUTOFF VALVE                   41115   EAAHC          EAAH          5
 37AIR BLEED VALVE                 41116   EAAHD          EAAH          8
 37AIR BLEED HOSE                  41118   EAAHE          EAAH          5
 37PLENUM CHAMBER                  41132   EAAHH          EAAH          2
 37SELECTOR SWITCH AUTOMATIC       4113A   EAAJA          EAAD          5
 37DEFOG                                   EAB           EC      Y       000000010
 37DEFOG DISTRIBUTION                      EABA          EAB            AAAAAAAAA
T37TUBE DEFROST                    41145   EABAA          EABA          2
 37DEFOG CONTROL                           EABB          EABA           AAAAAAAAA
T37PILOTER                         41138   EABBA          EABB          1
 37DEFROSTING VALVE                41117   EABBB          EABB          5
 37DEFOG SELECT                            EABC          EABB           AAAAAAAAA
 37SELECTOR SWITCH MANUAL          41133   EABCA          EABC          5
 37OXYGEN                                  EAC           E              002444000
 37DISTRIBUTION OF OXYGEN-INST             EACA          EAC            222222222
A37  DISTRIBUTION OF OXYGEN                EACA          EAC     H      AAAAAAAAA
 37HOSE QUICK DISCONN TO MASK      47217   EACAA          EACA          8
A37  OXYGEN PLUMBING               47213   EACAZ          EACA          2
 37DISTRIBUTION OF OXYGEN-PILOT            EACB          EAC            222222222
 37HOSE QUICK DISCONN TO MASK      47217   EACBA          EACB          8
A37  OXYGEN PLUMBING               47213   EACBZ          EACB          2
 37REGULATION OF OXY-INST                  EACC          EACA    EACG  444444444
 37REGULATOR                       47211   EACCA          EACC          8
 37HOSE,QUICK DISCONN TO REG       47216   EACCB          EACC          5
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123456789012345678901234567890123456789012345678901234567890123456789012345678C
 37REGULATION OF OXYGEN-PILOT          EACD          EACB      EACH  111111111
 37REGULATOR                47211      EACDA         EACD         8
 37HOSE QUICK DISCONN TO REG 47216     EACDB         EACD         8
 37SOURCE OF OXYGEN                    EACE          EAC           S222222222
 37                                    EACE          FACC          FAAAAAAAAA
 37                                    EACE          EACD          FAAAAAAAAA
 37CYLINDER BOTTLE          47111      EACEA         EACE         A
 37FILLER VALVE             47112      EACEB         EACE         1
T378RACKET-FILLER VALVE     47113      EACEC         EACE         0
 37DISCONNECT               47114      EACED         EACE         1
 37SUPPLY TO REGULATOR HOSE 47116      EACEE         EACE         8
A37  CHECK VALVE            47212      EACEZ         EACE         1
 37EMERGENCY OXYGEN SOURCE-INST        EACG          EACA    K EACC  AAAAAAAAA
 37BAILOUT BOTTLE           99ZZD      EACGA         EACG         8
 37EMERGENCY OXYGEN SOURCE-PILT        EACH          EACB    K EACD  AAAAAAAAA
 37BAILOUT BOTTLE           99ZZE      EACHA         EACH         8
 37INTERNAL LIGHTS                     EAD           EB             011111110
 37PRIMARY INSTR. LIGHTS               EADA          EAD            111111111
 37INST LIGHT- L OIL PRESS. 44211      EADAA         EADA         1
 37INST LIGHT-L LOADMETER   44211      EADAAA        EADA         1
 37INST LIGHT- ACCELEROMETER 44211     EADAB         EADA         2
 37INST LIGHT- R OIL PRESS. 44211      EADAC         EADA         1
 37INST LIGHT- L FUEL FLOW  44211      EADAD         EADA         1
 37INST LIGHT- R FUEL FLOW  44211      EADADA        EADA         1
 37INST LIGHT- R EGT |1     44211      EADAEA        EADA         1
 37INST LIGHT- R EGT |2     44211      EADAEB        EADA         1
 37INST LIGHT- R TACH |1    44211      EADAEC        EADA         1
 37INST LIGHT- R TACH |2    44211      EADAED        EADA         1
 37INST LIGHT- HYDRAUL PRESS. 44211    EADAF         EADA         1
 37INST LIGHT- FUEL QNTY    44211      EADAGA        EADA         0
 37INST LIGHT- FUEL QNTY    44211      EADAGB        EADA         0
 37INST LIGHT- FUEL QNTY    44211      EADAGC        EADA         0
 37INST LIGHT- OXYGEN - PILOT 44211    EADAHA        EADA         1
 37INST LIGHT- OXYGEN - INSTR. 44211   EADAHB        EADA         1
 37INST LIGHT- FLAP POSITION 44211     EADAJ         EADA         0
 37INST LIGHT- PANEL                   EADAK         EADA           011111110
 37INST.LIGHT - PANEL |1    44211      EADAKA        EADAK        1
 37INST.LIGHT - PANEL |1    44211      EADAKB        EADAK        1
 37INST.LIGHT - PANEL |1    44211      EADAKC        EADAK        1
 37INST.LIGHT - PANEL |1    44211      EADAKD        EADAK        1
 37INST.LIGHT - PANEL |1    44211      EADAKE        EADAK        1
 37INST.LIGHT - PANEL |1    44211      EADAKF        EADAK        1
 37INST.LIGHT - PANEL |2    44211      EADALA        EADAK        1
 37INST.LIGHT - PANEL |2    44211      EADALB        EADAK        1
 37INST.LIGHT - PANEL |2    44211      EADALC        EADAK        1
 37INST.LIGHT - PANEL |2    44211      EADALD        EADAK        1
 37INST.LIGHT - PANEL |2    44211      EADALE        EADAK        1
 37INST.LIGHT - PANEL |2    44211      EADALF        EADAK        1
 37INST.LIGHT - PANEL |2    44211      EADALG        EADAK        1
 37INST.LIGHT - PANEL |2    44211      EADALH        EADAK        1
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123456789012345678901234567890123456789012345678901234567890123456789012345678
 37INST.LIGHT - PANEL |2          44211   EADALI          EADAK          1
 37INST.LIGHT - PANEL |2          44211   EADALJ          EADAK          1
 37INST.LIGHT - PANEL |2          44211   EADALK          EADAK          1
 37INST LIGHT L EGT |1            44211   EADAMA          EADA           1
 37INST LIGHT- L EGT |2           44211   EADAMB          EADA           1
 37INST LIGHT- L TACH |1          44211   EADAMC          EADA           1
 37INST LIGHT- L TACH |2          44211   EADAMD          EADA           1
T37   CANOPY EMERGENCY SWITCH     11146   EADAZZW         EADX           0
 37PRIMARY FLIGHT INST. LIGHTS            EADB            EAD              222222222
 37LIGHT - TURN & SLIP -PILOT     44211   EADBA           EADB           1
 37LIGHT - TURN & SLIP -INST.     44211   EADBB           EADB           1
 37LIGHT - AIRSPEED - PILOT       44211   EADBC           EADB           2
 37LIGHT - AIRSPEED - INST.       44211   EADBD           EADB           2
 37LIGHT - ALTIMETER - PILOT      44211   EADBE           EADB           2
 37LIGHT - ALTIMETER - INST.      44211   EADBF           EADB           2
 37LIGHT - MM-3 ATTIT.IND.        44211   EADBG           EADB           5
 37LIGHT - CLIMB RATE             44211   EADBH           EADB           3
 37LIGHT - J-2 COMPASS            44211   EADBJA          EADB           0
 37LIGHT - COURSE INDICAT         44211   EADBJB          EADB           0
 37LIGHT - RADIO MAGNET COMP      44211   EADBJC          EADB           0
 37LIGHT - STDBY COMPASS          44211   EADBJD          EADB           0
 37LIGHT - CLOCK                  44211   EADBK           EADB           0
 37SECONDARY INSTRUMENT LITES             EADC            EAD              111111111
 37SECONDARY INSTRUMENT LITE 1    44212   EADCA           EADC           1
 37SECONDARY INSTRUMENT LITE 2    44212   EADCB           EADC           1
 37SECONDARY INSTRUMENT LITE 3    44212   EADCC           EADC           1
 37SECONDARY INSTRUMENT LITE 4    44212   EADCD           EADC           1
 37SECONDARY INSTRUMENT LITE 5    44212   EADCE           EADC           1
 37RADIO LITES                            EADD            EAD              001111110
 37LIGHT-RADIO                    44211   EADDA           EADD           5
 37COCKPIT LITES                          EADF            EAD              111111111
 37SPOT LITE 1                    44213   EADFA           EADF           1
 37SPOT LITE 2                    44213   EADFB           EADF           1
 37COCKPIT LITE 1                 44214   EADFC           EADF           1
 37COCKPIT LITE 2                 44214   EADFD           EADF           1
 37CONTROL PRIMARY FLIGHT LITES           EADG            EADB             AAAAAAAAA
 37RHEOSTAT                       44413   EADGA           EADG           A
 37CONTROL PRIMARY INST LITES             EADH            EADA             AAAAAAAAA
 37RHEOSTAT                       44413   EADHA           EADH           A
 37CONTROL SECONDARY INST LITES           EADJ            EADC             AAAAAAAAA
 37RHEOSTAT                       44413   EADJA           EADJ           A
 37CONTROL RADIO LITES                    EADK            EADD             AAAAAAAAA
 37RHEOSTAT                       44413   EADKA           EADK           A
 37CONTROL COCKPIT LITES                  EADM            EADF             AAAAAAAAA
 37RHOESTAT                       44413   EADMA           EADM           A
 37  CANOPY INTEGRITY MAINT NED           EADX            DC              FAAAAAAAAA
 37  CANOPY INTEGRITY MAINT NED           EADX            EADZ             011111110
 37   CANOPY MOTOR                11142   EADXA           EADX           0
 37   CANOPY LIMIT SWITCH         11141   EADXB           EADX           2
 37   CANOPY LOCK                 11137   EADXC           EADX           2
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1234567890123456789012345678901234567890123456789012345678901234567890123456789 0
 37   CANOPY DE.CLUTCH HANDLE  11136   EADXD          EADX        0
 37   CANOPY HANDLE            11135   EADXE          EADX        0
 37   CANOPY FLOOR SUPPORT     11134   EADXF          EADX        0
 37   CANOPY CONNECTER         11133   EADXG          EADX        0
 37   CANOPY DOWNLOCK ROLLER   11131   EADXH          EADX        0
 37   CANOPY HOOK              11128   EADXJ          EADX        1
 37   CANOPY LATCH ASSY        11127   EADXK          EADX        2
 37   CANOPY LINKAGE           11126   EADXL          EADX        0
A37   CANOPY HINGE ARM         11125   EADXM          EADX        0
A37   CANOPY ACTUATOR          11124   EADXN          EADX        0
A37   CANOPY RETAINER          11123   EADXP          EADX        2
A37   CANOPY FRAME             11122   EADXQ          EADX        1
A37   CANOPY PANEL             11128   EADXR          EADX        1
A37   CANOPY SEAL              1112A   EADXS          EADX        2
A37   CANOPY ASSY              11121   EADXT          EADX        0
A37   WINDSHIELD  ORLON EDGE   11115   EADXU          EADX        0
A37   WINDSHIELD  MAG ROD      11114   EADXV          EADX        0
A37   WINDSHIELD  RETAINER     11113   EADXW          EADX        2
A37   WINDSHIELD  LH PANEL     11118   EADXX          EADX        1
A37   WINDSHIELD  RH PANEL     1111A   EADXY          EADX        1
T37   WINDSHIELD ASSY          11111   EADXZ          EADX        2
 37  CANOPY INTEGRITY ATTENUATE       EADZ           EA                011111110
 37  TEST SW                  44414   EADZY          EAD         0
 37  BRIGHT/DIM SW            44412   EADZZ          EAD         1
T37  EMERGERCY SWUTCH         11146   EADZZU         EADZ        0
 37   CANOPY INTERNAL SWITCH  11145   EADZZX         EADX        0
 37   CANOPY EXTERNAL SWITCH  11144   EADZZY         EADX        0
 37   CANOPY NOT.LOCKED SWITCH 11143  EADZZZ         DC          8
 37INST.LIGHT - PANEL |2      44211   EAKALL         EADAK       1
 37INST.LIGHT - PANEL |2      44211   EAKALM         EADAK       1
 37INST.LIGHT - PANEL |2      44211   EAKALN         EADAK       1
 37INST.LIGHT - PANEL |2      44211   EAKALP         EADAK       1
 37  LIGHTING                         EB             E       0         111111121
 37  ATTENUATION                      EBA            EB                111111111
 37  EXTERNAL LIGHTING                EBB            EBA               011111110
 37POSITION LITES                     EBBA           EBB               000000000
 37LENS LOWER POSITION LITE   44118   EBBAA          EBBH        0
 37NAVIGATION LITES                   EBBB           EBB               000000000
A37  NAV LITE REFLECTOR       44118   EBBBZZ         EBBB        0
T37PASSING LIGHT                     EBBC           EBB               000000000
T37PASSING LITE ASSEMBLY      44117   EBBCA          EBBC        A
 37LANDING LITE                      EBBD           EBB               0000000A0
 37LANDING LITE LT WING       44113   EBBDA          EBBD        5
 37LANDING LITE RT WING       44113   EBBDB          EBBD        5
 37LANDING LIGHT REVERSE MOTOR 44425  EBBDC          EBBD        0
 37TAXI LITE                          EBBE           EBB               000000000
 37TAXI LITE NOSE             44114   EBBEA          EBBE        A
 37ANTICOLLISION BEACONS              EBBF           EBB               000000000
 37ANTICOLLISION BEACON UPPER 44116   EBBFA          EBBF        5
 37ANTICOLLISION BEACON LOWER 44116   EBBFB          EBBF        5
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 37UPPER POSITION LITE                    EBBG            EBBA              055555550
 37LENS UPPER POSITION LITE     4411B     EBBGA           EBBG          0
 37UPPER POSITION LITE ASSY     44112     EBBGB           EBBG          A
 37LOWER POSITION LITE                    EBBH            EBBA              055555550
 37LENS NAV LIGHT               4411A     EBBHA           EBBM          0
 37LOWER POSITION LITE ASSY     44112     EBBHB           EBBA          A
 37NAVIGATION LITE RT WING                EBBJ            EBBB              011111110
 37LENS NAV LITE RT WING        4411A     EBBJA           EBBJ          0
 37NAV LITE ASSY RT WING        44111     EBBJB           EBBJ          A
 37NAVIGATION LITE LT WING                EBBK            EBBB              011111110
 37LENS NAV LITE LT WING        4411A     EBBKA           EBBK          0
 37NAV LITE ASSY LT WING        44111     EBBKB           EBBK          A
 37NAV LITE TAILCONE WHITE                EBBL            EBBB              011111110
 37LENS NAV LITE TAILCONE WHITE4411A      EBBLA           EBBL          0
T37NAV LITE ASSY TAILCONE WHITE44111      EBBLB           EBBC          A
 37NAV LITE TAILCONE AMBER                EBBM            EBBB              011111110
 37NAVIGATION LIGHT ASSY.       44111     EBBMB           EBBM          A
T37GEAR POWR INDICATOR                    EBBN            EBBC              AAAAAAAAA
T37FLASHER UNIT                 44422     EBBNA           EBBN          A
 37LANDING LITE CONTROL                   EBBT            EBBD              AAAAAAAAA
 37                                       EBBT            FBBE              AAAAAAAAA
 37TOGGLE SWITCH                44411     EBBTA           EBBT          A
 37  CONTROL BOX                44424     EBBTX           EBBT          8
 37  RESISTOR                   44423     EBBTY           EBBT          1
 37  RELAY                      44421     EBBTZ           EBBT          5
 37FLASHER UNIT                 44422     EBBU            EBBB          1
 37TOGGLE SWITCH                44411     EBBVA           EBBB          8
 37TOGGLE SWITCH                44411     EBBXA           EBBF          A
 37 WIND SHIELD CLEAR                     EC              EA        G       0100000A0
 37 RAIN-CLEAR FLUID DISPENSED            ECA             EC                AAAAAAAAA
 37 RAIN CLEAR FLUID SUPPLIED             ECB             ECA               AAAAAAAAA
 37 RAIN CLEAR SIGHT RESERVOIR  49212     ECBU            DB            0
 37 RAIN CLEAR FLUID PLUMBING   49216     ECBV            ECB           2
 37 RAIN CLEAR FLUID VALVE 2EA  49215     ECBW            ECB           5
 37 RAIN CLEAR FLUID NOZZLE 2EA49214      ECBX            ECB           5
 37 RAIN CLEAR FLUID MANIFOLD   49213     ECBY            ECB           5
 37 RAIN CLEAR FLUID TANK       49211     ECBZ            ECB           8
 37 WIND SHIELD CLEAR CONTROL             ECC             ECA               AAAAAAAAA
 37 WIND SHIELD CLEAR TIME RELA49222      ECCY            ECC           5
 37 WIND SHIELD CLEAR SWITCH    49221     ECCZ            ECC           8
 37  FLIGHT CONTROL                       F                                 AAAAAAAAA
 37  LIFT AUGMENTATION                    FA              F                 010000030
 37  FLAPS POSITIONED                     FAA             FA                020000030
 37  FLAPS POSITIONED                     FAA             FASB             FAAAAAAAAA
 37          SYNCHRONIZING VALVE14423     FAAX            FAA           5
 37    FLAP BLOW-UP VALVE       9914A     FAAY            FAA           2
 37    FLAP SYNCH CABLES        14416     FAAZ            FAA           5
A37 AIRCRAFT GROSS WT CONTROL             FAB             FA        K BA    000000030
 37  LEFT FLAP EXTENDED                   FAC             FAA               AAAAAAAAA
 37  LEFT FLAP LINKAGE          14418     FACR            FAC           5
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 37  LEFT FLAP RESTRICTOR          14422   FACS              FAC             2
 37  LEFT FLAP ACTUATOR            14421   FACT              FAC             5
 37  LEFT FLAP HINGE               14414   FACU              FAC             2
 37  LEFT FLAP SKIN                14413   FACV              FAC             0
 37  LEFT FLAP FRAME               14412   FACW              FAC             0
 37  LEFT FLAP ASSEMBLY            14411   FACX              FAC             5
 37  LEFT FLAP CHAFING STRIP       1441C   FACY              FAC             0
 37  LEFT FLAP BEARINGS            14418   FACZ              FAC             1
 37  RIGHT FLAP EXTENDED                   FAD               FAA               AAAAAAAAA
 37  RIGHT FLAPLINKAGE             14418   FADR              FAD             5
 37  RIGHT FLAPRESTRICTOR          14422   FADS              FAD             2
 37  RIGHT FLAPACTUATOR            14421   FADT              FAD             5
 37  RIGHT FLAPHINGE               14414   FADU              FAD             2
 37  RIGHT FLAPSKIN                14413   FADV              FAD             0
 37  RIGHT FLAPFRAME               14412   FADW              FAD             0
 37  RIGHT FLAPASSEMBLY            14411   FADX              FAD             5
 37  RIGHT FLAPCHAFING STRIP       1441C   FADY              FAD             0
 37  RIGHT FLAPBEARINGS            14418   FADZ              FAD             1
 37  FLAPS ACTUATED                        FAE               FAA              SAAAAAAAAA
 37  FLAPS ACTUATED                        FAE               FAC              FAAAAAAAAA
 37  FLAPS ACTUATED                        FAE               FAD              FAAAAAAAAA
 37    FLAP CONTROL CABLES         14416   FAEY              FAE             5
 37    FLAP SYNCH VALVE            14423   FAEZ              FAE             8
 37 HYDRAULIC DISTRIBUTED                  FAF               FAA               AAAAAAAAA
 37 HYDRAULIC DISTRIBUTED                  FAF               FAE              FAAAAAAAAA
 37 HYDRAULIC DISTRIBUTED                  FAF               FAL              FAAAAAAAAA
 37  FLAPS CONTROLLED                      FAG               FAE               AAAAAAAAA
 37  LEFT FLAP CONTROL                     FAH               FAG               111111111
 37  LEFT FLAP CONTROL HANDLE      9914B   FAHZ              FAH             2
 37  RIGHT FLAP CONTROL                    FAJ               FAG               111111111
 37  RIGHT FLAP CONTROLHANDLE      9914B   FAJZ              FAJ             2
 37  PILOT ACTION                          FAK               FAG               AAAAAAAAA
 37  STALL WARNING BUFFET                  FAKA              FAK               222222222
 37 FLAP POSITION INDICATED                FAKB              FAK               000000000
 37    FLAP POSITION XMTR          51422   FAKBY             FAKB            5
 37    FLAP POSITION INDICATOR     51421   FAKBZ             FAKB            2
 37  SPOILERS ACTUATED                     FAL               FALA              AAAAAAAAA
 37  SPOILERS DEPLOYED                     FALA              FAKA              AAAAAAAAA
 37    SPOILER HINGE               14614   FALAW             FALA            5
 37    SPOILER SKIN                14613   FALAX             FALA            0
 37    SPOILER FRAME               14612   FALAY             FALA            0
 37    SPOILER ASSEMBLY            14611   FALAZ             FALA            5
 37     SPOILER ACTUATOR           14621   FALY              FAL             5
 37     SPOILER LINKAGE            14615   FALZ              FAL             5
 37  SPOILER DEPLOYMENT INITIAT            FAS               FAL               AAAAAAAAA
 37  LIFT DATA SENSED                      FASA              FAS               AAAAAAAAA
 37    LIFT TRANSDUCER             14631   FASAZ             FASA            5
 37 FLAP POSITION SENSED                   FASB              FAKB             FAAAAAAAAA
 37  FLAP POSITIONED SENSED                FASB              FAS               AAAAAAAAA
 37    DETENT                      14417   FASBW             FASB            1
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 37     FLAP POS.CABLE HOUSING   14410   FASBX          FASB          0
 37     FLAP POSITION CABLE      14415   FASBY          FASB          5
 37     FLAP POSITION SENSE ARM  1441A   FASBZ          FASB          5
 37       CONTROL SWITCH         14633   FASW           FAS           5
 37       LIFT COMPUTER          14632   FASX           FAS           8
 37       SPOILER RESTRICTOR     14623   FASY           FAS           2
 37       SPOILER CONTROL VALVE  14622   FASZ           FAS           8
 37 FLIGHT SPEED CONTROLLED              FB             FX              000010110
 37 THRUST ATTENUATORS EXTENDED          FBA            FB              000000010
 37  THRUST ATTENUATOR EXTEND            FBAA           FBA             AAAAAAAAA
 37THRUST ATTENUATOR EXTENDED            FBAA           FBP             333333333
 37  ATTEN. LINKAGE               14517  FBAAV          FBAA          5
 37  ATTEN. LINK TUBE             14516  FBAAW          FBAA          0
 37  ATTEN. RESTRICTOR            14526  FBAAX          FBAA          0
 37  ATTEN. BELLCRANK 2 EA        14515  FBAAY          FBAA          2
 37  ATTEN. ACTUATOR              14527  FBAAZ          FBAA          5
 37  ATTENUATOR SEL VAL POSITN               FBAB           FBAA            AAAAAAAAA
 37    THROTTLE LIMIT SWITCH      14531  FBABY          FBAB          5
 37    ATTEN. CONTROL VALVE       14525  FBABZ          FBAB          8
 37                HINGE   2EA    14518  FBAX           FBA           5
 37                ASSEMBLY 2EA   14511  FBAY           FBA           5
A37    ATTENUATOR PADDLE  2EA     1451A  FBAZ           FBA           0
T37    DEFLECTOR                 1451C  FBAZ           FBA           0
 37  SPEED BRAKES EXTENDED                   FBB            FB              555555555
 37   SPEED BRAKE FAIRING         1451B  FBBW           FBB           1
 37      SPEED BRAKE DOOR         1451A  FBBX           FBB           0
 37      SPEED BRAKE HINGE        14514  FBBY           FBB           5
 37      SPEED BRAKE ASSY         14512  FBBZ           FBB           5
 37  SPEED BRAKES ACTUATED                   FBC            FBB             AAAAAAAAA
 37     SPEED BRAKE LINKAGE 2EA14513  FBCY           FBC           2
 37     SPEED BRAKE ACTUATOR 2E14523  FBCZ           FBC           2
 37  SPEED BRAKE/THRUST CONTROL              FBD            FB               S111111111
 37  SPEED BRAKE/THRUST CONTROL              FBD            FBAA             FAAAAAAAAA
 37  SPEED BRAKE/THRUST CONTROL              FBD            FBC              FAAAAAAAAA
 37  HYDRAULIC PRESSURE DIST                 FBDC           FB               SAAAAAAAAA
 37  HYDRAULIC PRESSURE DIST                 FBDC           FBAB             FAAAAAAAAA
 37  HYDRAULIC PRESSURE DIST                 FBDC           FBE              FAAAAAAAAA
 37    MANUAL SHUT-OFF VALVE      14524  FBDCZ          FBDC          0
 37    PRIORITY VALVE             14528  FBDZ           FBD           2
 37  SPEED BRAKE SEL VALV POS.               FBE            FBC             AAAAAAAAA
 37  SPEED BRAKE RESTRICTOR       14522  FBEY           FBE           0
 37  SPEED BRAKE CONTROL VALVE    14521  FBEZ           FBE           8
 37  SPEED BRAKE ENABLE                      FBF            FBD             AAAAAAAAA
 37  SPEED BRAKE CONT SW. 2EA     14533  FBFY           FBF           1
 37  SPEED BRAKE CIRCUIT BREAKR14532  FBFZ           FBF           5
 37  THRUST ATTENUATOR RETRACT               FBP            BA              010000000
 37  YAW CONTROL                             FC             F               010010030
 37  RUDDER POSITION                         FCA            FC              AAAAAAAAA
 37  RUDDER HINGE                 14327  FCAV           FCA           7
 37  RUDDER BELLCRANKS 2 EACH     14321  FCAW           FCA           5
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123456789012345678901234567890123456789012345678901234567890123456789012345678 90
 37  RUDDER SKIN                    14313   FCAX            FCA             0
 37  RUDDER FRAME                   14312   FCAY            FCA             0
 37  RUDDER ASSEMBLY                14311   FCAZ            FCA             8
 37  RUDDER CONTROL MOTION XMIT             FCB             FCA               AAAAAAAAA
 37  RUDDER CONTROL CABLE           14314   FCBY            FCB             5
 37  RUDDER CABLE PULLEYS 14EA      14315   FCBZ            FCB             2
A37  YAW DAMPING                            FCC             FCA               000000000
A37  YAW INPUT SIGNAL                       FCCA            FCC               AAAAAAAAA
A37       YAW RATE GYRO             14722   FCCAZ           FCCA            8
A37  PNEUMATIC PRESSURE                     FCCB            FCC               555555555
A37       AIR FILTER                14713   FCCBW           FCCB            0
A37       AIR PRESS REGULATOR       14712   FCCBX           FCCB            2
A37       SOL SHUTOFF VALVE         14725   FCCBY           FCCB            5
A37       AIR VALVE                 14714   FCCBZ           FCCB            5
A37  YAW DAMPING CONTROL                    FCCC            FCC               AAAAAAAAA
A37     OVER RIDE SWITCH            14724   FCCCY           FCC             5
A37     YAW DAMP COMPUTER           14721   FCCCZ           FCCC            5
A37  YAW DAMPING SELECTED                   FCCD            FCCC              AAAAAAAAA
A37     STICK GRIP DISCNX SWITC     1411A   FCCDY           FCC             2
A37     YAW DAMPING ENGAGE SW       14723   FCCDZ           FCCD            5
A37             CONTROL CABLE       14715   FCCY            FCC             5
A37     DAMPING SERVO ACTUATOR      14711   FCCZ            CCC             5
 37 RUDDER PEDAL DISPLACEMENT               FCD             FCB               AAAAAAAAA
 37 LEFT RUDDER CONTROL                     FCDA            FCD               111111111
 37  LEFT RUDDER CONTROL                    FCDA            FCD     H         AAAAAAAAA
 37   RUDDER PEDAL SUPPORT       14328   FCDAT           FCDA            2
 37   RUDDER PEDAL HINGE PIN     14327   FCDAU           FCDA            5
 37   RUDDER PEDAL BUNGEE        14326   FCDAV           FCDA            0
 37   RUDDER PEDAL BALANCE WT    14324   FCDAW           FCDA            0
 37 LEFT RUDDER PEDAL ADJUST     14318   FCDAX           FCDA            0
 37 LEFT RUDDER PEDAL  2EA       14317   FCDAY           FCDA            5
 37 LEFT RUDDER TORQUE TUBE      14316   FCDAZ           FCDA            2
 37  RIGHT RUDDER CONTROL                   FCDB            FCD               111111111
 37  RIGHT RUDDER PEDAL SUPPORT 14328    FCDBT           FCDB            2
 37  RIGHT RUDDER PEDAL HINGE   14327    FCDBU           FCDB            5
 37  RIGHT RUDDER PEDAL BUNGEE  14326    FCDBV           FCDB            0
 37  RIGHT RUDDER PEDAL BAL WT  14324    FCDBW           FCDB            0
 37  RIGHT RUDDER PEDAL ADJUST  14318    FCDBX           FCDB            0
 37  RIGHT RUDDER PEDAL  2EA    14317    FCDBY           FCDB            5
 37  RIGHT RUDDER TORQUE TUBE   14316    FCDBZ           FCDB            2
 37  RUDDER TRIM POSITIONED                 FCT             FC                000000000
 37  RUDDER TRIM ACTUATED                   FCTA            FCT               AAAAAAAAA
 37  RUDDER TCIRCUIT BREAKER    14332    FCTAY           FCTA            5
 37  RUDDER TACTUATOR MOTOR     14333    FCTAZ           FCTA            7
 37  RUDDER TRIM INITIATED                  FCTB            FCTA              AAAAAAAAA
 37  RUDDER TRIM CONTROL SWITCH14331    FCTBZ           FCTB            5
 37  RUDDER TRIM TAB ACTUATOR M14323    FCTY            FCT             5
 37  RUDDER TRIM TAB ASSEMBLY   14322    FCTZ            FCT             1
 37  PITCH CONTROL                          FD              F                 0AAAAAAA0
 37  LEFT ELEVATOR POSITIONED               FDA             FD                555555555
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 37  LEFT ELEVATOR TORQUE TUBE 14217   FDAU            FDA          5
 37  LEFT ELEVATOR HINGE  3 EA 14214   FDAV            FDA          5
 37  LEFT ELEVATOR SKIN        14213   FDAW            FDA          0
 37  LEFT ELEVATOR FRAME / RIBS14212   FDAX            FDA          0
 37  LEFT ELEVATOR ASSEMBLY    14211   FDAY            FDA          5
T37  LEFT ELEVATOR TIP         1421A   FDAZ            FDA          0
 37  RIGHT ELEVATOR POSITIONED         FDB             FD             555555555
 37  RIGHT ELEVATOR TORQUE TUBE14217   FDBU            FDB          5
 37  RIGHT ELEVATOR HINGE 3EA  14214   FDBV            FDB          5
 37  RIGHT ELEVATOR SKIN       14213   FDBW            FDB          0
 37  RIGHT ELEVATOR FRAME/RIBS 14212   FDBX            FDB          0
 37  RIGHT ELEVATOR ASSEMBLY   14211   FDBY            FDB          5
T37  RIGHT ELEVATOR TIP        1421A   FDBZ            FDB          0
 37  ELEVATOR CONTROL MOTION           FDC             FD            SAAAAAAAAA
 37  ELEVATOR CONTROL MOTION           FDC             FDA           FAAAAAAAAA
 37  ELEVATOR CONTROL MOTION           FDC             FDB           FAAAAAAAAA
 37  ELEVATOR DOWNSPRING       14223   FDCV            FDC          2
 37  ELEVATOR PUSH PULL RODS   14222   FDCW            FDC          2
 37  ELEVATOR QUADRANT  2EA    14218   FDCX            FDC          2
 37  ELEVATOR CABLE            14215   FDCY            FDC          5
 37  ELEVATOR CABLE PULLEY 14EA14216   FDCZ            FDC          2
 37  CONTROL STICK DISPLACEMENT        FDE             FDC             AAAAAAAAA
 37  CONTROL STICK DISPLACEMENT        FDE             FEFD            FAAAAAAAAA
 37  LEFT STICK CONTROL                FDEA            FDE             111111111
 37  LEFT STICK CONTROLLED             FDEA            FDE    H        999999999
 37  LEFT STICK GRIP           1411A   FDEAV           FDEA         0
 37  LEFT STICK TO R LINKAGE   14115   FDEAW           FDEA         2
 37  LEFT STICK YOKE STICK     14116   FDEAX           FDEA         2
 37  LEFT STICK YOKE BEARING   14128   FDEAY           FDEA         0
 37  LEFT STICK YOKE           1412A   FDEAZ           FDEA         5
 37  RIGHT STICK CONTROL               FDEB            FDE             111111111
 37  RIGHT STICK GRIP          1411A   FDEBV           FDEB         0
 37  RIGHT STICK TO LEFT LINK  14115   FDEBW           FDEB         2
 37  RIGHT STICK YOKE STICK    14116   FDEBX           FDEB         2
 37  RIGHT STICK YOKE BEARING  14128   FDEBY           FDEB         0
 37  RIGHT STICK YOKE          1412A   FDEBZ           FDEB         5
 37  CONTROL STICK LINKAGE     14221   FDEZ            FDE          8
 37  PILOT ACTION                      FDF             FDE           FAAAAAAAAA
 37  PILOT ACTION                      FDF             FDTB            AAAAAAAAA
 37  PITCH TRIM ACTUATION              FDT             FD              GOOOOOOOO
 37  PITCH TRIM ACTUATION              FDT             FDTC          FAAAAAAAAA
 37  MOTION TRANSMITTED                FDTA            FDT             AAAAAAAAA
 37    PITCH TRIM TRAVEL STOP 614226   FDTAX           FDTA         2
 37    PITCH TRIM CIRCUIT BREAK14232   FDTAY           FDTA         5
 37    PITCH TRIM MOTOR        14233   FDTAZ           FDTA         7
 37  PITCH TRIM INITIATED              FDTB            FDTA            AAAAAAAAA
 37  PITCH TRIM CONTROL SWITCH 14231   FDTBZ           FDTB         5
 37  PITCH TRIM STATUS INDCTED         FDTC            DC     I FDT   01GOOOOOO
 37  PITCH TRIM STATUS INDCTED         FDTC            FDF           F010000000
T37    PITCH TRIM STATUS LIGHT9944A    FDTCY           FDTC         A
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PGG095.J1R1 DATE = 09/17/75 FLIGHT SAFETY PREDICTION TECHNIQUE

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123456789012345678901234567890123456789012345678901234567890123456789012345678
A37     ANUNCIATOR PANEL          4431A   FDTCZ           FDTC          A
 37  PITCH TRIM PUSH PULL ROD     14222   FDTV            FDTA          2
 37  PITCH TRIM HORN              14227   FDTW            FDT           5
 37  PITCH TRIM SCREW JACK        1422A   FDTX            FDT           5
 37  PITCH TRIM ACTUATING MECH    14225   FDTY            FDT           5
 37  PITCH TRIM TAB ASSY          14224   FDTZ            FDT           2
 37  ROLL CONTROL                         FE              F               OAAAAAAAC
 37  AILERON POSITION                     FEB             FE              AAAAAAAAA
 37  LEFT AILERON POSITION                FEBA            FEB             111111111
 37    AILERON QUADRANT           14121   FEBAT           FEBA          5
 37    AILERON LINKAGE            14115   FEBAU           FEBA          5
 37    AILERON HINGE PIN          14114   FEBAV           FEBA          5
 37    AILERON SKIN LEFT          14113   FEBAW           FEBA          0
 37    AILERON FRAME LEFT         14112   FEBAX           FEBA          0
 37    AILERON ASSY LEFT          14111   FEBAY           FEBA          8
 37    AILERON CABLE PULLEY 10E14118      FEBAZ           FEBA          2
 37  RIGHT AILERON POSITION               FEBB            FEB             111111111
 37   RIGHT AILERON QUADRANT      14121   FEBBT           FEBB          5
 37   RIGHT AILERON LINKAGE       14115   FEBBU           FEBB          5
 37   RIGHT AILERON HINGE PIN     14114   FEBBV           FEBB          5
 37   RIGHT AILERON SKIN          14113   FEBBW           FEBB          0
 37   RIGHT AILERON FRAME         14112   FEBBX           FEBB          0
 37   RIGHT AILERON ASSY          14111   FEBBY           FEBB          8
 37   AILERON CABLE PULLEY 10EA14118      FEBBZ           FEBB          2
 37  LEFT AILERON ACTUATION               FEBC            FEBA            AAAAAAAAA
A37 L SLOT LIP SPOILER ACTUATOR14821      FEBCR           FEBC          0
A37 L SLOT LIP SPOILER LINKAGE 14812      FEBCS           FEBC          0
A37 L SLOT LIP SPOILER ASSY    14811      FEBCT           FEBC          0
A37  ACTUATING MECHANISM       1412C      FEBCU           FEBC          0
A37  BOOST TAB DAMPER          14120      FEBCV           FEBC          0
A37  LEFT AILERON BOOST TAB    14127      FEBCW           FEBC          0
 37  LEFT AILERON CABLE         14117     FEBCX           FEBC          5
 37  LEFT AILERON PUSH PULL ROD14123      FEBCY           FEBC          5
 37  LEFT AILERON BELL CRANK    14122     FEBCZ           FEBC          5
 37  RIGHT AILERON ACTUATION              FEBD            FEBB            AAAAAAAAA
A37 R SLOT LIP SPOILER ACTUATOR14821      FEBDR           FEBD          0
A37 R SLOT LIP SPOILER LINKAGE 14812      FEBDS           FEBD          0
A37 R SLOT LIP SPOILER ASSY    14811      FEBDT           FEBD          0
A37  ACTUATING MECHANISM       1412C      FEBDU           FEBD          0
A37  BOOST TAB DAMPER          14120      FEBDV           FEBD          0
A37  RIGHT AILERON BOOST TAB   14127      FEBDW           FEBD          0
 37  RIGHT AILERON CABLE        14117     FEBDX           FEBD          5
 37  RIGHT AILERON PUSHPULL ROD14123      FEBDY           FEBD          5
 37  RIGHT AILERON BELL CRANK   14122     FEBDZ           FEBD          5
 37  CONTROL STICK DISPLACEMENT           FEC             FEB             SAAAAAAAAA
 37  CONTROL STICK DISPLACEMENT           FEC             FEBC            FAAAAAAAAA
 37  CONTROL STICK DISPLACEMENT           FEC             FEBD            FAAAAAAAAA
 37  CONTROL STICK DISPLACEMENT           FEC             FEFD            FAAAAAAAAA
 37  LEFT STICK CONTROLLED                FEDA            FEC     FEDB    111111111
 37  LEFT STICK CONTROLLED                FEDA            FEC     H       999999999
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12345678901234567890123456789012345678901234567890123456789012345678901234567890
A37  LEFT STICK DAMPER LEVER     1412E   FEDAT          FEDA          0
A37  LEFT STICK DAMPER LINK      1412F   FEDAU          FEDA          0
 37  LEFT STICK GRIP             1411A   FEDAV          FEDA          0
 37  LEFT STICK CONTROL STICK    14116   FEDAX          FEDA          2
 37  LEFT STICK YOKE BEARING     1412B   FEDAY          FEDA          0
 37  LEFT STICK YOKE             1412A   FEDAZ          FEDA          5
 37  RIGHT STICK CONTROLLED              FEDB           FEC             111111111
A37  RIGHT STICK DAMPER LEVER    1412E   FEDBT          FEDB          0
A37  RIGHT STICK DAMPER LINK     1412F   FEDBU          FEDB          0
 37  RIGHT STICK GRIP            1411A   FEDBV          FEDB          0
 37  RIGHT STICK TO LEFT LINK    14115   FEDBW          FEDB          A
 37  RIGHT STICK CONTROL STICK   14116   FEDBX          FEDB          2
 37  RIGHT STICK YOKE BEARING    1412B   FEDBY          FEDB          0
 37  RIGHT STICK YOKE            1412A   FEDBZ          FEDB          5
A37  PITCH/ROLL HARMONIZATION            FEFD           FD              000000000
A37  PITCH/ROLL HARMONIZATION            FEFD           FE              000000000
A37    BOB WEIGHT                1421A   FEFDA          FEFD          5
 37  ROLL TRIM                           FET            FF              000000000
 37  TRIM TAB ACTUATING MECH     14125   FETAX          FET           3
 37  TRIM TAB ARM ASSY           14128   FETAY          FET           5
 37  TRIM TAB TRAVEL STOP        14126   FETAZ          FET           0
 37  ROLL TRIM CIRCUIT BREAKER   14132   FETBY          FET           5
 37  ROLL TRIM ACTUATOR MOTOR    14133   FETBZ          FET           8
 37  ROLL TRIM CONTROL SWITCH    14131   FETCZ          FET           5
 37     TRIM TAB ASSEMBLY        14124   FETZ           FET           5
 37 FLIGHT SPEED  ATTENUATION             FX             F               000010110
 37 GROUND CONTROL                        G                              AAAAAAAAA
 37 SPEED CONTROLLED                      GA             G       C       000000040
 37 SPEED CONTROLLED                      GA             GAX             500000005
 37 SPEED CONTROL ATTENUATION             GAX            G               111111111
 37 DIRECTIONAL CONTROL                   GB             G               110000011
 37 NOSE WHEEL STEER ACTUATED             GBAA           GBB             AAAAAAAAA
 37   CAM                         13517   GBAAW          GBAA          2
 37   PUSH.ROD                    13516   GBAAX          GBAA          5
 37   CONTROL  CABLE  %2EA<       13514   GBAAY          GBAA          2
 37   CONNECTING ROD              13512   GBAAZ          GBAA          5
 37 STEERING COMMANDS INPUT               GBAB           GBAA            AAAAAAAAA
 37 NOSE WHEEL STEERING ENABLED           GBAC           GBAA            AAAAAAAAA
 37   HYD SWIVEL FITTING          13526   GBACS          GBAC          5
 37   TWO-WAY RESTRICTOR          13524   GBACT          GBAC          2
 37   HYD SHUTOFF VALVE           13523   GBACU          GBAC          8
 37   CIRCUIT BREAKER             13532   GBACV          GBAC          A
 37   NOSE WHEEL STEP SWITCH      13533   GBACW          GBAC          8
 37   SPEED BRAKE PRIORITY VALV14528   GBACX          GBAC          1
 37   NOSE GEAR SAFETY SWITCH     13233   GBACY          GBAC          A
 37   STEERING ENGAGE SW. 2EA     9913A   GBACZ          GBAC          2
 37 PILOT STEERING ACTION                 GBAD           GBAB    GBAE    111111111
 37 PILOT STEERING ACTION                 GBAD           GBAE    H       AAAAAAAAA
 37   BUNGEE                      14326   GBADW          GBAD          0
 37   PEDAL SUPPORT               14328   GBADX          GBAD          5
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AD-A054 489 ARINC RESEARCH CORP ANNAPOLIS MD F/G 1/2
DEVELOPMENT OF AIR FORCE FLIGHT SAFETY MODELS. VOLUME 7. A-37 A--ETC(U)
OCT 75 F09603-72-A-1132
UNCLASSIFIED C54-01-1-1406-VOL-7 NL

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 37   PEDALS   2EA              13412   GBADY          GBAD          2
 37   STEERING BELL CRANK       13518   GBADZ          GBAD          5
 37 CO-PILOT STEERING ACTION            GBAE           GBAB          111111111
 37   BUNGEE                    14326   GBAEW          GBAE          0
 37   PEDAL SUPPORT             14328   GBAEX          GBAE          5
 37   PEDAL   2 EA.            13412   GBAEY          GBAE          2
 37   STEERING BELLCRANK        13518   GBAEZ          GBAE          5
A37 NOSE WHEEL STEERING EMPLOYD         GBB            GB       GBA  251111111
T37 NOSE WHEEL STEERING EMPLOYD         GBB            GB       GBA  111111111
 37   NOSE WHEEL STEER COLLAR   13515   GBBS           GBB           A
 37   NOSE WHEEL CENTER SPRING  13513   GBBT           GBB           0
 37   NOSE WHEEL TIRE           13722   GBBU           GBB           2
 37   NOSE WHEEL                13712   GBBV           GBB           5
 37   NOSE GEAR STRUT           13212   GBBW           GBB           5
 37   NOSE GEAR ASSEMBLY        13211   GBBX           GBB           8
 37   NOSE WHEEL STEERING ASSY  13511   GBBY           GBB           5
 37   NOSE WHEEL STEERING VALVE 13525   GBBZ           GBB           8
A37 DIFFERENTIAL BRAKING                GBC            GB            210000000
 37 DIFFERENTIAL BRAKING                GBC            GB       K GBB AAAAAAAAA
 37 NOSE WHEEL SHIMMY DAMPED            GBD            GB            011111110
 37 NOSE WHEEL SHIMMY DAMPED            GBD            GBB           FAAAAAAAAA
 37   PRESSURE  COMPENSATOR     13522   GBDY           GBD           2
 37   NOSE WHEEL STEER VALVE    13525   GBDZ           GBD           8
 37 WHEEL BRAKES APPLIED                GC             GA            888888888
 37 WHEEL BRAKES APPLIED                GC             GBC           AAAAAAAAA
 37 LEFT WHEEL BRAKES APPLIED           GCA            GC            AAAAAAAAA
T37   BRAKE TORQUE FLANGE 2EA   13414   GCAV           GCA           5
T37   ADAPTOR PLATE             13417   GCAW           GCA           2
T37   BRAKE STATOR              13416   GCAX           GCA           5
T37   BRAKE DISC                13415   GCAY           GCA           5
 37   BRAKE ASSEMBLY            13411   GCAZ           GCA           8
 37 RIGHT WHEEL BRAKES APPLIED          GCB            GC            AAAAAAAAA
T37   BRAKE TORQUE FLANGE 2EA   13414   GCBV           GCB           5
T37   BRAKE ADAPTOR PLATE       13417   GCBW           GCB           2
T37   BRAKE STATOR              13416   GCBX           GCB           5
T37   BRAKE DISC                13415   GCBY           GCB           5
 37   BRAKE ASSEMBLY            13411   GCBZ           GCB           8
 37 LEFT BRAKE ACTUATION                GCE            GCA           AAAAAAAAA
 37 RIGHT BRAKE ACTUATION               GCF            GCB           AAAAAAAAA
 37 HYDRAULIC FORCE TRANSFER            GCG            GC            SAAAAAAAAA
 37 HYDRAULIC FORCE TRANSFER            GCG            GCE           FAAAAAAAAA
 37 HYDRAULIC FORCE TRANSFER            GCG            GCF           FAAAAAAAAA
 37    HYDRAULIC XFER VALVE 2EA 13424   GCGZ           GCG           2
 37 LEFT HYDRAULIC PRESS XMIT           GCH            GCG           111111111
 37 LEFT HYDRAULIC PRESS XMIT           GCH            GCG      H    AAAAAAAAA
 37    HYD. SWIVEL FITTING       13427   GCHY           GCH           5
 37    HYD. BLEED VALVE  2EA     13425   GCHZ           GCH           5
 37 RIGHT HYDRAULIC PRESS XMIT          GCJ            GCG           111111111
 37   HYD. SWIVEL FITTING        13427   GCJY           GCJ           5
 37   HYD. BLEED VALVE  2 EA     13425   GCJZ           GCJ           5
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 37 LEFT MECH TO HYD CONVERSION          GCK      GCH        AAAAAAAAA
 37   BRAKE CONTROL UNIT 2EA    13421    GCKZ     GCK      5
 37 RIGHT MECH TO HYD CONVERSON          GCL      GCJ        AAAAAAAAA
 37   BRAKE CONTROL UNIT 2EA    13421    GCLZ     GCL      5
 37 PARKING BRAKE                        GCW      GA         000000000
 37 PILOT BRAKE COMMAND INPUT            GCWX     GCK        AAAAAAAAA
 37   BRAKE PEDAL BUNGEE        14326    GCWXW    GCWX     0
 37   BRAKE PEDAL SUPPORT       14328    GCWXX    GCWX     5
 37   BRAKE PEDAL LINKAGE       13413    GCWXY    GCWX     5
 37   BRAKE PEDAL               13412    GCWXZ    GCWX     2
 37 CO-PILOT BRAKE COMMAND               GCWY     GCL        AAAAAAAAA
 37   BRAKE PEDAL BUNGEE        14326    GCWYW    GCWY     0
 37   BRAKE PEDAL SUPPORT       14328    GCWYX    GCWY     5
 37   BRAKE PEDAL LINKAGE       13413    GCWYY    GCWY     5
 37   BRAKE PEDAL               13412    GCWYZ    GCWY     2
 37  PARKING BRAKE VALVE        13426    GCWZ     GCW      A
 37 LANDING GEAR                         L                   AA000CCAA
 37 LANDING GEAR EXTENSION               LA       L          000000AA0
 37 LG EXTEND MOTIVE FORCE               LAA      LA         AAAAAAAAA
 37 LAND GEAR RETRACTION                 LB       LX         010000000
 37 NLG DOWN & LOCKED                    LC       LA         AAAAAAAAA
 37 NLG DOWN & LOCKED                    LC       LSF      FAAAAAAAAA
 37 NLG EXTEND ACTUATION                 LCA      LC         AAAAAAAAA
 37 FILLER VALVE            13218        LCAU     LCA      0
 37    NG BUNGEE            13217        LCAV     LCA      0
 37    ACTUATING CYLINDER   13223        LCAW     LCA      8
 37    NLG TRUNNION         13218        LCAX     LCA      5
 37    TORQUE LINK          13214        LCAY     LCA      2
 37    ACTUATOR SPRING      13210        LCAZ     LCA      5
 37 NLG DOWNLOCK MECHANISM  13216        LCZ      LC       7
 37 MLG DOWN &LOCKED                     LD       LA         AAAAAAAAA
 37 MLG DOWN &LOCKED                     LD       LSF      FAAAAAAAAA
 37 MLG ACTUATED                         LDA      LD         AAAAAAAAA
 37   ROD END 2EACH         13138        LDAQ     LDA      2
 37   ACTUATING CYLINDER 2EACH 13135     LDAR     LDA      8
 37   MLG  SUPPORT 2 EACH   13123        LDAS     LDA      5
 37   STRAP  2 EA           13122        LDAT     LDA      0
 37   TRUNNION MLG  2 EACH  13121        LDAU     LDA      5
 37   TORQUE TUBE  2 EACH   13110        LDAV     LDA      2
 37   BUNGEE   2 EACH       13117        LDAW     LDA      0
 37   BELLCRANKS 2 EA       13116        LDAX     LDA      5
T37   RETRACT ARM  2 EACH   13115        LDAY     LDA      0
 37   TORQUE LINK  2 EACH   13113        LDAZ     LDA      2
 37 MLG DOOR OPEN                        LDB      LD         AAAAAAAAA
 37 MLG DOOR ACTUATION                   LDC      LDB        AAAAAAAAA
A37   DOOR ACTUATING CYL SUPP 13130      LDCS     LDC      5
A37  MLG DOOR ACT CYLINDER 2EA 13134     LDCT     LDC      5
T37  MLG DOOR ACT CYLINDER 2EA 13138     LDCU     LDC      5
 37  MLG DOOR LINKAGE 2EACH  11228       LDCV     LDC      5
 37  MLG DOOR HINGE  2EACH   11223       LDCW     LDC      2
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 37  STRUCTURE  2EACH          11222   LDCX            LDC          2
 37  DOOR ASSEMBLY   2EACH     11221   LDCY            LDC          1
T37  ACTUATOR ARM  2EACH       1122B   LDCZ            LDC          5
 37 EXTEND SEQUENCE  CONTROL           LDD             LD             AAAAAAAAA
 37 RETRACT SEQUENCE CONTROL           LDD             LDA           FAAAAAAAAA
 37 RETRACT SEQUENCE CONTROL           LDD             LDC           FAAAAAAAAA
A37   FOUR WAY SEQUENCE VALVE  13133  LDDV            LDD          8
 37    SEQUENCE SWITCH  2EACH  13145  LDDW            LDD          5
 37    HYDRAULIC RESTRICTOR 2EA13134  LDDX            LDD          2
A37   SHUTOFF VALVE 2EACH      13137  LDDY            LDD          5
T37   SHUTOFF VALVE 2EACH      1313A  LDDZ            LDD          5
 37   RIGHT GEAR DOWNLOCK MECH 13126  LDY             LD           7
 37   LEFT GEAR DOWNLOCK MECH  13126  LDZ             LD           7
 37 NLG UP & LOCKED                    LE              LB             AAAAAAAAA
 37 NLG ACTUATION                      LEA             LE             AAAAAAAAA
 37   ACTUATING CYLINDER       13223  LEAV            LEA          8
 37   TRUNNION                 13218  LEAW            LEA          8
 37   TORQUE LINK              13214  LEAX            LEA          2
 37   ACTUATOR SPRING          1321C  LEAY            LEA          5
 37   BUNGEE                   13217  LEAZ            LEA          0
 37    NLG UPLOCK MECHANISM    13215  LEZ             LF           7
 37 MLG  UP & LOCKED                   LF              LB             AAAAAAAAA
 37 MLG ACTUATION                      LFA             LF             AAAAAAAAA
 37   MLG ROD END  2 EACH      13138  LFAQ            LFA          2
 37   MLG ACTUATING CYLINDER 2E13135  LFAR            LFA          8
 37   MLG SUPPORT  2EACH       13123  LFAS            LFA          5
 37   MLG STRAP  2EACH         13122  LFAT            LFA          0
 37        TRUNNION            13121  LFAU            LFA          5
 37        TORQUE TUBE         13118  LFAV            LFA          2
 37        BUNGEE              13117  LFAW            LFA          0
 37        BELLCRANK   2 EACH  13116  LFAX            LFA          5
T37        RETRACT ARM  2EACH  13115  LFAY            LFA          5
 37    MLG TORQUE LINK  2EACH  13113  LFAZ            LFA          2
 37 MLG DOOR CLOSED                    LFB             LF             AAAAAAAAA
 37 MLG DOOR CLOSE ACTUATION           LFC             LFB            AAAAAAAAA
A37   DOOR ACTUATING CYL SUPP  1313C  LFCQ            LFC          5
 37   MLG DOOR UPLOCK LINK     13127  LFCR            LFC          5
 37    UPLOCK ROLLER           11224  LFCS            LFC          2
A37   MLG DOOR ACTUATOR.2 EACH 1313A  LFCT            LFC          5
T37   MLG DOOR ACTUATOR 2 EACH 1313B  LFCU            LFC          5
T37   MLG DOOR LINKAGE  2 EACH 11228  LFCV            LFC          5
T37   MLG DOOR HINGE 2 EACH    11223  LFCW            LFC          2
T37   MLG DOOR STRUCTURE 2EA   11222  LFCX            LFC          2
T37   DOOR ASSEMBLY 2EACH      11221  LFCY            LFC          5
T37   ACTUATOR ARM  2EACH      1122A  LFCZ            LFC          5
 37 RETRACT SEQUENCE CONTROL           LFD             LF             AAAAAAAAA
 37 RETRACT SEQUENCE CONTROL           LFD             LFA           FAAAAAAAAA
 37 RETRACT SEQUENCE CONTROL           LFD             LFC           FAAAAAAAAA
 37  BUNGEE                   11227  LFDV            LFD          0
A37   FOUR WAY SEQUENCE VALVE  13133  LFDV            LFD          8
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 37   SEQUENCE SWITCH 2EACH      13145   LFDW          LFD          5
 37   HYDRAULIC RESTRICTOR 2EA   13134   LFDX          LFD          2
A37   SEQUENCE SHUTOFF VALVE2EA  13137   LFDY          LFD          5
T37   SEQUENCE SHUTOFF VALVE2EA  1313A   LFDZ          LFD          5
 37    MLG UPLOCK MECHANISM 2EA  13125   LFZ           LF           7
 37  PNEUMATIC EXTEND FORCE              LG            LAA    K LH    AAAAAAAAA
 37  PNEUMATIC EXTEND FORCE              LG            LCA           FAAAAAAAAA
 37  PNEUMATIC EXTEND FORCE              LG            LDA           FAAAAAAAAA
 37 PNEUMATIC DISTRIBUTION               LGA           LG             AAAAAAAAA
 37   RELEASE  HANDLE LINKAGE   13612   LGAS          LGA          5
 37   EMERGENCY RELEASE HANDLE  13611   LGAT          LGA          2
 37   PNEUMATIC AIR FILL VALVE  13623   LGAU          LGA          1
 37   PNEUMATIC AIR BOTTLEGAUGE 13622   LGAV          LGA          0
 37   PNEUMATIC AIR BOTTLE      13621   LGAW          LGA          8
 37   SHUT.OFF VALVE            13624   LGAX          LGA          5
T37   SWIVEL FITTING     Nw     13225   LGAY          LGA          5
T37   SWIVEL FITTING  2 EACH    13137   LGAZ          LGA          5
 37   SHUTTLE VALVE HYD  Nw     13224   LGY           LG           6
 37   SHUTTLE VALVES  2EACH MG  13136   LGZ           LG           8
 37 HYDRAULIC DISTRIBUTION               LH            LAA      LG   F111111111
 37 HYDRAULIC DISTRIBUTION               LH            LCA           FAAAAAAAAA
 37 HYDRAULIC DISTRIBUTION               LH            LDD           FAAAAAAAAA
 37 HYDRAULIC DISTRIBUTION               LH            LEA           FAAAAAAAAA
 37 HYDRAULIC DISTRIBUTION               LH            LFD           FAAAAAAAAA
 37   HYDRAULIC DISTRIBUTION             LH            LHXX          SC10000050
 37  LG MODE SELECTED                    LHA           LH             AAAAAAAAA
T37    CONTROL HANDLE BOOT      13317   LHAF          LHA          0
 37    CIRCUIT BREAKER          13234   LHAS          LHA          5
 37    SAFETY SWITCH            13233   LHAT          LHA          5
 37    CONTROL HANDLE KNOB      13316   LHAU          LHA          6
 37    SELECTOR VALVE  NG       13315   LHAV          LHA          6
 37    CONTROL LINKAGE          13314   LHAW          LHA          2
 37    BELL CRANK               13313   LHAX          LHA          5
 37    PUSH ROD                 13312   LHAY          LHA          2
 37    LG CONTROL HANDLE        13311   LHAZ          LHA          5
T37  SWIVEL FITTING             13225   LHR           LH           2
 37  SHUTTLE VALVE  NG           13224   LHS           LH           2
A37  SWIVEL FITTING 2EACH       1313B   LHT           LH           5
T37  SWIVEL FITTING 2EACH       13137   LHU           LH           5
 37  SHUTTLE VALVE  2EACH       13136   LHV           LH           2
 37  RESTRICTOR                 13222   LHW           LH           1
 37  CHECK VALVE                13221   LHX           LH           0
 37   HYDRAULIC ATTENUATION              LHXX          L             SC10000010
 37  RESTRICTOR                 13132   LHY           LH           1
 37  CHECK VALVE                13131   LHZ           LH           0
 37 ELECTRICAL DISTRIBUTION              LJ            LDD           FAAAAAAAAA
 37 ELECTRICAL DISTRIBUTION              LJ            LFD           FAAAAAAAAA
 37  LAND GEAR POWER DISTRBTION          LJ            LHXX          SC10000050
 37  SAFETY SWITCH MLG          13148   LJS           LJ           0
 37  CIRCUIT BREAKER  MLG       13146   LJT           LJ           5
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A37  CIRCUIT BREAKER  NG          13234   LJU              LJ              5
 37  MLG  DOWNLOCK SWITCH 2 EA   13142   LJV              LJ              5
 37  MLG UPLOCK SWITCH 2EACH     13141   LJW              LJ              5
 37  SAFETY SWITCH NG            13233   LJX              LJ              0
 37  DOWNLOCK  SWITCH     NG     13232   LJY              LJ              5
 37  UPLOCK GEAR SWITCH  NG      13231   LJZ              LJ              5
 37 ROLLING SUPPORT                      LK               L                 150000051
 37   MLG HYD FILLER VALVE 2EA   13124   LKH              LK              0
 37   NOSE GEAR STRUT  ASSY      13212   LKJ              LK              2
 37   NOSE GEAR ASSY             13211   LKK              LK              5
T37   INNERTUBE                  13723   LKL              LK              0
 37   TIRE  NOSE GEAR            13722   LKM              LK              3
 37   TIRES MAIN GEAR  2 EACH    13721   LKN              LK              5
 37   RETAINING NUT 3EA          13715   LKP              LK              2
 37   SPACERS   2EA              13714   LKQ              LK              0
 37   WHEEL BEARING  3EA         13713   LKR              LK              0
 37   MAIN WHEEL 2 EACH          13711   LKS              LK              2
 37   NOSE WHEEL                 13712   LKT              LK              2
T37   MAIN WHEEL ALUMINUM 2EA    1371A   LKU              LK              2
 37   DRAG BRACE  NLG            13213   LKV              LK              2
 37  NLG  SUPPORT                13218   LKW              LK              5
 37   LG  SIDE BRACE  2EACH      13114   LKX              LK              1
 37   LG STRUT ASSEMBLY  2EA     13112   LKY              LK              1
 37   LG  ASSEMBLY  2EACH        13111   LKZ              LK              5
 37 LANDING GEAR STATUS INDICAT          LS               LG                000000080
 37 LG  DOWNLOCK INDICATION              LSA              LS                111111111
A37  LG INDICATOR LITES          51411   LSAZ             LSA             1
T37   LG INDICATOR LITES 3EACH  99138   LSAZ             LSA             1
 37 LG UNSAFE AUDIO TONE                 LSB              LS                333333333
 37    THROTTLE LIMIT SWITCH 2  11632   LSBV             LS              5
 37    AUDIO SILENCE SWITCH     13615   LSBW             LS              0
 37    AUDIO SILENCE RELAY      13616   LSBX             LS              0
 37    AUDIO WARNING RELAY      13614   LSBY             LS              5
 37    AUDIO WARNING SIGNAL     13613   LSBZ             LS              5
 37 LG UNSAFE WARNING LIGHT              LSC              LS                111111111
 37     WARNING LIGHT RELAY     13144   LSCY             LSC             5
 37     WARNING LIGHT           13143   LSCZ             LSC             3
 37  LG DOWNLOCK STATUS                  LSD              LS                SAAAAAAAAA
 37  LG DOWNLOCK STATUS                  LSD              LSA               FAAAAAAAAA
 37  LG DOWNLOCK STATUS                  LSD              LSB               FAAAAAAAAA
 37  LG DOWNLOCK STATUS                  LSD              LSC               FAAAAAAAAA
 37  NLG DOWNLOCK SENSED                 LSE              LSD                AAAAAAAAA
 37  NLG DOWNLOCK SWITCH         13232   LSEZ             LSE             2
 37  MLG DOWNLOCK SENSED                 LSF              LSD                AAAAAAAAA
 37  MLG DOWNLOCK SWITCH 2 EACH13142     LSFZ             LSF             2
 37   CIRCUIT BREAKER            42313   LSZ              LS              5
 37 LAND GEAR RETRACT ATTENUTE           LX               L                 010000000
A37  MISSION SUPPORT                     M                                  AAAAAAAAA
A37  MISSION PERFORMANCE RECORD          MA               M                 000000000
A37  GUN/ROCKET ACTION RECORDED          MAA              MA                111111111
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A37   BOARD ASSY          77216   77215   MAAU            MAA          5
A37   BOARD ASSY          77215   77216   MAAV            MAA          5
A37    COMPUTER                   77214   MAAW            MAA          2
A37    SENSOR                     77213   MAAX            MAA          5
A37    MAGAZINE                   77212   MAAY            MAA          2
A37    CAMERA BODY KD 17C         77211   MAAZ            MAA          2
A37   ORDNANCE STRIKE RECORDED                MAB         MA             111111111
A37    CONNECTOR                  77315   MABD            MAB          5
A37    SENSOR ASSY                77314   MABE            MAB          5
A37    COMPUTER ASSY              77313   MABF            MAB          0
A37    INTERVALOMETER             77312   MABG            MAB          0
A37    CONTROL SWITCH             77311   MABH            MAB          5
A37    CIRCUIT BOARD ASSY         77116   MABJ            MAB          5
A37    CAMERA CONTROL             77117   MABK            MAB          5
A37    PROTECTIVE COVER           77116   MABL            MAB          0
A37    LENS                       77115   MABM            MAB          8
A37    FILTER                     7711H   MABN            MAB          1
A37    TRACK                      77113   MABP            MAB          C
A37    MOUNT                      77112   MABQ            MAB          2
A37    CAMERA BODY                77111   MABR            MAB          8
A37    CIRCUIT BOARD KEEPER       7711G   MABS            MAB          0
A37    AEC  BOARD ASSY            7711F   MABT            MAB          2
A37    SCAN DRIVE BOARD ASSY      7711E   MABU            MAB          0
A37    PANEL ASSY                 7711D   MABV            MAB          2
A37    FILM MAGAZINE              7711C   MABW            MAB          5
A37    AEC ASSEMBLY               7711B   MABX            MAB          0
A37    MOTOR/GEAR ASSY            7711A   MABY            MAB          2
A37    K-18A STRIKE CAMERA        77110   MABZ            MAB          8
A37   GUN CAMERA ACTIVATED                    MAC         MAA            111111111
A37    CIRCUIT BREAKER            75216   MACW            MAC          8
A37    CONNECTOR                  75215   MACX            MAC          2
A37    GUN CAMERA SWITCH          7521J   MACZ            MAC          5
A37   LOD SAFETY AMINTAINED                   MB          M              110010011
A37   GUN GAS PURGED                          MBA         MB             000050000
A37    GUN BLAST TUBE SEAL        12213   MBAX            MBA          A
A37    GUN BLAST TUBE ADAPTER     12212   MBAY            MBA          5
A37    GUN BLAST TUBE             12211   MBAZ            MBA          8
A37 NOSE GUN FIRED                         MBB         MAA            111111111
A37 NOSE GUN FIRED                         MBB         MBA           FAAAAAAAAA
A37   FIRING SWITCH               75211   MBBZ            MBB          5
A37  GUNS ENABLED                          MBC         MBB            AAAAAAAAA
A37  GUNS ENABLED                          MBC         MDF           FAAAAAAAAA
A37  NG STEER SAFETY SWITCH       13233   MBCW            MBC          A
A37  NG STEER CKT BKR             13234   MBCX            MBC          A
A37  MASTER ARM SWITCH            7521C   MBCY            MBC          8
A37  MASTER GUN SWITCH            9975F   MBCZ            MBC          8
A37  NOSE GUN INTEGRITY MAINTND            MBD         M              S000000000
A37  NOSE GUN INTEGRITY MAINTND            MBD         MBB            111111111
A37    BOLT SUB-ASSY              74AAC   MBDE            MBD          0
A37   TIMING PIN                  74AAU   MBDF            MBD          0
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123456789012345678901234567890123456789012345678901234567890123456789012345678 0
A37   BEARING                    74AAT   MBDG            MBD          0
A37   BEARING                    74AAS   MBDH            MBD          0
A37   HOUSING COVER              74AAR   MBDJ            MBD          0
A37   REAR SUPPORT               74AAQ   MBDK            MBD          0
A37   FRONT GEAR                 74AAP   MBDL            MBD          0
A37   REAR GEAR                  74AAN   MBDM            MBD          0
A37   GUN HOUSING                74AAM   MBDN            MBD          0
A37   SAFEING SECTOR             74AAL   MBDP            MBD          0
A37   ROTOR                      74AAK   MBDQ            MBD          0
A37   GUIDE BAR                  74AAJ   MBDR            MBD          0
A37   BARREL CLAMP               74AAH   MBDS            MBD          0
A37   REMOVEABLE TRACK           74AAG   MBDT            MBD          0
A37    HEAD BOLT                 74AAF   MBDU            MBD          0
A37    FIRING PIN/SPRING SET     74AAE   MBDV            MBD          0
A37    BOLT BARREL CLAMP         74AAD   MBDW            MBD          0
A37  AMMUNITION SUPPLIED                 MBDX            MBD                000000000
A37   MATCHED SUPPORT ASSY       74CAF   MBDXA           MBDX         0
A37   LOAD SHAFT BRACKET         74BAK   MBDXAT          MBDX         1
A37   SLOTTED DRIVE RING         74CAH   MBDXAU          MBDX         2
A37   SPUR DRIVE GEAR            74CAL   MBDXAV          MBDX         8
A37   TIMING RING ASSY           74CAK   MBDXAW          MBDX         8
A37   DRUM PARTITION ASSY        74CAJ   MBDXAX          MBDX         2
A37   INNER DRUM ASSY            74CAH   MBDXAY          MBDX         5
A37   MAIN ROUND GUIDE ASSY      74CAG   MBDXAZ          MBDX         5
A37   ROUND COUNTER ASSY         74CAE   MBDXB           MBDX         2
A37   ADJUSTING BALL             74CAD   MBDXC           MBDX         0
A37   LINK EJECTION CHUTE        74CAC   MBDXD           MBDX         5
A37   EJECTION CHUTE ASSY        74CAB   MBDXE           MBDX         8
A37   AFT GUN ARM                74CAA   MBDXF           MBDX         5
A37   EMPTY CARTRIDGE CONTAINR   74BAU   MBDXG           MBDX         0
A37   RELEASE PINS               74BAT   MBDXH           MBDX         0
A37   CLEARING SOLENOID ASSY     74BAS   MBDXJ           MBDX         2
A37   FEEDER ASSY                74BAR   MBDXK           MBDX         5
A37   DE-LINK LOADER ASSY        74BAQ   MBDXL           MBDX         2
A37   ELECTRIC DRIVE ASSY        74BAP   MBDXM           MBDX         5
A37   REFERENCE SIGNAL GENERATR  74BAN   MBDXN           MBDX         8
A37   RECOIL ADAPTER             74BAM   MBDXP           MBDX         0
A37   AFT GUN SUPPORT            74BAL   MBDXQ           MBDX         5
A37   LOADER SHAFT               74BAJ   MBDXR           MBDX         5
A37   LOADER SHAFT BUSHING       74BAH   MBDXS           MBDX         0
A37   ELECTRIC CONTROL           74BAG   MBDXT           MBDX         5
A37   STORAGE BAG                74BAF   MBDXU           MBDX         2
A37   LOADING CRANK ASSY         74BAE   MBDXV           MBDX         5
A37   LOADING SECTOR             74BAD   MBDXW           MBDX         2
A37   SAFING PIN                 74BAC   MBDXX           MBDX         0
A37   CABLE ASSY W2              74BAB   MBDXY           MBDX         1
A37   CABLE ASSY W1              74BAA   MBDXZ           MBDX         1
A37    BARREL   6 EA             74AA8   MBDY            MBD          0
A37    GUN GAU-8B/A              74AAA   MBDZ            MBD          A
A37  INADVERTANT REL PREVENTED           MC              M                  110000011
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A37  SUSPENSION INTEGRITY MAINT          MCA          MC           100000011
A37  RIGHT WING STORES SUSPEND           MCAA         MCA            AAAAAAAAA
A37     BOLTS                 1131E      MCAAV        MCAA         1
A37     FAIRING               1131C      MCAAW        MCAA         0
A37     PYLON HOOKS           9975E      MCAAX        MCAA         A
A37     SWAY BRACES   4EA     1131D      MCAAY        MCAA         2
A37     PYLONS 2 EACH         1131B      MCAAZ        MCAA         5
A37  LEFT WING STORES SUSPEND            MCAB         MCA            AAAAAAAAA
A37     BOLTS                 1131E      MCABV        MCAB         1
A37     FAIRING               1131C      MCABW        MCAB         0
A37     PYLON HOOKS           9975E      MCABX        MCAB         A
A37     SWAY BRACES  4 EA     1131D      MCABY        MCAB         2
A37     PYLONS  2 EACH        1131B      MCABZ        MCAB         5
A37   STORES MAN RELEASE LEVER 9975D     MCAZ         MCA          A
A37  FIRE CIRCUITS DE-ENERGIZED          MCB          MC             100000011
A37  STORE RELEASE DISABLE               MCBA         MCB            000000055
A37    MASTER ARM SWITCH      7521C      MCBAZ        MCBA         8
A37  FIRE CIRCUITS DISABLED              MCBB         MCB            500000055
A37    GROUND ARM SWITCH      9975C      MCBBZ        MCBB         5
A37   NG STEER SAFETY SWITCH  13233      MCBY         MCB          5
A37   NG STEER CKT BKR        13234      MCBZ         MCB          8
A37  AIRCRAFT STORES CONFIGURED          MCD          MCA           S111111111
A37  AIRCRAFT STORES CONFIGURED          MCD          MCAA          FAAAAAAAAA
A37  AIRCRAFT STORES CONFIGURED          MCD          MCAB          FAAAAAAAAA
A37  SUU-11 POD GUNS CONFIGURED          MCDA         MCD            111111111
A37   DRUM ASSEMBLY           74DAK      MCDAR        MCDA         0
A37   SUPPORT                 74DAJ      MCDAS        MCDA         0
A37   RECOIL ADAPTER          74DAG      MCDAT        MCDA         0
A37   BATTERY CONTROL         74DAF      MCDAU        MCDA         0
A37   LOADER                  74DAD      MCDAW        MCDA         0
A37   FAIRINGS                74DAC      MCDAX        MCDA         0
A37   BARREL                  74DAB      MCDAY        MCDA         0
A37   GUN                     74DAA      MCDAZ        MCDA         0
A37  RKT LAUNCHER CONFIGURED             MCDB         MCD            111111111
A37    JUMPER CABLE           74EAH      MCDBS        MCDB         0
A37    STRIKER POST           74EAG      MCDBT        MCDB         0
A37    PIN SHORTING           74EAF      MCDBU        MCDB         0
A37    GROUNDING BUTTON       74EAE      MCDBV        MCDB         0
A37    INTERVALOMETER         74EAD      MCDBW        MCDB         0
A37    LAU 59/A               74EAC      MCDBX        MCDB         5
A37    LAU 32/BA              74EAB      MCDBY        MCDB         5
A37    LAU 31A                74EAA      MCDBZ        MCDB         5
A37  BOMBS/DISPENSRS CONFIGURED          MCDC         MCD            111111111
A37   CHANNEL                 75113      MCDCX        MCDC         5
A37   BOMB RACK               75112      MCDCY        MCDC         5
A37   BK-37 BOMB CONTAINER    75111      MCDCZ        MCDC         0
A37   FEEDER                  74DAF      MCDV         MCDA         0
A37  STORES RELEASED                     MD           M              000000000
A37  NORMAL STORES RELEASE               MDA          MD             111111111
A37  NORMAL STORES RELEASE               MDA          MDX            FAAAAAAAAA
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A37  LIVE STORES FIRE/RELEASE          MDAA          MDA              888888888
A37   BOMB ARMING SWITCH       9975A  MDAAZ         MDAA          5
A37  INERT STORE SEL JETTISON          MDAB          MDA              111111111
A37    MODE SELECT SWITCH      7521F  MDABZ         MDAB          8
A37  RELEASE/FIRE COMMAND              MDAC          MAB           FAAAAAAAAA
A37  RELEASE/FIRE COMMAND              MDAC          MDA              AAAAAAAAA
A37   FIRING SWITCH           75211  MDACZ         MDAC          8
A37  EMERGENCY RELEASE                 MDB           FAB              CCCCCCAC
A37  EMERGENCY RELEASE                 MDB           MD               111111111
A37  STORES JETTISON INERT             MDBA          MB            FAAAAAAAAA
A37  STORES JETTISON INERT             MDBA          MDB              000000CA0
A37   BOMB RACK SOLENOIDS  4EA 9975B  MDBAZ         MDBA          2
A37  EMER JETTISON COMMAND             MDBB          MDB              AAAAAAAAA
A37    SWITCH SALVO           75312  MDBBY         MDBB          5
A37    SWITCH IGNITION (SQUIB) 75311 MDBBZ         MDBB          5
A37  STATIONS SELECTED                 MDC           MDA              AAAAAAAAA
A37    SELECTOR SW            75212  MDCY          MDC           5
A37    PYLON FUNCTION SWITCH 8 7521G  MDCZ          MDC           2
A37  RELEASE SEQUENCE SELECT           MDE           MDA              111111111
A37    SEQUENCE RELAY         75213  MDEW          MDE           5
A37    MODE SELECT SWITCH     7521F  MDEX          MDE           5
A37    PROGRAM SWITCH         7521E  MDEY          MDE           5
A37    SEQUENCE SWITCH        7521D  MDEZ          MDE           5
A37 SUU-11 FIRED                       MDF           MAA              111111111
A37   MASTER GUN SWITCH       9975F  MDFU          MDF           8
A37   NG STEER SAFETY SWITCH  13233  MDFV          MDF           8
A37   NG STEER CKT BKR        13234  MDFW          MDF           8
A37   WING GUN SWITCH         9975G  MDFX          MDF           8
A37   MASTER ARM SWITCH       7521C  MDFY          MDF           8
A37  ARM OPERATIONS CONTROLLED         MDG           MCBA          FAAAAAAAAA
A37  ARM OPERATIONS CONTROLLED         MDG           MDAB          FAAAAAAAAA
A37  ARM OPERATIONS CONTROLLED         MDG           MDH              AAAAAAAAA
A37  ARM OPERATIONS CONTROLLED         MDG           MDX           FAAAAAAAAA
A37    NG STEER CKT BKR        13234  MDGA          MDG           8
A37    NG SAFETY SWITCH        13233  MDGW          MDG           5
A37 GUNS SIGHTED/CONTROLLED            MDGX          MAC              AAAAAAAAA
A37 GUNS SIGHTED/CONTROLLED            MDGX          MBB           FAAAAAAAAA
A37   ROUNDS COUNTER          74DAH  MDGXU         MDGX          0
A37   ROUND COUNTER           75313  MDGXW         MDGX          0
A37   FIRING SWITCH           75211  MDGXX         MDGX          8
A37   SIGHT GUN               74GAA  MDGXY         MDGX          0
A37   NOSE GUN RATE SWITCH    7521H  MDGXZ         MDGX          0
A37    RESISTORS   5 EACH     75214  MDGY          MDG           2
A37    ARMNT CNTRL PANEL 7521B 7521A MDGZ          MDG           8
A37  ARMAMENT CONTROL PANEL    7521B  MDGZA         MDG           8
A37  LIVE STORES ENABLED               MDH           MDAA             AAAAAAAAA
A37  LIVE STORES ENABLED               MDH           MBC           FAAAAAAAAA
A37   MASTER ARM SWITCH       7521C  MDHZ          MDH           A
A37  ARM STORES STATUS DISPLAY         MDX           DB               111111111
 37  MAIN INVERT RELAY OPERATVE        UAAM          UAAE     UAAS  111111111
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 37    MAIN INVERTER RELAY      42221   UAAMZ          UAAM          8
 37  AUX INVERT RELAY OPERATIVE         UAAR           UADB     UAAS  111111111
 37    INVERTER RELAY           42221   UAARZ          UAAR          5
 37  SPARE INVERT RELAY OPERATV         UAAS           UABE   K UAAM  AAAAAAAAA
 37  SPARE INVERT RELAY OPERATV         UAAS           UADB   K UAAR  AAAAAAAAA
 37   INVERTER  RELAY             42221   UAASZ          UAAS          5
 37 INVERTERS CONTROLLED                 UAAX           UAAM          FAAAAAAAAA
 37  INVERTERS CONT                      UAAX           UAAR          FAAAAAAAAA
 37 INVERTERS CONTROLLED                 UAAX           UAAS          FAAAAAAAAA
 37 INVERTERS CONTROLLED                 UAAX           UABC          SAAAAAAAAA
 37  INVERTER  SWITCH             42233   UAAXZ          UAAX          8
T37   AC POWER DISTRIBUTED               UABC           BBDX          FAAAAAAAAA
T37   AC POWER DISTRIBUTED               UABC           BDX            AAAAAAAAA
A37   AC POWER DISTRIBUTED               UABC           BDXX           111111111
A37   AC POWER DISTRIBUTED               UABC           BFAX           F111111111
T37   AC POWER DISTRIBUTED               UABC           BFE            FAAAAAAAAA
A37   AC POWER DISTRIBUTED               UABC           BFG            111111111
T37   AC POWER DISTRIBUTED               UABC           BFL            S111111111
T37   AC POWER DISTRIBUTED               UABC           BFM            F111111111
T37   AC POWER DISTRIBUTED               UABC           BFN            F111111111
A37   AC POWER DISTRIBUTED               UABC           BFSA           AAAAAAAAA
A37   AC POWER DISTRIBUTED               UABC           BFWP           AAAAAAAAA
T37   AC POWER DISTRIBUTED               UABC           BFXY           F111111111
A37   AC POWER DISTRIBUTED               UABC           BMAE           AAAAAAAAA
A37   AC POWER DISTRIBUTED               UABC           CMAE           AAAAAAAAA
A37   AC POWER DISTRIBUTED               UABC           CNBA           AAAAAAAAA
A37   AC POWER DISTRIBUTED               UABC           CNBG           FAAAAAAAAA
A37   AC POWER DISTRIBUTED               UABC           CNHF           FAAAAAAAAA
T37   ELECTRIC POWER                     UABC           CNTB           AAAAAAAAA
T37   ELECTRIC POWER                     UABC           CNTG           AAAAAAAAA
A37   AC POWER DISTRIBUTED               UABC           CRB            AAAAAAAAA
T37   AC  POWER DISTRIBUTED              UABC           CT             AAAAAAAAA
 37   AC POWER DISTRIBUTED               UABC           DAB            SAAAAAAAAA
 37   AC POWER DISTRIBUTED               UABC           DABA           FAAAAAAAAA
 37   AC POWER DISTRIBUTED               UABC           DABB           FAAAAAAAAA
 37  AC POWER DISTRIBUTED                UABC           EAAD           111111111
 37   AC POWER DISTRIBUTED               UABC           FAL            AAAAAAAAA
A37   AC POWER DISTRIBUTED               UABC           FCC            AAAAAAAAA
 37  MAIN INVERTER  OPERATIVE           UABE           UABC     UABD  111111111
 37    CIRCUIT BREAKER            42313   UABEX          UABE          2
T37   MAIN INVERTER              42123   UABEY          UABE          8
A37   MAIN INVERTER              42121   UABEZ          UABE          8
 37  AUX INVERTER OPERATIVE              UADB           UABC   K UABE  AAAAAAAAA
 37    CIRCUIT BREAKER            42313   UADBX          UADB          2
T37    STANDBY INVERTER           42124   UADBY          UADB          8
A37    STANDBY INVERTER           42122   UADBZ          UADB          8
T37  DC POWER DISTRIBUTED                UDA            BBD            AAAAAAAAA
T37  DC POWER DISTRIBUTED                UDA            BBC           FAAAAAAAAA
T37  DC POWER DISTRIBUTED                UDA            BBDD          FAAAAAAAAA
A37  DC POWER DISTRIBUTED                UDA            BDD           FAAAAAAAAA
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123456789012345678901234567890123456789012345678901234567890123456789012345678901
A37  DC POWER DISTRIBUTED                UDA          BDE          F222222227
T37  DC POWER DISTRIBUTED                UDA          BDE          FAAAAAAAAA
A37  DC POWER DISTRIBUTED                UDA          BEF          FAAAAAAAAA
A37  DC POWER DISTRIBUTED                UDA          BF           F000000000
A37  DC POWER DISTRIBUTED                UDA          BFCB         FAAAAAAAAA
T37  DC POWER DISTRIBUTED                UDA          BFH          F111111111
A37  DC POWER DISTRIBUTED                UDA          BFV           AAAAAAAAA
T37  DC POWER DISTRIBUTED                UDA          BFX           AAAAAAAAA
A37  DC POWER DISTRIBUTED                UDA          BMA           AAAAAAAAA
A37  INLET SCREEN ELECTRIC PWR           UDA          BZ            AAAAAAAAA
A37   DC POWER DIST                      UDA          CCB          SAAAAAAAAA
A37   DC POWER DISTRIBUTED               UDA          CCBA         FAAAAAAAAA
A37   DC POWER DISTRIBUTED               UDA          CCBB         FAAAAAAAAA
A37   DC POWER DISTRIBUTED               UDA          CCC           AAAAAAAAA
A37   DC POWER DISTRIBUTED               UDA          CNB          SAAAAAAAAA
A37   DC POWER DISTRIBUTED               UDA          CNBC         FAAAAAAAAA
A37   DC POWER DISTRIBUTED               UDA          CNBG         FAAAAAAAAA
A37   DC POWER DISTRIBUTED               UDA          CNBX         FAAAAAAAAA
T37   ELECTRIC POWER                     UDA          CNTB          AAAAAAAAA
T37   ELECTRIC POWER                     UDA          CNTG          AAAAAAAAA
A37   DC POWER DISTRIBUTED               UDA          CR           SAAAAAAAAA
T37   DC POWER DISTRIBUTED               UDA          CR            AAAAAAAAA
A37   DC POWER DISTRIBUTED               UDA          CRA          FAAAAAAAAA
A37   DC POWER DISTRIBUTED               UDA          CRB          FAAAAAAAAA
T37   DC POWER DISTRIBUTED               UDA          CT            AAAAAAAAA
 37   DC POWER DISTRIBUTED               UDA          DABC          AAAAAAAAA
 37   DC POWER DISTRIBUTED               UDA          DAGA    A     AAAAAAAAA
 37   FIRE WARNING POWER                 UDA          DCA           AAAAAAAAA
T37   COCKPIT WARNING POWER              UDA          DCD           AAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EAAD          AAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EAD          SAAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EADA         FAAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EADG         FAAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EADJ         FAAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EADK         FAAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EADM         FAAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EBBA          AAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EBBB          AAAAAAAAA
T37  DC POWER DISTRIBUTED                UDA          EBBC          AAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EBBD          AAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EBBE          AAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EBBF          AAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          EBBT         FAAAAAAAAA
 37  DC POWER DISTRIBUTED                UDA          ECA           AAAAAAAAA
 37     DC POWER DISTRIBUTED              UDA          FAKB         FAAAAAAAAA
 37     DC POWER DISTRIBUTED              UDA          FAS           AAAAAAAAA
 37     DC POWER DISTRIBUTED              UDA          FB           SAAAAAAAAA
 37     DC POWER DISTRIBUTED              UDA          FBAB         FAAAAAAAAA
 37     DC POWER DISTRIBUTED              UDA          FBC          FAAAAAAAAA
A37     DC POWER DISTRIBUTED              UDA          FCCC          AAAAAAAAA
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 37      DC POWER DISTRIBUTED              UDA              FCTB            AAAAAAAAA
 37      DC POWER DISTRIBUTED              UDA              FCT             AAAAAAAAA
 37      DC POWER DISTRIBUTED              UDA              FDTC            FAAAAAAAAA
 37      DC POWER DISTRIBUTED              UDA              FET             AAAAAAAAA
 37    DC POWER DISTRIBUTED                UDA              GBAC            FAAAAAAAAA
 37    DC POWER DISTRIBUTED                UDA              GBA             AAAAAAAAA
 37    DC POWER DISTRIBUTED                UDA              LB              000000000
 37    DC POWER DISTRIBUTED                UDA              LS              AAAAAAAAA
A37    DC POWER DISTRIBUTED                UDA              MBA             AAAAAAAAA
A37    DC POWER DISTRIBUTED                UDA              MDAC            AAAAAAAAA
A37    DC POWER DISTRIBUTED                UDA              MDL             FAAAAAAAAA
A37    DC POWER DISTRIBUTED                UDA              MDF             AAAAAAAAA
T37STARTER                        42111    UDAFA            BDF           A
T37STARTER                        4211A    UDAFB            BDL           A
T37STARTER                        4211B    UDAFC            BDE           A
T37STARTER                        4211C    UDAFD            BDE           A
A37  BATTERY POWER SUPPLIED               UDB              MDB             AAAAAAAAA
 37  BATTERY POWER SUPPLIED               UDB              UDF             AAAAAAAAA
 37  EMERGENCY MODE SELECT                UDBA             UDE             AAAAAAAAA
 37    BATTERY SWITCH              42232    UDBAZ            UDBA          B
 37     CONNECTORS                 42118    UDBV             UDB           5
 37     VENT TUBE                  42117    UDBW             UDB           2
 37     DRAIN VENT                 42116    UDBX             UDB           2
A37 ENGINE START BUS OPERATIVE             UDBXX            BED             AAAAAAAAA
 37  ENGINE START BUS OPERATIVE             UDBXX            UDBZZ           FAAAAAAAAA
T37 ENGINE START BUS OPERATIVE             UDBXX            UDB             AAAAAAAAA
 37    10 AMP FUSE  START BUS      42315    UDBXXW           UDBXX         5
A37   IGNITION SWITCH              42237    UDBXXX           UDBXX         8
 37   STARTER RELAY                42213    UDBXXY           UDBXX         5
T37   IGNITION  SWITCH             42236    UDBXXZ           UDBXX         8
T37    SUMP JAR                    42115    UDBY             UDB           0
 37    BATTERIES  2 EACH           42113    UDBZ             UDB           8
 37  START VOLTAGE MONITORED              UDBZZ            UDX             1111111111
 37    VOLTMETER                   5942A    UDBZZZ           UDBZZ         1
 37  DC POWER DIST                        UDC              UAAM            FAAAAAAAAA
 37  DC POWER DIST                        UDC              UAAR            FAAAAAAAAA
 37  DC POWER DIST                        UDC              UAAS            FAAAAAAAAA
 37  DC POWER DIST                        UDC              UABC            SAAAAAAAAA
 37  DC POWER DIST                        UDC              UDA             AAAAAAAAA
 37  RADIO INTERUPT SW           4231A    UDCS             UDC           0
 37   JUNCTION BOX               42312    UDCT             UDC           2
A37   BUS TIE RELAY              4231C    UDCU             UDC           8
A37   PARALLELING RELAY          4231E    UDCV             UDC           5
 37   FUSE PANEL                 42234    UDCW             UDC           2
 37   EXTERNAL POWER RELAY       42214    UDCX             UDC           0
 37   TERMINAL STRIP             42311    UDCY             UDC           0
 37   EXT POWER RECEPTACLE       42112    UDCZ             UDC           0
 37  EMERGENCY DC PWR SUPPLIED             UDE              UDC     K UDG   AAAAAAAAA
 37    BATTERY RELAY              42216    UDEZ             UDE           8
 37  DC PWR GEN EA OF 2 ENGINES           UDG              UDBXX     UDBA  FAAAAAAAAA
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 37  DC PWR GEN EA OF 2 ENGINES          UDG                UDC       UDE    111111111
 37  DC PWR GEN EA OF 2 ENGINES          UDG                UDGX             FAAAAAAAAA
T37   GENERATOR / STARTER  2EA 42118     UDGQ               UDG                5
 37     STARTER SWITCH          42235     UDGR               UDG                2
T37     REVERSE CURRENT RELAY  42212     UDGS               UDG                5
A37   STARTER GENERATOR  RELAY 42212     UDGT               UDG                5
 37   STARTER RELAY             42213     UDGU               UDG                5
T37   GENERATOR / STARTER  2EA 42111     UDGV               UDG                5
T37   GENERATOR / STARTER  2EA 4211C     UDGW               UDG                5
 37  DC OUTPUT INDICATED                 UDGX               UDX                  111111111
A37     TRANSFORMER             51512     UDGXW              UDGX               5
 37     BALUM LIGHT             4221A     UDGXX              UDGX               2
 37     LOADMETER RELAY         4231D     UDGXY              UDGX               5
A37     SHUNT LOADMETER         4231B     UDGXZ              UDGX               2
T37   GENERATOR / STARTER  2EA 4211A     UDGY               UDG                5
A37   GENERATOR / STARTER  2EA 42111     UDGZ               UDG                5
 37  GEN CONTROL & REG  EA OF 2          UDM                UDG                  AAAAAAAAA
A37     OVER VOLTAGE RELAY      42218     UDMW               UDM                2
 37     GENERATOR SWITCH        42231     UDMX               UDM                5
 37     VOLTAGE REGULATOR       42211     UDMY               UDM                2
 37     GENERATOR CONTROL RELAY 42215     UDMZ               UDM                8
 37  PILOT ACTION                        UDX                UAAX             FAAAAAAAAA
 37  PILOT ACTION                        UDX                UDBA             FAAAAAAAAA
 37  PILOT ACTION                        UDX                UDM                AAAAAAAAA
A37  INLET SCREEN HYDRAULIC PWR          UHA                BZ                 AAAAAAAAA
 37   HYDRAULIC POWER INPUT              UHA                FAF                AAAAAAAAA
 37  HYD PRESS DIST                      UHA                FBDC               AAAAAAAAA
 37 HYDRAULIC  POWER                     UHA                GBAC             FAAAAAAAAA
 37 HYDRAULIC  POWER                     UHA                GBB              SAAAAAAAAA
 37   HYDRAULIC POWER INPUT              UHA                GCC                AAAAAAAAA
 37   HYDRAULIC POWER INPUT              UHA                LH                 AAAAAAAAA
 37 HYDRAULIC FILTRATION                 UHAA               UHA                000000000
T37  RESTRICTOR FILTERS          45165     UHAAR              UHAA               1
T37  VENT FILTER  ELEMENT        45164     UHAAS              UHAA               2
T37  VENT FILTER                 45163     UHAAT              UHAA               5
A37    RES VENT FILTER ELEMENT   45166     UHAAU              UHAA               2
A37    RES VENT FILTER           45165     UHAAV              UHAA               5
A37    LO PRESS FILTER ELEMENT   45164     UHAAW              UHAA               2
A37    LO PRESS FILTER           45163     UHAAX              UHAA               5
 37    HI PRESS FILTER ELEMENT   45162     UHAAY              UHAA               2
 37    HI PRESS FILTER           45161     UHAAZ              UHAA               5
 37  HYD PRESS.EA OF 2  PUMPS            UHAB               UHA                  111111111
 37  HYDRAULI  PRESSURE                  UHAB               UHAX             FAAAAAAAAA
A37     QUICK DISCONNECT         45124     UHABW              UHAB               1
A37     PUMP SUPPLY HOSE         45123     UHABX              UHAB               8
 37     PUMP PRESS HOSE          45122     UHABY              UHAB               8
 37     ENGINE DRIVEN PUMP       45121     UHABZ              UHAB               8
 37  HYDRAULIC FLUID SUPPLIED            UHAC               UHAB                 AAAAAAAAA
 37   HYDRAULIC INTAKE ASSY      45117     UHACT              UHAC               2
 37   HYDRAULIC FILLER SCREEN    45116     UHACU              UHAC               0
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BEST AVAILABLE COPY

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PGG095.J1R1   DATE = 09/17/75                          FLIGHT SAFETY PREDICTION TECHNIQUE

000000000111111111122222222233333333334444444444555555555566666666677777777778
123456789012345678901234567890123456789012345678901234567890123456789012345678900
 37   HYDRAULIC FLUID DRAIN     45115   UHACV          UHAC          1
 37  HYDRAULIC FLUID GUAGE      45114   UHACW          UHAC          0
 37  HYDRAULIC FLUID VENT       45113   UHACX          UHAC          1
 37  HYDRAULIC FLUID FILLER     45112   UHACY          UHAC          1
 37  HYDRAULIC FLUID TANK       45111   UHACZ          UHAC          8
 37    PRESSURE  REGULATOR      45151   UHAP           UHA           2
A37    RETURN HOSE              45174   UHAQ           UHA           5
A37    PRESSURE HOSE            45173   UHAR           UHA           5
A37    RETURN  LINE             45172   UHAS           UHA           5
A37    PRESSURE LINE            45171   UHAT           UHA           5
 37    AUX POWER CNX            45146   UHAU           UHA           1
 37    CHECK VALVE              45144   UHAV           UHA           1
 37    RELIEF VALVE             45142   UHAW           UHA           1
 37  HYD PRESSURE INDICATED             UHAX           UHA     1 UHAB  AAAAAAAAA
 37  HYD PRESSURE INDICATER     51611   UHAXY          UHAX          7
 37  HYD PRESSURE TRANSMITTER   51612   UHAXZ          UHAX          8
 37    PRESSURE GAUGE           45132   UHAY           UHA           0
 37    UTILITY ACCUMULATOR      45131   UHAZ           UHA           5

CARD COUNT IS 00002717. CARDS WITH ERRORS 0000000
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