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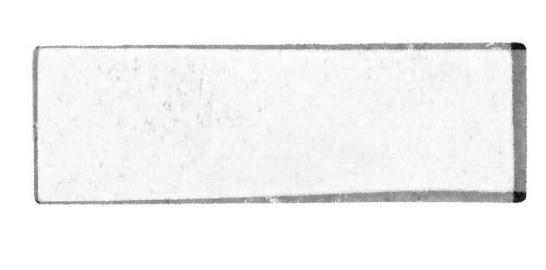
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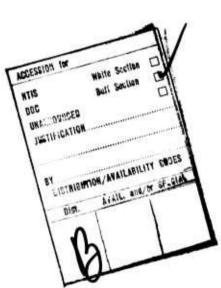ASD ltr, 11 Jul 1977

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Technical Report

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B-1 SYSTEMS APPROACH TO TRAINING
TECHNICAL MEMORANDUM SAT-2

**BEHAVIORAL OBJECTIVES FOR THE PILOT,
COPILOT, AND OFFENSIVE SYSTEMS OPERATOR**

VOLUME 1
JULY 1975

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B-1

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The Systems Approach to Training (SAT) for the B-1 aircrew involves the transformation of task analysis data into complete and precise statements of all behaviors necessary to carry out the B-1 mission. The resulting Behavioral Objectives delineate the who, what, how, when and how well of each definable behavior. A compilation of behavioral objectives for the pilot, co-pilot and offensive system operator is contained in this report, preceded by a brief description of the procedures for their development.

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PREFACE

This document is one of several technical memoranda which have been delivered to the B-1 Systems Project Office (B-1 SPO) in performance of the Systems Approach to Training (SAT) Task under Contract Number F33657-75-C-0021. Each of the separate SAT documents is listed below. Additional copies may be requested from: B-1 Systems Project Office, Data Configuration Division, Wright-Patterson Air Force Base, Ohio.

Technical Memoranda	Number	Author(s)	Date
B-1 Systems Approach to Training, Final Report.	SAT- 1 Vol. 1	R. Sugarman S. Johnson W. Ring	July 1975
B-1 Systems Approach to Training, Final Report. Appendix A: Cost Details.	SAT- 1 Vol. 2	H. Reif W. Ring	July 1975
B-1 Systems Approach to Training, Final Report. Appendix B: Bibliography and Data Collection Trips.	SAT- 1 Vol. 3	A. Blair	July 1975
B-1 Systems Approach to Training, Final Report. Appendix C: Personnel Qualifications Catalog.	SAT- 1 Vol. 4	E. Weisbeck	July 1975
Behavioral Objectives for the Pilot, Copilot, and Offensive Systems Operator.	SAT- 2 Vol. 1 & 2	J. Mitchell W. Hinton S. Johnson	July 1975
Simulation Technology Assessment Report (STAR).	SAT- 3	S. Johnson J. Knight R. Sugarman	July 1975
Sorting Model for B-1 Aircrew Training Data. User's and Programmer's Guide.	SAT- 4	J. Menig T. Ranney	July 1975
Training Resources Analytic Model (TRAM). User's Manual.	SAT- 5	W. Ring G. Gaidasz J. Menig W. Stortz	July 1975
Training Resources Analytic Model (TRAM). Programmer's Manual.	SAT- 6	W. Ring G. Gaidasz J. Menig	July 1975
Task Analysis Listings.	SAT- 7	J. Mitchell T. Ranney	July 1975
Control/Display Catalog and Action Verb Thesaurus.	SAT- 8	T. Ranney A. Blair	July 1975

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SAT-2

B-1 Aircrew Behavioral Objectives

John F. Mitchell
William M. Hinton, Jr.
Steven L. Johnson

SUMMARY

The Systems Approach to Training (SAT) for the B-1 aircrew involves
the transformation of task analysis data into complete and precise statements
of all behaviors necessary to carry out the B-1 mission. The resulting Be-
havioral Objectives delineate the "who, what, how, when and how well" of
each definable behavior. A compilation of behavioral objectives for the
pilot, copilot and offensive system operator is contained in this report, pre-
ceded by a brief description of the procedures for their development.

Volume 1 contains introductory information and Mission Segments
1-15. Volume 2 contains Mission Segment 16 and Emergency Procedures.

TABLE OF CONTENTS

BACKGROUND

Using the task analysis data supplied by the B-1 SPO and whatever emergency procedures were available from the first flight manual and the "Mockup Demonstration of Contingency Flight Crew Procedures" (NA-74-531), SAT analyst have created a computerized task analysis data base. For each task element, the data base contains the following information:

- Task element title.
- Task element number.
- Operator.
- Behavior.
- Task duration.
- Crew interaction.
- Previous task element.
- Next task element.
- Comments (categorized).

The task element title and number are simply accounting information which allow one to identify the element and equate identical task elements that occur throughout the mission. The operator is the crewmember performing the behavior. The behavior describes the actual activity occurring in the task element. This behavior consists of stimuli that cue the operator to initiate an action, an action phase (e.g., push the throttles), and stimuli that cue the operator that the activity is completed. A more detailed format utilized for the behavior attribute is discussed in the next section.

The task duration corresponds to the time required to accomplish the task elements. These times can be units (seconds), continuous, or indefinite (depending upon the configuration). Crew interaction involves communication or coordination between the operator and one or more other individuals (other crew members, refueling tanker crew, etc.). Previous task element information is used to illustrate the functional dependencies among task elements. For example, the task element that results in electrical power being available must occur prior to the VHF radio being used. Note that the previous task element does not necessarily immediately precede the present task element. This information corresponds to "functional" sequences, rather than "temporal" sequences. The next task element is the element that follows (temporally) the present task element. This information is utilized in developing the time line. The comments are supplemental in nature and contain additional information which is relevant to the particular task element.

Format of the Task Element Behavior.

As previously discussed, the format of the behavioral attribute of the task analysis data base corresponds to the stimulus-response characteristics of the activity. The major components that characterize the behavioral aspect of a task element are as follows:

Initiation Cue -- Action Verb -- Control -- Completion Cue.

The Initiation Cue is the stimulus complex that informs the operator to begin the activity. The initiation cue consists of a Boolean combination of relational statements. The relational statements involve a stimulus "source" (e.g., control or display), a connective (e.g., equal to, greater than), and a value (e.g., "on", 3000, "red"). An example of an initiation cue is: Altimeter - greater than - 10,000 feet and Mach indicator - equals - 1.7 mach. The necessity for a Boolean combination results from the fact that some initiation cues consist of various situations, any of which could be met ("or" statement), or all of which must be met ("and" statement).

The Action Verb is selected from a standardized vocabulary of terms (e.g., pull, rotate, and align) that was developed for the B-1 SAT as an adaptation of the work of R.G. Oller. The action verb has a correspondence to the control which is operated upon.

The next component of the task description is the Control. This is the grammatical direct object of the Action Verb. These controls are a subset of the entries in the Control/Display Catalog. It should be noted that it is sometimes the case that a "display" can be operated upon (e.g., monitor the altimeter) and, therefore, becomes the "control."

The Completion Cue is of the same form as the Initiation Cue. In fact, it is often the case that the Completion Cue of one task element is the Initiation Cue of the next task element. As with the Initiation Cue, the Completion Cues are Boolean combinations of relational statements. However, in the former case, there is only one conglomerate cue; whereas, in the latter case there are often two or more conglomerate cues, each of which leads to a different next task element. For example, when a decision is made by a crew member, two alternative actions (next task elements) might be possible, depending upon the information upon which the decision was based. A more common situation is the case where one completion cue represents the normal operation and other completion cues represent corrective actions.

Transformation of Task Analysis Data into Behavioral Objectives.

The first step in developing the behavioral objectives was to partition the totality of task elements into behavioral components. These components were characterized as being: (1) maneuvers, (2) checklists, or (3) procedures (memorized checklists). The "first cut" behavioral objectives were developed for each of these behavioral components. To determine behav-

ioral commonalities among the task elements, it was necessary first to determine the skills and knowledges necessary to perform the actions. Skills, as defined for this purpose, refer only to perceptual-motor behaviors which require coordination and timing. Therefore, a covert response such as "calculation" is considered as being a knowledge because there is no motor aspect to the operation. Because skills are composed of overt motor responses (actions), the action verbs (in combination with the performance limits) define the skills necessary to perform the task element. A distinction to be drawn is between "simple actions" and a skill. A simple action does not require coordination (e.g., flipping a toggle switch), whereas a skill does (e.g., tracking). Although all of the action verbs represent a response, it is obvious that most of the responses are "simple actions" and, therefore, are in the trainee's repertoire prior to his entering the training program. Tracking responses, such as those that occur during instrument landings and aerial refueling, represent one of the most complex categories of skills.

In developing the behavioral objectives, additional effort is required in the classification of the task elements into knowledge categories. The categories include:

1. Identify--establish the identity and precise characteristics.

2. Recall--retrieve facts stored in memory.

3. Interpret--translate or explain the meaning.

4. Calculate (mental)--determine by algebraic process.

5. Predict--determine in advance that an event will occur.

When the skills and knowledges are analyzed for each task element, it is possible to compare task elements to establish commonalities. These commonalities are the basis for synthesizing across elements to form aggregate behavioral objectives. That is, if the pilot is required to determine his altitude during both cruise and landing, it might represent one, rather than two, behavioral objectives. The resulting behavioral objectives contain data in the form of stimulus-response terminology that illustrate the skills and knowledges necessary and the proficiency needed to accomplish the mission.

Behavioral Objective Format.

The format of the behavioral objectives involve the following:

● Behavioral objective title.
● Initial conditions.
● Concurrent tasks.
● Interaction tasks.

- Performance limits.
- Enabling objectives.
- Ancillary objectives.
- Operators.
- Task elements included.
- Objective criticality.
- Objective difficulty

The behavioral objective title is simply a descriptive identification. The <u>initial conditions</u> illustrate the state of the aircraft prior to conducting the objective behaviors. <u>Concurrent tasks</u> are those tasks which the operator must perform at the same time he is executing a particular behavior. For example, during a maneuver to initiate a climb, it might be required that the operator maintain a constant heading. This information is necessary in order to determine the difficulty and criticality of the objective. <u>Interaction tasks</u> identify those behaviors which require interactions among crew members. This information contributes to the determination of training device specifications.

The behaviors involved in the objective are the same behaviors that are involved in the task elements that are encompassed by the objective. In fact, the format of the behaviors is such that they can be printed directly from the computer in report form. The basic components of the behavior are the initiation cue, action verb, control or display acted upon, and the completion cue. The general behavioral format and an example of a behavior in the format, which is used in the behavioral objectives which follow, are shown below.

<u>FORMAT</u>

Task Element Number

<u>Task Element Name</u>

Action Verb   Initiation Cue
                               Control or Display
                               Completion Cue

<u>EXAMPLE</u>

7.3.2.001

<u>CHECK 'LATCHED' ADVISORY LIGHT IS ON</u>

BOOM OPERATOR UHF   = TANKER CONTACT

CHECK   LATCHED ADVISORY LIGHT

FLASHBLINDNESS WINDOW-LEFT = CONTACT MADE*

AND LATCHED ADVISORY LIGHT   = 'LATCHED'

4

Difficulty refers to the degree to which training time or resources should be devoted to attain a minimum level of proficiency. Both criticality and difficulty factors are graded on a three point scale. The lowest rating (1) is assigned to the least critical or difficult behavioral objectives, and the highest rating (3) to the most critical or difficult ones. An intermediate rating (2) is dictated when any behavioral objective falls in between the two extremes.

A minimum level of criticality is assigned when no important effect is evident or the mission is degraded slightly. The second level of criticality occurs when the mission is shorted or equipment is damaged. The highest level of criticality results when personnel injury or catastrophy (crash/death) is the result of noncompliance with one or more of the enabling objectives. Difficulty levels are specified in more general terms than criticality. The minimum level means it is not difficult, the middle level means it is of moderate difficulty and the highest level refers to a very difficult task, with each such judgment being made with respect to the totality of tasks. Criticality and difficulty levels are based, in part, on estimates made by Air Force SAC personnel as supplemental data.

A list of behavioral objectives by number, operator, and name is given on the next few pages. This listing is followed by the behavioral objectives. While the Mission Segments are numbered consecutively, the Behavioral Objectives for Emergency Procedures have been combined into a single grouping, arbitrarily designated as Mission Segment 20.

NUMBER	DESCRIPTION	OPERATOR *
1.1	Post Security Guards	P
1.2	Perform Exterior Inspection	P
1.3	Perform Exterior Inspection	O
1.4	Power (Power Off) Interior Inspection	P
1.5	Perform (Power Off) Interior Inspection	O
1.6	Perform (Power On) Interior Inspection	P
1.7	Perform (Power On) Interior Inspection	O
1.8	Perform Cocking	P
1.9	Perform Cocking	O
1.10	Perform Daily Alert PreFlight	P
1.11	Perform Daily Alert PreFlight	O
1.12	Rotate Crews	P
1.13	Rotate Crews	O
2.1	Prepare To Enter Air Vehicle	P
2.2	Prepare To Enter Air Vehicle	O
2.3	Enter Crew Stations	P
2.4	Enter Crew Stations	O
2.5	Check APU Start Status	P
2.6	Set Parking Brake	P
2.7	Perform Engine Start	P
2.8	Monitor UHF Communications	P
2.9	Monitor UHF Communications	O
2.10	Restart APU's	P
2.11	Perform Engines Shutdown	P
3.1	Pre-Taxi Operations	P
3.2	Pre-Taxi Operations	O
3.3	"Prepare To Taxi"	P
3.4	Initiate Taxi	P
3.5	"Monitoring UHF And Instruments While Taxiing"	P
3.6	"Secure Restraints And Remove Safety Pins"	P
3.7	"Steer A/V Onto Runway"	P
3.8	"Execute Ground FLR Update"	O
4.1	Perform Pre-T.O. Checks	P
4.2	Perform Pre-T.O. Checks	O
4.3	Initiate Take-Off	P
4.4	Perform Take-Off	P
5.1	Initiate Climb	P
5.2	Perform Climb	P
5.3	Climb Out	P
5.4	Climb Out	O

* P refers to pilot and/or copilot. O refers to offensive systems operator.

NUMBER	DESCRIPTION	OPERATOR
6.1	Perform Level-Off	P
6.2	Crew Station Check	O
6.3	Crew Station Check	P
6.4	Activate Functional Systems	P
6.5	Activate Functional Systems	O
6.6	Apply Power To Stores	O
6.7	Load EWO Mission Cassette	O
6.8	Execute FLR Update	O
7.1	Pre-Rendezvous (Procedures)	P
7.2	Pre-Rendezvous Procedures	O
7.3	Tanker Identification Procedure	O
7.4	ARIP Descent Procedures	O
7.5	Execute ARIP Descent	P
7.6	Execute PRE-ARCP Level-Off	P
7.7	Pre-ARCP Level-Off Communication and Tanker Turn Initiation	O
7.8	Establish AR Formation	P
7.9	Post-ARCP Procedures	O
7.10	Closure On Tanker Procedures	P
7.11	Closure On Tanker	P
7.12	Closure On Tanker Procedures	O
7.13	Establish Pre-Contact Position	P
7.14	Pre-Contact Procedures	O
7.15	Pre-Contact Procedures	P
7.16	Establish Contact Position	P
7.17	Aerial Refueling Contact Procedures	P
7.18	Execute Aerial Refueling	P
7.19	Disconnect Procedures	P
7.20	Post-Disconnect Maneuver	P
7.21	Depart Tanker	P
7.22	Initiate Climb	P
7.23	Engage Altitude Hold and Auto Throttle	P
7.24	End Aerial Refueling	P
7.25	End Aerial Refueling	O
8.1	Decode Execution Order	P
8.2	Monitor/Adjust System Avionics	O
8.3	Receive and Validate Mission Execution Order	P
8.4	Turn On Strike Course	P
8.5	HHCL Entry Procedures	P
8.6	HHCL Entry Procedures	O
8.7	Perform Nuclear PA/Consent Procedure	O
8.8	Perform Nuclear PA/Consent Procedure	P
8.9	Initiate Weapons Monitoring	O

NUMBER	DESCRIPTION	OPERATOR
9.1	Establish Supersonic Flight	P
9.2	Perform Supersonic Climb	P
9.3	Level-Off Supersonically	P
9.4	Engage Auto Pilot And Altitude Hold	P
9.5	Execute FLR Update	O
9.6	Execute Aititude Calibration	O
9.7	Perform IP Acquisition	O
9.8	Perform Gravity Store Pre-Release	P
9.9	Perform Gravity Store Pre-Release	O
9.10	Perform Bomb Run Tracking	O
9.11	Set FLR For Gravity Store Release	O
9.12	Perform Gravity Store Release	P
9.13	Perform Gravity Store Release	O
9.14	Bomb Run Altitude Change	P
10.1	Perform TF Operational Procedures	P
10.2	Execute TF Operation Checks	P
10.3	Complete Pre-Descent To Low Level	O
10.4	Complete Pre-Descent To Low Level	P
10.5	Perform Pre-Descent To Low Level Checks	P
10.6	Initiate Descent	P
10.7	Perform Descent	P
10.8	Turn To Initial Check Point	P
10.9	Turn To Initial Check Point	O
10.10	Perform Pre-Level-Off At TF Altitude	P
10.11	Level-Off at TF Altitude	O
10.12	Level-Off At TF Altitude	P
10.13	Execute Altitude Calibration	o
11.1	Select TF Modes For ATF	P
11.2	Complete AFCS And TFR Checks	P
11.3	Low Level Cruise (ATF)	P
11.4	Monitor TF Modes For ATF	O
11.5	Monitor Displays For ATF	P
11.6	Change To MTF	P
11.7	Low Level Cruise (MTF)	P
11.8	Monitor Display For MTF	P
11.9	Determine Lateral Course Deviation	P
11.10	Determine Lateral Course Deviation	O
11.11	Maneuver A/V at Low Level	P
11.12	Monitor Lateral Course Deviation	P
11.13	Engage AFCS For ATF	P
11.14	Perform EVS Update	O
11.15	Perform EVS Update	P
11.16	Execute FLR Update	O
11.17	Execute Altitude Calibration	O

NUMBER	DESCRIPTION	OPERATOR
12.1	Perform BDA Operations	O
12.2	Perform BDA Operations	P
12.3	Perform SRAM Initialization	P
12.4	Perform SRAM Initialization	O
12.5	Perform SRAM Pre-Launch Operations	O
12.6	Perform SRAM Pre-Launch Operations	P
12.7	Perform SRAM Pre-Launch Procedures	P
12.8	Perform SRAM Launch Operations	P
12.9	Perform SRAM Launch Operations	O
12.10	Perform Gravity Store Pre-Release	O
12.11	Perform Gravity Store Pre-Release	P
12.12	Perform Bomb Run Tracking	O
12.13	Perform Gravity Store Release	P
12.14	Perform Gravity Store Release	O
13.1	Terminate TF Procedures	P
13.2	Terminate TF Operations	P
13.3	Establish Subsonic Cruise Operations	P
13.4	Establish Subsonic Cruise Procedures	P
13.5	Assemble Strike Report Information	O
13.6	Transmit Strike Report	P
14.1	Review Penetration Procedures	P
14.2	Perform Pre-Descent Procedures	P
14.3	Perform Pre-Descent Procedures	O
14.4	Configure Flight Station For Descent Procedures	P
14.5	Configure Flight Station for Descent Checks	P
14.6	Configure Flight Station For Descent Procedures	O
14.7	Execute Descent	P
14.8	Cross Check Altimeters	P
14.9	Perform Descent Procedures	O
14.10	Configure For Landing Approach	P
14.11	Verify Magnetic Variation	O
15.1	Perform Before Landing Checks	P
15.2	Perform Pre-Aila Operations	P
15.3	Perform Pre-Aila Operations	O
15.4	Perform Automatic Aila	P
15.5	Acquire Runway Visually	P
15.6	Perform Touchdown	P
15.7	Decelerate On Landing Roll	P
15.8	After Landing Checks	P
15.9	After Landing Checks	O
15.10	Taxi And Park Air Vehicle	P
15.11	Flight Station Shut Down	P
15.12	Avionics Station Shut Down	O
15.13	Start L/APU	P
15.14	Perform Engine Shutdown	P
15.15	Pre-Exit Procedures	O

NUMBER	DESCRIPTION	OPERATOR
16.1	Configure A/V Ground Refuel Panel For Refuel	P
16.2	Determine Fuel Quantity On Board	P
16.3	Select Fuel Quantity To Be Uploaded	P
16.4	Monitor Fuel Flow Into A/V	P
16.5	Configure A/V Ground Refuel Panel To Terminate Refueling	P
16.6	Verify Fuel Quantity On A/V	P
16.7	Secure A/V After Refueling Operation	P
16.8	Verify A/V Status	P
16.9	Perform Walk Around Inspection	P
16.10	Perform Walk Around Inspection	O
20.1	Perform Internal Engine Fire Procedures	P
20.2	Perform Nacelle Fire-Engine Procedures	P
20.3	Perform Nacelle Fire-APU Procedures	P
20.4	Perform Fire Detection System Fail Procedures	P
20.5	Perform Emergency Air Vehicle Braking	P
20.6	Abandon Air Vehicle On Ground	P
20.7	Abort Take Off	P
20.8	Abort Take Off-Engine Failure	P
20.9	Continue Take Off-Engine Failure	P
20.10	Abort Take Off-Engine Fire	P
20.11	Continue Take Off-Engine Fire	P
20.12	Perform Loss of Crew Compartment Pressure Procedures	P
20.13	Perform Cabin Overheat Procedures	P
20.14	Perform Cabin Too Cold Procedures	P
20.15	Perform Avionics Compartment Overheat Procedures	P
20.16	Perform Smoke or Fumes In Crew Compartment Procedures	P
20.17	Perform Before Ejection Procedures	P
20.18	Perform Ejection	P
20.19	Perform Throttle System Malfunction Procedures	P
20.20	Perform Engine Failure (Non-Mechanical) During Flight Procedures	P
20.21	Perform Engine Failure (Mechanical) During Flight Procedures	P
20.22	Perform Unassisted (Windmilling) Airstart	P
20.23	Perform APU-Assisted Airstart	P
20.24	Perform Engine Stall Procedures	P
20.25	Perform Engine Fire During Flight Procedures	P
20.26	Perform APU Fire During Flight Procedures	P
20.27	Perform Low Oil Pressure/Quantity Procedures	P
20.28	Perform Excessive Engine Vibration Procedures	P
20.29	Perform Fuel Tanks 1 And 4 Will Not Transfer To Main Tanks Procedures	P
20.30	Perform Fuel Cooling Loop Return Failure Procedures	P

NUMBER	DESCRIPTION	OPERATOR
20.31	Perform Fuel Cooling Loop Crossover Failure Procedures	P
20.32	Perform Fuel Cooling Loop Ram Air Scoop System Failure Procedures	P
20.33	Perform Fuel System Operation During Emergency Generator Operation	P
20.34	Perform Single Generator Failure Procedures	P
20.35	Perform Double Generator Failure Procedures	P
20.36	Perform Triple Generator Failure Procedures	P
20.37	Perform Single Bus Tie Failure Procedures	P
20.38	Perform Both Bus Tie Failure Procedures	P
20.39	Perform Bus Failure Procedures	P
20.40	Perform Complete Loss Of Electrical Power Procedures	P
20.41	Perform Hydraulic Pressure & Quantity Failure Procedures	P
20.42	Perform Loss of Hydraulic Systems 2,3 and 4 Procedures	P
20.43	Perform SMCS Failure Procedures	P
20.44	Perform Pitch Trim Normal System Failure Procedures	P
20.45	Perform Wing Sweep Runaway In Aft Direction Procedures	P
20.46	Perform Wing Sweep Runaway In Forward Direction Procedures	P
20.47	Perform Wing Will Not Maintain Full Forward Sweep Procedures	P
20.48	Perform Landing With Three-Engines-Inoperative	P
20.49	Perform Landing Gear Malfunction Procedures	P
20.50	Perform Landing With Any Gear Retracted or Locked	P
20.51	Perform Nosewheel Steering System Failure Procedures	P
20.52	Perform Anti-Skid System Failure Procedures	P
20.53	Perform Nose Gear Tire Failure Landing	P
20.54	Perform Main Gear Tire Failure Landing	P
20.55	Perform Belly Landing	P
20.56	Perform Ditching Of The Air Vehicle	P

MISSION SEGMENT 1

OBJECTIVE: POST SECURITY GUARDS   1.1

CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. A/V preflighted by ground crew
                      2. Weapons checked by MMS personnel

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

   1. Recall that guards should be posted after the A/V is EWO configured.

ANCILLARY OBJECTIVES:

   1. Recall that the USAF "two-man" policy is in effect after the weapons
      have been loaded on the A/V.

OPERATOR: P/CP

TASK ELEMENTS: 1.1.1.1

01.1.1.001.00

POST SECURITY GUARDS

	A-V	= EWO CONFIGURED
CHECK	GUARDED A-V	
	A-V	= GUARDED

OBJECTIVE: PERFORM EXTERIOR INSPECTION   1.2

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. A/V preflighted by ground crew
                     2. Weapons checked by MMS personnel
                     3. Security guards posted

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO performs exterior inspection checks
                     2. DSO performs exterior inspection checks

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

1. Recall that the Form 781 indicates any outstanding discrepancies about the
   A/V and the stores configuration in the weapons bays.

2. Recall that all control surfaces should have complete freedom of movement.

3. Recall which access doors and covers should be secured and which should
   remain open until after the engines have been started.

4. Recall that the covers for the angle-of-attack vanes should be removed.

5. Recall which ground safety locks and pins, such as landing gear "downlocks,"
   should remain installed until the A/V has been "cocked."

6. Recall how the OLOGS (Open Loop Oxygen Generating System) levers should be
   positioned prior to "cocking" the A/V.

ANCILLARY OBJECTIVES:

1. Recall that the covers for the total temperature and pitot-static probes
   should be removed and the probes should be free of foreign material.

OPERATOR: P/CP

TASK ELEMENTS: 1.1.1.2   1.1.2.3   1.1.3.2
                 1.1.2.1   1.1.2.4
                 1.1.2.2   1.1.2.5

01.1.1.002.00

<u>CHECK FORM 781</u>*

	AIR-VEHICLE	= EWO CONFIGURED
CHECK	FORM 781	
	FORM 781	= CHECKED

01.1.2.001.00

<u>FOLLOW THE EXTERIOR INSPECTION ROUTE.</u>*

	FORM 781	= CHECKED
FOLLOW	A-V EXTERIOR INSPECTION ROUTE	
	EXTERIOR INSPECTION ROUTE	= COMPLETED

01.1.2.002.00

<u>CHECK ALL SURFACES</u>*

	FORM 781	= CHECKED
CHECK	A-V SURFACES	
	A-V SURFACES	= CHECKED

01.1.2.003.00

<u>CHECK ALL ACCESS DOORS AND COVERS FOR SECURITY</u>

	FORM 781	= CHECKED
CHECK	A-V ACCESS DOORS AND COVERS	
	ACCESS DOORS AND COVERS	= SECURE

01.1.2.004.00

<u>CHECK THE AOA VANES</u>*

	FORM 781	= CHECKED
CHECK	ANGLE OF ATTACK VANES	
	ANGLE OF ATTACK VANES	= CHECKED

01.1.2.005.00

REMOVE GROUND SAFETY PINS AND SAFETY LOCKS*

	FORM 781	= COMPLETED
REMOVE	GROUND SAFETY PINS AND LOCKS	
	GROUND SAFETY PINS AND LOCKS	= REMOVED

01.1.3.002.00

PERFORM EXT CREW ENTRYWAY INSPECTION, WT AND BALANCE, OLOGS

PERFORM   EXT CREW ENTRYWAY INSPECTION

OBJECTIVE: PERFORM EXTERIOR INSPECTION   1.3

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. A/V preflighted by ground crew
                      2. Weapons checked by MMS personnel
                      3. Security guards posted

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP perform exterior inspection checks
                      2. DSO performs exterior inspection checks

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

    1. Recall that the Form 781 indicates any outstanding discrepancies about the
       A/V and the stores configurations in the weapons bays.

    2. Recall what should be inspected on a gravity weapon.

    3. Recall what should be inspected on a SRAM.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 1.1.1.2
                 1.1.3.1

01.1.1.002.00

<u>CHECK FORM 781</u>*

AIR-VEHICLE   = EWO CONFIGURED

CHECK   FORM 781

                   FORM 781   = CHECKED

01.1.3.001.00

<u>PERFORM STORES INSPECTION</u>*

INSPECT   STORES

OBJECTIVE: PERFORM (POWER OFF) INTERIOR INSPECTION   1.4

              CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Exterior inspection performed by flight crew.

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO performs (power off) interior inspection checks.
                     2. DSO performs (power off) interior inspection checks.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

   1. Recall that the flashblindness protection windows should be transparent
      when not exposed to bright light.

   2. Recall that the flight publications should be current for the period
      of time the A/V will be on alert status.

   3. Recall that the CSSC (Coded Switch Set Controller) rotary switch
      assembly can be set manually by moving six thumbwheels.

   4. Recall that with the battery switch in OFF, the batteries are removed
      from the dc busses.

   5. Recall that with the external power control in OFF, external power is
      electrically disconnected from the air vehicle bus.

   6. Recall that the restraint harness control lever is located on the left
      side of the seat pan. The forward position locks the restraint harness
      inertial reel and the aft position unlocks it.

   7. Recall that the quantity of oxygen on board the A/V is indicated in liters.

   8. Recall how to determine whether the oxygen mask is suitable for flying.

   9. Recall how to determine whether the communication leads in the A/V are
      properly inserted into the crewmember's personal equipment.

   10. Recall the normal setting of the crew temperature control which provides
       a comfortable temperature in the crew compartment when the ECS
       (Environmental Control System) is turned on.

11. Recall that with air source control switches #1 and #2 in ON, air flow can be controlled rom the #1 and #2 avionics coolant refrigeration packages, respectively.

12. Recall that with the air source control switches ST and CREW in ON, air flow can be controlled from the stores and crew compartment refrigeration packages, respectively.

13. Recall that by setting the three avionics air mode select switches to NORM, conditioned air can be controlled to the intermediate, the left central and the right central avionics bays.

14. Recall that with the crew air source mode switch in NORM, conditioned cabin air can be provided at a rate necessary to maintain proper cabin conditioning and pressurization.

15. Recall that with the engine bleed air control switches set at 1, 2, 3 and 4, bleed air can be provided from the corresponding numbered engine.

16. Recall that with the fuel cooling loop return control switch in NORM, excess loop fuel can be returned to the main tanks through the pressure relief valves.

17. Recall that with the fuel cooling loop crossover switch in NORM, each cooling loop pump can supply cooling fuel to its respective loop.

18. Recall that with the pitot heat control switch in OFF, the thermostatically controlled heater elements in the CADS (Central Air Data System) pitot head, total temperature probe and angle-of-attack sensor are de-energized.

19. Recall that the extreme aft position of each throttle is equivalent to engine idle at the engine main control.

20. Recall that with the flight director altitude reference in OFF, neither the altitude reference nor the terrain-following modes could be activated.

21. Recall that with the Nuclear Consent switch in NORM, the switch is in the off position.

22. Recall that the landing gear lever is heavily detented, but not locked, when in the down position.

23. Recall that by setting the VSD mode selector switch to STBY, the DU (Display Unit) CRT filaments and logic will be on, but the screen will remain blank (dark) until electrical power is on.

24. Recall that the radar altimeter variable altitude limit index marker should be set to the minimum decision altitude desired for ILS landings or to the clearance plane setting to be used with the terrain following radar.

25. Recall that with the engine anti-ice switch in AUTO, the anti-ice bleed air valves will be electronically linked to the ice detectors.

26. Recall that with the windshield wash switch in the center position, neither the pilot's or copilot's windshield can be provided with a wash solution.

27. Recall that with the antiskid switch in ON, automatic braking control can be provided by limiting the brake pressure so that maximum braking may be obtained with no tire skidding.

28. Recall that with the landing/taxi light control switch in the center position, all three landing/taxi lights will be off.

29. Recall that with the windshield rain repellent select switch in the center position, neither the pilot's or copilot's windshield can be provided with a rain repellent solution.

30. Recall that with the GSS mode selector switch in SLAVED, the system can be operated as a gyro stabilized magnetic compass.

31. Recall that the latitude set moving scale knob should be positioned to the latitude being flown, because heading accuracy can be improved when operating the GSS in the slaved mode.

32. Recall that the hemisphere selector switch should be set to the N or S corresponding to the hemisphere the A/V is operating in, to provide the proper polarity for gyro drift correction caused by the earth's rotation.

33. Recall that the normal position for the emergency generator control switch is the AUTO mode which can provide automatic changeover to the emergency generator upon loss of normal power on the essential bus.

34. Recall that with the alternate landing gear control switch in NORM, the circuitry for normal landing gear extension and retraction using the control handle can be provided.

35. Recall that with the fuel dump switch in the off position, emergency dumping of fuel can be prevented.

36. Recall that the aerial refueling override switch in NORM can provide automatic sequencing of the refueling receptacle toggle latches.

37. Recall that with the reverse aerial refueling switch in NORM, no fuel flow can be made from the A/V to the tanker.

38. Recall that with the LN_2 inerting switch in the LN_2 position, automatic fuel tank inerting and pressurization can be provided.

39. Recall that with the crossfeed switch set to the closed position, the left fuel system can feed engines #1 and #2 and the right fuel system can feed engines #3 and #4.

40. Recall that with the fuel fill valves in AUTO, automatic control of the fill valves can be provided during aerial refueling and/or as required by the CG control of the ballast tanks.

41. Recall that with the fuel transfer pumps in AUTO, automatic pump selection can be provided while maintaining proper positioning of the A/V CG, as well as turning off pumps, when tanks are empty.

42. Recall that with the left and right TFR mode selector switches set to OFF, power is removed from each channel.

43. Recall that with the UHF mode selector switch set to OFF, the radio receiver/transmitter is inoperative.

44. Recall that with the HF mode selector switch set to OFF, the high frequency radio receiver/transmitter is inoperative and neither single side band, amplitude modulation equivalent operation or frequency shift keying can be provided.

45. Recall that with the TACAN mode selector switch set to OFF, no electrical power to the system is available for the four operational modes.

46. Recall that with the ILS power switch in OFF, no electrical power can be provided to either navigation receiver.

47. Recall that with the upper and lower polaroid filter controls in FULL UP, the maximum amount of filtering is available for the CRT of the TFR (terrain following radar).

48. Recall that the cursor control can be used to adjust the intensity of the TFR range cursors for best presentation during PPI (azimuth scan) displays.

49. Recall that the memory control of the TFR can be used to increase or decrease the retention time of the direct view storage tube.

50. Recall that the TFR contrast control can be used to adjust the video gain for optimum display presentation.

51. Recall that the video control can be used to adjust the video gain for optimum TFR display presentation.

ENABLING OBJECTIVES: (Continued)

52. Recall that with the TFR range switch set in the E position, the elevation scan can be available for the terrain following mode of operation.

53. Recall that the X-Band transponders can increase the capability of X-Band radars to which it responds, but with the power switch in OFF, all power is removed from the transponders.

54. Recall that the encoder module of the X-Band transponder can produce a single-pulse output if the encoder selector switch is in position 1 and a coded double pulse output, if the encoder selector switch is in positions 2 through 6.

55. Recall that the decoder module of the X-Band transponder has a single-pulse mode and each of 10 double-pulse operating modes.

56. Recall that with the IFF master control knob set to STBY, the equipment will be turned on and warmed up, but will not transmit.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS:	1.1.4.1	1.1.4.8	1.1.4.15	1.1.4.22
	1.1.4.2	1.1.4.9	1.1.4.16	1.1.4.23
	1.1.4.3	1.1.4.10	1.1.4.17	1.1.4.24
	1.1.4.4	1.1.4.11	1.1.4.19	1.1.4.25
	1.1.4.5	1.1.4.12	1.1.4.21	1.1.4.26
	1.1.4.6	1.1.4.13		1.1.4.27
	1.1.4.7	1.1.4.14		1.1.4.28

	1.1.4.29	1.1.4.36	1.1.4.43	1.1.4.49.1
	1.1.4.30	1.1.4.37	1.1.4.44	1.1.4.49.2
	1.1.4.31	1.1.4.38	1.1.4.45	1.1.4.50
	1.1.4.32	1.1.4.39	1.1.4.46	1.1.4.51
	1.1.4.33	1.1.4.40	1.1.4.47	1.1.4.52
	1.1.4.34	1.1.4.41	1.1.4.48	
	1.1.4.35	1.1.4.42	1.1.4.49	

01.1.4.001.00

<u>CHECK FLASH PROTECTION</u>

    CHECKLIST = SEQUENCE

CHECK   FLASH PROTECTION DEVICES*

    FLASH PROTECTION DEVICES = CHECKED

01.1.4.002.00

<u>CHECK REQUIRED FLIGHT PUBLICATIONS*</u>

    CHECKLIST = SEQUENCE

CHECK   PUBLICATIONS

    PUBLICATIONS = CHECKED

01.1.4.003.00

<u>CHECK CSSC INDICATOR WINDOWS- 'A'</u>

    CHECKLIST = SEQUENCE

CHECK   THUMBWHEEL SWITCH ASSEMBLY

    THUMBWHEEL SWITCH ASSEMBLY = 'A'

01.1.4.004.00

<u>CHECK BATTERY ('BATT') SWITCH 'OFF'</u>

    CHECKLIST = SEQUENCE

CHECK   BATTERY SELECT SWITCH

    BATTERY SELECT SWITCH = OFF

01.1.4.005.00

<u>CHECK EXTERNAL POWER ('EXT PWR') SWITCH 'OFF'</u>

    CHECKLIST = SEQUENCE

CHECK   EXTERNAL POWER CONTROL SWITCH

    EXTERNAL POWER CONTROL SWITCH = OFF

01.1.4.006.00

CHECK-CONNECT RESTRAINT HARNESS AND INERTIAL REEL*

	CHECKLIST	= SEQUENCE
CONNECT	RESTRAINT ASSY	
	RESTRAINT ASSY	= CONNECTED

01.1.4.007.00

CHECK OXYGEN SYSTEM

	CHECKLIST	= SEQUENCE
CHECK	DILUTER-PRESSURE DEMAND REGS	
	DILUTER-PRESSURE DEMAND REGS	= CHECKED

01.1.4.008.00

CHECK OXYGEN MASK*

	CHECKLIST	= SEQUENCE
CHECK	OXYGEN MASK	
	OXYGEN MASK	= CHECKED

01.1.4.009.00

CHECK COMMUNICATION LEADS

	CHECKLIST	= SEQUENCE
CHECK	COMMUNICATION LEADS	
	COMMUNICATION LEADS	= CHECKED

01.1.4.010.00

ADJUST 'CREW TEMP' CONTROL KNOB.

	CHECKLIST	= SEQUENCE
ADJUST	CREW TEMP CONTROL	
	CREW TEMP CONTROL	= TBD

01.1.4.011.00
<u>SET 'AIR SOURCE' SWITCHES (4) TO ON: '1', '2', 'ST', 'CREW'</u>

	CHECKLIST	= SEQUENCE
SET	AIR SOURCE CONTROL SWITCHES	
	AIR SOURCE CONTROL SWITCHES	= ON*

01.1.4.012.00
<u>SET AVIONICS AIR SWITCHES ('INTMD; LCTL; RCTL') TO 'NORM'</u>

	CHECKLIST	= SEQUENCE
SET	AVIONICS AIR MODE SELECT	
	AVIONICS AIR MODE SELECT	= NORM*

01.1.4.013.00
<u>SET CREW SWITCH TO 'NORM'</u>

	CHECKLIST	= SEQUENCE
SET	CREW AIR SOURCE MODE SWITCH	
	CREW AIR SOURCE MODE SWITCH	= NORM

01.1.4.014.00
<u>SET 'ENG BLEED AIR' SWITCHES (4) TO ON: '1', '2', '3', '4'</u>

	CHECKLIST	= SEQUENCE
SET	ENGINE BLEED AIR SWITCHES	
	ENGINE BLEED AIR SWITCHES	= ON*

01.1.4.015.00
<u>SET 'FUEL CLG LOOP RTN' SWITCH TO 'NORM'</u>

	CHECKLIST	= SEQUENCE
SET	FUEL COOLING LOOP RETURN SW	
	FUEL COOLING LOOP RETURN SW	= NORM

01.1.4.016.00

SET 'FUEL CLG LOOP CRSVR' SWITCH TO 'NORM'.

	CHECKLIST	= SEQUENCE
SET	COOLING FUEL LOOP CROSSOVER SW	
	COOLING FUEL LOOP CROSSOVER SW= NORM	

01.1.4.017.00

SET 'PITOT HEAT' SWITCH TO 'OFF'

	CHECKLIST	= SEQUENCE
SET	PITOT HEAT CONTROL SWITCH	
	PITOT HEAT CONTROL SWITCH	= OFF

01.1.4.019.00

CHECK THROTTLES '1', '2', '3', '4' TO 'IDLE'.

	CHECKLIST	= SEQUENCE
CHECK	PRIMARY THROTTLE LEVERS-PI	
	PRIMARY THROTTLE LEVERS-CO	
	PRIMARY THROTTLE LEVERS-PI	= IDLE
OR	PRIMARY THROTTLE LEVERS-CO	= IDLE

01.1.4.021.00

SET 'FLT DIR ALT REF' SWITCH TO 'OFF'.

	CHECKLIST	= SEQUENCE
SET	ALT REF-TER FLW SWITCH	
	ALT REF-TER FLW SWITCH	= OFF

01.1.4.022.00

CHECK 'NUCLEAR' CONSENT SWITCH IN 'NORM' POSITION.

	CHECKLIST	= SEQUENCE
CHECK	NUCLEAR CONSENT SWITCH*	
	NUCLEAR CONSENT SWITCH	= NORM*

01.1.4.023.00

SET CLOCK.

	CHECKLIST	= SEQUENCE
SET	CLOCK	
	CLOCK	= TBD

01.1.4.024.00

CHECK 'LDR GR' (LANDING GEAR) LEVER IS IN 'DN' POSITION.

	CHECKLIST	= SEQUENCE
CHECK	PRIMARY LANDING GEAR CONTROL	
	PRIMARY LANDING GEAR CONTROL	= DN

01.1.4.025.00

SET VSD MODE SELECTOR SWITCH TO 'STDBY'

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-VSD	
	MODE SWITCH-VSD	= STBY

01.1.4.026.00

SET RADAR ALTIMETER AND VARIABLE ALTITUDE LIMIT INDEX MARKER

	CHECKLIST	= SEQUENCE
SET	POWER-SET-TEST CONTROL KNOB	
	VARIABLE ALTITUDE INDEX MARKER	= TBD

01.1.4.027.00

SET 'ENG ANTI-ICE' SWITCH TO 'AUTO'

	CHECKLIST	= SEQUENCE
SET	ENGINE ANTI-ICE SWITCH	
	ENGINE ANTI-ICE SWITCH	= AUTO

01.1.4.028.00

SET 'WSHLD WASH' SWITCH IN CENTER (OFF) POSITION.

	CHECKLIST	= SEQUENCE
SET	WINDSHIELD WASH SELECT SWITCH	
	WINDSHIELD WASH SELECT SWITCH	= OFF

01.1.4.029.00

SET 'TO-LDG ANTISKID' SWITCH TO 'ON'

	CHECKLIST	= SEQUENCE
SET	ANTISKID TEST SWITCH	
	ANTISKID TEST SWITCH	= ON

01.1.4.030.00

SET 'TO-LDG LT' (TAXI LIGHTS) SWITCH TO 'OFF'.

	CHECKLIST	= SEQUENCE
SET	LANDING/TAXI LIGHT CONTROL SW	
	LANDING/TAXI LIGHT CONTROL SW	= OFF

01.1.4.031.00

SET 'WDSHLD RAIN REPEL' SWITCH TO CENTER (OFF) POSITION.

	CHECKLIST	= SEQUENCE
SET	WINDSHIELD RAIN REPELLENT SW	
	WINDSHIELD RAIN REPELLENT SW	= OFF

01.1.4.032.00

SET GSS MODE SELECTOR SWITCH TO 'SLAVED'.

	CHECKLIST	= SEQUENCE
SET	ROTARY SELECTOR SWITCH	
	ROTARY SELECTOR SWITCH	= SLAVED

01.1.4.033.00

<u>SET 'LAT' ON GSS.</u>

	CHECKLIST	= SEQUENCE
SET	LAT SET MOVING SCALE KNOB	
	LAT SET MOVING SCALE KNOB	= TBD

01.1.4.034.00

<u>SET GSS HEMISPHERE SELECTOR SWITCH.</u>

	CHECKLIST	= SEQUENCE
SET	LATITUDE SET SWITCH	
	LATITUDE SET SWITCH	= TBD

01.1.4.035.00

<u>SET 'EMERG GEN' (EMERGENCY GENERATOR) SWITCH TO 'AUTO'.</u>

	CHECKLIST	= SEQUENCE
SET	EMERGENCY GENERATOR CONTROL SW	
	EMERGENCY GENERATOR CONTROL SW	= AUTO

01.1.4.036.00

<u>SET 'LDG GR ALTER' SWITCH TO 'NORM'.</u>

	CHECKLIST	= SEQUENCE
SET	ALTERNATE LANDING GEAR CONTROL	
	ALTERNATE LANDING GEAR CONTROL	= NORM

01.1.4.037.00

<u>CHECK FUEL 'DUMP' SWITCH TO 'OFF'.</u>

	CHECKLIST	= SEQUENCE
CHECK	DUMP SWITCH	
	DUMP SWITCH	= OFF

01.1.4.038.00

<u>CHECK 'AERIAL REFUEL MODE' SWS (ORIDE AND REV) TO 'NORM'.</u>

	CHECKLIST	= SEQUENCE
CHECK	MODE SWITCH (OVERRIDE) MODE SWITCH (REVERSE)	
	MODE SWITCH (OVERRIDE) AND MODE SWITCH (REVERSE)	= NORM = NORM

01.1.4.039.00

<u>SET LN2 SWITCH TO 'LN2'.</u>

	CHECKLIST	= SEQUENCE
SET	LN2 INERTING SWITCH	
	LN2 INERTING SWITCH	= LN2

01.1.4.040.00

<u>SET FUEL 'XFEED' SWITCH TO 'CL' (CLOSED).</u>

	CHECKLIST	= SEQUENCE
SET	CROSSFEED SWITCH	
	CROSSFEED SWITCH	= CL

01.1.4.041.00

<u>SET APP FUEL FILL VALVES AND TRANSFER PUMPS SWS TO 'AUTO'*</u>

	CHECKLIST	= SEQUENCE
SET	PWR-OFF FUEL VALVES AND PUMPS	
	PWR-OFF FUEL VALVES AND PUMPS = AUTO	

01.1.4.042.00

<u>SET TFR MODE LAND SELECTOR SWITCHES TO 'OFF'</u>

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-TFR	
	MODE SWITCH-TFR	= OFF

01.1.4.043.00

<u>SET UHF #2 MODE SELECTOR-SWITCH TO 'OFF'.</u>

	CHECKLIST	= SEQUENCE
SET	FUNCTION SELECT SW-COPILOT	
	FUNCTION SELECT SW-COPILOT	= OFF

01.1.4.044.00

<u>SET HF MODE SELECTOR SWITCH TO 'OFF'.</u>

	CHECKLIST	= SEQUENCE
SET	RADIO MODE SELECT SWITCH	
	RADIO MODE SELECT SWITCH	= OFF

01.1.4.045.00

SET TACAN MODE SELECTOR SWITCH TO 'OFF'.

	CHECKLIST	= SEQUENCE
SET	MODE SELECTOR SWITCH-TACAN	
	MODE SELECTOR SWITCH-TACAN	= OFF

01.1.4.046.00

SET 'ILS' POWER SWITCH TO 'OFF'.

	CHECKLIST	= SEQUENCE
SET	POWER SWITCH-ILS	
	POWER SWITCH-ILS	= OFF

01.1.4.047.00

SET UHF #1 MODE SELECTOR SWITCH TO 'OFF'.

	CHECKLIST	= SEQUENCE
SET	FUNCTION SELECT SW-PILOT	
	FUNCTION SELECT SW-PILOT	= OFF

01.1.4.048.00

ADJUST IFR SCOPE POLAROID FILTER CONTROLS (2) TO 'FULL UP'.

	CHECKLIST	= SEQUENCE
ADJUST	UPPER POLAROID FILTER CONTROL	
	UPPER POLAROID FILTER CONTROL	= FULL UP

01.1.4.049.00

ADJUST IFR SCOPE TIMING CONTROLS (4)

	CHECKLIST	= SEQUENCE

01.1.4.049.01

ADJUST THE CURSOR AND MEMORY IFR SCOPE TIMING CONTROLS

	CHECKLIST	= SEQUENCE
ADJUST	CURSOR CONTROL	
	MEMORY CONTROL	
	CURSOR CONTROL	= TBD
	AND MEMORY CONTROL	= TBD

01.1.4.049.02
<u>ADJUST THE CONTRAST AND VIDEO IFR SCOPE TIMING CONTROLS</u>

	CHECKLIST	= SEQUENCE
ADJUST	CONTRAST CONTROL-TF VIDEO CONTROL-TF	
	CONTRAST CONTROL-TF AND VIDEO CONTROL-TF	= TBD = TBD

01.1.4.050.00
<u>SET IFR SCOPE 'RANGE' SELECTOR KNOBS TO 'E'.</u>

	CHECKLIST	= SEQUENCE
SET	RANGE SWITCH-TF	
	RANGE SWITCH-TF	= E

01.1.4.051.00
<u>SET 'RADAR XPNDR' 'ENCODE'-'DECODE' AS BRIEFED AND PWR OFF.</u>

	CHECKLIST	= SEQUENCE
SET	ENCODE SWITCH DECODE SWITCH POWER SELECT SWITCH	
	ENCODE SWITCH AND POWER SELECT SWITCH	= TBD = OFF

01.1.4.052.00
<u>SET IFF MASTER CONTROL KNOB TO 'STBY'.</u>

	CHECKLIST	= SEQUENCE
SET	MASTER CONTROL SELECT SWITCH	
	MASTER CONTROL SELECT SWITCH	= STBY

OBJECTIVE: PERFORM (POWER OFF) INTERIOR INSPECTION   1.5

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Exterior inspection performed by flight crew

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP perform (power off) interior inspection checks.
                    2. DSO performs (power off) interior inspection checks.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that the restraint harness control lever is located on the left
   side of the seat pan. The forward position locks the restraint harness
   inertial reel and the aft position unlocks it.

2. Recall that the quantity of oxygen on board the A/V is indicated in liters.

3. Recall how to determine whether the oxygen mask is suitable for flying.

4. Recall how to determine whether the communication leads in the A/V are
   properly inserted into the crewmember's personal equipment.

5. Recall that with the UHF-1/OFF/UHF-2 switch set to OFF an RBS (Radar
   Bomb Scoring) tone cannot be transmitted.

6. Recall that when the doppler power switch on the Auxiliary Panel is in
   OFF, the hard wired power control line is not grounded.

7. Recall that with the GNACU (General Navigation Avionics Control Unit)
   in DSBL no commands can be transmitted by the right EMUX (Electrical
   Multiplexer) to turn on the GNACU.

8. Recall that with the WDACU (Weapons Delivery Avionics Control Unit) in
   DSBL no commands can be transmitted by the left EMUX to turn on the WDACU.

9. Recall that with the INS (Inertial Navigation System) #1 switch in DSBL
   no commands can be transmitted by the right EMUX to turn on INS #1.

10. Recall that with the INS #2 switch in DSBL no commands can be transmitted
    by the left EMUX to turn on INS #2.

11. Recall that when the five SLU (Station Logic Unit) switches are set in DSBL no power commands can be provided to the ACU which, in turn, provides power control via EMUX to the SLUs.

12. Recall that the contrast control of the MFD (Multifunction Display) can provide a continuous variation of video signal amplitude.

13. Recall that the brightness control of the MFD can provide a continuous variation of video signal level.

14. Recall that with the BETA switch on the FLR (Forward Looking Radar) set on NORM, automatic control of depression angle GND AUTO or GND VEL modes will be available.

15. Recall that with the sweep switch on the FLR set to NORM, ground range in ground modes and slant range in air mode can be provided.

16. Recall that the video control on the FLR can vary the amplitude of the video signal applied to the radar scope.

17. Recall that the IF Gain control on the FLR will permit adjustment of receiver gain in the ground and beacon modes.

18. Recall that the range intensity rotary control on the FLR can be used to vary range cursor brightness.

19. Recall that with the display orientation switch on the FLR set to NORM the top of the CRT will be coincident with A/V ground track in GND VEL and GND AUTO modes.

20. Recall that the azimuth intensity rotary control on the FLR can be used to vary azimuth cursor brightness.

21. Recall that the STC (Sensitivity Time Control) amplitude rotary control on the FLR will allow equalization of the display intensity.

22. Recall that the STC slope rotary control on the FLR can be used to change the effective range of the amplitude control.

23. Recall that the CRT intensity rotary control on the FLR can vary the brightness of the radar scope sweep line and can adjust camera aperture to maintain a constant exposure level on the film.

24. Recall that the range rotary switch on the FLR can select one of six operating ranges.

25. Recall that the bezel rotary control on the FLR will vary bezel brightness.

ENABLING OBJECTIVES: (continued)

26. Recall that the range mark rotary control on the FLR can be used to vary slant range mark brightness.

27. Recall that the Test switch on the FLR can be used to verify whether specific lamps are good.

28. Recall that when the antenna tilt rotary control on the FLR is in the mechanical detent, the antenna will be set at the zero position.

29. Recall that the transmitter tune rotary control on the FLR can vary the modulator-receiver-transmitter frequency over its entire frequency range.

30. Recall that when the FLR photo switch is in OFF, the automatic capability is inoperative except the camera will run when a weapon is released.

31. Recall how to load the photo magazine into the FLR control panel.

32. Recall what should be written on the photo magazine.

33. Recall that when the mode switch on the FLR control panel is set to GND MAN, control of the range and azimuth cursors can be accomplished with the tracking handle.

34. Recall that when the AFC (Automatic Frequency Control) rotary switch on the FLR control panel is in AFC-1, the receiver will operate in the automatic frequency mode and in the frequency agility mode if the beacon mode is not selected.

35. Recall that when the five-position rotary mode switch on the FLR control panel is in OFF, the entire FLR system is de-energized.

36. Recall that when the PPC (Present Position Correction) on the FLR control panel is in OUT, the tracking handle will not re-position the FLR cursors and the ACU will not accept a FLR update.

37. Recall that when the circular polarization switch on the FLR control panel is in NORM, a horizontally polarized beam will be emitted in the ground modes or beacon mode and a vertical polarized beam in the air mode , except when beacon mode is selected simultaneously.

38. Recall that with the SLC (Side Lobe Cancellation) switch on the FLR control panel in OFF, neither interference when in a heavy jamming environment nor ground clutter when in air mode will be reduced.

39. Recall that when the FTC (Flight Control) /BCN (Beacon) switch on the FLR control panel is in OFF, both the FTC mode which will minimize jamming effects and the beacon modes are inoperative.

40. Recall that when the IKB (Integrated Keyboard) selector knob is set to MISN TAPE, mission data residing on the tape cassette in the DEU (Data Entry Unit) can be read into the ACU upon depressing the Load switch.

41. Recall that when the EVS (Electro-optical Viewing System) video select switch is set to OFF, all electrical power is removed from the MFD (Multi-Function Display) and the master power relay in the SLU (Station Logic Unit) cannot be energized, thereby eliminating power to the FLIR (Forward Looking Infrared).

42. Recall that when the EVS symbols switch is set to OFF, elevation and azimuth angle LOS (Line of Sight) symbology will not exist on the MFD video.

43. Recall that when the five-position mode switch on the FLIR control is in OFF, all power is removed from the FLIR.

44. Recall that when the precision bombing timer is in OFF the timer unit is completely deactivated and the time-to-go indicator will not be armed.

45. Recall that when the Conventional Safe/arm switch is in SAFE, the arming of conventional weapons is disabled.

46. Recall that with the nuclear UNLOCK/SAFE switch in SAFE all the racks with nuclear weapons are locked.

47. Recall that with the nuclear PA ENBL/SAFE switch in SAFE, none of the nuclear weapons can be armed.

48. Recall that with the nuclear PA/SAFE switch in the neutral position the manual prearming and safing of a selected store or combination of stores is not possible.

49. Recall that with the SEL/NORM jettison switch set to the normal position, a single selected store or group of stores cannot be jettisoned.

50. Recall that with the ALL/NORM jettison switch set to the normal position, all the stores cannot be jettisoned in the same period of time.

51. Recall that with the store power switch in the neutral position, neither monitor power for a gravity nuclear store or initialization power for a missile can be applied.

52. Recall which circuit breakers should be left out, until some later time, such as after the engines have been started.

53. Recall that when the CITS (Central Integrated Test Subsystem) mode switch is in OFF, all power is removed from the CITS panel.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS:

1.1.4.6	1.1.4.58	1.1.4.63.2	1.1.4.63.11	1.1.4.65.5
1.1.4.7	1.1.4.59	1.1.4.63.3	1.1.4.63.12	1.1.4.66
1.1.4.8	1.1.4.61	1.1.4.63.4	1.1.4.63.13	1.1.4.66.1
1.1.4.9	1.1.4.61.1	1.1.4.63.5	1.1.4.64	1.1.4.66.2
1.1.4.53	1.1.4.61.2	1.1.4.63.6	1.1.4.65	1.1.4.66.3
1.1.4.54	1.1.4.62	1.1.4.63.7	1.1.4.65.1	1.1.4.66.4
1.1.4.55	1.1.4.63	1.1.4.63.8	1.1.4.65.2	1.1.4.66.5
1.1.4.56	1.1.4.63.1	1.1.4.63.9	1.1.4.65.3	1.1.4.66.6
1.1.4.57		1.1.4.63.10	1.1.4.65.4	1.1.4.66.7

1.1.4.67	1.1.4.74.2
1.1.4.68	1.1.4.74.3
1.1.4.69	1.1.4.74.4
1.1.4.72	1.1.4.74.5
1.1.4.73	1.1.4.74.6
1.1.4.74	1.1.4.74.7
1.1.4.74.1	1.1.4.75
	1.1.4.76
	1.1.4.77

01.1.4.006.00

<u>CHECK-CONNECT RESTRAINT HARNESS AND INERTIAL REEL</u>*

	CHECKLIST	= SEQUENCE
CONNECT	RESTRAINT ASSY	
	RESTRAINT ASSY	= CONNECTED

01.1.4.007.00

<u>CHECK OXYGEN SYSTEM</u>

	CHECKLIST	= SEQUENCE
CHECK	DILUTER-PRESSURE DEMAND REGS	
	DILUTER-PRESSURE DEMAND REGS	= CHECKED

01.1.4.008.00

<u>CHECK OXYGEN MASK</u>*

	CHECKLIST	= SEQUENCE
CHECK	OXYGEN MASK	
	OXYGEN MASK	= CHECKED

01.1.4.009.00

<u>CHECK COMMUNICATION LEADS</u>

	CHECKLIST	= SEQUENCE
CHECK	COMMUNICATION LEADS	
	COMMUNICATION LEADS	= CHECKED

01.1.4.053.00

<u>SET UHF SWITCH TO 'OFF'.</u>*

	CHECKLIST	= SEQUENCE
SET	RBS UHF-1,UHF-2,OFF SWITCH	
	RBS UHF-1,UHF-2,OFF SWITCH	= OFF

1.28

01.1.4.054.00

SET DPLR PWR (DOPPLER POWER) SWITCH TO 'OFF'.

	CHECKLIST	= SEQUENCE
SET	DOPPLER CONTROL	
	DOPPLER CONTROL	= OFF

01.1.4.055.00

SET GNACU SWITCH TO DISABLE.

	CHECKLIST	= SEQUENCE
SET	GN-DSBL SWITCH	
	GN-DSBL SWITCH	= DSBL

01.1.4.056.00

SET WDACU SWITCH TO 'DISABLE'.

	CHECKLIST	= SEQUENCE
SET	WD-DSBL SWITCH	
	WD-DSBL SWITCH	= DSBL

01.1.4.057.00

SET INS 1 SWITCH TO 'DISABLE'.

	CHECKLIST	= SEQUENCE
SET	INS1 DSBL SWITCH	
	INS1 DSBL SWITCH	= DSBL

01.1.4.058.00

SET INS 2 SWITCH TO 'DISABLE'.

	CHECKLIST	= SEQUENCE
SET	INS 2 DSBL SWITCH	
	INS 2 DSBL SWITCH	= DSBL

01.1.4.059.00

SET SLU PWR SWITCHES (5) TO 'DISABLE'.

	CHECKLIST	= SEQUENCE
SET	STATION LOGIC UNIT SWITCHES	
	STATION LOGIC UNIT SWITCHES	= DSBL

01.1.4.061.01

WIND TIMING CLOCK

CHECKLIST = SEQUENCE

WIND OSO CLOCK
DSO CLOCK

OSO CLOCK = WOUND
AND DSO CLOCK = WOUND

01.1.4.061.02

SET TIMING CLOCK

OSO CLOCK = WOUND
AND DSO CLOCK = WOUND

SET OSO CLOCK
DSO CLOCK

OSO CLOCK = SET
AND DSO CLOCK = SET

01.1.4.062.00

ADJUST MFD CONTRAST AND BRIGHTNESS CONTROLS.

CHECKLIST = SEQUENCE

ADJUST CONTRAST CONTROL-MFD
BRIGHTNESS CONTROL

CONTRAST CONTROL-MFD = TBD*
AND BRIGHTNESS CONTROL = TBD

01.1.4.063.00

<u>SET FLR (APQ-144) CONTROLS.*</u>

	CHECKLIST	= SEQUENCE
SET	INDICATOR-RECORDER	

01.1.4.063.01

<u>SET BETA SWITCH TO 'NORM'.</u>

	CHECKLIST	= SEQUENCE
SET	BETA CONTROL	
	BETA CONTROL	= NORM

01.1.4.063.02

<u>SET SWEEP SWITCH TO 'NORM'.</u>

	CHECKLIST	= SEQUENCE
SET	SWEEP CONTROL	
	SWEEP CONTROL	= NORM

01.1.4.063.03

<u>SET VIDEO - IF GAIN ROTARY KNOB TO MIDPOINT.*</u>

	CHECKLIST	= SEQUENCE
SET	VIDEO CONTROL-FLR IF GAIN-FLR	
	VIDEO CONTROL-FLR	= MIDPOINT
	AND IF GAIN-FLR	= MIDPOINT

01.1.4.063.04

<u>SET RANGE INTENSITY ROTARY KNOB TO MIDPOINT.</u>

	CHECKLIST	= SEQUENCE
SET	RANGE INT CONTROL	
	RANGE INT CONTROL	= MIDPOINT

01.1.4.063.05

<u>SET DISPLAY ORIENTATION SWITCH TO 'NORM'.</u>

	CHECKLIST	= SEQUENCE
SET	NORTH-NORMAL SELECT	
	NORTH-NORMAL SELECT	= NORM

01.1.4.063.06

SET AZIMUTH CURSOR INTENSITY CONTROL AT MIDPOINT.

	CHECKLIST	= SEQUENCE
SET	AZIMUTH INT CONTROL	
	AZIMUTH INT CONTROL	= MIDPOINT

01.1.4.063.07

SET STC (SENSITIVE TIME CONTROL) SWITCH TO 'OFF'.*

	CHECKLIST	= SEQUENCE
SET	AMPL-OFF CONTROL SLOPE CONTRON	
	AMPL-OFF CONTROL	= OFF
	AND SLOPE CONTRON	= OFF

01.1.4.063.08

SET CRT INTENSITY CONTROL TO 'FULL CCW'.

	CHECKLIST	= SEQUENCE
SET	CRT INT CONTROL	
	CRT INT CONTROL	= FULL CCW

01.1.4.063.09

SET RANGE SELECT ROTARY CONTROL TO '7.5/2.5' NM DETENT.

	CHECKLIST	= SEQUENCE
SET	RANGE SWITCH-FLR	
	RANGE SWITCH-FLR	= 7.5-2.5

01.1.4.063.1C

SET BEZEL AND RANGE MARK BRIGHTNESS CONTROLS AT MIDPOINT.

	CHECKLIST	= SEQUENCE
SET	BEZEL CONTROL	
	BEZEL CONTROL	= MIDPOINT
	AND RANGE MARK CONTROL	= MIDPOINT

01.1.4.063.11

SET LAMP TEST SWITCH TO 'OFF'.

	CHECKLIST	= SEQUENCE
SET	TEST SWITCH-IND-REC	
	TEST SWITCH-IND-REC	= OFF

01.1.4.063.12

SET ANTENNA TILT CONTROL TO DETENT POSITION.

	CHECKLIST	= SEQUENCE
SET	ANTENNA TILT CONTROL	
	ANTENNA TILT CONTROL	= DETENT

01.1.4.063.13

SET XMIT (TRANSMITTER) TUNE CONTROL TO MIDPOINT.

	CHECKLIST	= SEQUENCE
SET	XMTR TUNE CONTROL	
	XMTR TUNE CONTROL	= MIDPOINT

01.1.4.064.00

SET FLR PHOTO SWITCH TO 'OFF'.

	CHECKLIST	= SEQUENCE
SET	PHOTO CONTROL	
	PHOTO CONTROL	= OFF

01.1.4.065.00

REMOVE-ANNOTATE-INSTALL PHOTO MAGAZINE DATA PLATE.*

	CHECKLIST	= SEQUENCE

01.1.4.065.01

REMOVE PHOTO MAGAZINE

	CHECKLIST	= SEQUENCE
REMOVE	PHOTO MAGAZINE DATA PLATE	
	PHOTO MAGAZINE DATA PLATE	= REMOVED

1.33

01.1.4.065.02

ANNOTATE PHOTO MAGAZINE

PHOTO MAGAZINE DATA PLATE	= REMOVED
ANNOTATE PHOTO MAGAZINE DATA PLATE	
PHOTO MAGAZINE DATA PLATE	= ANNOTATED

01.1.4.065.03

WIND PHOTO MAGAZINE CLOCK

PHOTO MAGAZINE DATA PLATE	= ANNOTATED
WIND PHOTO MAGAZINE CLOCK	
PHOTO MAGAZINE CLOCK	= WOUND

01.1.4.065.04

SET PHOTO MAGAZINE CLOCK

PHOTO MAGAZINE CLOCK	= WOUND
SET PHOTO MAGAZINE CLOCK	
PHOTO MAGAZINE CLOCK	= SET

01.1.4.065.05

REINSTALL PHOTO MAGAZINE

PHOTO MAGAZINE CLOCK	= SET
INSERT PHOTO MAGAZINE DATA PLATE	
PHOTO MAGAZINE DATA PLATE	= REINSTALLED

01.1.4.066.00

SET RADAR CONTROL PANEL.*

        CHECKLIST   = SEQUENCE

SET   FLR CONTROL PANEL

01.1.4.066.01

SET DETENTED MODE SWITCH TO 'GND MANUAL'.

        CHECKLIST   = SEQUENCE

SET   MODE SWITCH-RADAR SET

          MODE SWITCH-RADAR SET   = GND MAN

01.1.4.066.02

SET FREQ DETENTED CONTROL TO 'AFC-1'.

        CHECKLIST   = SEQUENCE

SET   AFC-MFC CONTROL

          AFC-MFC CONTROL   = AFC-1

01.1.4.066.03

SET FUNCTION SWITCH TO 'OFF'.

        CHECKLIST   = SEQUENCE

SET   MODE SWITCH-RADAR SET-2

          MODE SWITCH-RADAR SET-2   = OFF

01.1.4.066.04

SET PRESENT POSITION CORRECTION SWITCH TO 'OUT'.

        CHECKLIST   = SEQUENCE

SET   PRESENT POSITION CORRECTION SW

          PRESENT POSITION CORRECTION SW= OUT

01.1.4.066.05   <u>SET VERT POLARIZATION SWITCH TO 'NORM'.</u>

	CHECKLIST	= SEQUENCE
SET	CIR-NORM (POLARIZATION) SWITCH	
	CIR-NORM (POLARIZATION) SWITCH= NORM	

01.1.4.066.06   <u>SET SLC (SIDE LOBE CANCELLATION) SWITCH TO 'OFF'.</u>

	CHECKLIST	= SEQUENCE
SET	SIDE LOBE CANCELLATION CONTROL	
	SIDE LOBE CANCELLATION CONTROL= OFF	

01.1.4.066.07   <u>SET FTC (FLIGHT CONTROL) BCN (BEACON) SWITCH TO 'OFF'.</u>

	CHECKLIST	= SEQUENCE
SET	FTC-BCN SWITCH	
	FTC-BCN SWITCH	= OFF

01.1.4.067.00   <u>SET IKB (INTEG KYBD) SELECTOR KNOB TO 'MISN TAPE'</u>

	CHECKLIST	= SEQUENCE
SET	ACU DATA TRANSFER CONTROL	
	ACU DATA TRANSFER CONTROL	= MISN TAPE

01.1.4.068.00   <u>SET EVS VIDEO SELECT SWITCH TO 'OFF'.</u>

	CHECKLIST	= SEQUENCE
SET	VIDEO SELECT SWITCH	
	VIDEO SELECT SWITCH	= OFF

01.1.4.069.00   <u>SET EVS SYMBOLS SWITCH TO 'OFF'.</u>

	CHECKLIST	= SEQUENCE
SET	SYMBOLS SWITCH	
	SYMBOLS SWITCH	= OFF

1.36

01.1.4.072.00

<u>SET FLIR CONTROL MODE SELECT DETENTED ROTARY KNOB TO 'OFF'.</u>

	CHECKLIST	= SEQUENCE
SET	MODE SELECT SWITCH-FLIR	
	MODE SELECT SWITCH-FLIR	= OFF

01.1.4.073.00

<u>SET BOMB TIMER POWER SWITCH TO 'OFF'.</u>

	BOMB TIMER POWER SWITCH	= OFF
SET	BOMB TIMER POWER SWITCH	
	POWER CONTROL	= OFF

01.1.4.074.00

<u>SET SMS PANEL SWITCHES.</u>

	CHECKLIST	= SEQUENCE
SET	STORES MANAGEMENT PANEL	

01.1.4.074.01

<u>SET CONV ARM (CONVENTIONAL ARMING) SWITCH TO 'SAFE'.</u>

	CHECKLIST	= SEQUENCE
SET	ARM-SAFE TOGGLE SWITCH	
	ARM-SAFE TOGGLE SWITCH	= SAFE*

01.1.4.074.02

<u>SET NUCLEAR ARMING TOGGLE SWITCH TO 'SAFE'.</u>

	CHECKLIST	= SEQUENCE
SET	NUCLEAR RACK CONTROL SWITCH	
	NUCLEAR RACK CONTROL SWITCH	= SAFE*

01.1.4.074.03

<u>SET NUCLEAR PREARM ENABLE SWITCH TO 'SAFE'.</u>

	CHECKLIST	= SEQUENCE
SET	NUCLEAR PREARM ENABLE SWITCH	
	NUCLEAR PREARM ENABLE SWITCH	= SAFE*

01.1.4.074.04

SET PREARM-SAFING PA-SAF SWITCH TO 'NEUTRAL'.

	CHECKLIST	= SEQUENCE
SET	PA-SAFE SWITCH	
	PA-SAFE SWITCH	= NEUTRAL

01.1.4.074.05

SET JETTISON CONTROL TOGGLE SWITCH TO 'NORM'.

	CHECKLIST	= SEQUENCE
SET	SEL-NORM SWITCH	
	SEL-NORM SWITCH	= NORM*

01.1.4.074.06

SET JETTISON CONTROL TOGGLE SWITCH TO 'NORM'.

	CHECKLIST	= SEQUENCE
SET	ALL-NORM SWITCH	
	ALL-NORM SWITCH	= NORM*

01.1.4.074.07

SET ST PWR (STORE POWER) SWITCH TO 'NEUTRAL'.

	CHECKLIST	= SEQUENCE
SET	STORE POWER SWITCH	
	STORE POWER SWITCH	= NEUTRAL

01.1.4.075.00

CHECK CIRCUIT BREAKERS TO 'IN' POSITION.

	CHECKLIST	= SEQUENCE
CHECK	OSO CIRCUIT BREAKERS	
	OSO CIRCUIT BREAKERS	= IN

01.1.4.076.00

CHECK CITS CONTROL PANEL TO 'OFF'.

	CHECKLIST	= SEQUENCE
CHECK	OSO CITS ADVISORY LIGHT	
	OSO CITS ADVISORY LIGHT	= OFF

01.1.4.077.00   <u>REPORT 'READY FOR PWR ON' TO PILOT.</u>

                            CHECKLIST   = SEQUENCE

       REPORT   OSO INTERPHONE SWITCH

                            OSO ICS   = RDY FOR PWR ON*

OBJECTIVE: PERFORM (POWER ON) INTERIOR INSPECTION   1.6

                    CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Interior inspection (power off) performed by
                               flight crew

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO performs (power on) interior inspection checks
                           2. DSO performs (power on) interior inspection checks

PERFORMANCE LIMITS: 1. Proper sequence
                           2. Switches in proper positions

ENABLING OBJECTIVES:

    1. Recall that with the battery switch in AUTO/ON each battery is con-
        nected to its battery bus providing power for APU starting, fire
        warning and extinguishing, and other systems requiring dc power prior
        to A/V starting.

    2. Recall which circuit breakers should be left out until some later
        time such as after the engines have been started.

    3. Recall that depressing the fire detection test switch will illuminate
        all twelve LOOP A and LOOP B lights when the loop selector switches
        are in NORM.

    4. Recall that when the APU mode switches are set to START they are held
        in that position until ignition-start has taken place.

    5. Recall that the Voltage/Frequency rotary switch provides for the se-
        lection of a generator for a readout of voltage and frequency on
        adjacent gages.

    6. Recall that the intensity of the two floodlights are controlled by
        rotary switches labeled INST and OVHD and PED and SIDE CSL.

    7. Recall that depressing the hydraulic quantity indicator test push-
        button will drive the indicator pointers counterclockwise.

    8. Recall that the hydraulic pressure gage pointers should indicate at
        the 9 o'clock position for normal operation.

ENABLING OBJECTIVES: (continued)

9. Recall that by turning the rudder pedal adjustment handle 90 degrees
    clockwise unlocks the adjusting mechanism allowing the pilots to
    move to the desired position prior to control handle release.

10. Recall that when the ICS switch knob is pulled intercom transmis-
    sions are possible.

11. Recall that by rotating the ICS switch clockwise turns the reception
    on and increments the receive volume in discrete steps.

12. Recall that when the test pushbutton on the ICS control panel is de-
    pressed the input and output amplifiers are tested by emitting an
    aural tone through the headsets.

13. Recall which caution and/or warning lights are normally illuminated
    prior to starting the A/V engines.

14. Recall that when the UHF master switch is turned to MAIN the normal
    operation of the radio receiver/transmitter is selected but the guard
    receiver is off.

15. Recall that the UHF radios have 20 preset channels that are selected
    by the preset channel selector knob.

16. Recall that the manual frequency selectors control the readout of
    the channel selected.

17. Recall that in the T/R position both the receiver and transmitter of
    the TACAN are operative.

18. Recall that the CHAN switches on the TACAN control panel permit the
    selection of 126 TACAN transmit channels.

19. Recall that when the ILS is turned on power is applied to both re-
    ceivers.

20. Recall that the ILS frequency selector knobs allow for individual
    selection of 40 channels.

21. Recall that when the radar altimeter panel switch is turned to "1 or
    2" both altimeters will be powered with one radiating and one
    blanked.

22. Recall that when the mode switch on the CSSC (Coded Switch Set Con-
    troller) is positioned to OPERATE, the CSSC operation cycle is
    iniated.

23. Recall that steady CODE and DISABLE lights indicate transmittal of a valid sum check code.

24. Recall that with the flight director mode switch set to TACAN steering commands will result in the A/V intercepting and maintaining the ground course selected on the horizontal situation indicator.

25. Recall that with the anti-collision light switch set to OFF no electrical power is available to the tail and the two wing mounted strobe light assemblies.

26. Recall that with the external position light switch in BRT full rated voltage is provided to the seven position lights.

27. Recall that when the annunciator lamp test switch is held in bright or dim all annunciators and solenoid flag displays will operate continuously except for the main caution panel. On this panel the annunciator on each half of the panel will illuminate sequentially for 5 seconds.

28. Recall that the integral bright/dim switch is used to select the intensity of the caution lights.

29. Recall that with the integral switch set to STDY COMP lighting is available to the standby compass.

30. Recall that with the integral switch set to $\propto$, lighting of the tape AOA (Angle-of-Attack) can be controlled by the pilot or copilot alpha indicator and primary flight instrument control.

31. Recall that the AFCS and INDEXER rotary switch controls the intensity of the advisory lights within the AFCS pushbuttons and the angle-of-attack indexer lights.

32. Recall that the inside switch of the OVAD/PED integral lighting switch controls the integral lighting of the overhead panel.

33. Recall that the outside switch of the OVHD/PED integral lighting switch controls the integral lighting of the center pedestal.

34. Recall that depressing the fire detection switch will illuminate the FIRE DETR annunciator on the flight station caution panel and the MASTER CAUTION lights along with the twelve LOOP A and LOOP B lights. Also, the aural warning tone will sound.

35. Recall that when the fire detection lights are released all lights will go out and the aural warning tone will stop.

36. Recall that when the emergency generator switch is turned to ON the hydraulically-driven emergency generator is started and the essential bus is energized.

37. Recall that the Voltage/Frequency rotary switch on the electrical panel must be set at EMERG to read voltage and frequency on the adjacent gages.

38. Recall that setting the fire warning and extinguishing circuit test switch to TEST will illuminate both APU's and the four engine fire switchlights. Also, the master aural warning tone will sound.

39. Recall that holding the fuel and CG test switch to up or down will run the tapes of all fuel quantity, total fuel quantity, digital fuel quantity and center of gravity indicators to up or down corresponding to the switch position.

40. Recall that the select tank rotary switch is used to select the tank quantities to be read on the digital displays.

41. Recall that when the oxygen quantity test pushbutton is depressed and held down, the indicator needle will rotate counterclockwise to zero and the oxygen low caution and both master caution lights will illuminate.

42. Recall that the wing sweep handles are mechanically interconnected and operate with a sliding friction force.

43. Recall that when the slats indicator displays EXD, the slats are in the completely extended position.

44. Recall that movement of the FLAP/SLAT handle 10 degrees to the gate detent will extend the slats and leave the flaps full up.

45. Recall that to bypass the gate detent, a small finger-operated lever on the control handle must be raised.

46. Recall that movement of the FLAP/SLAT control handle off of the gate detent provides flap extension proportional to handle position.

47. Recall that the flap position indicator ranges from UP to full DOWN which corresponds to zero and 40 degrees of flap travel.

48. Recall that the stabilizer position indicator provides for readings from 25 degrees of up elevator to 10 degrees of down elevator.

49. Recall that the rudder position indicator provides for readings from 25 degrees right to 25 degrees left rudder displacement.

50. Recall that when the flight control stick is moved laterally the horizontal stabilizers will move asymmetrically and the outboard spoilers will deflect upward on the side that the stabilizers move trailing edge up.

51. Recall that standby pitch trim may be accomplished by either forward or aft movement of the STBY PITCH switches on the flight control trim panels after the pitch trim switch on the flight control power panel has been placed in STBY.

52. Recall that actuation of the standby pitch trim will be reflected on the horizontal stabilizer position indicator by symmetrical movement of the pointers.

53. Recall that alternate trim is accomplished by setting the pitch, roll and yaw trim switches on the flight control power panel to ALTER and actuating the trim controls in the normal manner.

54. Recall that normal trimming is accomplished with the pitch, roll and yaw trim switches on the flight control power panel set to NORM.

55. Recall that normal or alternate pitch and roll trim is accomplished by the appropriate movement of the "coolie-hat" switch on the flight control sticks.

56. Recall that normal or alternate yaw trim is accomplished by right or left movement of the yaw trim switch on the flight control trim panels.

57. Recall that the trim for takeoff light illuminates when the primary control surfaces are in proper position, the spoilers are closed and the pitch trim power switch is not in STBY.

58. Recall that moving the speedbrake switch on the flight control power panel to ALTER allows operation of the speedbrakes using the primary speedbrake control but with an alternate power source.

59. Recall that when either speedbrake switch is moved to OUT, all eight spoiler indicators will show "UP" on the surface indicator panel.

60. Recall that when either speedbrake switch is moved to IN, all eight spoiler indicators on the surface indicator panel will show blank after the spoilers are fully retracted.

61. Recall that when the command value is in view, the command airspeed marker is superimposed over the commanded value on the airspeed moving scale and tracks that value.

62. Recall that when the command value is in view, the command Mach marker is superimposed over the commanded value on the Mach number moving scale and tracks that value.

63. Recall that when the command value is in view, the command sensitive altitude scale marker is superimposed over the command value on the sensitive altitude scale and tracks that value.

64. Recall that a zero pitch trim is displayed when the index arrow on the pitch trim knob is pointing to the pitch trim index dot.

65. Recall that when the TFR mode switches are placed in STBY power is applied to the channels for warmup.

66. Recall that when the radar altimeter channel selector is set to "1", RA (Radar Altimeter) 1 is operating and RA 2 is off.

67. Recall that the self-test valid light indicates the RA altitude signal is within the 100 ± 10 foot limit set to assure instrument validity.

68. Recall that when the radar altimeter channel selector is set to "2", RA 2 is operating and RA 1 is off.

69. Recall that when the radar altimeter channel selector is set to "1 or 2", both RA's are on with one tracking and the other blanked.

70. Recall what the proper presentation on the TFR indicator is like when the A/V is being checked out on the ground.

ANCILLARY OBJECTIVES:

1. Recall that the failure of a LOOP A or LOOP B light to illuminate, after a successful annunciator light test, indicates an "open" or faulty short discrimination circuit.

2. Recall that to select a good fire detection loop the corresponding selector switch must be moved toward the illuminated loop light.

3. Recall that the APU mode switches will automatically move to the RUN position after ignition-start has taken place.

4. Recall that the APU's will continue to run until one of the self-contained APU parameter sensors initiate an automatic shutdown or the switches are placed in OFF or the APU STOP switch in the wheel well is depressed.

5. Recall that the Voltage/Frequency rotary switch also provides for the selection of a bus or battery power source for a readout of voltage on the adjacent voltmeter.

6. Recall that the two floodlights also serve as THUNDERSTORM LIGHTS.

ANCILLARY OBJECTIVES: (continued)

7. Recall that the lack of counterclockwise motion during testing of the hydraulic quantity gages denotes a faulty indicator.

8. Recall that if the hydraulic fluid level in systems 1 and 4 falls below 6 gallons or below 11 gallons in systems 2 and 3, the hydraulic caution light will illuminate.

9. Recall that if any of the systems pressures fall below 2150 PSI, the hydraulic caution light will illuminate.

10. Recall that the CODE light will illuminate steady at the end of an operate cycle to indicate that the CSSC has transmitted a valid enable or sum check code to the code enabling switch.

11. Recall that steady CODE and ENABLE lights on the CSSC indicate transmittal of one of the six correct enable codes stored.

12. Recall that no light indications on the CSSC indicate transmittal of a wrong code.

13. Recall that the lack of illumination of any caution light by the annunciator test switch indicates a faulty light and not a faulty sensing system.

14. Recall that the aisle lights will automatically come on when the alert start switch on the nose gear door strut has been depressed.

15. Recall that when the emergency generator feeds the essential bus the electrical contacts from the engine-driven generators to the essential bus are opened.

16. Recall that the emergency generator advisory light is illuminated whenever the emergency generator is either manually or automatically energized to feed the essential bus. The light will remain on until the emergency generator goes off.

17. Recall that a single selection of the fuel tank rotary switch causes simultaneous displays of sequence pair fuel tank quantities in the digital readouts.

18. Recall that the select tank switch is arranged in the normal order of fuel depletion: ST BAY FWD & INTMD, FUS 2 & 3, WGL & R, FUS 1 & 4, MAIN L & R.

19. Recall that the oxygen low caution light will illuminate flashing whenever the beathing oxygen pressure falls below 42 PSIG, the indicator test switch is depressed or the quantity in both oxygen converters goes to 2 liters.

1.46

ANCILLARY OBJECTIVES: (continued)

20. Recall that the wing sweep subsystem is interlocked with the flaps
    so that with the flaps down, the wings cannot be swept aft beyond
    the 20 degree position.

21. Recall that the COMMAND INDEX MARKER on the wing sweep position indi-
    cator is actuated by a torque synchro system that is connected to the
    wing sweep handles.

22. Recall that the moving pointer on the wing sweep position indicator
    is actuated by a torque synchro system that provides actual wing
    position.

23. Recall that as the wings move to the selected position, the moving
    pointer moves toward the COMMAND INDEX MARKER and becomes coincident
    with it when the wings have moved to the selected position.

24. Recall that the barberpole on the slats position indicator is dis-
    played when the slats are in transit or if there is a malfunction in
    the slats indicating system.

25. Recall that the flap position indicator gradations are provided at
    each one-quarter position.

26. Recall that the left and right horizontal stabilizer indicators have
    separate torque synchro systems that provide separate and independent
    readings from each side.

27. Recall that the spoiler indicators will change from blank to UP as
    soon as the spoilers move out of the fully retracted positions.

28. Recall that in the standby mode, pitch trim directs nose-down and
    nose-up inputs in proportion to the time the control is held.

29. Recall that in the alternate mode, yaw trim displaces the rudders in
    proportion to the length of time the switch is held.

30. Recall that if the selected command value is not in view on the air-
    speed moving scale, the command airspeed marker assumes a position
    in view at the scale extremity

31. Recall that if the selected command value is not in view on the Mach
    number moving scale, the command Mach number marker assumes a posi-
    tion in view at the scale extremity.

32. Recall that the current barometric pressure set in with the baro-set
    knob is transmitted to the Air Data Computer so the altitude displayed
    on the AVVI is the correct altitude above mean sea level.

ANCILLARY OBJECTIVES: (continued)

33. Recall that if the selected command value is not in view on the sen-
     sitive altitude scale, the sensitive altitude scale command marker
     assumes a position in view at the scale extremity.

34. Recall that after initial systems warmup is accomplished in the "1 or
     2" position switching back to check RA 1 or forward to check RA 2
     does not recycle the warmup period of the selected radar altimeter.

35. Recall that when the radar altimeter channel selector is set to "1
     or 2" and the tracking RA loses track, the other RA automatically
     locks on and begins tracking.

OPERATOR: P/CP

TASK ELEMENTS:

1.1.5.1	1.1.5.27	1.1.5.45.1
1.1.5.2	1.1.5.28	1.1.5.45.2
1.1.5.3	1.1.5.29	1.1.5.45.3
1.1.5.3.1	1.1.5.30	1.1.5.45.4
1.1.5.3.2	1.1.5.31	1.1.5.46
1.1.5.4	1.1.5.32	1.1.5.46.1
1.1.5.5	1.1.5.33	1.1.5.46.2
1.1.5.6	1.1.5.33.1	1.1.5.46.3
1.1.5.6.1	1.1.5.33.2	1.1.5.46.4
1.1.5.6.2	1.1.5.34	1.1.5.46.5
1.1.5.6.3	1.1.5.34.1	1.1.5.46.6
1.1.5.7	1.1.5.34.2	1.1.5.47
1.1.5.8	1.1.5.35	1.1.5.47.1
1.1.5.9	1.1.5.36	1.1.5.47.2
1.1.5.10	1.1.5.36.1	1.1.5.48
1.1.5.11	1.1.5.36.2	1.1.5.49
1.1.5.11.1	1.1.5.37	1.1.5.50
1.1.5.11.2	1.1.5.37.1	1.1.5.50.1
1.1.5.11.3	1.1.5.38	1.1.5.50.2
1.1.5.12	1.1.5.39	1.1.5.50.3
1.1.5.13	1.1.5.40	1.1.5.50.4
1.1.5.14	1.1.5.41	1.1.5.69
1.1.5.15	1.1.5.42	1.1.5.70
1.1.5.16	1.1.5.43	1.1.5.70.1
1.1.5.17	1.1.5.43.1	1.1.5.70.2
1.1.5.18	1.1.5.43.2	1.1.5.70.3
1.1.5.22	1.1.5.44	1.1.5.71
1.1.5.23	1.1.5.44.1	
1.1.5.24	1.1.5.44.2	
1.1.5.25	1.1.5.44.3	
1.1.5.26	1.1.5.45	

01.1.5.001.00

SET BATT SWITCH TO 'AUTO ON'

	CHECKLIST	= SEQUENCE
SET	BATTERY SELECT SWITCH	
	BATTERY SELECT SWITCH	= AUTO ON

01.1.5.002.00

VISUALLY CHECK CIRCUIT BREAKERS ARE PROPERLY POSITIONED*

	CHECKLIST	= SEQUENCE
CHECK	LEFT CIRCUIT BREAKERS RIGHT CIRCUIT BREAKERS	
	LEFT CIRCUIT BREAKERS AND RIGHT CIRCUIT BREAKERS	= IN = IN

01.1.5.003.00

DEPRESS FIRE DETR BUTTON TO CHECK APU AND ENGINE FIRE LOOPS*

	CHECKLIST	= SEQUENCE
DEPRESS	FIRE DETR TEST SW (PUSHBUTTON)	
	FIRE DETR TEST SW (PUSHBUTTON)	= DEPRESSED

01.1.5.003.01

CHECK L AND R APU LOOPS A AND B FIRE DETECTION LIGHTS

	FIRE DETR TEST SW (PUSHBUTTON)	= DEPRESSED
CHECK	APU LOOP A LIGHT APU LOOP B LIGHT	
	APU LOOP A LIGHT AND APU LOOP B LIGHT	= ON = ON

01.1.5.003.02

CHECK ENGINES LOOPS A AND B FIRE DETECTION LIGHTS

	FIRE DETR TEST SW (PUSHBUTTON)	= DEPRESSED
CHECK	ENGINE-ADG LOOP A FIRE LIGHTS ENGINE-ADG LOOP B FIRE LIGHTS	
	ENGINE-ADG LOOP A FIRE LIGHTS = ON AND ENGINE-ADG LOOP B FIRE LIGHTS = ON	

1.49

01.1.5.004.00

<u>OBSERVE IF GROUND CREW IS READY FOR APU START</u>

	CHECKLIST	= SEQUENCE
OBSERVE	WINDSHIELD – LEFT	
	WINDSHIELD – LEFT	= OBSERVED*

01.1.5.005.00

<u>SET MOMENTARILY APU MODE SWITCHES TO 'START'</u>

	WINDSHIELD – LEFT	= OBSERVED
SET	MODE SWITCHES	
	MODE SWITCHES	= START
	AND APU EXH TEMP GAGE	= RISING

01.1.5.006.00

<u>SET 'VOLTAGE-FREQ' SELECTOR TO EACH GEN AND CHECK</u>

	VOLTAGE/FREQ SELECTOR SWITCH	= BUS 2
	AND FREQUENCY METER	= TBD
SET	VOLTAGE/FREQ SELECTOR SWITCH	

01.1.5.006.01

<u>SET 'VOLTAGE-FREQ' SELECTOR TO 'NO.1 GEN' AND CHECK</u>

	VOLTAGE/FREQ SELECTOR SWITCH	= BUS 2
	AND FREQUENCY METER	= TBD
SET	VOLTAGE/FREQ SELECTOR SWITCH	
	VOLTAGE/FREQ SELECTOR SWITCH	= GEN 1
	AND FREQUENCY METER	= TBD

01.1.5.006.02

<u>SET 'VOLTAGE-FREQ' SELECTOR TO 'NO.2 GEN' AND CHECK</u>

	VOLTAGE/FREQ SELECTOR SWITCH	= GEN 1
	AND FREQUENCY METER	= TBD
SET	VOLTAGE/FREQ SELECTOR SWITCH	
	VOLTAGE/FREQ SELECTOR SWITCH	= GEN 2
	AND FREQUENCY METER	= TBD

01.1.5.006.03
SET 'VOLTAGE-FREQ' SELECTOR TO 'NO.3 GEN' AND CHECK*

```
                        VOLTAGE/FREQ SELECTOR SWITCH   = GEN 2
                    AND FREQUENCY METER                = TBD

    SET                 VOLTAGE/FREQ SELECTOR SWITCH

                        VOLTAGE/FREQ SELECTOR SWITCH   = GEN 3
                    AND FREQUENCY METER                = TBD
```


01.1.5.007.00
ADJUST FLIGHT STATION FLOODLIGHT INTENSITY TO DESIRED LEVEL

```
                        VOLTAGE METER                  = TBD
                    AND FREQUENCY METER                = TBD

    ADJUST              FLOODLIGHTS

                        FLOODLIGHTS                    = TBD
```


01.1.5.008.00
DEPRESS 'HYD QTY TEST' BUTTON TO CHECK HYD QTY GAGES

```
                        CHECKLIST                      = SEQUENCE

    DEPRESS             HYDRAULIC INDICATOR TEST

                        HYDRAULIC INDICATOR TEST       = DEPRESSED*
                    AND HYDRAULIC QUANTITY INDICATORS  = 0
```


01.1.5.009.00
CHECK THAT HYDRAULIC PRESSURES ARE WITHIN LIMITS*

```
                        CHECKLIST                      = SEQUENCE

    CHECK               HYDRAULIC PRESSURE INDICATORS

                        HYDRAULIC PRESSURE INDICATORS  = TBD*
```


01.1.5.010.00
ADJUST SEAT AND RUDDER PEDALS

```
                        CHECKLIST                      = SEQUENCE

    ADJUST              SEATS
                        RUDDER PEDAL ADJ HANDLES

                        SEATS                          = ADJUSTED
                    AND RUDDER PEDAL ADJ HANDLES       = ADJUSTED
```

1.51

01.1.5.011.00

<u>SET AND TEST ICS (INTERCOM SYSTEM) CONTROL</u>

	CHECKLIST	= SEQUENCE
SET	INTERCOMS	
	INTERCOMS	= TBD

01.1.5.011.01

<u>PULL ICS CONTROL AND SET VOLUME AS DESIRED</u>

	CHECKLIST	= SEQUENCE
SET	ICS VOLUME	
	ICS VOLUME	= SET

01.1.5.011.02

<u>DEPRESS ICS TEST PUSHBUTTON</u>

	CHECKLIST	= SEQUENCE
DEPRESS	TEST SWITCHES-ICS	
	HEADSETS	= SIDE TONE

01.1.5.011.03

<u>EACH CREWMEMBER REPORTS 'ICS READY'</u>

	CHECKLIST	= SEQUENCE
COMMUNICATE	INTERCOM	
	INTERCOM	= 'ICS READY'*

01.1.5.012.00

<u>CHECK VISUALLY SYSTEMS CAUTION AND WARNING LIGHTS</u>

	CHECKLIST	= SEQUENCE
CHECK	CAUTION-WARNING LIGHTS	
	CAUTION-WARNING LIGHTS	= ACCEPTABLE*

01.1.5.013.00

<u>SET UHF 1 MASTER SWITCH TO 'MAIN' AND SET CHANNEL AS DESIRED</u>

	CHECKLIST	= SEQUENCE
SET	FUNCTION SELECT SW-PILOT PRESET CHANNEL SELECTOR-PILOT	
	FUNCTION SELECT SW-PILOT AND PRESET CHANNEL SELECTOR-PILOT	= MAIN = TBD

01.1.5.014.00
SET UHF 2 MASTER SWITCH TO 'MAIN' AND SET CHANNEL AS DESIRED

CHECKLIST = SEQUENCE

SET   FUNCTION SELECT SW-COPILOT
PRESET CHANNEL SELECTOR-COP

FUNCTION SELECT SW-COPILOT = MAIN
AND PRESET CHANNEL SELECTOR-COP = TBD

01.1.5.015.00
SET TACAN SWITCH TO 'TR' AND SET CHANNEL AS DESIRED

CHECKLIST = SEQUENCE

SET   MODE SELECTOR SWITCH-TACAN
CHANNEL SELECTOR-TACAN

MODE SELECTOR SWITCH-TACAN = T-R
AND CHANNEL SELECTOR-TACAN = TBD

01.1.5.016.00
SET ILS SWITCH TO 'ON' AND SET FREQUENCY AS DESIRED*

CHECKLIST = SEQUENCE

SET   POWER SWITCH-ILS
FREQUENCY SELECT KNOBS

POWER SWITCH-ILS = PWR
AND FREQUENCY SELECT KNOBS = TBD

01.1.5.017.00
SET RADAR ALTIMETER MODE SWITCH TO '1 OR 2' POSITION*

CHECKLIST = SEQUENCE

SET   CHANNEL SELECTOR SWITCH

CHANNEL SELECTOR SWITCH = 1 OR 2

01.1.5.018.00
PERFORM OPERATIONAL TEST CHECK ON CODED SW SET CONTROLLER

CHECKLIST = SEQUENCE

SET   OPERATE; MONITOR SWITCH

OPERATE; MONITOR SWITCH = OPERATE*
AND DISENABLE INDICATOR = ON

1.53

01.1.5.022.00

SET FLT DIR MODE SWITCHES TO 'TACAN'

          CHECKLIST   = SEQUENCE

SET   FLT DIR MODE SWITCH-PILOT
            FLT DIR MODE SWITCH-COPILOT

            FLT DIR MODE SWITCH-PILOT   = TACAN
    AND FLT DIR MODE SWITCH-COPILOT   = TACAN

01.1.5.023.00

SET COMMAND COURSE AND HEADING INTO HSI

          CHECKLIST   = SEQUENCE

SET   COURSE SET KNOB
            HEADING SET KNOB

            COURSE SET KNOB   = TBD
    AND HEADING SET KNOB   = TBD

01.1.5.024.00

SET ANTI CLSN SWITCH TO 'OFF'

          CHECKLIST   = SEQUENCE

SET   ANTI-COLLISION CONTROL SWITCH

            ANTI-COLLISION CONTROL SWITCH = OFF

01.1.5.025.00

SET EXT POSITION LIGHT SWITCHES (2) TO 'BRT AND FLASH'

          CHECKLIST   = SEQUENCE

SET   POSITION LIGHT SWITCH
            POSITION LIGHT MODE SWITCH

            POSITION LIGHT SWITCH   = BRT
    AND POSITION LIGHT MODE SWITCH   = FLASH

01.1.5.026.00

SET ANNUNCIATOR LAMP BRT-DIM TEST SWITCH*

	CHECKLIST	= SEQUENCE
SET	ANNUNCIATOR TEST SWITCH	
	ANNUNCIATOR TEST SWITCH	= BRT
AND	ANNUNCIATOR TEST SWITCH	= DIM

01.1.5.027.00

SET BRT-DIM INTEGRAL SWITCH TO 'BRT' OR 'DIM' AS DESIRED

	CHECKLIST	= SEQUENCE
SET	BRT-DIM INTEGRAL SWITCH	
	BRT-DIM INTEGRAL SWITCH	= BRT
OR	BRT-DIM INTEGRAL SWITCH	= DIM

01.1.5.028.00

SET INTEGRAL LIGHT SWITCHES (2) TO 'STBY COMP AND ALPHA'*

	CHECKLIST	= SEQUENCE
SET	STANDBY COMPASS LIGHT CONTROL	
	AOA DISPLAY LIGHT CONTROL	
	STANDBY COMPASS LIGHT CONTROL	= STBY COMP
AND	AOA DISPLAY LIGHT CONTROL	= ALPHA

01.1.5.029.00

SET AFCS AND AOA INDEXER LIGHTING CONTROL AS DESIRED

	CHECKLIST	= SEQUENCE
SET	PILOTS AFCS & INDEXER CONTROL	
	COPILOT AFCS-INDEXER CONTROL	
	PILOTS AFCS & INDEXER CONTROL	= TBD
AND	COPILOT AFCS-INDEXER CONTROL	= TBD

01.1.5.030.00

SET OVHD/PED LIGHTING CONTROLS AS DESIRED

                CHECKLIST   = SEQUENCE

SET   OVRD INTEGRAL LIGHT CONTROL
                PED INTEGRAL LIGHT CONTROL

                OVRD INTEGRAL LIGHT CONTROL   = TBD
          AND PED INTEGRAL LIGHT CONTROL   = TBD

01.1.5.031.00

SET 'C' (CENTER INSTRUMENT PANEL) LIGHTING AS DESIRED

                CHECKLIST   = SEQUENCE

SET   CN INST PNL INT LIGHT SW

                CN INST PNL INT LIGHT SW   = TBD

01.1.5.032.00

SET AISLE LIGHTING SWITCH 'ON' IF DESIRED

                CHECKLIST   = SEQUENCE

SET   AISLE LIGHTING CONTROL

                AISLE LIGHTING CONTROL   = TBD

01.1.5.033.00

DEPRESS FIRE DETR CIRCUIT TEST PUSHBUTTON*

                CHECKLIST   = SEQUENCE

DEPRESS   FIRE DETR TEST SW (PUSHBUTTON)

01.1.5.033.01

CHECK ENGINES LOOPS A AND B FIRE DETECTION LIGHTS

                FIRE DETR TEST SW (PUSHBUTTON)= DEPRESSED

CHECK   ENGINE-ADG LOOP A FIRE LIGHTS
                ENGINE-ADG LOOP B FIRE LIGHTS

                ENGINE-ADG LOOP A FIRE LIGHTS = ON
       AND ENGINE-ADG LOOP B FIRE LIGHTS = ON

01.1.5.033.02
CHECK APUS LOOPS A AND B FIRE DETECTION LIGHTS

FIRE DETR TEST SW (PUSHBUTTON)= DEPRESSED

CHECK   APU LOOP A LIGHT
         APU LOOP B LIGHT

         APU LOOP A LIGHT   = ON
      AND APU LOOP B LIGHT   = ON

01.1.5.034.00
SET EMERG GEN SW TO 'ON' AND CHECK GENERATOR OUTPUT

CHECKLIST   = SEQUENCE

01.1.5.034.01
RAISE SWITCH GUARD AND SET EMERG GEN SWITCH TO 'ON'

CHECKLIST   = SEQUENCE

SET   EMERGENCY GENERATOR CONTROL SW
       VOLTAGE/FREQ SELECTOR SWITCH

       EMERGENCY GENERATOR CONTROL SW= ON
    AND VOLTAGE/FREQ SELECTOR SWITCH = EMERG

01.1.5.034.02
CHECK EMERG GENERATOR OUTPUT*

       EMERG GENERATOR ADVISORY LT = 'EMERG GEN ON'
   AND VOLTAGE/FREQ SELECTOR SWITCH = EMERG

CHECK   VOLTAGE METER
       FREQUENCY METER

       VOLTAGE METER   = TBD
    AND FREQUENCY METER   = TBD

01.1.5.035.00
POSITION FIRE WARNING AND EXTGH CIRCUIT SWITCH IN 'TEST'*

CHECKLIST   = SEQUENCE

POSITION   FIRE WARN & EXTGH TEST SW

       FIRE WARN & EXTGH TEST SW = TEST
    AND APU FIRE SWITCHLIGHTS   = 'APU FIRE'

01.1.5.036.00

SET FUEL QTY AND CG TEST SWITCHES UP, THEN DOWN

                CHECKLIST   = SEQUENCE

01.1.5.036.01

                SET FUEL QTY AND CG TEST SWITCHES UP

                CHECKLIST   = SEQUENCE

SET   FUEL & CENTER OF GRAVITY SW

                FUEL & CENTER OF GRAVITY SW   = UP
        AND FUEL MGT PANEL   = TBD

01.1.5.036.02

                SET FUEL QTY AND CG TEST SWITCHES DN*

                FUEL & CENTER OF GRAVITY SW   = UP
        AND FUEL MGT PANEL   = TBD

SET   FUEL & CENTER OF GRAVITY SW

                FUEL & CENTER OF GRAVITY SW   = DN*
        AND FUEL MGT PANEL   = TBD

01.1.5.037.00

       CHECK FUEL QUANTITIES SHOWN IN A-V WITH ENTRIES IN FORM 781

                CHECKLIST   = SEQUENCE

01.1.5.037.01

         SET FUEL SEL TK TO VARIOUS POSNS AND CHECK DIGITAL READOUT

                CHECKLIST   = SEQUENCE

CHECK   SELECT TANK SWITCH
                SELECT QUANTITY DIGITAL READ

                SELECT TANK SWITCH   = TBD
      AND SELECT QUANTITY DIGITAL READ = TBD

01.1.5.038.00

                DEPRESS OXYGEN QTY TEST PUSHBUTTON*

                CHECKLIST   = SEQUENCE

DEPRESS   OXYGEN TEST PUSHBUTTON

                LIQUID OXYGEN QUANTITY METER = 0*
      AND LIQUID OXYGEN QUANTITY METER = TBD

01.1.5.039.00

VERIFY THAT WING SWEEP HANDLES ARE IN FULL FWD POSN (15 DEG)

	CHECKLIST	= SEQUENCE
CHECK	WING SWEEP HANDLES	
	WING SWEEP POSITION INDICATOR	
	WING SWEEP HANDLES	= FULL FORWARD*
	AND WING SWEEP POSITION INDICATOR	= 15

01.1.5.040.00

REQUEST ALL CLEAR FROM GROUND CREW BEFORE OPERATING CONTROLS

	CHECKLIST	= SEQUENCE
OBSERVE	WINDSCREEN	
	WINDSCREEN	= OBSERVED*

01.1.5.041.00

CYCLE FLAPS-SLATS FOR SYSTEM CHECK WITH SURF POSN INDICATORS

	CHECKLIST	= SEQUENCE
OPERATE	FLAP-SLAT CONTROL HANDLE	
	FLAP POSITION INDICATOR	= TBD*
	AND SLATS POSITION INDICATOR	= TBD

01.1.5.042.00

CYCLE PRIMARY FLIGHT CONTROLS AND CHECK ON SURF POSN INDICS*

	CHECKLIST	= SEQUENCE
OPERATE	FLIGHT CONTROL STICK	
	RUDDER PEDALS	
	WING-SWEEP SURFACE POS IND	= TBD*

01.1.5.043.00

VERIFY OPERATION OF STANDBY PITCH TRIM SYSTEM

	CHECKLIST	= SEQUENCE

01.1.5.043.01

SET PITCH TRIM POWER SWITCH IN 'STBY' POSITION

	CHECKLIST	= SEQUENCE
SET	PITCH TRIM SWITCH	
	PITCH TRIM SWITCH	= STBY

01.1.5.043.02
OPERATE PILOTS CONSOLE STBY PITCH TRIM SWITCH UP THEN DOWN

	CHECKLIST	= SEQUENCE
OPERATE	PILOT STBY PITCH SWITCH	
	PILOT STBY PITCH SWITCH	
	STABILIZER POSITION INDICATOR	= TBD*

01.1.5.044.00
VERIFY OPERATION OF ALTERNATE TRIM SYSTEM*

	CHECKLIST	= SEQUENCE

01.1.5.044.01
SET PITCH, ROLL, AND YAW POWER SWITCHES (3) IN 'ALTER' POSN

	CHECKLIST	= SEQUENCE
SET	PITCH TRIM SWITCH	
	ROLL TRIM SWITCH	
	YAW TRIM SWITCH	
	PITCH TRIM SWITCH	= ALTER
AND	YAW TRIM SWITCH	= ALTER

01.1.5.044.02
OPERATE PILOT'S STICK TRIM SWITCH AND CHECK POSN INDICATORS*

	CHECKLIST	= SEQUENCE
OPERATE	PLT TRIM SW (ON CONTR STICK)	
	STABILIZER POSITION INDICATOR	= TBD*

01.1.5.044.03
OPERATE PILOT'S TRIM YAW SWITCH AND CHECK POSN INDICATORS*

	CHECKLIST	= SEQUENCE
OPERATE	PILOT YAW SWITCH	
	RUDDER POSITION INDICATOR	= TBD*

01.1.5.045.00
VERIFY OPERATION OF NORMAL TRIM SYSTEM

	CHECKLIST	= SEQUENCE

1.60

01.1.5.045.01
SET PITCH, ROLL, AND YAW POWER SWITCHES (3) IN 'NORM' POSN

```
                    CHECKLIST                    = SEQUENCE

    SET             PITCH TRIM SWITCH
                    ROLL TRIM SWITCH
                    YAW TRIM SWITCH

                    PITCH TRIM SWITCH            = NORM
                AND YAW TRIM SWITCH             = NORM
```

01.1.5.045.02
OPERATE PILOT'S STICK TRIM SWITCH AND CHECK POSN INDICATORS*

```
                    CHECKLIST                    = SEQUENCE

    OPERATE         PLT TRIM SW (ON CONTR STICK)

                    STABILIZER POSITION INDICATOR = TBD*
```

01.1.5.045.03
OPERATE PILOT'S TRIM YAW SWITCH AND CHECK POSN INDICATORS*

```
                    CHECKLIST                    = SEQUENCE

    OPERATE         PILOT YAW SWITCH

                    RUDDER POSITION INDICATOR    = TBD*
```

01.1.5.045.04
DEPRESS TTO PUSHBUTTON AND CHECK GREEN LIGHT*

```
                    CHECKLIST                    = SEQUENCE

    DEPRESS         TRIM FOR TAKEOFF (TTO) SWITCH

                    TRIM FOR TAKEOFF LIGHT       = ON
```

01.1.5.046.00
VERIFY SPEEDBRAKE OPERATION

```
                    CHECKLIST                    = SEQUENCE
```

01.1.5.046.01
SET LEVER LOCKED SPDBK SWITCH TO 'ALTER' POSITION*

```
                    CHECKLIST                    = SEQUENCE

    SET             SPD BRK SWITCH

                    SPD BRK SWITCH               = ALTER
```

01.1.5.046.02
<u>SET EITHER NO.4 THROTTLE SPDBK SWITCH TO 'OUT' POSITION*</u>

                      SPD BRK SWITCH   = ALTER

SET   PILOTS SPD BRK CONTR #4 THROT
                        COPLTS SPD BRK CONTR #4 THROT

                      PILOTS SPD BRK CONTR #4 THROT = OUT*
      AND LEFT AND RIGHT SPOILERS EM IND= 'UP'

01.1.5.046.03
<u>SET EITHER NO.4 THROTTLE SPDBK SWITCH TO 'IN' POSITION</u>

                      LEFT AND RIGHT SPOILERS EM IND= 'UP'

SET   PILOTS SPD BRK CONTR #4 THROT
                        COPLTS SPD BRK CONTR #4 THROT

                      PILOTS SPD BRK CONTR #4 THROT = IN*
      AND LEFT AND RIGHT SPOILERS EM IND= NO FLAG

01.1.5.046.04
<u>SET LEVER LOCKED SPDBK SWITCH TO 'NORM' POSITION*</u>

                      PILOTS SPD BRK CONTR #4 THROT = IN
      AND LEFT AND RIGHT SPOILERS EM IND= NO FLAG

SET   SPD BRK SWITCH

                      SPD BRK SWITCH   = NORM

01.1.5.046.05
<u>SET EITHER NO.4 THROTTLE SPDBK SWITCH TO 'OUT' POSITION*</u>

                      SPD BRK SWITCH   = NORM

SET   PILOTS SPD BRK CONTR #4 THROT
                        COPLTS SPD BRK CONTR #4 THROT

                      PILOTS SPD BRK CONTR #4 THROT = OUT*
      AND LEFT AND RIGHT SPOILERS EM IND= 'UP'

01.1.5.046.06
<u>SET EITHER NO.4 THROTTLE SPDBK SWITCH TO 'IN' POSITION</u>

                      LEFT AND RIGHT SPOILERS EM IND= 'UP'

SET   PILOTS SPD BRK CONTR #4 THROT
                        COPLTS SPD BRK CONTR #4 THROT

                      PILOTS SPD BRK CONTR #4 THROT = IN*
      AND LEFT AND RIGHT SPOILERS EM IND= NO FLAG

01.1.5.047.00
SET AMI COMMAND AIRSPEED AND MACH MARKERS AS REQUIRED

CHECKLIST   = SEQUENCE

01.1.5.047.01
SET AMI COMMAND AIRSPEED MARKERS AS REQUIRED

CHECKLIST   = SEQUENCE

SET   AIRSPEED COMMAND SLEW SWITCH

COMMAND AIRSPEED MARKER   = TBD

01.1.5.047.02
SET AMI COMMAND MACH MARKERS AS REQUIRED

COMMAND AIRSPEED MARKER   = TBD

SET   MACH COMMAND SLEW SWITCH

COMMAND MACH MARKER   = TBD

01.1.5.048.00
SET AVVI BARO CONTROLS TO CURRENT BAROMETRIC PRESSURE

CHECKLIST   = SEQUENCE

SET   BARO-SET KNOB

BARO-SET KNOB   = TBD

01.1.5.049.00
SET COMMAND ALTITUDE SLEWING SWITCH TO REQD COMMAND ALTITUDE

CHECKLIST   = SEQUENCE

SET   COMMAND ALTITUDE SLEW SWITCH

COMMAND ALTITUDE SLEW SWITCH   = TBD*

01.1.5.050.00
SET AND CHECK STANDBY FLIGHT INSTRUMENTS

CHECKLIST   = SEQUENCE

1.63

01.1.5.050.01

SET PITCH TRIM KNOB TO ZERO AND CHECK 'OFF' FLAG OUT OF VIEW

	CHECKLIST	= SEQUENCE
SET	PITCH TRIM KNOB	
	MINIATURE AIRPLANE	= TBD
	AND OFF FLAG-SADI	= NO FLAG

01.1.5.050.02

SET AIRSPEED-MACH NO. INDICATOR AIRSPEED MARKER AS REQUIRED

	CHECKLIST	= SEQUENCE
SET	AIRSPEED MARKER SET KNOB	
	AIRSPEED MARKER	= TBD
	AND MAX ALLOW AIRSPEED-MACH POINT	= TBD

01.1.5.050.03

SET GROUND SPEED-TRUE AIRSPEED SELECTOR SWITCH TO 'IAS'

	AIRSPEED MARKER	= TBD
SET	MODE SELECTOR KNOB	
	MODE SELECTOR KNOB	= TAS

01.1.5.050.04

SET BAROMETRIC SETTING KNOB ON STBY ALTIM TO LOCAL PRESSURE

	MODE SELECTOR KNOB	= TBD
SET	BAROMETRIC SETTING KNOB	
	BAROMETRIC SCALE COUNTER	= TBD

01.1.5.069.00

SET TFR MODE SWITCHES TO 'STBY'*

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-TFR	
	MODE SWITCH-TFR	= STBY

01.1.5.070.00

PERFORM OPERATIONAL CHECK OF RADAR ALTIMETER

	CHECKLIST	= SEQUENCE

01.1.5.070.01

<u>SET SELECTOR TO '1' AND CHECK SELF TEST CIRCUITS</u>*

	CHECKLIST	= SEQUENCE
SET	CHANNEL SELECTOR SWITCH POWER-SET-TEST CONTROL KNOB	
	CHANNEL SELECTOR SWITCH	= 1*
	AND SELF-TEST VALID LIGHT	= ON

01.1.5.070.02

<u>SET SELECTOR TO '2' AND CHECK SELF TEST CIRCUITS</u>

	CHECKLIST	= SEQUENCE
SET	CHANNEL SELECTOR SWITCH POWER-SET-TEST CONTROL KNOB	
	CHANNEL SELECTOR SWITCH	= 2*
	AND SELF-TEST VALID LIGHT	= ON

01.1.5.070.03

<u>SET SELECTOR TO '1 OR 2' FOR NORMAL OPERATIONS</u>*

	CHECKLIST	= SEQUENCE
SET	CHANNEL SELECTOR SWITCH	
	CHANNEL SELECTOR SWITCH	= 1 OR 2

01.1.5.071.00

<u>CHECK TFR'S OPERATIONALLY</u>*

	CHECKLIST	= SEQUENCE
CHECK	TF INDICATOR PANEL	
	TF INDICATOR PANEL	= COMPLETED

OBJECTIVE: PERFORM (POWER ON) INTERIOR INSPECTION   1.7

                    CRITICALITY: 2   DIFFICULTY: 1
INITIAL CONDITIONS: 1. Interior inspection (power off) performed by
                             flight crew

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP perform (power on) interior inspection checks
                         2. DSO performs (power on) interior inspection checks

PERFORMANCE LIMITS: 1. Proper sequence
                         2. Switches in proper positions

ENABLING OBJECTIVES:

   1. Recall that when the ICS switch knob is pulled intercom transmissions
       are possible.

   2. Recall that by rotating the ICS switch clockwise turns the reception
       on and increments the receive volume in discrete steps.

   3. Recall that when the test pushbutton on the ICS control panel is de-
       pressed the input and output amplifiers are tested by emitting an
       aural tone through the headset.

   4. Recall how the CITS (Central Integrated Test Subsystem) displays the
       status of A/V subsystems when they have faults.

   5. Recall that with the GNACU (General Navigation Avionics Control Unit)
       in DSBL no commands can be transmitted by the right EMUX (Electrical
       Multiplexer) to turn on the GNACU.

   6. Recall that with the WDACU (Weapons Delivery Avionics Control Unit)
       in DSBL no commands can be transmitted by the left EMUX to turn on
       the WDACU.

   7. Recall that when the doppler switch is placed in STBY the doppler starts
       to warm up.

   8. Recall that with the INS #1 switch in INS 1, the ACU is enabled via
       the right EMUX to turn on INS #1.

   9. Recall that with the INS #2 switch in INS 2, the ACU is enabled via
       the left EMUX to turn on INS #2.

  10. Recall that latitude and longitude can be entered with the IKB through

the NAV function, the STARTUP subfunction and the INITIAL DATA option of the navigation logic trees.

11. Recall that magnetic variation can be entered with the IKB through the NAV function, the AUX NAV subfunction and the MAG VAR option of the navigation logic trees.

12. Recall that with the FLR mode switch in STBY all system filaments and protective time delays are energized.

13. Recall that with the EVS rides select knob in STBY only alphanumeric data is presented on the MFD.

14. Recall that with the FLIR mode select control in STBY power is applied to all units except the signal processor and azimuth scan mirror.

15. Recall that when the memory control pushbutton on the IKB is depressed the tape cassette is set in motion and data are fed to the selected memory unit.

16. Recall that mission data can be verified on the SMS (Stores Management System) CRT's and by calling up sequence numbers on the navigation panel.

17. Recall that with the FLR mode switch in ON the system is energized with the exception of the transmitter provided the nominal 40-second protective time delay has been completed.

18. Recall that with the FLR mode control in XMIT the system is transmitting and receiving provided the nominal 5-minute delay has been completed.

19. Recall what the proper presentation on the CRT of the FLR is like when the A/V is on the ground.

20. Recall that when the FLIR mode control is set to OPR, power is supplied to all units to enable full operational capability, provided the EVS video select control is not off.

21. Recall that when the EVS video select control is set to FLIR, video from the FLIR sensor is displayed on the MFD.

22. Recall what the proper FLIR presentation on the MFD is like when the A/V is on the ground.

23. Recall that when either the INS #1 or INS #2 navigation mode switch is illuminated determines the particular inertial navigation system that will be used for FLR or EVS cross hair laying, etc..

24. Recall that with either the INS #1 or INS #2 navigation mode switch illuminated, the true heading should indicate the same as the A/V's actual heading and the ground speed should indicate zero.

25. Recall that the display group of controls on the SMS panel provides the means by which a DATA format is displayed on a specific CRT.

26. Recall that the STAT switchlight on the DATA group of the SMS panel provides weapon status at all locations.

27. Recall that the INV switchlight on the DATA group of the SMS panel provides full store inventory at all store locations.

ANCILLARY OBJECTIVES:

1. Recall that the CITS mode switch has 12 positions some of which are used in flight only and others for ground operation only.

2. Recall that a separate dedicated keyboard to CITS is used to allow entry of numerically coded data into the computer.

3. Recall that a matrix of 50 switch indicators are used to identify failures and allow selection of subsystems for display of failure information.

4. Recall that the 50 switch indicators are split-screen indicators. The upper half identifies a failure and the lower half indicates the availability of α-N display messages.

5. Recall that a 20-character α-N readout is provided for display of CITS data.

6. Recall that the doppler XMT/STBY/OFF switch is the only hard wired power control on the auxiliary panel and when the switch is placed in STBY, the standby line is grounded.

7. Recall that ACU power must be turned on to complete coarse alignment and for gyro torquing the INS's.

8. Recall that the COARSE indicator flashes four times per second while the particular INS is in the hardware coarse alignment phase and turns steady when the coarse leveling phase is entered.

9. Recall that nine lines of data can be presented on the IKB CRT.

10. Recall that with the FLR mode switch in STBY, the antenna is held in an azimuth limit, zero pitch and maximum up in tilt.

ANCILLARY OBJECTIVES: (continued)

11. Recall that with the FLIR mode select control in STBY overheat failure circuits are operative and cannot be overridden.

12. Recall that the memory control switchlight on the IKB extinguishes when loading is complete.

13. Recall that formats are placed on the CRT displays on a last requested priority basis.

14. Recall that a particular display can be blanked by selecting the appropriate DIS switch when a DATA switch has not been selected.

15. Recall that the DATA functional switches are mutually exclusive and are activated on a "last selected" priority basis.

16. Recall that expanded status data is provided using the Location Select and numeric keyboard.

OPERATOR: OSO

TASK ELEMENTS:

1.1.5.11	1.1.5.64
1.1.5.11.1	1.1.5.65
1.1.5.11.2	1.1.5.66
1.1.5.11.3	1.1.5.67
1.1.5.52	1.1.5.68
1.1.5.53	1.1.5.73
1.1.5.54	1.1.5.76
1.1.5.55	1.1.5.77
1.1.5.56	1.1.5.78
1.1.5.57	1.1.5.79
1.1.5.58	1.1.5.80
1.1.5.59	1.1.5.81
1.1.5.61	1.1.5.82
1.1.5.62	1.1.5.83
1.1.5.63	

01.1.5.011.00

<u>SET AND TEST ICS (INTERCOM SYSTEM) CONTROL</u>

	CHECKLIST	= SEQUENCE
SET	INTERCOMS	
	INTERCOMS	= TBD

01.1.5.011.01

<u>PULL ICS CONTROL AND SET VOLUME AS DESIRED</u>

	CHECKLIST	= SEQUENCE
SET	ICS VOLUME	
	ICS VOLUME	= SET

01.1.5.011.02

<u>DEPRESS ICS TEST PUSHBUTTON</u>

	CHECKLIST	= SEQUENCE
DEPRESS	TEST SWITCHES-ICS	
	HEADSETS	= SIDE TONE

01.1.5.011.03

<u>EACH CREWMEMBER REPORTS 'ICS READY'</u>

	CHECKLIST	= SEQUENCE
COMMUNICATE	INTERCOM	
	INTERCOM	= 'ICS READY'*

01.1.5.052.00

<u>ESTABLISH INTERPHONE COMMUNICATIONS*</u>

	VOLTAGE METER	= TBD
	AND FREQUENCY METER	= TBD
COMMUNICATE	OSO INTERPHONE SWITCH	
	OSO INTERPHONE SWITCH	
	OSO ICS	= CHECKED*
	AND OSO ICS	= CHECKED

01.1.5.053.00

<u>MONITOR CITS DISPLAY PANEL FOR FAULT TEST</u>

	CHECKLIST	= SEQUENCE
MONITOR-VISUAL	CITS CONTROL, DISPLAY PANEL	
	CITS CONTROL, DISPLAY PANEL	= TBD*

01.1.5.054.00

<u>SET ACU GEN NAV-WPN DEL AND DOPPLER PWR SWITCHES</u>

	CHECKLIST	= SEQUENCE
SET	GN-DSBL SWITCH	
	WD-DSBL SWITCH	
	DOPPLER CONTROL	
	GN-DSBL SWITCH	= DSBL*
	AND DOPPLER CONTROL	= STBY

01.1.5.055.00

<u>SET INS 1 (INERTIAL NAV SYSTEM) SWITCH TO 'ENBL'</u>

	CHECKLIST	= SEQUENCE
SET	INS1 DSBL SWITCH	
	INS1 DSBL SWITCH	= INS 1*
	AND NAVIGATION ANNUNCIATORS-INS1	= 'WM UP'

01.1.5.056.00

<u>SET INS 2 SWITCH TO 'ENBL'</u>

	CHECKLIST	= SEQUENCE
SET	INS 2 DSBL SWITCH	
	INS 2 DSBL SWITCH	= INS 2*
	AND NAVIGATION ANNUNCIATORS-INS 2	= 'WM UP'

01.1.5.057.00
SET GROUND POSITION (LAT, LONG, MAGNETIC VARIATIONS) VIA IKB

	CHECKLIST	= SEQUENCE
SET	OPTION SELECT SWITCHES	
	DISPLAY TUBE SURFACE	= TBD

01.1.5.058.00
SET FLR OPERATING MODE ROTARY CONTROL TO 'STBY'

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-RADAR SET-2	
	MODE SWITCH-RADAR SET-2	= STBY

01.1.5.059.00
SET EVS VIDEO SELECT ROTARY KNOB TO 'STBY'

	CHECKLIST	= SEQUENCE
SET	VIDEO SELECT SWITCH	
	VIDEO SELECT SWITCH	= STBY

01.1.5.061.00
SET FLIR MODE SELECT ROTARY CONTROL TO 'STBY'

	CHECKLIST	= SEQUENCE
SET	MODE SELECT SWITCH-FLIR	
	MODE SELECT SWITCH-FLIR	= STBY

01.1.5.062.00
DEPRESS MEMORY CONTROL PUSHBUTTON TO LOAD MISSION CASETTE*

	CHECKLIST	= SEQUENCE
DEPRESS	MEMORY SWITCHES (LOAD-ERASE)	
	MEMORY SWITCHES (LOAD-ERASE)	= DEPRESSED

01.1.5.063.00

VERIFY MISSION DATA CASETTE IS LOADED*

	CHECKLIST	= SEQUENCE
CHECK	SMS CRT READOUT ASSEMBLY-LEFT	
	SMS CRT READOUT ASSEMBLY-RIGHT	
	NAVIGATION PANEL	
	SMS CRT READOUT ASSEMBLY-LEFT	= TBD*
	AND NAVIGATION PANEL	= TBD

01.1.5.064.00

SET FLR OPERATING MODE CONTROL TO 'ON' AND ADJUST

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-RADAR SET-2	
	SWEEP CONTROL	= TBD*
	AND RANGE MARK CONTROL	= TBD

01.1.5.065.00

CLEAR WITH GO FOR RADAR TRANSMIT CHECK

COMMUNICATE	OSO INTERPHONE SWITCH	
	GROUND OBSERVER ICS	= 'AREA IS CLEAR'*

01.1.5.066.00

SET FLR OPERATING MODE TO 'XMIT' AND CHECK OPERATION

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-RADAR SET-2	
	MODE SWITCH-RADAR SET-2	= XMIT*
	AND CRT DISPLAY SURFACE	= CHECKED

01.1.5.067.00

SET FLR OPERATING MODE TO 'ON'

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-RADAR SET-2	
	MODE SWITCH-RADAR SET-2	= ON

01.1.5.068.00

<u>INFORM GO THAT FLR TRANSMIT CHECK IS COMPLETE</u>

	MODE SWITCH-RADAR SET-2	= ON
COMMUNICATE	OSO INTERPHONE SWITCH	
	GROUND OBSERVER ICS	= ACKNOWLEDGED

01.1.5.073.00

<u>SET FLIR MODE SELECT CONTROL TO 'OPR'</u>

	CHECKLIST	= SEQUENCE
SET	MODE SELECT SWITCH-FLIR	
	MODE SELECT SWITCH-FLIR	= OPR

01.1.5.076.00

<u>SET EVS VIDEO SELECT CONTROL TO 'FLIR'</u>

	CHECKLIST	= SEQUENCE
SET	VIDEO SELECT SWITCH	
	VIDEO SELECT SWITCH	= FLIR

01.1.5.077.00

<u>CHECK FLIR DISPLAY PRESENTATION (MFD)*</u>

	CHECKLIST	= SEQUENCE
CHECK	MULTIFUNCTION DISPLAY	
	MULTIFUNCTION DISPLAY	= CHECKED

01.1.5.078.00

<u>DEPRESS INS 1 SELECT PUSHBUTTON TO CHECK ALIGNMENT</u>

	CHECKLIST	= SEQUENCE
DEPRESS	INS-1 MODE SELECT	
	INS-1 MODE SELECT	= 'NAV'*

1.74

01.1.5.079.00

CHECK INS 1 ALIGNMENT

CHECKLIST = SEQUENCE

CHECK   NAVIGATION PANEL
         NAVIGATION CORRECTION PANEL

         NAVIGATION PANEL   = CHECKED
AND NAVIGATION CORRECTION PANEL   = CHECKED

01.1.5.080.00

DEPRESS INS 2 SELECT PUSHBUTTON TO CHECK ALIGNMENT

CHECKLIST = SEQUENCE

DEPRESS INS-2 MODE SELECT

         INS-2 MODE SELECT   = 'NAV'*

01.1.5.081.00

CHECK INS 2 ALIGNMENT

CHECKLIST = SEQUENCE

CHECK   NAVIGATION PANEL
         NAVIGATION CORRECTION PANEL

         NAVIGATION PANEL   = CHECKED
AND NAVIGATION CORRECTION PANEL   = CHECKED

01.1.5.082.00

DEPRESS DISPLAY SELECT PUSHBUTTON

CHECKLIST = SEQUENCE

DEPRESS L DIS SELECTOR PUSHBUTTON
         R DIS SELECTOR PUSHBUTTON

         L DIS SELECTOR PUSHBUTTON   = DEPRESSED
AND R DIS SELECTOR PUSHBUTTON   = DEPRESSED

01.1.5.083.00

DEPRESS DATA SELECT FOR NUCLEAR WEAPON LOCATION AND STATUS

CHECKLIST = SEQUENCE

DEPRESS STAT DATA CONTROL SWITCH
         INV DATA CONTROL SWITCH

         SMS CRT READOUT ASSEMBLY-LEFT = TBD*
AND SMS CRT READOUT ASSEMBLY-RIGHT= TBD

1.75

OBJECTIVE: PERFORM COCKING   1.8

                CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Interior inspection (power on) performed by
                             flight crew

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO performs cocking procedures
                         2. DSO performs cocking procedures

PERFORMANCE LIMITS: 1. Proper sequence
                         2. Switches in proper positions

ENABLING OBJECTIVES:

    1. Recall that the flap/slat handle is held in a stop-detent, SLAT-RET,
        when the slats are in the retracted position and the flaps are up.

    2. Recall that when the slats indicator displays RET, the slats are in
        the completely retracted position.

    3. Recall that when the flaps indicator points to UP, the flaps positions
        correspond to zero degrees of deflection.

    4. Recall that when the speed brakes are retracted all eight spoilers on
        the surface indicator panel will show blank.

    5. Recall that when the X-Band transponder is placed in STBY primary
        power is applied to the radar transponder but the radar component
        will not respond to interrogations.

    6. Recall that when the AFCS (Automatic Flight Control System) TAKE COMD
        switchlight is depressed at the pilot's station, the white light,
        if illuminated, will change to green; at the same time, the green
        TAKE COMD light at the copilot's station will change to white.

    7. Recall that when the AFCS ENGAGE switchlight is depressed, the green
        light will change to white and vice versa at both the pilot's and
        copilot's AFCS mode select panels.

    8. Recall that actuation of the APU mode switch to OFF provides an elec-
        trical signal to the APU control system to shutdown the APU but it
        leaves the inlet and exhaust doors open.

    9. Recall that with the windshield power select switch in BOTH, power

<u>ENABLING OBJECTIVES:</u>   (continued)

for defog or anti-ice functions will be available to the left and right windshields and side window panels.

10. Recall that when the IFF master control switch is in NORM, full range recognition and reply is possible.

11. Recall that the APU mode switches are set in RUN to preposition them for remote APU start by actuation of the nose wheel alert start button.

12. Recall that selection of the "ALERT ARM" position allows the batteries to be automatically switched on by the nose wheel alert start button.

13. Recall that when the CMF (Crew Mission File) is locked in the CMF storage container, the A/V will be under prime surveillance by the security guards.

14. Recall which ground safety pins and locks should be removed after the A/V has been cocked.

15. Recall which climatic covers should remain in place while the A/V is on alert.

<u>ANCILLARY OBJECTIVES:</u>

1. Recall that the barberpole on the slats position indicator is displayed when the slats are in transit or if there is a malfunction in the slats indicating system.

2. Recall that flap position indicator gradations are provided at each one-quarter position.

3. Recall that a spoiler indicator will display UP if the spoiler is not in the fully retracted position.

4. Recall that with the exception of the TAKE COMD switchlights activation of each AFCS mode switchlight by one crewman will be indicated by the same colored legend illumination for the other crewman.

<u>OPERATOR:</u>   P/CP

<u>TASK ELEMENTS:</u>	1.2.1.1	1.2.1.5	1.2.1.27	1.2.1.39
	1.2.1.2	1.2.1.24	1.2.1.28	1.2.1.40
	1.2.1.3	1.2.1.25	1.2.1.37	
	1.2.1.4	1.2.1.26	1.2.1.38	

01.2.1.001.00

<u>VERIFY THAT FLAPS-SLATS ARE RETRACTED</u>

	CHECKLIST	= SEQUENCE
CHECK	FLAP-SLAT CONTROL HANDLE	
	FLAP POSITION INDICATOR	
	SLATS POSITION INDICATOR	
	FLAP-SLAT CONTROL HANDLE	= SLAT RET*
	AND SLATS POSITION INDICATOR	= 'RET'

01.2.1.002.00

<u>VERIFY THAT SPDBRKS ARE RETRACTED</u>

	CHECKLIST	= SEQUENCE
CHECK	PILOTS SPD BRK CONTR #4 THROT	
	LEFT SPOILER EM INDICATORS	
	SPOILER INDICATORS	
	PILOTS SPD BRK CONTR #4 THROT	= IN
	AND RIGHT SPOILER EM INDICATORS	= NO FLAG

01.2.1.003.00

<u>VERIFY UHF RADIOS BY CONTACTING COMMAND POST</u>

	CHECKLIST	= SEQUENCE
COMMUNICATE	PUSH-TO-TALK SWITCH	
	PILOT UHF COMM PANEL	= 'RADIO CHECK'*
	AND COPILOT UHF COMM PANEL	= 'RADIO CHECK'

01.2.1.004.00

<u>SET BOTH RADAR XPNDR POWER CONTROLS TO 'STBY' POSITION</u>

	CHECKLIST	= SEQUENCE
SET	POWER SELECT SWITCH	
	POWER SELECT SWITCH	= STBY

01.2.1.005.00

<u>VERIFY THAT THE AFCS IS DISENGAGED</u>

	CHECKLIST	= SEQUENCE
VERIFY	TAKE COMMAND PUSHBUTTON	
	ENGAGE PUSHBUTTONS	
	TAKE COMMAND PUSHBUTTON	= 'TAKE COMD'-W*
	AND ENGAGE PUSHBUTTONS	= 'ENGAGE'-W

01.2.1.024 .00

SET APU MODE SWITCHES TO 'OFF' POSITION*

	CHECKLIST	= SEQUENCE
SET	MODE SWITCHES	
	MODE SWITCHES	= OFF

01.2.1.025 .00

SET WSHLD POWER SWITCH TO 'BOTH' POSITION

	CHECKLIST	= SEQUENCE
SET	WINDSHIELD POWER SELECT SWITCH	
	WINDSHIELD POWER SELECT SWITCH= BOTH	

01.2.1.026 .00

SET IFF MASTER CONTROL SWITCH TO 'NORM' POSITION

	CHECKLIST	= SEQUENCE
SET	MASTER CONTROL SELECT SWITCH	
	MASTER CONTROL SELECT SWITCH	= NORM

01.2.1.027 .00

SET APU MODE SWITCHES TO 'RUN' POSITION*

	CHECKLIST	= SEQUENCE
SET	MODE SWITCHES	
	MODE SWITCHES	= RUN

01.2.1.028 .00

SET BATT SWITCH TO 'ALERT-ARM' POSITION*

	CHECKLIST	= SEQUENCE
SET	BATTERY SELECT SWITCH	
	BATTERY SELECT SWITCH	= ALERT-ARM

01.2.1.037.00

<u>PLACE A-3 BAG IN APPROPRIATE CREW STATION</u>*

	PERSONAL GEAR	= INSTALLED
PLACE	A-3 BAGS	
	A-3 BAGS	= PLACED

01.2.1.038.00

<u>PLACE CREW MISSION FILE ABOARD A-V</u>*

	PERSONAL GEAR	= INSTALLED
PLACE	COMBAT MISSION FOLDER	
	COMBAT MISSION FOLDER	= PLACED*

01.2.1.039.00

<u>CHECK GROUND SAFETY PINS AND LOCKS REMOVED</u>

	A-V CREW STATIONS	= EXITED*
CHECK	GROUND SAFETY PINS AND LOCKS	
	GROUND PINS AND LOCKS	= REMOVED

01.2.1.0 40.00

<u>CHECK CLIMATIC COVERS INSTALLED, IF REQUIRED</u>

	A-V CREW STATIONS	= EXITED*
CHECK	CLIMATIC COVERS	
	CLIMATIC COVERS	= INSTALLED

OBJECTIVE: PERFORM COCKING   1.9

CRITICALITY: 2   DIFFICULTY: 1

<u>INITIAL CONDITIONS:</u>   1.   Interior inspection (power on) performed by
                            flight crew

<u>CONCURRENT TASKS:</u>

<u>INTERACTION TASKS:</u>   1.   P/CP perform cocking procedures
                       2.   DSO performs cocking procedures

<u>PERFORMANCE LIMITS:</u>   1.   Proper sequence
                       2.   Switches in proper positions

<u>ENABLING OBJECTIVES:</u>

1.   Recall that the weapons bay doors are opened by depressing the push-
     button switch and are closed by depressing the switch a second time.

2.   Recall that the weapons bay doors pushbutton switch flashes twice a
     second until the doors reach the selected position.

3.   Recall that with the video select switch in OFF all electrical power
     is removed from the MFD and power to the FLIR is not available.

4.   Recall that with the FLIR mode select switch in OFF all power is removed
     from the FLIR.

5.   Recall that with the FLR mode control in OFF, the entire system is ener-
     gized.

6.   Recall that the alignment mode can be entered with the IKB through
     the NAV function, the STARTUP subfunction and the PROCEDURE option of
     the navigation logic trees.

7.   Recall that when both INS switches on the navigation panel are turned
     off neither INS can be used to navigate the A/V.

8.   Recall that with the General Navigation ACU in DSBL no commands can be
     transmitted by the right EMUX to turn on the GNACU.

9.   Recall that with the Weapons Delivery ACU in DSBL no commands can be
     transmitted by the left EMUX to turn on the WDACU.

10. Recall that with the navigation mode select pushbutton in AUTO, the ACU
     can determine when and which mode and what calculations will be used.

ENABLING OBJECTIVES: (continued)

11. Recall that the Kalman filter will accept Doppler information as being from land returns when the navigation mode LAND/SEA pushbutton is in LAND.

12. Recall that with the DEST pushbutton on the navigation panel illuminated, the X-hairs will be positioned on destination points.

13. Recall that with the INS #1 switch in INS 1, the ACU can be enabled via the right EMUX to turn on INS #1.

14. Recall that with the INS #2 switch in INS 2, the ACU can be enabled via the left EMUX to turn on INS #2.

15. Recall that with the doppler switch in STBY, warm up of the doppler can be initiated.

16. Recall that with the GNACU set to GN, commands can be transmitted by the right EMUX to turn on the GNACU.

17. Recall that with the WDACU set to WD, commands can be transmitted by the left EMUX to turn on the WDACU.

18. Recall that with the FLR mode switch in STBY all system filaments and protective time delays can be energized.

19. Recall that with the EVS select switch in FLIR, video from the FLIR sensor can be displayed.

20. Recall that with the FLIR mode select switch set to OPR, power can be supplied to all units to enable full operational capability.

21. Recall that when the CMF (Crew Mission File) is locked in the CMF storage container, the A/V will be under prime surveillance by the security guards.

22. Recall which ground safety pins and locks should be removed after the A/V has been cocked.

ANCILLARY OBJECTIVES:

1. Recall that the weapons bays have two door controls for providing part open and full open positions.

2. Recall that when the weapons bay doors selectors are not illuminated the doors are closed.

ANCILLARY OBJECTIVES: (continued)

3. Recall that nine lines of data can be presented on the IKB CRT.

4. Recall that if both of the ACU switches are on and one is turned off
    only the selected ACU will turn off.

5. Recall that if one of the ACU switches is off and the other ACU switch
    is turned off all associated systems except the two IAU's (Interface
    Adapter Units) will be turned off immediately. The remaining ACU
    will issue a turn-off command to EMUX for itself and the two IAU's only
    after all weapons have been safed and associated housekeeping is com-
    pleted.

6. Recall that if the doppler power switch is in the transmit position,
    the applicable LAND/SEA segment will be lit when the doppler data
    is being used to determine and/or damp the velocity inputs to present
    position calculations.

7. Recall that with the doppler switch in STBY, the standby line is
    grounded.

8. Recall that ACU power must be on for coarse alignment to be completed
    and for gyro torquing the INS's.

9. Recall that with the FLR mode switch in STBY, the antenna will be held
    in an azimuth limit, zero pitch and maximum up in tilt.

10. Recall that the CAS/TAS (Calibrated Air Speed/True Air Speed) Indi-
    cator would be used in the event of partial or complete failure of
    the navigation computer complex.

11. Recall that the data displayed on the CAS/TAS Indicator would be sup-
    plied from whichever Air Data System that has been selected at the
    front crew station.

OPERATOR: OSO

TASK ELEMENTS: 1.2.1.6   1.2.1.20   1.2.1.34
                      1.2.1.7   1.2.1.21   1.2.1.35
                      1.2.1.9   1.2.1.22   1.2.1.36
                      1.2.1.10   1.2.1.23   1.2.1.37
                      1.2.1.14   1.2.1.29   1.2.1.38
                      1.2.1.16   1.2.1.30   1.2.1.39
                      1.2.1.17   1.2.1.31
                      1.2.1.18   1.2.1.32
                      1.2.1.19   1.2.1.33

1.83

01.2.1.006.00

<u>DEPRESS WEAPONS BAY DOORS CONTROL TO OPEN-CLOSE AS REQUIRED*</u>

	CHECKLIST	= SEQUENCE
DEPRESS	BAY DOOR CONTROL	
	BAY DOOR CONTROL	= TBD

01.2.1.007.00

<u>SET VIDEO SELECT SWITCH TO 'OFF'</u>

	CHECKLIST	= SEQUENCE
SET	VIDEO SELECT SWITCH	
	VIDEO SELECT SWITCH	= OFF

01.2.1.009.00

<u>SET FLIR MODE SELECT ROTARY SWITCH TO 'OFF'</u>

	CHECKLIST	= SEQUENCE
SET	MODE SELECT SWITCH-FLIR	
	MODE SELECT SWITCH-FLIR	= OFF

01.2.1.010.00

<u>SET FLR OPERATING MODE ROTARY CONTROL TO 'OFF'</u>

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-RADAR SET-2	
	MODE SWITCH-RADAR SET-2	= OFF

01.2.1.014.00

<u>SET ALIGNMENT MODE OPTION THRU IKB PUSHBUTTONS*</u>

	CHECKLIST	= SEQUENCE
SET	OPTION SELECT SWITCHES	
	OPTION SELECT SWITCHES	= TBD

01.2.1.016.00

<u>SET INS 1 SELECT PUSHBUTTON TO 'OUT'</u>

	CHECKLIST	= SEQUENCE
SET	INS-1 MODE SELECT	
	INS-1 MODE SELECT	= OFF

1.84

01.2.1.017.00

SET INS 2 SELECT PUSHBUTTON TO 'OUT'

	CHECKLIST	= SEQUENCE
SET	INS-2 MODE SELECT	
	INS-2 MODE SELECT	= OFF

01.2.1.018.00

SET NAV MODE AUTO MAN PUSHBUTTON TO 'AUTO'

	CHECKLIST	= SEQUENCE
SET	AUTO-MAN MODE SELECT	
	AUTO-MAN MODE SELECT	= 'AUTO'

01.2.1.019.00

SET NAV MODE LAND SEA PUSHBUTTON TO 'LAND'

	CHECKLIST	= SEQUENCE
SET	LAND-SEA MODE SELECT	
	LAND-SEA MODE SELECT	= 'LAND'

01.2.1.020.00

SET X-HAIR PUSHBUTTON TO 'DEST'

	CHECKLIST	= SEQUENCE
DEPRESS	DESTINATION X-HAIR CONTROL	
	DESTINATION X-HAIR CONTROL	= ON

01.2.1.021.00

SET GEN NAV POWER SWITCH TO 'DSBL'

	CHECKLIST	= SEQUENCE
SET	GN-DSBL SWITCH	
	GN-DSBL SWITCH	= DSBL

01.2.1.022.00

SET WPN DEL POWER SWITCH TO 'DSBL'

	CHECKLIST	= SEQUENCE
SET	WD-DSBL SWITCH	
	WD-DSBL SWITCH	= DSBL

01.2.1.023 .00

NOTIFY 'P-CP' READY FOR 'POWER OFF'

                CHECKLIST 'PWR ON'   = COMPLETED

COMMUNICATE   OSO INTERPHONE SWITCH
                DSO INTERPHONE SWITCH

                OSO ICS   = 'POWER OFF'*
          AND PILOT ICS   = ACKNOWLEDGED

01.2.1.029 .00

SET INS 1 ENBL TOGGLE SWITCH TO 'ENBL'

                CHECKLIST   = SEQUENCE

SET   INS1 DSBL SWITCH

                INS1 DSBL SWITCH   = INS 1

01.2.1.030.00

SET INS 2 ENBL TOGGLE SWITCH TO 'ENBL'

                CHECKLIST   = SEQUENCE

SET   INS 2 DSBL SWITCH

                INS 2 DSBL SWITCH   = INS 2

01.2.1.031 .00

SET DPLR MODE SELECT TOGGLE SWITCH TO 'STBY'

                CHECKLIST   = SEQUENCE

SET   DOPPLER CONTROL

                DOPPLER CONTROL   = STBY

01.2.1.032.00

SET ACU (GEN NAV) TOGGLE SWITCH TO 'ON'

	CHECKLIST	= SEQUENCE
SET	GN-DSBL SWITCH	
	GN-DSBL SWITCH	= GN

01.2.1.033.00

SET ACU (WPN DEL) TOGGLE SWITCH TO 'ON'

	CHECKLIST	= SEQUENCE
SET	WD-DSBL SWITCH	
	WD-DSBL SWITCH	= WD

01.2.1.034.00

SET FLR OPERATING MODE DETENTED ROTARY CONTROL TO 'STBY'

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= STBY

01.2.1.035.00

SET FLIR MODE SELECT DETENTED ROTARY CONTROL TO 'OPR'

	CHECKLIST	= SEQUENCE
SET	MODE SELECT SWITCH-FLIR	
	MODE SELECT SWITCH-FLIR	= OPR

01.2.1.036 .00

SET AIRSPEED-ALTITUDE SPEED IDENTIFIER CONTROL TO 'CAS'

	CHECKLIST	= SEQUENCE
SET	AIRSPEED-ALTITUDE INDICATOR SW	
	AIRSPEED-ALTITUDE INDICATOR SW= CAS	

01.2.1.037 .00

PLACE A-3 BAG IN APPROPRIATE CREW STATION*

	PERSONAL GEAR	= INSTALLED
PLACE	A-3 BAGS	
	A-3 BAGS	= PLACED

01.2.1.038 .00

PLACE CREW MISSION FILE ABOARD A-V*

	PERSONAL GEAR	= INSTALLED
PLACE	COMBAT MISSION FOLDER	
	COMBAT MISSION FOLDER	= PLACED*

01.2.1.039 .00

CHECK GROUND SAFETY PINS AND LOCKS REMOVED

	A-V CREW STATIONS	= EXITED*
CHECK	GROUND SAFETY PINS AND LOCKS	
	GROUND PINS AND LOCKS	= REMOVED

OBJECTIVE: PERFORM DAILY ALERT PREFLIGHT

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. A/V cocked by flight crew

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO performs daily alert preflight
                       2. DSO performs daily alert preflight

PERFORMANCE LIMITS: 1. Proper sequence
                       2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that the FORM 781 indicates any outstanding discrepancies about the A/V and the stores configuration in the weapons bays.

2. Recall that all control surfaces should have complete freedom of movement.

3. Recall which access doors and covers should be secured and which should remain open until after the engines have been started.

4. Recall that the covers for the angle-of-attack vanes should be removed.

5. Recall which ground safety locks and pins, such as landing gear "downlocks", should remain installed until after the A/V has been recocked.

6. Recall how the OLOGS (Open Loop Oxygen Generating System) levers should be set prior to recocking the A/V.

7. Recall that with the Nuclear Consent switch in NORM, the switch is in the off position.

8. Recall that when the APU mode switches are set to START they are held in that position until ignition-start has taken place.

9. Recall that holding the fuel and CG test switch to up or down will run the tapes of all fuel quantity, total fuel quantity, digital fuel quantity and center of gravity indicators to up or down corresponding to the switch position.

10. Recall that actuation of the APU mode switch to OFF provides an

electrical signal to the APU control system to shutdown the APU, but it leaves the inlet and exhaust doors open.

11. Recall that the APU mode switches are set in RUN to preposition them for remote APU start by actuation of the nose wheel alert start button.

12. Recall that selection of the "ALERT ARM" position allows the batteries to be automatically switched on by the nose wheel alert start button.

ANCILLARY OBJECTIVES:

1. Recall that the covers for the total temperature and pitot-static probes should be removed and the probes should be free of foreign material.

2. Recall that the APU mode switches will automatically move to the RUN position after ignition-start has taken place.

3. Recall that the APU's will continue to run until one of the self-contained APU parameter sensors initiate an automatic shutdown or the switches are placed in OFF or the APU STOP switch in the wheel well is depressed.

OPERATOR: P/CP

TASK ELEMENTS: 1.3.1.1   1.3.1.3   1.3.1.8
                      1.3.1.1.1   1.3.1.4   1.3.1.9
                      1.3.1.1.2   1.3.1.5   1.3.1.10
                      1.3.1.1.3   1.3.1.6   1.3.1.11
                      1.3.1.2   1.3.1.7   1.3.1.12

01.3.1.001.00   <u>PERFORM EXTERIOR INSPECTION</u>

                       CHECKLIST   = SEQUENCE

01.3.1.001.01   <u>CHECK ALL SERVICING COMPLETE AGAINST FORM 781.</u>

                       CHECKLIST   = SEQUENCE

        CHECK   FORM 781

                       FORM 781   = COMPLETE

01.3.1.001.02   <u>CHECK BOMB PRE FLIGHT ACCOMPLISHED BY MMS*</u>

                       CHECKLIST   = SEQUENCE

        CHECK   BOMB

                       BOMB   = PREFLIGHT

01.3.1.001.03   <u>PERFORM EXTERIOR INSPECTION IN DETAIL*</u>

                       CHECKLIST   = SEQUENCE

        INSPECT   A-V EXTERIOR

                       A-V EXTERIOR   = INSPECTED

01.3.1.002.00   <u>ASSUME CREW POSITIONS</u>

                       A-V EXTERIOR   = INSPECTED

        OCCUPY   AIR-VEHICLE

                       AIR-VEHICLE   = OCCUPIED

01.3.1.003.00   <u>CHECK NUCLEAR SWITCH TO 'NORM'*</u>

                       CHECKLIST   = SEQUENCE

        CHECK   NUCLEAR CONSENT SWITCH

                       NUCLEAR CONSENT SWITCH   = NORM

                       1.91

01.3.1.004.00

APPLY POWER SOURCE TO A-V (APU OR EXT. SUPPLY)*

CHECKLIST = SEQUENCE

APPLY APU PANEL
EXTERNAL POWER CONTROL SWITCH

APU PANEL = ON
OR EXTERNAL POWER CONTROL SWITCH = ON

01.3.1.005.00

CHECK OXYGEN QUANTITY

CHECKLIST = SEQUENCE

CHECK OXYGEN-QUANTITY INDICATOR

OXYGEN-QUANTITY INDICATOR = TBD

01.3.1.006.00

SET FUEL AND CG TEST SWITCH

CHECKLIST = SEQUENCE

TEST FUEL & CENTER OF GRAVITY SW

FUEL & CENTER OF GRAVITY SW = UP
AND FUEL & CENTER OF GRAVITY SW = DN

01.3.1.007.00

CHECK UHF 1 AND 2 RADIOS WITH COMMAND POST AND GRD CONTROL

CHECKLIST = SEQUENCE

COMMUNICATE PUSH-TO-TALK SWITCH

PILOT UHF COMM PANEL = 'RADIO CHECK'
AND COPILOT UHF COMM PANEL = 'RADIO CHECK'

01.3.1.008.00

CHECK PERSONAL GEAR AND ARRANGEMENT ABOARD THE A-V

CHECKLIST = SEQUENCE

CHECK PERSONAL GEAR

PERSONAL GEAR = CHECKED

01.3.1.009.00

CHECK COMBAT MISSION FOLDER (CMF) CONTAINER IS SECURE*

	CHECKLIST	= SEQUENCE
CHECK	CMF CONTAINER*	
	CMF CONTAINER	= SECURE

01.3.1.010.00

PLACE APU MODE SWITCHES TO 'OFF' POSITION*

	CHECKLIST	= SEQUENCE
SET	LEFT APU MODE SWITCH	
	RIGHT APU MODE SWITCH	
	LEFT APU MODE SWITCH	= OFF
	AND RIGHT APU MODE SWITCH	= OFF

01.3.1.011.00

RETURN APU MODE SWITCHES TO 'RUN' POSITION*

	CHECKLIST	= SEQUENCE
SET	LEFT APU MODE SWITCH	
	RIGHT APU MODE SWITCH	
	LEFT APU MODE SWITCH	= RUN
	AND RIGHT APU MODE SWITCH	= RUN

01.3.1.012.00

SET BATT SWITCH TO 'ALERT-ARM' POSITION*

	CHECKLIST	= SEQUENCE
SET	BATTERY SELECT SWITCH	
	BATTERY SELECT SWITCH	= ALERT-ARM

OBJECTIVE: PERFORM DAILY ALERT PREFLIGHT   1.11

           CRITICALITY: 2   DIFFICULTY: 1
INITIAL CONDITIONS: 1. A/V cocked by flight crew

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP perform daily alert preflight
                          2. DSO performs daily alert preflight

PERFORMANCE LIMITS: 1. Proper sequence
                          2. Switches in proper positions

ENABLING OBJECTIVES:

   1. Recall that the FORM 781 indicates any outstanding discrepancies
       about the A/V and the stores configuration in the weapons bays.

   2. Recall what should be inspected on a gravity weapon.

   3. Recall what should be inspected on a SRAM.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 1.3.1.1
                         1.3.1.1.2
                         1.3.1.1.3
                         1.3.1.2
                         1.3.1.8
                         1.3.1.9

01.3.1.001.00

PERFORM EXTERIOR INSPECTION

        CHECKLIST   = SEQUENCE

01.3.1.001.02

CHECK BOMB PRE FLIGHT ACCOMPLISHED BY MMS*

        CHECKLIST   = SEQUENCE

CHECK   BOMB

        BOMB   = PREFLIGHT

01.3.1.001.03

PERFORM EXTERIOR INSPECTION IN DETAIL*

        CHECKLIST   = SEQUENCE

INSPECT   A-V EXTERIOR

        A-V EXTERIOR   = INSPECTED

01.3.1.002.00

ASSUME CREW POSITIONS

        A-V EXTERIOR   = INSPECTED

OCCUPY   AIR-VEHICLE

        AIR-VEHICLE   = OCCUPIED

01.3.1.008.00

CHECK PERSONAL GEAR AND ARRANGEMENT ABOARD THE A-V

        CHECKLIST   = SEQUENCE

CHECK   PERSONAL GEAR

        PERSONAL GEAR   = CHECKED

01.3.1.009.00

CHECK COMBAT MISSION FOLDER (CMF) CONTAINER IS SECURE*

        CHECKLIST   = SEQUENCE

CHECK   CMF CONTAINER*

        CMF CONTAINER   = SECURE

OBJECTIVE: ROTATE CREWS   1.12

          CRITICALITY: 2   DIFFICULTY: 1
INITIAL CONDITIONS: 1. A/V cocked by previous flight crew

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO performs daily alert preflight
                       2. DSO performs daily alert preflight

PERFORMANCE LIMITS: 1. Proper sequence
                       2. Switches in proper positions

ENABLING OBJECTIVES:

    1. Recall that the FORM 781 indicates any outstanding discrepancies
        about the A/V and the stores configuration in the weapons bays.

    2. Recall that all control surfaces should have complete freedom of
        movement.

    3. Recall which access doors and covers should be secured and which
        should remain open until after the engines have been started.

    4. Recall that the covers for the angle-of-attack vanes should be
        removed.

    5. Recall which ground safety locks and pins, such as landing gear
        "downlocks", should remain installed until after the A/V has been
        recocked.

    6. Recall how the OLOGS (Open Loop Oxygen Generating System) levers
        should be prior to recocking the A/V.

    7. Recall that with the Nuclear Consent switch in NORM, the switch is
        in the off position.

    8. Recall that when the APU mode switches are set to START they are
        held in that position until ignition-start has taken place.

    9. Recall that holding the fuel and CG test switch to up or down
        will run the tapes of all fuel quantity, total fuel quantity,
        digital fuel quantity and center of gravity indicators to up or
        down corresponding to the switch position.

   10. Recall that actuation of the APU mode switch to OFF provides an
        electrical signal to the APU control system to shutdown the APU

but it leaves the inlet and exhaust doors open.

11. Recall that the APU mode switches are set in RUN to preposition them for remote APU start by actuation of the nosewheel alert start button.

12. Recall that selection of the "ALERT ARM" position allows the batteries to be automatically switched on by the nosewheel alert start button.

13. Recall that when the mode switch on the CSSC (Coded Switch Set Controller) is positioned to OPERATE, the CSSC operation cycle is initiated.

14. Recall that steady CODE and DISABLE lights indicate transmittal of a valid sum check code.

ANCILLARY OBJECTIVES:

1. Recall that the covers for the total temperature and pitot-static probes should be removed and the probes should be free of foreign material.

2. Recall that the APU mode switches will automatically move to the RUN position after ignition-start has taken place.

3. Recall that the APU's will continue to run until one of the self-contained APU parameter sensors initiate an automatic shutdown or the switches are placed in OFF or the APU STOP switch in the wheel well is depressed.

4. Recall that the CODE light will illuminate steady at the end of an operate cycle to indicate that the CSSC has transmitted a valid enable or sum check code to the code enabling switch.

5. Recall that steady CODE and ENABLE lights on the CSSC indicate transmittal of one of the six correct enable codes stored.

6. Recall that no light indications on the CSSC indicate transmittal of a wrong code.

OPERATOR: P/CP

TASK ELEMENTS: 1.3.2.1   1.3.2.2   1.3.2.3

01.3.2.001.00

PERFORM STORE STATION INSPECTION*

                  CHECKLIST   = SEQUENCE

INSPECT   STORES STATIONS

                  STORES STATIONS   = INSPECTED

01.3.2.002.00

PERFORM DAILY ALERT PREFLIGHT CHECKLIST*

                  CHECKLIST   = SEQUENCE

. PERFORM   ALERT CHECKLIST

                  ALERT CHECKLIST   = COMPLETED

01.3.2.003.00

SET CSSC CONTROLS FOR OPERATIONAL TEST CHECK*

                  CHECKLIST   = SEQUENCE

SET   OPERATE; MONITOR SWITCH
                  LAMP TEST SWITCH—CODED SW

                  DISENABLE INDICATOR   = ON
           OR ENABLE INDICATOR   = ON

OBJECTIVE: ROTATE CREWS

                    CRITICALITY: 2   DIFFICULTY: 1
INITIAL CONDITIONS: 1. A/V cocked by previous flight crew

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP perform daily alert preflight
                       2. DSO performs daily alert preflight

PERFORMANCE LIMITS: 1. Proper sequence
                       2. Switches in proper positions

ENABLING OBJECTIVES:

    1. Recall that the FORM 781 indicates any outstanding discrepancies
        about the A/V and the stores configuration in the weapons bays.

    2. Recall what should be inspected on a gravity weapon.

    3. Recall what should be inspected on a SRAM.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 1.3.2.1
                       1.3.2.2

01.3.2.001.00

PERFORM STORE STATION INSPECTION*

CHECKLIST	= SEQUENCE
STORES STATIONS	
STORES STATIONS	= INSPECTED

01.3.2.002.00

PERFORM DAILY ALERT PREFLIGHT CHECKLIST*

CHECKLIST	= SEQUENCE
PERFORM	ALERT CHECKLIST	
ALERT CHECKLIST	= COMPLETED

MISSION SEGMENT 2

OBJECTIVE: PREPARE TO ENTER AIR VEHICLE

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. A/V cocked by flight crew
                        2. Klaxon sounds

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO prepares to enter A/V
                       2. DSO prepares to enter A/V

PERFORMANCE LIMITS: 1. Proper sequence
                        2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that the alert start pushbutton activates the APU's, provides
    power to the entry ladder and turns on the ECS (Environmental Control
    System) and crew compartment lights.

ANCILLARY OBJECTIVES:

1. Recall that the "two-man" concept of AFR 122-4 is applicable and
    not less than two men may be in the vicinity of nuclear weapons.
    Therefore the first crewmember at the A/V will have to wait for a
    second crew member before proceeding to the nosewheel strut.

2. Recall that the crewmembers at the crew entry door can manually
    assist in lowering the ladder by pulling on the rungs.

OPERATOR: P/CP

TASK ELEMENTS: 2.1.1.1   2.1.1.4
                   2.1.1.2   2.1.1.5
                   2.1.1.3

02.1.1.001.00

RUN TO NOSE OF THE A-V

	KLAXON	= SOUNDS
RUN	A-V NOSE	
	A-V NOSEWHEEL STRUT	= MANNED*

02.1.1.002.00

RUN TO CREW MODULE ENTRY

	KLAXON	= SOUNDS
RUN	A-V CREW MODULE ENTRY*	
	A-V CREW MODULE ENTRY	= MANNED

02.1.1.003.00

PUSH ALERT START PUSH-BUTTON

	A-V NOSEWHEEL STRUT	= MANNED*
DEPRESS	ALERT START PUSH BUTTON*	
	ALERT START PUSH BUTTON	= DEPRESSED

02.1.1.004.00

PULL ENTRY LADDER RELEASE HANDLE TO 'POWER ASSIST'*

	ALERT START PUSHBUTTON	= DEPRESSED
PULL	LADDER RELEASE HANDLE	
	LADDER RELEASE HANDLE	= POWER ASSIST*

02.1.1.005.00

RUN TO A-V ENTRY*

	A-V ENTRY LADDER	= DOWN-LOCKED
RUN	A-V CREW MODULE ENTRY	
	A-V CREW MODULE ENTRY	= MANNED

OBJECTIVE: PREPARE TO ENTER AIR VEHICLE   2.2

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. A/V cocked by flight crew
                         2. Klaxon sounds

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP prepare to enter A/V
                         2. DSO prepares to enter A/V

PERFORMANCE LIMITS: 1. Proper sequence
                         2. Switches in proper positions

ENABLING OBJECTIVES:

  1. Recall that the alert start pushbutton activates the APU's, provides
      power to the entry ladder and turns on the ECS (Environmental Control
      System) and crew compartment lights.

ANCILLARY OBJECTIVES:

  1. Recall that the "two-man" concept of AFR 122-4 is applicable and not
      less than two men may be in the vicinity of nuclear weapons. Therefore
      the first crewmember at the A/V will have to wait for a second crew-
      member before proceeding to the nosewheel strut.

  2. Recall that the crewmembers at the crew entry door can manually
      assist in lowering the ladder by pulling on the rungs.

OPERATOR: OSO

TASK ELEMENTS: 2.1.1.1   2.1.1.4
                         2.1.1.2   2.1.1.5
                         2.1.1.3

2.3

02.1.1.001.00

<u>RUN TO NOSE OF THE A-V</u>

           KLAXON   = SOUNDS

RUN   A-V NOSE

           A-V NOSEWHEEL STRUT   = MANNED*

02.1.1.002.00

<u>RUN TO CREW MODULE ENTRY</u>

           KLAXON   = SOUNDS

RUN   A-V CREW MODULE ENTRY*

           A-V CREW MODULE ENTRY   = MANNED

02.1.1.003.00

<u>PUSH ALERT START PUSH-BUTTON</u>

           A-V NOSEWHEEL STRUT   = MANNED*

DEPRESS   ALERT START PUSH BUTTON*

           ALERT START PUSH BUTTON   = DEPRESSED

02.1.1.004.00

<u>PULL ENTRY LADDER RELEASE HANDLE TO 'POWER ASSIST'*</u>

           ALERT START PUSHBUTTON   = DEPRESSED

PULL   LADDER RELEASE HANDLE

           LADDER RELEASE HANDLE   = POWER ASSIST*

02.1.1.005.00

<u>RUN TO A-V ENTRY*</u>

           A-V ENTRY LADDER   = DOWN-LOCKED

RUN   A-V CREW MODULE ENTRY

           A-V CREW MODULE ENTRY   = MANNED

OBJECTIVE: ENTER CREW STATIONS   2.3

                    CRITICALITY: 1   DIFFICULTY: 1
INITIAL CONDITIONS: 1. Flight crewmembers outside of A/V
                           2. Ladder in lowered position

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO enters crew station
                           2. DSO enters crew station

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

    1. Recall that the fore/aft seat adjustment lever is on the right side
        of the seat pan.

    2. Recall in which order the seat belt and shoulder harness straps are
        inserted into the seat buckle.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 2.1.2.1   2.1.2.4
                         2.1.2.2   2.1.2.5
                         2.1.2.3

02.1.2.001.00

<u>ASCEND LADDER</u>*

A-V ENTRY LADDER = DOWN-LOCKED

CLIMB A-V ENTRY LADDER

A-V CREW MODULE = MANNED

02.1.2.002.00

<u>PROCEED TO SEAT</u>

A-V CREW MODULE = MANNED

WALK A-V SEATS

A-V SEATS = MANNED

02.1.2.003.00

<u>CLIMB INTO AND ADJUST SEAT</u>

A-V SEATS = MANNED

PUSH* SEAT ADJUST LEVER

A-V SEATS = ADJUSTED

02.1.2.004.00

<u>BUCKLE AND ADJUST RESTRAINT HARNESS</u>

A-V SEATS = ADJUSTED

CONNECT SEAT RESTRAINTS

SEAT RESTRAINTS = CONNECTED*

02.1.2.005.00

<u>PUT ON HEADGEAR</u>

SEAT RESTRAINTS = CONNECTED

PLACE HEADGEAR*

HEADGEAR = ON

OBJECTIVE: ENTER CREW STATIONS   2.4

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Flight crewmembers outside of A/V
                         2. Ladder in lowered position

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP enter crew station
                         2. DSO enters crew station

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

   1. Recall that the fore/aft seat adjustment lever is on the right side
       of the seat pan.

   2. Recall in which order the seat belt and shoulder harness straps are
       inserted into the seat buckle.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 2.1.2.1   2.1.2.4
                        2.1.2.2   2.1.2.5
                        2.1.2.3

02.1.2.001.00

ASCEND LADDER*

A-V ENTRY LADDER   = DOWN-LOCKED

CLIMB   A-V ENTRY LADDER

A-V CREW MODULE   = MANNED

02.1.2.002.00

PROCEED TO SEAT

A-V CREW MODULE   = MANNED

WALK   A-V SEATS

A-V SEATS   = MANNED

02.1.2.003.00

CLIMB INTO AND ADJUST SEAT

A-V SEATS   = MANNED

PUSH*   SEAT ADJUST LEVER

A-V SEATS   = ADJUSTED

02.1.2.004.00

BUCKLE AND ADJUST RESTRAINT HARNESS

A-V SEATS   = ADJUSTED

CONNECT   SEAT RESTRAINTS

SEAT RESTRAINTS   = CONNECTED*

02.1.2.005.00

PUT ON HEADGEAR

SEAT RESTRAINTS   = CONNECTED

PLACE   HEADGEAR*

HEADGEAR   = ON

OBJECTIVE: CHECK APU START STATUS 2.5

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Alert start pushbutton depressed
2. P/CP at flight station

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that when the APU run light is on, the APU is up to adequate speed to accept a load.

2. Recall the normal EGT range when the APU is running.

3. Recall the normal voltage and frequency range that indicates electrical power is sufficient for starting the engines.

ANCILLARY OBJECTIVES:

1. Recall that the APU run light will illuminate when an acceptable RPM is sensed.

2. Recall that the APU EGT gage is used for monitoring APU operation to facilitate load sequencing.

3. Recall that if high EGT is indicated, some load must be removed to prevent a potential APU shutdown.

4. Recall that the generator/bus voltage and frequency switch permits the selection of a generator, bus or battery power source.

OPERATOR: P/CP

TASK ELEMENTS: 2.1.2.6   2.1.2.6.2
2.1.2.6.1   2.1.2.6.3

02.1.2.006.00

<u>CHECK APU START STATUS</u>

	HEADGEAR	= ON
CHECK	APU PANEL	
	APU PANEL	= TBD
	AND VOLTAGE/FREQ SELECTOR SWITCH	= AUTO-ON

02.1.2.006.01

<u>CHECK APU 'LRUN & RRUN' INDICATORS ARE GREEN</u>

	HEADGEAR	= ON
CHECK	ANNUNCIATOR LGTS (L RUN,R RUN)	
	LEFT RUN LIGHT	= 'L RUN'
	AND RIGHT RUN LIGHT	= 'R RUN'

02.1.2.006.02

<u>CHECK APU EXH TEMP INDICATORS</u>

	LEFT RUN LIGHT	= 'L RUN'
	AND RIGHT RUN LIGHT	= 'R RUN'
CHECK	APU EXH TEMP GAGE	
	APU EXH TEMP GAGE	= TBD

02.1.2.006.03

<u>MONITOR 'VOLTS' AND 'FREQ' INDICATORS ON ELECTRICAL PANEL*</u>

	LEFT RUN LIGHT	= 'L RUN'
	AND RIGHT RUN LIGHT	= 'R RUN'
MONITOR-VISUAL	VOLTAGE METER	
	FREQUENCY METER	
	VOLTAGE METER	= 230
	AND FREQUENCY METER	= 400

OBJECTIVE: SET PARKING BRAKE   2.6
                  CRITICALITY: 1   DIFFICULTY: 1
INITIAL CONDITIONS: 1. Ready to start engines

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

  1. Recall that the brakes are locked in PARK by the actuation of the
      parking brake control switch after the toe operated brakes on the
      rudder pedals have been depressed.

  2. Recall that the parking brake switchlight will illuminate PARKING
      when the parking brake is locked.

ANCILLARY OBJECTIVES:

  1. Recall that the brakes will remain set until the toe operated brakes
      are depressed and then released.

OPERATOR: P/CP

TASK ELEMENTS: 2.1.2.7

02.1.2.007.00*
DEPRESS PARKING BRAKES THEN DEPRESS BRAKE CONTROL SWITCHLITE*

```
                        LEFT RUN LIGHT              = 'L RUN'
                    AND RIGHT RUN LIGHT             = 'R RUN'

DEPRESS                 PARKING BRAKE
                        PARKING BRAKE CONTROL SWITCHLT

                        PARKING BRAKE              = DEPRESSED
                    AND PARKING BRAKE CONTROL SWITCHLT= 'PARKING'
```

OBJECTIVE: PERFORM ENGINE START   2.7

                CRITICALITY: 2   DIFFICULTY: 1
INITIAL CONDITIONS: 1. APU's are operating
                        2. Parking brakes are set

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                        2. Switches in proper positions

ENABLING OBJECTIVES:

   1. Recall that momentary selection of the engine start switch to START
       will allow the APU to bring the engine up to starting speed.

   2. Recall that the start sequence may be initiated simultaneously
       on all four engines.

   3. Recall that releasing the engine start switch allows it to return
       to RUN.

   4. Recall the normal range of the engine instruments during the start-
       ing sequence.

   5. Recall that actuation of the APU mode switch to OFF provides an
       electrical signal to the APU control system to shut down the APU,
       but it leaves the inlet and exhaust doors open.

ANCILLARY OBJECTIVES:

   1. Recall that as the engine start switch is moved out of the OFF
       position, the engine power lever will be advanced to the setting
       commanded by the flight station throttle control.

   2. Recall that moving the engine start switch to START will cause
       the hydraulic pumps to be depressurized, the non-essential loads
       to be cut off, ECS bleed air supply valves to be closed and the
       ADG (Accessory Drive Gearbox) torque converter to be filled with oil.

   3. Recall that when starter cutout speed is reached, the oil will be
       drained automatically from the torque converter.

                                2.13

<u>ANCILLARY OBJECTIVES</u>:   (continued)

4. Recall that with the engine start switch in RUN permits automatic
    sequencing for pressurization of the hydraulic pumps, opening of
    the ECS bleed air supply valves and return of electrical equipment
    to normal operating modes.

5. Recall that the APU's will continue to run until one of the self-
    contained APU parameter sensors initiate an automatic shutdown or
    the switches are placed in OFF or the APU STOP switch in the wheel
    well is depressed.

<u>OPERATOR</u>:   P/CP

<u>TASK ELEMENTS</u>:   2.1.3.1
                           2.1.3.2
                           2.1.3.3

02.1.3.001.00* PLACE ENGINE 1,2,3,4 SWITCHES TO 'START' POSITION*

	VOLTAGE METER	= 230
	AND FREQUENCY METER	= 400
SET	ENGINE START SWITCH	
	ENGINE START SWITCH	= START

02.1.3.002.00*   MONITOR ENGINE START

	ENGINE START SWITCH	= START
MONITOR-VISUAL*	ENGINE START DISPLAYS	
	ENGINE START SWITCH	= RUN

02.1.3.003.00*   SET APU MODE SWITCHES TO 'OFF'

	ENGINE START SWITCH	= RUN
SET	MODE SWITCHES	
	MODE SWITCHES	= OFF

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. APU's are operating

CONCURRENT TASKS: 1. Perform engine start

INTERACTION TASKS: 1. OSO monitors UHF communications
                        2. DSO monitors UHF communications

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall how to decode a launch message.

2. Recall how to challenge and respond to any command messages.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 2.1.3.4
                        2.2.1.1
                        2.2.1.9

02.1.3.004.00

RECEIVE AND COPY COMMAND

PILOTS UHF   = COMMUNICATES

COMMUNICATES   PILOTS UHF

PILOTS UHF   = TAKE-OFF MESSAGE
PILOTS UHF   ⌐ = TAKE-OFF MESSAGE

02.2.1.001.00

MAINTAIN COMMUNICATIONS WITH COMMAND POST

PILOTS UHF   = TAKE-OFF MESSAGE

MONITOR-AUDITORY   PILOTS UHF

PILOTS UHF   = MONITORED

02.2.1.009.00

RECEIVE INSTRUCTIONS TO LAUNCH

PILOTS UHF   = 'LAUNCH'

RECEIVE   PILOTS UHF

PILOTS UHF   = MESSAGE RECEIVED

OBJECTIVE: MONITOR UHF COMMUNICATIONS   2.9

                    CRITICALITY: 2   DIFFICULTY: 1
INITIAL CONDITIONS: 1. APU's are operating

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP monitor UHF communications
                           2. DSO monitors UHF communications

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

    1. Recall how to decode a launch message.

    2. Recall how to challenge and respond to any command messages.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 2.1.3.4
                           2.2.1.1
                           2.2.1.9

02.1.3.004.00

RECEIVE AND COPY COMMAND

	OSOS UHF	= COMMUNICATES
COMMUNICATES	OSOS UHF	
	OSOS UHF	= TAKE-OFF MESSAGE
	OSOS UHF	¬ = TAKE-OFF MESSAGE

02.2.1.001.00

MAINTAIN COMMUNICATIONS WITH COMMAND POST

	OSOS UHF	= TAKE-OFF MESSAGE
MONITOR-AUDITORY	OSOS UHF	
	OSOS UHF	= MONITORED

02.2.1.009.00

RECEIVE INSTRUCTIONS TO LAUNCH

	OSOS UHF	= 'LAUNCH'
RECEIVE	OSOS UHF	
	OSOS UHF	= MESSAGE RECEIVED

OBJECTIVE: RESTART APU's   2.10

                CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Instructed to maintain cockpit alert

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                        2. Switches in proper positions

ENABLING OBJECTIVES:

    1. Recall that when the APU mode switches are set to START they are held
        in that position until ignition-start has taken place.

    2. Recall that when the APU run light is on, the APU is up to adequate
        speed to accept a load.

    3. Recall the normal EGT range when the APU is running.

    4. Recall that the Voltage/Frequency rotary switch provides for the
        selection of a generator for a readout of voltage and frequency
        on adjacent gages.

ANCILLARY OBJECTIVES:

    1. Recall that the APU mode switches will automatically move to the
        RUN position after ignition-start has taken place.

    2. Recall that the APU run light will illuminate when an acceptable
        RPM is sensed.

    3. Recall that the APU's will continue to run until one of the self-
        contained APU parameter sensors initiate an automatic shutdown
        or the switches are placed in OFF or the APU STOP switch in the
        wheel well is depressed.

    4. Recall that if high EGT is indicated, some load must be removed
        to prevent a potential APU shutdown.

    5. Recall that the generator/bus voltage and frequency switch permits
        the selection of a generator, bus or battery power source.

OPERATOR: P/CP

TASK ELEMENTS: 2.2.1.2   2.2.1.4
                        2.2.1.3   2.2.1.5

02.2.1.002.00*
    RESTART APU, SELECT EITHER R OR L APU MODE SWITCH TO 'START'*

| | PILOT UHF COMM PANEL | = TAKE-OFF MESSAGE* |
| | AND COPILOT UHF COMM PANEL | = TAKE-OFF MESSAGE |

| SET | LEFT APU MODE SWITCH | |
| | RIGHT APU MODE SWITCH | |

| | LEFT APU MODE SWITCH | = START |
| | OR RIGHT APU MODE SWITCH | = START |

02.2.1.003.00*
    CHECK APPROPIATE APU 'RUN' INDICATOR LIGHT(S) GREEN

| | LEFT APU MODE SWITCH | = START |
| | OR RIGHT APU MODE SWITCH | = START |

| CHECK | LEFT RUN LIGHT | |
| | RIGHT RUN LIGHT | |

| | LEFT RUN LIGHT | = 'L RUN' |
| | OR RIGHT RUN LIGHT | = 'R RUN' |

02.2.1.004.00*
    CHECK APPROPIATE APU EXH. TEMP INDICATOR IN TOLERANCE

| | LEFT RUN LIGHT | = 'L RUN' |
| | OR RIGHT RUN LIGHT | = 'R RUN' |

| CHECK | LEFT APU EXHAUST TEMP GAGE | |
| | RIGHT APU EXHAUST TEMP GAGE | |

| | LEFT APU EXHAUST TEMP GAGE | = TBD |
| | OR RIGHT APU EXHAUST TEMP GAGE | = TBD |

02.2.1.005.00*
    MONITOR ELECTRICAL INDICATORS AT '230 VAC' AND '400HZ'

| | LEFT APU MODE SWITCH | = RUN |
| | OR RIGHT APU MODE SWITCH | = RUN |

| CHECK | VOLTAGE METER | |
| | FREQUENCY METER | |

| | VOLTAGE METER | = 230 |
| | AND FREQUENCY METER | = 400 |

OBJECTIVE: PERFORM ENGINES SHUTDOWN

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Instructed to maintain cockpit alert
                       2. APU's are operating

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                       2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall the normal range of the engine instruments during engine shut-
    down.

2. Recall that the engine start/run switches are lever-lock toggle
    switches requiring the handle be pulled out, releasing the lock,
    in order to reposition the switch into the off position.

ANCILLARY OBJECTIVES:

1. Recall that selecting the engine start/run switch to OFF will drive
    the engine power lever to OFF, independently of flight station
    throttle control lever position.

OPERATOR: P/CP

TASK ELEMENTS: 2.2.1.6
                       2.2.1.7
                       2.2.1.8

02.2.1.006.00*

SET ENGINE THROTTLES TO 'IDLE'

	CHECKLIST	= SEQUENCE
ADJUST	PRIMARY THROTTLE LEVERS-PI	
	PRIMARY THROTTLE LEVERS-PI	= IDLE

02.2.1.007.00*

MONITOR ENGINE SHUT DOWN

	PRIMARY THROTTLE LEVERS-PI	= IDLE
MONITOR-VISUAL	ENGINE INSTRUMENTS	
	ENGINE INSTRUMENTS	= TBD

02.2.1.008.00*

SET ENGINE START PANEL SWITCHES TO 'OFF'

	PRIMARY THROTTLE LEVERS-PI	= IDLE
SET	ENGINE START SWITCH	
	ENGINE START SWITCH	= OFF

MISSION SEGMENT 3

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Take-off configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. DSO read Pre-Taxi checklist

PERFORMANCE LIMITS: 1. Proper sequence
                      2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that with the battery switch in the "AUTO/ON" position each battery is connected to its battery bus providing power for APU starting/fire warning and extinguishing, and other systems requiring DC power prior to air vehicle starting.

2. Recall that the fast erection cycle on the GSS control panel should not exceed 40 seconds. The normal platform erection sequence is approximately 3 minutes unless the ambient temperatures are low.

3. Recall that the SYNC indicator of the GSS indicates whether or not the platform directional gyro and the MAD are synchronized when in slaved mode.

4. Recall that the SET HEADING/SYNC switch provides a means of rapidly synchronizing the platform directional gyro and the MAD when operating in the slaved mode.

5. Recall that the LAT set switch must be positioned to the hemisphere in which the A/V is operating to provide the proper polarity for gyro drift correction.

6. Recall that the LAT set moving scale knob determines the rate of gyro drift correction in the DG mode and improves heading accuracy when in slaved mode.

7. Recall that the left and right horizontal stabilizer indicators provide separate and independent position readings from each side.

8. Recall that the moving pointer of the wing sweep indicator should coincide with the COMMAND INDEX MARKER.

9. Recall that the flaps are deflected 40 degrees down when the indicator points to DN.

10. Recall that the spoiler indicators will show blank when the spoilers are retracted.

11. Recall that all warning and caution lights should be off.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 3.1.1.1   3.1.2.3
                 3.1.2.1   3.1.2.5
                 3.1.2.2   3.1.2.7

03.1.1.001.00

<u>REQUEST DEFENSIVE SYSTEM OPERATOR TO READ CHECKLIST</u>

	PILOTS UHF	= TAKE-OFF MESSAGE
REQUEST	DSO READ CHECKLIST	
	DSO ICS	= ACKNOWLEDGES

03.1.2.001.00*

<u>SET BATT SWITCH IN 'AUTO-ON' POSITION</u>

	DSO CHECKLIST	= SEQUENCE
SET	BATTERY SELECT SWITCH*	
	BATTERY SELECT SWITCH	= AUTO-ON

03.1.2.002.00*

<u>PUSH 'FAST ERECT' PUSHBUTTON ON GSS CONTROL PANEL</u>

	DSO CHECKLIST	= SEQUENCE
DEPRESS	FAST ERECT PUSHBUTTON	
	FAST ERECT PUSHBUTTON	= DEPRESSED

03.1.2.003.00*

<u>CHECK GYRO PLATFORM SYNCHRONIZATION ON GSS CONTROL PANEL</u>

	DSO CHECKLIST	= SEQUENCE
CHECK	ROTARY SELECTOR SWITCH SYNCHRONIZATION INDICATOR LATITUDE SET SWITCH	
	ROTARY SELECTOR SWITCH AND LATITUDE SET SWITCH	= SLAVED* = N

03.1.2.005.00*

<u>CHECK FLIGHT CONTROL SURFACE POSITION INDICATORS</u>

	DSO CHECKLIST	= SEQUENCE
CHECK	WING-SWEEP SURFACE POS IND	
	WING-SWEEP SURFACE POS IND	= T6D*

03.1.2.007.00*

<u>CHECK WARNING-CAUTION LIGHTS FOR OPERATION AND SYSTEM STATUS</u>

	DSO CHECKLIST	= SEQUENCE
CHECK	WARNING-CAUTION LIGHTS	
	WARNING-CAUTION LIGHTS	= OFF

OBJECTIVE: PRE-TAXI OPERATIONS

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Take-off configuration
2. Co-pilot request to DSO to read checklist

CONCURRENT TASKS:

INTERACTION TASKS: DSO reads checklist

PERFORMANCE LIMITS: 1. Proper sequence
2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that the brightness control on the MFD provides a continuous
   variation of video signal level from a minimum to a maximum.

2. Recall that the cursor range on the FLR segments indicate range in
   increments of 100 feet.

3. Recall that for each INS alignment phase the appropriate lamp is lit
   when the phase starts and goes out when the phase is completed.

4. Recall that the COARSE indicator flashes four times per second while
   in the coarse alignment phase and turns steady when coarse leveling
   is entered.

5. Recall that all warning and caution lights should be off.

6. Recall the position of the door handles when the crew module door
   is closed.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 3.1.1.2   3.1.1.3.3   3.1.2.9
               3.1.1.3   3.1.2.7
               3.1.1.3.2   3.1.2.8

03.1.1.002.00*

<u>READ AND VERIFY COMPLETION OF CHECKLIST ITEMS.</u>*

	CO-PILOT ICS	= REQUESTS
READ*	CHECKLIST	
	CHECKLIST	= COMPLETED

03.1.1.003.00*

<u>OBSERVE SYSTEM STATUS</u>

	ICS	= TBD*

03.1.1.003.02*

<u>OBSERVE FLR OPERATIONAL STATUS</u>

	CHECKLIST	= SEQUENCE
CHECK	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE AND CURSOR RANGE SEGMENT	= TBD* = ON

03.1.1.003.03*

<u>OBSERVE NAVIGATION SYSTEM OPERATIONAL STATUS</u>

	NAVIGATION ANNUNCIATORS-1 AND CHECKLIST	= WM UP = SEQUENCE
CHECK	NAVIGATION ANNUNCIATORS-1 NAVIGATION ANNUNCIATORS-2	
	NAVIGATION ANNUNCIATORS-1 AND NAVIGATION ANNUNCIATORS-2	= FLASHING* = FLASHING

03.1.2.007.00*

<u>CHECK WARNING-CAUTION LIGHTS FOR OPERATION AND SYSTEM STATUS</u>

	DSO CHECKLIST	= SEQUENCE
CHECK	WARNING-CAUTION LIGHTS	
	WARNING-CAUTION LIGHTS	= OFF

03.1.2.008.00*

VERIFY CREW MODULE DOOR CLOSED

CREW MODULE DOOR   = CLOSED & LOCKED

CHECK   CREW MODULE DOOR

DSO ICS   = ACKNOWLEDGES*

03.1.2.009.00*

REPORT TO PILOT - 'READY TO TAXI'

CHECKLIST   = COMPLETE

REPORT   ICS

PILOT ICS   = ACKNOWLEDGES*

3.7

OBJECTIVE: "PREPARE TO TAXI"

                 CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Take-off configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pilot request DSO read taxi checklist

PERFORMANCE LIMITS: 1. Proper sequence
                      2. Proper switch positions

ENABLING OBJECTIVES:

   1. Recall that the taxi light illuminates only one light for taxi.

   2. Recall that the anti-collision mode illuminates the tail strobe light
      and two wing mounted strobe light assemblies.

   3. Recall that the position light select switch in bright position provides
      maximum brightness to the seven position lights.

   4. Recall that the position light mode select switch in steady position
      provides continuous illumination to the position lights.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 3.2.1.1   3.2.1.4
                3.2.1.3   3.2.1.5

03.2.1.001.00*

REQUEST DSO TO READ TAXI CHECKLIST

                        AIR-VEHICLE   = READY TO TAXI

REQUEST   CHECKLIST

                        DSO ICS   = ACKNOWLEDGES*
                    AND CHECKLIST   = INITIATED

03.2.1.003.00*

SET TO-LDG LT SWITCH TO 'TAXI'*

                        DSO CHECKLIST   = SEQUENCE

SET   LANDING/TAXI LIGHT CONTROL SW

                        LANDING/TAXI LIGHT CONTROL SW = TAXI

03.2.1.004.00*

SET ANTI CLSN LT SWITCH TO 'ANTI CLSN'*

                        DSO CHECKLIST   = SEQUENCE

SET   ANTI-COLLISION CONTROL SWITCH

                        ANTI-COLLISION CONTROL SWITCH = ANTI CLSN

03.2.1.005.00*

SET EXT POSITION LT SWITCHES (2) TO 'BRT' AND 'STEADY'

                        DSO CHECKLIST   = SEQUENCE

SET   POSITION LIGHT SWITCH
                        POSITION LIGHT MODE SWITCH

                        POSITION LIGHT SWITCH   = BRT
                    AND POSITION LIGHT MODE SWITCH   = STEADY

3.9

OBJECTIVE: INITIATE TAXI

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Take-off configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

1. Recall that the crew chief should stand far forward of the nose to be seen by the pilot through the thermal flashblindness window.

2. Recall that the parking brake is released by depressing the toe pedals and releasing the pressure.

3. Recall that the throttles will have to be advanced well beyond the normal taxi position to start the A/V moving and then be retarded to a generally stabilized condition.

4. Recall that there is a tendency to taxi faster than normal when vision is restricted. Therefore, at night, in particular when using the thermal flashblindness window, taxi speed should be monitored closely.

ANCILLARY OBJECTIVES:

1. Recall that at night it will be difficult to see the crew chief.

2. Recall that the nose gear steering will be restricted unless the slats are extended. Travel is cut down from $\pm 75°$ to $\pm 15°$ in the TAXI mode with the slats retracted.

3. Recall that the hot brake caution light will illuminate when the brake sensors determine a limiting temperature.

OPERATOR: P/CP

TASK ELEMENTS: 3.2.1.7   3.2.2.3
                3.2.2.1   3.2.2.4
                3.2.2.2   3.2.2.5

03.2.1.007.00*

               <u>TAXI ON CREW CHIEF'S SIGNAL</u>

	CRT TUBE DISPLAY-PILOT	= CREW CHIEF
MONITOR-VISUAL	CRT TUBE DISPLAY-PILOT	
	AIR-VEHICLE	= READY TO TAXI
	AND CRT TUBE DISPLAY-PILOT	= CREW CHIEF SIGNL

03.2.2.001.00*

             <u>ENGAGE NOSE GEAR STEERING</u>

	AIR-VEHICLE	= READY TO TAXI
	AND CRT TUBE DISPLAY-PILOT	= CREW CHIEF SIGNL
SET	PIL STEER ENG-DISENG SWITCH	
	PIL STEER ENG-DISENG SWITCH	= ENGAGE

03.2.2.002.00*

             <u>RELEASE PARKING BRAKES</u>

	FLASHBLINDNESS WINDOW	= TAXIWAY IS CLEAR
DEPRESS	PARKING BRAKE CONTROL SWITCHLT	
	PARKING BRAKE CONTROL SWITCHLT	= OFF

03.2.2.003.00*

          <u>ADVANCE THROTTLES TO TAXI POWER LEVEL</u>

	PARKING BRAKE CONTROL SWITCHLT	= OFF
ADJUST	PRIMARY THROTTLE LEVERS-PI	
	PRIMARY THROTTLE LEVERS-PI	= TBD

03.2.2.004.00*

    <u>DEPRESS TOE BRAKES MOMENTARILY TO CHECK BRAKING ACTION*</u>

	CRT TUBE DISPLAY-PILOT	= A-V BEGINS TAXI
DEPRESS	TOE BRAKES	
	CRT TUBE DISPLAY-PILOT	= CONTINUES TAXI

03.2.2.005.00*

<u>CONTINUE TO TAXI*</u>

CRT TUBE DISPLAY-PILOT   = A-V CNTINUE TAXI
AND HOT BRAKE CAUTION LIGHT   = OFF

TRACK   CRT TUBE DISPLAY-PILOT
             PRIMARY THROTTLE LEVERS-PI
             PILOTS RUDDER PEDALS

             CRT TUBE DISPLAY-PILOT   = CONTROLLED TAXI

OBJECTIVE: "MONITORING UHF AND INSTRUMENTS WHILE TAXIING"   3.5

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Take-off configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall that the "GO CODE" may be received at any time while taxiing.

2. Recall that the thermal flashblindness protection windows restrict
   visibility and extreme caution should be exercised to prevent a taxi
   mishap.

ANCILLARY OBJECTIVES:

1. Recall that if any hydraulic system pressure indicator falls below
   2150 PSI, the HYDRAULIC caution light will illuminate.

2. Recall that if the hydraulic fluid level in system 1 and 4 falls below 6
   gallons, or in systems 2 and 3 falls below 11 gallons, the hydraulic
   caution light will illuminate.

OPERATOR: P/CP

TASK ELEMENTS: 3.2.3.1   3.2.3.6
               3.2.3.3

03.2.3.001.00*

MONITOR COMMUNICATIONS

FLASHBLINDNESS WINDOW = A-V TAXIING

MONITOR-AUDITORY PILOTS UHF
COPILOTS UHF

03.2.3.003.00*

CHECK TAXI AREA CLEAR BY LOOKING THROUGH AUTOMATIC F-P WINDO*

FLASHBLINDNESS WINDOW = TAXI LIGHTS ON
AND FLASHBLINDNESS WINDOW = ON TAXIWAY

CHECK FLASHBLINDNESS WINDOW

FLASHBLINDNESS WINDOW = TAXIWAY IS CLEAR

03.2.3.006.00*

MONITOR HYDRAULIC PANEL QUANTITY AND PRESSURE GAUGES

FLASHBLINDNESS WINDOW = A-V TAXIING

MONITOR-VISUAL HYDRAULIC QUANTITY INDICATORS
HYDRAULIC PRESSURE INDICATORS

OBJECTIVE: "SECURE RESTRAINTS AND REMOVE SAFETY PINS"   3.6

<div align="center">CRITICALITY: 3   DIFFICULTY: 1</div>

INITIAL CONDITIONS: 1. Take-off configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO & DSO secure seat restraints and remove ejection pins.
                   2. DSO computes take-off data.

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

    1. Recall the order of attaching the shoulder harness straps, seat straps, etc., to the seat buckle.

ANCILLARY OBJECTIVES:

    1. Recall that the ejection pins are ground safety pins that must be removed or ejection cannot be accomplished.

OPERATOR: P/CP

TASK ELEMENTS: 3.2.3.4
               3.2.3.5

03.2.3.004.00*   SECURE SEAT RESTRAINTS*

                          CHECKLIST   = SEQUENCE

       ADJUST   RESTRAINT ASSY

                          RESTRAINT ASSY   = TBD

03.2.3.005.00*   REMOVE EJECTION PINS*

                          CHECKLIST   = SEQUENCE

       REMOVE   EJECTION PINS

                          EJECTION PINS-PIL   = OUT
                      AND EJECTION PINS-COP   = OUT

CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Take-off configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO and/or DSO verified command message.
                      2. OSO communicate with pilot to determine A/V position
                         relative to end of runway.
                      3. OSO receive "MARK" command from pilot to initiate end
                         of runway update.

PERFORMANCE LIMITS: 1. Proper sequence.

ENABLING OBJECTIVES:

1. Recall that the command message will have to be authenticated before
   it can be executed.

2. Recall that a minimum distance of 200 feet should be maintained from
   the preceding aircraft.

3. Recall that the attitude of the A/V displayed on the VSD should correlate
   with the presentation on the SADI (standby attitude director indicator).

4. Recall that the departure course should be set into the HSI.

5. Recall that the runway heading should be set into the HSI and it should
   check with the actual aircraft heading when aligned on the runway.

6. Recall that the altimeter should indicate field elevation when the local
   altimeter setting has been set into the VSD and standby altimeter.

ANCILLARY OBJECTIVES:

1. Recall that at night judging A/V separation distances and obstruction
   distances will be difficult when looking through the thermal flash-
   blindness window.

2. Recall that nosewheel steering will remain in the TAXI position until
   the A/V has been aligned on the runway.

OPERATOR: P/CP

TASK ELEMENTS: 3.2.4.1
                3.2.4.2.2
                3.2.4.5
                3.2.4.6

03.2.4.001.00*

<u>VERIFY COMMAND MESSAGE</u>

	PILOTS UHF	= TBD*
	AND COPILOTS UHF	= TBD
COMMUNICATE	PILOTS UHF	
	ICS	
	ICS	= CONFIRMS*

03.2.4.002.02*

<u>MAINTAIN AIRCRAFT CLEARANCE*</u>

	CRT TUBE DISPLAY-PILOT	= A-V ON TAXIWAY
MONITOR-VISUAL	CRT TUBE DISPLAY-PILOT	
	CRT TUBE DISPLAY-PILOT	= A-V ON RUNWAY

03.2.4.005.00*

<u>CHECK FLIGHT INSTRUMENTS AND SET AS REQUIRED</u>

	DSU CHECKLIST	= SEQUENCE
CHECK	VERTICAL SITUATION DISPLAY	
	AIRSPEED-MACH NUMBER INDICATOR	
	ALTITUDE-VERTICAL VELOCITY IND	
	VERTICAL SITUATION DISPLAY	= TBD
	AND ALTITUDE-VERTICAL VELOCITY IND	= TBD

03.2.4.006.00*

<u>STEER A-V ONTO RUNWAY*</u>

	CRT TUBE DISPLAY-PILOT	= A-V TAXIING
TRACK	PILOTS RUDDER PEDALS	
	CRT TUBE DISPLAY-PILOT	= A-V ON RUNWAY

OBJECTIVE: "EXECUTE GROUND FLR UPDATE

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Take-off configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP verify authentication of command message.
2. P/CP communicate with OSO to determine A/V position relative to end of runway.
3. P/CP communicate "Mark" to OSO to initiate end of runway update.

PERFORMANCE LIMITS: 1. Proper sequence.

ENABLING OBJECTIVES:

1. Recall that the command message will have to be authenticated before it can be executed.

2. Recall that the enter pushbutton will illuminate by software control when the selected data can be entered.

ANCILLARY OBJECTIVES:

1. Recall that the A/V should be at the end of the runway before the update is accomplished or else a correction to the runway coordinates must be made prior to depressing the "ENTER" pushbutton switch.

2. Recall that the alpha-numeric pushbuttons on the integrated keyboard will be used to modify the position of the air vehicle from the stored runway coordinates.

OPERATOR: OSO

TASK ELEMENTS: 3.2.4.1
3.2.4.3
3.2.4.4

03.2.4.001.00*

<u>VERIFY COMMAND MESSAGE</u>

| | PILOTS UHF | = TBD* |
| --- | AND COPILOTS UHF | = TBD |

COMMUNICATE   PILOTS UHF
                 ICS

                 ICS   = CONFIRMS*

03.2.4.003.00*

<u>DETERMINE A-V POSITION ON END OF RUNWAY (ICS WITH PILOT)</u>

                 PILOT ICS   = COUNTDOWN*

COMMUNICATE*   ICS

                 PILOT ICS   = 'MARK'*

03.2.4.004.00*

<u>ENTER END OF RUNWAY UPDATE</u>*

                 PILOT ICS   = 'MARK'*

DEPRESS   ENTER PB

                 ENTER PB   = DEPRESSED

MISSION SEGMENT 4

OBJECTIVE: PERFORM PRE-T.O. CHECKS   4.1

                CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Takeoff configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO also check caution-warning lights

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that the yellow command index marker and the wing sweep position
   pointer should be coincident at the desired take-off setting.

2. Recall that when the slats indicator displays EXD, the slats are in the
   completely extended position.

3. Recall that when the flaps indicator displays DN, the flaps are set at the
   full down (40 degs) position.

4. Recall that in the PITOT HEAT position heater elements in the CADS pilot
   heat, total temperature probe and angle of attack sensor are energized.

5. Recall that when the TTO light is on, all trim actuators have been
   positioned to predetermined positions, the spoilers (speed brakes) are
   closed, and the PITCH TRIM PWR switch is not in standby.

6. Recall that the authority of the nosewheel steering is reduced to less
   than one-half when the steering mode control is switched from TAXI to TO/LDG.

ANCILLARY OBJECTIVES:

1. Recall that the spoiler indicators will change from blank to UP as soon as
   the spoilers move out of the fully retracted positions.

2. Recall that the master caution light will start flashing when one of the
   director lights on the Flight Station Caution Panel and Flight Instrument
   Failure Panel starts flashing.

OPERATOR: P/CP

TASK ELEMENTS: 4.1.1.1   4.1.1.4   4.1.2.3
                4.1.1.2   4.1.2.1
                4.1.1.3   4.1.2.2

04.1.1.001.00*

CHECK FLAPS, SLATS, AND WING SWEEP FOR TAKE-OFF.

	CHECKLIST	= SEQUENCE
CHECK	WING SWEEP POSITION INDICATOR	
	FLAP POSITION INDICATOR	
	SLATS POSITION INDICATOR	
	WING SWEEP POSITION INDICATOR	= TBD
AND	SLATS POSITION INDICATOR	= TBD

04.1.1.002.00*

DEPRESS 'TRIM FOR TAKE-OFF'(TTO) PUSH BUTTON

	AIR-VEHICLE	= HOLD LINE
DEPRESS	TRIM FOR TAKEOFF (TTO) SWITCH	
	TRIM FOR TAKEOFF LIGHT	= 'TTO'

04.1.1.003.00*

CHECK SPEED BRAKES RETRACTED

	CHECKLIST	= SEQUENCE
CHECK	LEFT SPOILER EM INDICATORS*	
	SPOILER INDICATORS	
	LEFT SPOILER EM INDICATORS	= BLANK
AND	SPOILER INDICATORS	= BLANK

04.1.1.004.00*

SET PITOT HEAT CONTROL SWITCH TO 'PITOT HEAT' POSITION

	CHECKLIST	= SEQUENCE
SET		
	PITOT HEAT CONTROL SWITCH	= PITOT HEAT

04.1.2.001.00*

CHECK CAUTION-WARNING PANELS

	A-V	= RNWY THRESHOLD
CHECK	CAUTION-WARNING LIGHTS	
	CAUTION-WARNING LIGHTS	= BLANK

04.1.2.002.00*

PLACE NOSEWHEEL STEERING SWITCH TO 'TO-LDG' POSITION*

	CHECKLIST	= COMPLETED
AND	A-V	= ALIGNED
SET	STEERING MODE CONTROL SWITCH*	
	STEERING MODE CONTROL SWITCH	= TO-LDG

4.3

04.1.2.003.00*

MONITOR COMMUNICATIONS*

AIR-VEHICLE   = READY FOR T.O.

MONITOR-AUDITORY   PILOT UHF COMM PANEL
                         COPILOT UHF COMM PANEL

                         PILOT UHF COMM PANEL   = MONITOR AUDITORY
                 AND COPILOT UHF COMM PANEL   = MONITOR AUDITORY

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Takeoff configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP check caution-warning lights.

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

   1. Recall what caution-warning lights constitute a non-takeoff situation.

ANCILLARY OBJECTIVES:

   1. *Recall* that the CITS mode switch has 12 positions some of which are used in flight only and others for ground operation only.

   2. *Recall* that a separate dedicated keyboard to CITS is used to allow entry of numerically coded data into the computer.

   3. *Recall* that a matrix of 50 switch indicators are used to identify failures and allow selection of subsystems for display of failure information.

   4. *Recall* that the 50 switch indicators are split-screen indicators. The upper half identifies a failure and the lower half indicates the availability of α-N display messages.

   5. *Recall* that a 20-character α-N readout is provided for display of CITS data.

OPERATOR: **OSO**

TASK ELEMENTS: 4.1.2.1

04.1.2.001.00*

CHECK CAUTION-WARNING PANELS

       A-V   = RNWY THRESHOLD

CHECK   CAUTION-WARNING LIGHTS

       CAUTION-WARNING LIGHTS = BLANK

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Take-off configuration
                     2. A/V at end of runway
                     3. Minimum internal take-off

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall the normal range of engine parameters at immediate thrust.

2. Recall the normal range of engine parameters at maximum thrust.

3. Recall A-V separation limits for various take-off conditions.

ANCILLARY OBJECTIVES:

1. Recall that take-off should be aborted if engine parameters are
   out of tolerance.

OPERATOR: P/CP

TASK ELEMENTS: 4.2.1.1
                4.2.1.2
                4.2.1.3
                4.2.1.4
                4.2.1.5

04.2.1.001.00*

<u>MONITOR POSITION OF PRECEDING A-V</u>

                    PRIMARY THROTTLE LEVERS-PI   = READY TO ADVANCE

MONITOR-VISUAL   A-V WINDOWS
                    VERTICAL SITUATION DISPLAY

                    A-V WINDOWS   = A-V SEPARATION
            AND VERTICAL SITUATION DISPLAY   = A-V SEPARATION

04.2.1.002.00*

<u>ADVANCE THROTTLES TO INTERMEDIATE POSITION</u>

                    STEERING MODE CONTROL SWITCH = TO-LOG

ADJUST   PRIMARY THROTTLE LEVERS-PI

                    POWER LEVEL INDICATOR   = TBD*

04.2.1.003.00*

<u>CHECK ENGINE INSTRUMENTS</u>

                    POWER LEVEL INDICATOR-ENG #1 = TBD

CHECK   ENGINE INSTRUMENTS

                    ENGINE INSTRUMENTS   = TBD*

04.2.1.004.00*

<u>ADVANCE THROTTLES TO MAXIMUM POWER</u>

                    .ENGINE INSTRUMENTS   = TBD

ADJUST   PRIMARY THROTTLE LEVERS-PI

                    PRIMARY THROTTLE LEVERS-PI   = MAX POSITION

04.2.1.005.00*

<u>CHECK ENGINE INSTRUMENTS FOR PERFORMANCE ASSESSMENT</u>

                    PRIMARY THROTTLE LEVERS-PI   = MAXIMUM

CHECK   ENGINE INSTRUMENTS

                    ENGINE INSTRUMENTS   = TBD

OBJECTIVE: PERFORM TAKE-OFF

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Take-off configuration
                     2. Power at maximum thrust

CONCURRENT TASKS:

INTERACTION TASKS: 1. DSO starts acceleration check.
                    2. DSO announces S1 time.

PERFORMANCE LIMITS: 1. Directional alignment - TBD ($\overset{+}{-}$ feet) of runway centerline
                     2. Rotation speed - TBD ($\overset{+}{-}$ kts)
                     3. Unstick speed - TBD ($\overset{+}{-}$ kts)
                     4. Take-off angle of attack TBD ($\overset{+}{-}$ degs)
                     5. Bank angle TBD ($\overset{+}{-}$ degs)

ENABLING OBJECTIVES:

1. Recall normal range and limits of engine parameters at maximum thrust.

2. Recall correct AOA - 8 degrees.

3. Recall that tail of A-V will strike runway if angle of attack is greater
   than 10 degs.

ANCILLARY OBJECTIVES:

1. Recall various conditions under which take-off should be aborted prior
   to decision speed.

   A. Engine caution light ON
   B. S1 < TBD within TBD secs after 80 kts.
   C. Any engine parameter out of tolerance.

OPERATOR: P/CP

TASK ELEMENTS: 4.2.5.4   4.2.3.4   4.2.4.1   4.2.5.1
                  4.2.2.2   4.2.3.5   4.2.4.2   4.2.5.2
                                            4.2.4.3   4.2.5.3

04.2.5.004.00*

DISENGAGE NOSEWHEEL STEERING*

	A-V	= TBD SPEED
DISENGAGE	PIL STEER ENG-DISENG SWITCH	
	PIL STEER ENG-DISENG SWITCH	= DISENGAGE
	AND NOSEWHEEL STEERING CAUTION LT	= OFF

04.2.2.002.00*

MAINTAIN A-V ALIGNMENT ON RUNWAY WITH RUDDERS*

	PIL STEER ENG-DISENG SWITCH	= DISENGAGE
USE	PILOTS RUDDER PEDALS	
	AIR-VEHICLE	= ALIGNED

04.2.3.004.00*

NOTIFY CREW OF DECISION TO CONTINUE TAKE-OFF

	DSO ICS	= TRANSMITS*
COMMUNICATE*	PUSH-TO-TALK SWITCH-PILOT	
	AMI-PILOT	= S1
	AND ENGINE INSTRUMENTS	= TBD

04.2.3.005.00*

MONITOR ENGINE PERFORMANCE

	AMI-PILOT	= S1
MONITOR-VISUAL	ENGINE INSTRUMENTS	
	ENGINE INSTRUMENTS	= TBD

04.2.4.001.00*

ANNOUNCE ROTATION SPEED TO PILOT

	AMI-COPILOT	= S2 MINUS 15 KTS
COMMUNICATE*	PUSH-TO-TALK SWITCH-COPILOT AMI-COPILOT	
	PILOT ICS	= TRANSMITS

04.2.4.002.00*

APPLY BACK PRESSURE ON CONTROL STICK

	AMI-PILOT AND CO-PILOT ICS	= S2 MINUS 15* = TRANSMITS
PULL	PILOTS FLIGHT CONTROL STICK	
	A-V	= ROTATE

04.2.4.003.00*

ANNOUNCE UNSTICK SPEED (S2)

	AMI-COPILOT	= S2
COMMUNICATE	PUSH-TO-TALK SWITCH-COPILOT AMI-COPILOT	
	PILOT ICS	= TRANSMITS*

04.2.5.001.00*

ESTABLISH PROPER PITCH ANGLE FOR LIFTOFF

	AIR-VEHICLE	= ROTATE
POSITION	PILOTS FLIGHT CONTROL STICK PITCH SCALE-PILOT	
	PITCH SCALE-PILOT	= TBD

04.2.5.002.00*

MAINTAIN PROPER PITCH ANGLE FOR LIFTOFF*

        PITCH SCALE-PILOT   = TBD

MAINTAIN   PITCH SCALE-PILOT

        PITCH SCALE-PILOT   = TBD MAINTAINED
   AND PILOTS FLIGHT CONTROL STICK   = POSITIONED

04.2.5.003.00*

MAINTAIN LATERAL AND DIRECTIONAL CONTROL*

        AIR-VEHICLE   = AIRBORNE

MAINTAIN

        HSI-PILOT   = TBD
   AND PILOTS FLIGHT CONTROL STICK   = POSITIONED

MISSION SEGMENT 5

OBJECTIVE: INITIATE CLIMB   5.1

            CRITICALITY: 3   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Take-off configuration
                     2. Power at maximum thrust

CONCURRENT TASKS: 1. Track to maintain heading

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Angle of attack - TBD ($\pm$ degs) during flap and
                        slat retraction.
                     2. Vertical velocity - TBD ($\pm$ ft/min) before landing
                        gear retracted.
                     3. Airspeed TBD ($\pm$ kts) during flap and slat retraction.

ENABLING OBJECTIVES:

    1. Recall speed before which landing gear must be retracted.

    2. Recall that wheel brakes should not be applied before or during
       landing gear retraction.

    3. Recall wing flaps limit speeds at various settings.

    4. Recall maximum slats retraction speed.

ANCILLARY OBJECTIVES:

    1. Recall that the boost pump caution light may illuminate when fuel flow
       exceeds 75,000 pounds per hour during certain flight conditions.

    2. Track with control stick to maintain 6 degs angle of attack during
       flap/slat retraction.

OPERATOR: P/CP

TASK ELEMENTS: 5.1.1.1   5.1.2.1
                  5.1.1.2   5.1.2.1.1
                  5.1.1.3   5.1.2.1.2
                  5.1.1.4   5.1.2.1.3

05.1.1.001.00*

<u>DETERMINE AIRCRAFT SAFELY AIRBORNE</u>

	CRT TUBE DISPLAY-PILOT	= A-V LIFT-OFF
MONITOR-VISUAL	AVVI-PILOT AMI-PILOT	
	AVVI-PILOT	= TBD
AND	AMI-PILOT	= TBD

05.1.1.002.00*

<u>RETRACT LANDING GEAR</u>

	PILOT ICS	= 'GEAR UP'
RAISE	PRIMARY LANDING GEAR CONTROL	
	GEAR WARNING LIGHTS	= BLANK
AND	PRIMARY LANDING GEAR CONTROL	= UP

05.1.1.003.00*

<u>ACCELERATE TO TBD KTS (INITIAL F-S RETRACT SPD) MAINTAIN HDG</u>

	CO-PILOT ICS	= 'GEAR UP'*
AND	GEAR WARNING LIGHTS	= BLANK
ADJUST	PILOTS FLIGHT CONTROL STICK	
	AMI-PILOT	= TBD
AND	HSI-PILOT	= TBD

05.1.1.004.00*

<u>ADJUST TRIM SWITCH AS REQUIRED*</u>

	AMI-PILOT	= TBD
AND	AVVI-PILOT	= TBD
ADJUST	PLT TRIM SW (ON CONTR STICK) PILOTS FLIGHT CONTROL STICK	
	PILOTS FLIGHT CONTROL STICK	= NEUTRAL PRESSURE

05.1.2.001.00*

<u>INITIATE FLAP-SLAT RETRACTION CYCLE*</u>

	AMI-PILOT	= TBD
AND	AVVI-PILOT	= TBD
INITIATE	FLAP-SLAT CONTROL HANDLE	

5.2

05.1.2.001.01*

MONITOR IAS FOR FLAP LIMIT SPEED*

| | AMI-PILOT | = TBD |
| AND | AVVI-PILOT | = TBD |

MONITOR-VISUAL   AMI-PILOT

AMI-PILOT   = TBD SCHEDULE

05.1.2.001.02*

SET FLAP-SLAT LEVER TO 'UP' THEN 'RET'

| | AMI-PILOT | = TBD |
| AND | AVVI-PILOT | = TBD |

SET   FLAP-SLAT CONTROL HANDLE

| | FLAP-SLAT CONTROL HANDLE | = FLAP UP |
| AND | FLAP-SLAT CONTROL HANDLE | = SLAT |

05.1.2.001.03*

MONITOR FLAP-SLAT INDICATOR

| | FLAP-SLAT CONTROL HANDLE | = FLAP UP |
| AND | FLAP-SLAT CONTROL HANDLE | = SLAT RET |

MONITOR-VISUAL   FLAP POSITION INDICATOR
                   SLATS POSITION INDICATOR

| | FLAP POSITION INDICATOR | = UP |
| AND | SLATS POSITION INDICATOR | = 'RET' |

OBJECTIVE: PERFORM CLIMB

                    CRITICALITY: 3   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Climb configuration

CONCURRENT TASKS: 1. Monitor engine performance parameters

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD ($\pm$ kts)
                      2. Altitude - TBD   ($\pm$ ft)
                      3. Heading - TBD ($\pm$ degrees)
                      4. Rate of climb - TBD ($\pm$ ft/min)

ENABLING OBJECTIVES:

   1. Calculate optimum wing sweep angle for climb.

   2. Calculate power level setting for climb.

   3. Coordinate control stick and rudders to maintain climb attitude,
      departure heading, and best climb speed.

   4. Recall the specific departure procedures to be followed during climb.

   5. Calculate best climb speed.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 5.1.2.3   5.1.3.1
                5.1.2.4   5.1.3.2
                5.1.2.5
                5.1.2.6

05.1.2.003.00*

SET WING SWEEP FOR BEST CLIMB

                        FLAP-SLAT CONTROL HANDLE   = FLAP UP*
                  AND SLATS POSITION INDICATOR   = 'RET'

SET   PILOTS WING SWEEP HANDLE

                        PILOTS WING SWEEP HANDLE   = TBD
                  AND WING SWEEP POSITION INDICATOR = TBD

05.1.2.004.00*

ACCELERATE TO TBD IAS AND MAINTAIN THROUGHOUT CLIMB*

                        FLAP POSITION INDICATOR   = UP
                  AND SLATS POSITION INDICATOR   = 'RET'

MONITOR-VISUAL   AMI-PILOT

                        AMI-PILOT   = TBD

05.1.2.005.00*

ADJUST TRIM AS REQUIRED*

                        FLAP POSITION INDICATOR   = UP
                  AND SLATS POSITION INDICATOR   = 'RET'

ADJUST   PLT TRIM SW (ON CONTR STICK)
                        PILOTS FLIGHT CONTROL STICK

                        PILOTS FLIGHT CONTROL STICK   = NEUTRAL PRESSURE

05.1.2.006.00*

MAINTAIN DEPARTURE HEADING(S) AND BEST CLIMB SPEED*

                        FLAP POSITION INDICATOR   = UP
                  AND SLATS POSITION INDICATOR   = 'RET'

ADJUST   PILOTS FLIGHT CONTROL STICK
                        PILOTS RUDDER PEDALS

                        HSI-PILOT   = TBD
                  AND AMI-PILOT   = TBD

05.1.3.001.00*

SET THROTTLES TO CLIMB POWER*

                        FLAP POSITION INDICATOR   = UP
                  AND AMI-PILOT   = TBD

ADJUST   PRIMARY THROTTLE LEVERS-CO

                        PRIMARY THROTTLE LEVERS-CO   = TBD
                  AND POWER LEVEL INDICATOR   = TBD

05.1.3.002.00*

MONITOR ENGINE INDICATORS

PRIMARY THROTTLE LEVERS-CO   = TBD

MONITOR-VISUAL   ENGINE INSTRUMENTS

ENGINE INSTRUMENTS   = TBD
AND PRIMARY THROTTLE LEVERS-CO   = TBD

CRITICALITY: 2   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Power level for climb - TBD
                      3. Vertical velocity - TBD

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO checklist executed concurrently

PREFORMANCE LIMITS: 1. Proper sequence
                      2. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that with the anti-icing switch set to AUTO an electonic link is made between the ice detectors and the engine anti-ice bleed air valves providing automatic initiation of the anti-ice cycle.

2. Recall that the pitch and roll trim switches in NORM provides primary pitch and roll, respectively, trim power for pitch trim commands from either the pilot's or copilot's coolie-hat switch on the flight control stick. Both speed stability and AFCS auto trim are also provided.

3. Recall that the yaw trim switch in NORM provides primary yaw trim power for yaw trim commands from either the pilot's or copilot's FLT CONT TRIM panels.

4. Recall that the landing light switch will be moved downward to the center (OFF) position.

5. Recall the fuel sequencing schedule and determine whether the fuel used since takeoff has been from the proper tanks.

6. Recall that if the cabin altitude indicates above 10,000 feet when the A/V passes through 12,000 feet, the crew compartment isn't being pressurized properly.

7. Recall that when an AFCS transfer of command is made, the AFCS will revert to the basic ENGAGE mode if AFCS is engaged, except for the TER FLW and AUTO THROT.

8. Recall that the pilot's TAKE COMD switchlight will be green and the copilot's TAKE COMD switchlight will be white.

9. Recall that when ENGAGE is depressed both the pilot's and copilot's green ENGAGE lights will illuminate.

10. Recall that in ENGAGE, the basic AFCS mode of flight path hold in the pitch axis and attitude hold in the roll axis is engaged.

11. Recall that when the MACH HOLD mode is engaged the mach number existing at the time of engagement will be maintained.

ANCILLARY OBJECTIVES:

1. Recall that if the anti-ice switch is set to "MAN" specific fuel consumption is increased because the anti-ice bleed air valves stay open.

2. Recall that the ANTI-ICE AIR ON advisory light will come on whenever the engine anti-ice bleed valves are open.

3. Recall that control stick steering is available in the basic AFCS mode. Any control stick movement beyond 0.25 inch will provide control stick steering.

4. Recall that the engage mode may be deactivated only by depressing the trigger switch on the control stick to the second detent.

5. Recall that in MACH HOLD the mach number is maintained by a change in air vehicle attitude and not by throttle changes.

6. Recall that the mach number reference may be changed by depressing the trigger switch on the control stick to the first detent and holding it until the new mach number is attained before releasing the trigger switch.

7. Recall that the mach hold mode is not compatible with the AUTO THROT, ALT or A/S modes.

OPERATOR: P/CP

TASK ELEMENTS: 5.2.1.1   5.2.1.10
               5.2.1.2   5.2.1.11
               5.2.1.7   5.2.1.12
               5.2.1.8   5.2.1.13
               5.2.1.9   5.2.1.14

05.2.1.001.00*

CHECK ANTI-ICING SWITCH SET TO 'AUTO'*

	DSO CHECKLIST	= SEQUENCE
CHECK	ENGINE ANTI-ICE SWITCH	
	ENGINE ANTI-ICE SWITCH	= AUTO

05.2.1.002.00*

CHECK PITCH, ROLL AND YAW TRIM SWITCHES ARE SET IN 'NORM'*

	DSO CHECKLIST	= SEQUENCE
CHECK	PITCH TRIM SWITCH	
	ROLL TRIM SWITCH	
	YAW TRIM SWITCH	
	PITCH TRIM SWITCH	= NORM
AND	YAW TRIM SWITCH	= NORM

05.2.1.007.00*

SET LANDING LIGHT SWITCHES TO 'OFF'.

	DSO CHECKLIST	= SEQUENCE
SET	LANDING/TAXI LIGHT CONTROL SW	
	LANDING/TAXI LIGHT CONTROL SW	= OFF

05.2.1.008.00*

CHECK FUEL DISTRIBUTION IN ALL TANKS

	CLIMBOUT CHECKLIST	= SEQUENCE
CHECK	FUEL MGT PANEL	
	FUEL MGT PANEL	= TBD*

05.2.1.009.00*

CHECK CABIN PRESSURE ALTITUDE DOES NOT EXCEED 10,000 FEET

	CHECKLIST	= PASSING 12000 FT
CHECK	CABIN PRESS ALT INDICATOR	
	CABIN PRESS ALT INDICATOR	= 8000 FT*

05.2.1.010.00*
    SET 'BARO SET' KNBS ON AVVI,STDBY ALT,AFT A-S & ALT TO 29.92

                        CHECKLIST   = PASSING 18000 FT

    SET   ALTITUDE-VERTICAL VELOCITY IND
                        AIRSPEED-ALTITUDE INDICATOR
                        BAROMETRIC SETTING KNOB

                        ALTITUDE-VERTICAL VELOCITY IND= 29.92
                    AND BAROMETRIC SCALE COUNTER   = 29.92

05.2.1.011.00*

                        CONFIRM PILOT'S COMMAND OF AFCS*

                        AMI-PILOT   = TBD

    CHECK   PILOTS TAKE COMMAND PUSHBUTTON

                        PILOTS TAKE COMMAND PUSHBUTTON= 'TAKE COMD'-G

05.2.1.012.00*

                        DEPRESS AFCS 'ENGAGE' MODE

                        PILOTS TAKE COMMAND PUSHBUTTON= 'TAKE COMD'-G
                    AND COPLTS TAKE COMMAND PUSHBUTTON= 'TAKE COMD'-W

    DEPRESS   PILOTS ENGAGE PUSHBUTTON

                        PILOTS ENGAGE PUSHBUTTON   = 'ENGAGE'-G*
                    AND COPILOTS ENGAGE PUSHBUTTON   = 'ENGAGE'-G

05.2.1.013.00*
                    DEPRESS AFCS 'MACH HOLD' PUSHBUTTON SWITCHLITE*

                        PILOTS ENGAGE PUSHBUTTON   = 'ENGAGE'-G
                    AND COPILOTS ENGAGE PUSHBUTTON   = 'ENGAGE'-G

    DEPRESS   PLTS MACH (MACH HOLD) PSHBTN

                        PLTS MACH (MACH HOLD) PSHBTN = 'MACH'-G
                    AND CPLTS MACH (MACH HOLD) PSHBTN = 'MACH'-G

05.2.1.014.00*

                        CONFIRM PROPER IFF-SIF CODE SET

                        CHECKLIST   = SEQUENCE

    OBSERVE   MODE 1 CODE SELECT THUMBWHEELS
                        MODE 3-A CODE SELECT THUMBWHLS

                        MODE 1 CODE SELECT THUMBWHEELS= TBD
                    AND MODE 3-A CODE SELECT THUMBWHLS= TBD

5.10

OBJECTIVE: CLIMBOUT   5.4

                   CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1.   Cruise configuration
                      2.   Power level for climb - TBD
                      3.   Vertical velocity - TBD

CONCURRENT TASKS:

INTERACTION TASKS: 1.   Pilot checklist executed concurrently.

PERFORMANCE LIMITS: 1.   Proper sequence
                      2.   Proper Instrument Indications

ENABLING OBJECTIVES:

    1.   Recall that the best navigation information will be available with
         the doppler in operation until the INSs have warmed up and completed
         both coarse and fine alignment phases.

    2.   Recall that the selection of the bearing and heading sources for the
         BDHI is made at the front station.

    3.   Recall that the #1 needle is the relative bearing indicator for the
         TACAN. The #2 needle is either the bearing to a NAV checkpoint as
         selected by the ACU, or a bearing to a UHF/ADF station.

    4.   Recall how to set the FLR so the CRT displays the optimum presentation
         during the climb.

    5.   Recall how to set the MFD in the 1R mode for the optimum presentation
         during the climb.

    6.   Recall that time is entered in MISNT via IKB by keying in a future time
         and then depressing the ENTER switch when future time and actual time
         are coincident.

ANCILLARY OBJECTIVES:

    1.   Recall that the solid line on the indicator's sphere represents the
         real world horizon. The scale at the bottom indicates the aircraft's
         roll attitude in degrees.

    2.   Recall that the compass card in the BDHI can be driven either by the
         inertial platform (NAV) or by the gyro stabilization system (GSS).

    3.   Recall that the elapsed time capability of the clock is only one hour.

OPERATOR: OSO

TASK ELEMENTS: 5.2.1.3
                       5.2.1.4
                       5.2.1.6

05.2.1.003.00*

SET DOPPLER SWITCH TO 'XMT'

CHECKLIST   = SEQUENCE

SET   DOPPLER CONTROL

DOPPLER CONTROL   = XMT

05.2.1.004.00*

MONITOR A-V FLIGHT PARAMETER INDICATORS*

CHECKLIST   = SEQUENCE

CHECK   ATTITUDE-BEARING INDICATORS
           MULTIFUNCTION DISPLAY UNIT
           DSO CLOCK

           ATTITUDE-BEARING INDICATORS = TBD
AND DSO CLOCK   = TBD

05.2.1.006.00*

SET E-HOUR TIME VIA IKB*

DSO CHECKLIST   = SEQUENCE

SET   OPTION SELECT SWITCHES

OPTION SELECT SWITCHES   = SET
AND PRESENT POSITION MISSION TIME   = TBD

MISSION SEGMENT 6

OBJECTIVE: PERFORM LEVEL-OFF   6.1

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. Power level for climb - TBD
                     3. Vertical velocity - TBD

CONCURRENT TASKS: 1. Maintain proper c.g

INTERACTION TASKS: 1. DSO provide heading data

PERFORMANCE LIMITS: 1. Airspeed - TBD ($\pm$ kts)
                     2. Altitude - TBD ($\pm$ ft)
                     3. Heading - TBD ($\pm$ degrees)

ENABLING OBJECTIVES:

1. Calculate power level setting for level-off.

2. Calculate altitude lead to initiate power level change.

3. Calculate altitude lead to initiate pitch attitude change.

4. Predict necessary pitch change for level-off.

5. Coordinate control stick and throttles to achieve level-off.

6. Calculate optimum wing sweep angle for cruise.

7. Track with control stick to maintain level-off altitude.

8. Reset power level to maintain cruise airspeed.

9. Track with control stick and rudders to hold desired heading.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 6.1.1.2   6.1.1.4
                6.1.1.3   6.1.1.5

06.1.1.002.00*

ADJUST THROTTLES FOR LEVEL OFF

	AVVI-PILOT	= TBD
ADJUST	PRIMARY THROTTLE LEVERS-PI	
	AMI-PILOT	= TBD

06.1.1.003.00*

ADJUST WING SWEEP

	WING SWEEP POSITION INDICATOR ¬=TBD
ADJUST	PILOTS WING SWEEP HANDLE
	WING SWEEP POSITION INDICATOR = TBD

06.1.1.004.00*

CHECK HEADING AND ALTITUDE INDICATORS

	DSO ICS	= TRANSMITS*
CHECK	VERTICAL SITUATION DISPLAY HORIZONTAL SITUATION INDICATOR HEADING READOUT	
	VERTICAL SITUATION DISPLAY AND HEADING READOUT	= TBD = TBD

06.1.1.005.00*

ADJUST CONTROL STICK AND RUDDERS FOR LEVELING AND CRUISE

ADJUST	PILOTS FLIGHT CONTROL STICK PILOTS RUDDER PEDALS	
	AMI-PILOT AND VSD-PILOT	= TBD = TBD

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP execute crew station checks concurrently.
                     2. Report checks complete.

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Station checks at 30-minute intervals and prior to
                        crew rest during flight.

ENABLING OBJECTIVES:

1. Recall that the normal position of circuit breakers are in but due to
   the systems being shut down or inoperative some circuit breakers should
   be left out.

2. Recall that the selection of the bearing and heading sources for the
   BDHI is made at the front station.

3. Recall that the #1 needle is the relative bearing indicator for the
   TACAN. The #2 needle is either the bearing to a NAV checkpoint as
   selected by the ACU, or a bearing to a UHF/ADF station.

4. Recall that the precision bombing timer would be used as a backup for
   timed navigation and manual weapons release.

5. Recall that the CAS/TAS indicator is used to display ground speed,
   ballistic parameters, navigational parameters, etc. The information
   is supplied from whichever Air Data System has been selected at the
   pilot's station.

ANCILLARY OBJECTIVES:

1. Recall that the solid line on the indicator's sphere represents the
   real world horizon. The scale at the bottom indicates the aircraft's
   roll attitude in degrees.

2. Recall that the compass card in the BDHI can be driven either by the
   inertial platform (NAV) or by the gyro stabilization system (GSS).

OPERATOR: OSO

TASK ELEMENTS: 6.2.1.1
                        6.2.1.8
                        6.2.1.9

06.2.1.001.00*   CHECK CIRCUIT BREAKER PANELS

                               CHECKLIST   = START

        CHECK   LEFT CIRCUIT BREAKERS
                               RIGHT CIRCUIT BREAKERS

                               FLIGHT LOG   = RECORDED*
                               AND RIGHT CIRCUIT BREAKERS   = IN

06.2.1.008.00*   CHECK FLIGHT PERFORMANCE INDICATORS

                               CHECKLIST   = SEQUENCE

        CHECK   FLIGHT PERFORMANCE INDICATORS*

                               FLIGHT PERFORMANCE INDICATORS   = LIMITS*
                               AND CHECKLIST   = COMPLETED

06.2.1.009.00*   REPORT STATION CHECKS COMPLETE

                               CHECKLIST   = COMPLETED
                               AND IN-FLIGHT PROGRESS CHART   = RECORDED

        TRANSMIT   ICS

                               PILOT ICS   = TRANSMITS*

OBJECTIVE: CREW STATION CHECK   6.3

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO & DSO check circuit breaker panels.
                     2. OSO check flight performance indicated.
                     3. Report station checks complete.

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Enters in flight log as checks completed.
                     3. Station checks at 30-min. intervals and prior to
                         crew rest during flight.

ENABLING OBJECTIVES:

1. Recall that total fuel flow to all four engines is displayed on the
    total fuel flow indicator in pounds per hour.

2. Recall that the vertical tape fuel indicators display gross quantities for all
    fuel tanks except EXT and WPN BAY.

3. Recall that the precise quantity for all tanks can be obtained with the
    SEL TK indicators.

4. Recall that the fuel sequence flow should occur simultaneously in two tanks
    for stable weight distribution.

5. Recall that fuel in fuselage tanks #2 and #3 are used early in the
    sequence unless supersonic flight is flown early. Then the WG position
    is selected to minimize "boil-off."

6. Recall that the indicators on the transfer pump geographical schematic
    show green when fuel is being pumped from a given tank.

7. Recall that the pointer on the ACT tape indicates the existing CG position.

8. Recall that the pointer on the TGT tape indicates the desired CG location.

9. Recall that the TGT indicator can be set by the crew or is set automatically
    from the control mechanization.

10. Recall that the GROSS WT digital readout displays air vehicle gross
    weight in hundreds of pounds.

11. Recall that the liquid oxygen indicator displays quantity in liters.

12. Interpret the VSD presentation to determine whether the display reflects the mode selected and the existing flight conditions.

13. Interpret the HSI display to determine whether the indicator represents the correct heading, course, mileage of the desired flight path.

14. Interpret the SADI presentation to determine whether the display is consistent with the VSD and the existing flight conditions.

15. Check the SAMI to insure that the indication is consistent with the AM1 and the mach or airspeed being flown.

16. Check the GS/TAS indicator to determine whether the TAS or GS reading is consistent with the OSO's displays.

ANCILLARY OBJECTIVES:

1. Recall that if the pressure in any of the hydraulic systems falls below 2150 PSI, the hydraulic caution light will illuminate.

2. Recall that if the hydraulic fluid level in systems 1 and 4 falls below 6 gallons or the fluid level in the reservoirs for systems 2 and 3 falls below 11 gallons, the HYD caution light will illuminate.

3. Recall that if the HYD caution light comes on because of low system pressure, this would indicate a second pump failure or loss of fluid from that system. Each hydraulic system contains two pumps (each of which can maintain system pressure).

4. Recall that if the cabin pressure altitude indicator is below 10,000 feet, the corresponding caution light will be out.

5. Recall the EMERG GEN ON illuminates when the emergency generator is either manually or automatically energized to feed the essential bus.

6. Recall that a CSD caution light will illuminate when the respective CSD temperature exceeds a preset level.

7. Recall that if one of the CSD caution lights come on, the corresponding CSD should be decoupled.

8. Recall that the GEN caution lights will illuminate when the respective generator trips off the line. Corrective action is to cycle the generator to RESET/OFF and back to ON.

9. Recall that loss of power or valid signals to any of the engine indicators will be displayed by an OFF flag at the top of the affected tape and the absence of a tape readout.

10. Recall that individual caution lights above each FAN RPM or CORE RPM display will illuminate when fan RPM or CORE RPM, respectively, exceeds 107 percent.

11. Recall that individual caution lights above each ENG TEMP indicator will come on when turbine blade temperature exceeds safe limits.

12. Recall that individual OIL PRESS caution lights will illuminate above each OIL PRESS display when pressure falls below 10 PSI. The lights also respond to low oil quantity signals when the level falls below 30 percent of reservoir capacity.

13. Recall that the ENG director caution light will come on when one of the miniature caution lights mounted on the FAN RPM, ENG TEMP, CORE RPM, or OIL PRESS and OIL QTY indicators illuminate.

14. Recall that the fuel XFEED light will illuminate when the fuel pressure in the L or R system falls below a preset level.

15. Recall that the fuel CLG LOOP RTN will illuminate when individual fuel flow falls below a preset limit and FUEL CLG LOOP RTN fails to open automatically.

16. Recall that illumination of the CLG FUEL LOOP CRSVR light occurs when the pressure rise across either the LH or RH cooling fuel pump falls below a preset level.

17. Recall that the fuel low light illuminates when the fuel drops below a preset level in either main tank.

18. Recall that the FWD and AFT cg indicators represent the forward and aft cg limits, respectively, as determined from the FCGMS computer.

19. Recall the the CG LIMITS caution light will illuminate when the air vehicle CG exceeds either the forward or aft limits.

20. Recall that the LO_2 test switch will cause the indicator needle to rotate counter-clockwise to zero.

21. Recall that the OXYGEN LOW caution light will start flashing when the indicator test is performed.

22. Check the radar altimeter indication if the air vehicle is below 5,000 feet. It's value plus the terrain elevation should be consistent with the mean sea level indication displayed on the AVVI.

23. Check the AOA indicator to insure that it is consistent with the AOA error symbol shown on the VSD.

OPERATOR: P/CP

TASK ELEMENTS:

6.2.1.2	6.2.1.6
6.2.1.3	6.2.1.7
6.2.1.4	6.2.1.8
6.2.1.5	6.2.1.9

06.2.1.002.00*

CHECK HYDRAULIC INDICATORS

	CHECKLIST	= SEQUENCE
CHECK	HYDRAULIC QUANTITY INDICATORS	
	HYDRAULIC PRESSURE INDICATORS	
	HYDRAULIC LIGHT	
	HYDRAULIC QUANTITY INDICATORS	= TBD*
	AND HYDRAULIC LIGHT	= OFF

06.2.1.003.00*

CHECK CABIN PRESSURE ALTITUDE INDICATOR

	CHECKLIST	= SEQUENCE
CHECK	CABIN PRESS ALT INDICATOR	
	CABIN PRESS ALT INDICATOR	= LIMITS
	AND FLIGHT LOG	= RECORDED

06.2.1.004.00*

CHECK ELECTRICAL CONTROL PANEL

	CHECKLIST	= SEQUENCE
CHECK	ELECTRICAL CONTROL PANEL	
	ELECTRICAL CONTROL PANEL	= LIMITS*
	AND FLIGHT LOG	= RECORDED

06.2.1.005.00*

CHECK ENGINE INSTRUMENTS

	CHECKLIST	= SEQUENCE
CHECK	ENGINE START DISPLAYS	
	ENGINE START DISPLAYS	= LIMITS*
	AND FLIGHT LOG	= RECORDED

06.2.1.006.00*

CHECK FUEL FLOW RATES, SEQUENCING, AND CG INDICATORS

	CHECKLIST	= SEQUENCE
CHECK	FUEL MGT PANEL	
	PERCENT MACH INDICATOR	
	FUEL FLOW INDICATOR-1	
	FUEL FLOW INDICATOR-1	= LIMITS*
	AND PERCENT MACH INDICATOR	= LIMITS

06.2.1.007.00*

CHECK OXYGEN QUANTITY

	CHECKLIST	= SEQUENCE
CHECK	LIQUID OXYGEN QUANTITY METER	
	LIQUID OXYGEN QUANTITY METER	= TBD*
	AND FLIGHT LOG	= RECORDED

06.2.1.008.00*

CHECK FLIGHT PERFORMANCE INDICATORS

	CHECKLIST	= SEQUENCE
CHECK	FLIGHT PERFORMANCE INDICATORS*	
	FLIGHT PERFORMANCE INDICATORS	= LIMITS*
	AND CHECKLIST	= COMPLETED

06.2.1.009.00*

REPORT STATION CHECKS COMPLETE

	CHECKLIST	= COMPLETED
	AND IN-FLIGHT PROGRESS CHART	= RECORDED
TRANSMIT	ICS	
	PILOT ICS	= TRANSMITS*

OBJECTIVE: ACTIVATE FUNCTIONAL SYSTEMS   6.4

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Climbout completed
                      3. Flight instruments within specified limits

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO activates functional systems

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

    1. Recall that by selecting INRTL on Flight Instrument Test and Modes
        Panel, heading information is presented to the HSI from the avionics
        IMU.

    2. Recall function of individual AFCS modes, including incompatibilities.

    3. Recall HF radio setting and tuning procedure.

    4. Recall that when "1 or 2" is selected on radar altimeter channel
        selector, both altimeters are on with one tracking and the other blanked.

ANCILLARY OBJECTIVES:

OPERATOR: P /CP

TASK ELEMENTS: 6.3.1.1
                      6.3.1.2
                      6.3.1.3
                      6.3.1.4
                      6.3.1.5

06.3.1.001.00

SELECT INERTIAL PLATFORM*

```
              FLIGHT PERFORMANCE INDICATORS = LIMITS
          AND AIR··VEHICLE                  = CRUISE

SET           PLATFORM SELECT SWITCH-COP

              PLATFORM SELECT SWITCH-COP    = INRTL
```

06.3.1.002.00

SELECT AFCS MODES AS REQUIRED*

```
              AIR-VEHICLE                   = CRUISE
          AND PLATFORM SELECT SWITCH-COP    = INRTL

SET           PILOTS AFCS MODE SELECT PANEL

              PILOTS AFCS MODE SELECT PANEL = TBD
```

06.3.1.003.00

SET AND TUNE HF RADIO TO PRE-DESIGNATED FREQUENCY

```
              AIR-VEHICLE                   = CRUISE
          AND PILOTS AFCS MODE SELECT PANEL = TBD

SET           RADIO MODE SELECT SWITCH
              FREQUENCY INDICATOR-SELECTOR

              RADIO MODE SELECT SWITCH      = TBD
          AND FREQUENCY INDICATOR-SELECTOR  = TBD
```

06.3.1.004.00

SET RADAR ALT PWR-SET-TEST KNOB TO '5000' WITH INDEXER

```
              AIR-VEHICLE                   = CRUISE
          AND FREQUENCY INDICATOR-SELECTOR  = TBD

SET           POWER-SET-TEST CONTROL KNOB

              VARIABLE ALTITUDE INDEX MARKER= 5000
```

06.3.1.005.00

SET RADAR ALT CHANNEL SELECTOR SWITCH TO '1 OR 2'

```
              AIR-VEHICLE                   = CRUISE
          AND VARIABLE ALTITUDE INDEX MARKER= 5000

SET           CHANNEL SELECTOR SWITCH

              CHANNEL SELECTOR SWITCH       = 1 OR 2
```

OBJECTIVE: ACTIVATE FUNCTIONAL SYSTEMS   6.5

              CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP activate functional systems.

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Switches in proper positions.

ENABLING OBJECTIVES:

1. Recall that by setting the navigation mode select switch to AUTO, the
    ACU (avionics control unit) determines when and which mode and what
    calculations will be used.

2. Recall that when the DDR or the ADDR segment is lighted, the navigation
    mode giving an estimate of present position is doppler or air data dead
    reckoning, respectively.

3. Recall that ACU power must be on to complete coarse alignment and for gyro
    torquing INS.

4. Recall that the COARSE indicator flashes four times per second while the
    particular INS is in the hardware coarse alignment phase and turns steady
    when the coarse leveling phase is entered.

ANCILLARY OBJECTIVES:

1. Recall that all navigation updates are accepted 100 percent by the
    system anytime the DR mode is used for navigation.

2. Recall that with the FLR photo switch in AUTO, photographs are taken
    automatically once every 20 antenna frames (40 scans) and once every
    2 antenna frames (four scans) when in the BOMB mode.

OPERATOR: OSO

TASK ELEMENTS: 6.3.1.6   6.3.1.11
                      6.3.1.7   6.3.1.12
                      6.3.1.8   6.3.1.13
                      6.3.1.9   6.3.2.8
                      6.3.1.10

06.3.1.006.00

SET NAV MODE SELECT SWITCHLIGHT TO 'AUTO'*

| | AIR-VEHICLE | = CRUISE |
| | AND CHANNEL SELECTOR SWITCH | = 1 OR 2 |

DEPRESS   AUTO-MAN MODE SELECT

AUTO-MAN MODE SELECT   = 'AUTO'

06.3.1.007.00

OBSERVE THAT NAV SYSTEM IS IN 'DDR-ADDR'

AUTO-MAN MODE SELECT   = 'AUTO'

CHECK   DR CALCULATION MODE SELECT*

DR CALCULATION MODE SELECT   = 'DDR-ADDR'

06.3.1.008.00

OBSERVE INS #1 AND #2 IS IN WARMUP MODE

CLOCK-PILOT   < 10

CHECK   NAVIGATION ANNUNCIATORS-1*
NAVIGATION ANNUNCIATORS-1

NAVIGATION ANNUNCIATORS-1   = 'WM UP CRS FINE'
AND NAVIGATION ANNUNCIATORS-1   = 'WM UP CRS FINE'

06.3.1.009.00

OBSERVE WHEN INS#1 AND #2 WARMUP PHASE IS COMPLETED

CLOCK-PILOT   = E PLUS 10

CHECK   NAVIGATION ANNUNCIATORS-1
NAVIGATION ANNUNCIATORS-1

NAVIGATION ANNUNCIATORS-1   = BLANK*
AND NAVIGATION ANNUNCIATORS-1   = BLANK

06.3.1.010.00

OBSERVE INS 1 AND 2 IS IN 'COARSE' ALIGNMENT PHASE

NAVIGATION ANNUNCIATORS-2   = BLANK
AND NAVIGATION ANNUNCIATORS-2   = BLANK

CHECK   NAVIGATION ANNUNCIATORS-2
NAVIGATION ANNUNCIATORS-2

NAVIGATION ANNUNCIATORS-2   = FLASHING*
AND NAVIGATION ANNUNCIATORS-2   = FLASHING

06.3.1.011.00

<u>OBSERVE INS 1 AND 2 COARSE ALIGNMENT PHASE IS COMPLETED</u>

                        CLOCK-PILOT   = E30

CHECK   NAVIGATION ANNUNCIATORS-2
                        NAVIGATION ANNUNCIATORS-2

                        NAVIGATION ANNUNCIATORS-2   = 'COARSE'*
                AND NAVIGATION ANNUNCIATORS-2   = 'COARSE'

06.3.1.012.00

<u>OBSERVE INS 1 AND 2 IN FINE ALIGNMENT PHASE</u>

                        NAVIGATION ANNUNCIATORS-INS1 = 'COARSE'
                AND NAVIGATION ANNUNCIATORS-INS 2 = 'COARSE'

CHECK   NAVIGATION ANNUNCIATORS-INS1
                        NAVIGATION ANNUNCIATORS-INS 2

                        NAVIGATION ANNUNCIATORS-INS1 = 'FINE'
                AND NAVIGATION ANNUNCIATORS-INS 2 = 'FINE'

06.3.1.013.00

<u>POSITION FLR PHOTO SWITCH TO 'AUTO'</u>

                        CHECKLIST   = SEQUENCE*

SET   PHOTO CONTROL

                        PHOTO CONTROL   = AUTO

06.3.2.008.00

<u>OBSERVE THAT INS 1 AND INS 2 HAVE COMPLETED ALIGNMENT</u>

                        CLOCK-PILOT   = E37

CHECK   NAVIGATION ANNUNCIATORS-INS1

                        NAVIGATION ANNUNCIATORS-INS1 = OFF
                AND NAVIGATION ANNUNCIATORS-INS 2 = OFF

OBJECTIVE: APPLY POWER TO STORES   6.6

                     CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Switches in proper positions.

ENABLING OBJECTIVES:

   1. Recall that the SLU switches provide power commands to the ACU.

ANCILLARY OBJECTIVES:

   1. Recall that SLU turn on occurs immediately following selection of the
       enable position.

   2. Recall that the SLUs are turned off only after the weapons are safed.

   3. Recall that power control from the left EMUX is provided to the FWD, AFT
       and LPYL SLUs and from the right EMUX to the INTMD and R PYL.

OPERATOR: OSO

TASK ELEMENTS: 6.3.2.3.0
                        6.3.2.3.2
                        6.3.2.3.3

06.3.2.003.00

APPLY POWER TO MISSILE AND NUCLEAR GRAVITY STORE

           CHECKLIST   = SEQUENCE

06.3.2.003.02

DEPRESS 'ALL' PUSHBUTTON ON NUMERIC KEYBOARD OF SMS PANEL

           FWD-DSBL SLU SWITCH   = FWD
       AND AFT-DSBL SLU SWITCH   = AFT

DEPRESS   STATION NUMERIC KEYBOARD

           STATION NUMERIC KEYBOARD   = 9(FLASHING)

06.3.2.003.03

SET STORE POWER TOGGLE SWITCH TO 'ON'

           STATION NUMERIC KEYBOARD   = (FLASHING)

SET   STORE POWER SWITCH

           STORE POWER SWITCH   = ON
       AND STATION NUMERIC KEYBOARD   = (BLANK)

OBJECTIVE: LOAD EWO MISSION CASSETTE   6.7

                    CRITICALITY: 3   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Switches in proper positions.

ENABLING OBJECTIVES:

   1. Recall that the integrated keyboard (IKB) is used to transfer mission
       data from tape cassettes into ACU memory.

   2. Recall how to insert a cassette into the DEU.

ANCILLARY OBJECTIVES:

   1. Recall that the GN/DSBL switch commands right EMUX turn on which powers
       the general Navigation ACU and the Data Entry Unit.

   2. Recall that cassette loading can be verified by calling up sequence
       numbers on the Navigation panel and viewing the displays on the
       Stores Management System CRTs.

   3. Recall that improper insertion of a cassette into the DEU is precluded
       by the physical geometry of the cassette.

OPERATOR: OSO

TASK ELEMENTS: 6.3.2.4
                      6.3.2.5
                      6.3.2.6
                      6.3.2.7

06.3.2.004.00

POSITION IKB SELECTOR KNOB TO 'MISN TAPE'*

	CHECKLIST	= SEQUENCE
SET	ACU DATA TRANSFER CONTROL	
	ACU DATA TRANSFER CONTROL	= MISN TAPE

06.3.2.005.00

INSERT EWO MISSION CASSETTE INTO DATA ENTRY UNIT

	ACU DATA TRANSFER CONTROL	= MISN TAPE
INSERT	EWO MISSION TAPE	
	EWO MISSION TAPE	= INSERTED*

06.3.2.006.00

DEPRESS MEMORY CONTROL 'LOAD' PUSHBUTTON ON IKB TO ENTER DAT*

	EWO MISSION TAPE	= INSERTED
DEPRESS	MEMORY CONTROL LOAD PUSHBUTTON	
	MEMORY CONTROL LOAD PUSHBUTTON= ON*	

06.3.2.007.00

VERIFY EWO MISSION CASSETTE DATA IS LOADED*

	CHECKLIST	= SEQUENCE
READ	DISPLAY TUBE SURFACE SEQUENCE NUMBER	
	DISPLAY TUBE SURFACE AND SEQUENCE NUMBER	= TBD = TBD

6.19

CRITICALITY: 2   DIFFICULTY: 3

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P acknowledges FLR update communication.
                       2. Pilot observes AUTO PILOT steering correction on VSD.

PERFORMANCE LIMITS: 1. Proper sequence.
                       2. Switches in proper position.
                       3. Successful discrimination of CP.
                       4. X-hairs - $\pm$ TBD feet.

ENABLING OBJECTIVES:

1. Recall that when the PPC is IN, the tracking handle positions the FLR
    cursors and the ACU will accept a FLR update.

2. Recall that in GND AUTO, the range switch selects only one of the
    following ranges: 2.5, 5, 10, 30, 80 or 200.

3. Discriminate the CP on the radar scope from other radar returns in vicinity.

4. Recall that when GND VEL has been selected, the radar ground map remains
    stable on the display with the targets and cursors remaining at the center
    of the display.

5. Recall that in GND VEL, the range sweep selections are 7.5/2.5, 15/5, 30/10,
    90/30, 160/80 or 200/200. The first and second numbers represent range
    sweep and display scale (diameter) in miles, respectively.

6. Recall that the UPDT QUAL of a selected point can be either 1, 2 or 3
    where a high position accuracy is represented by number 1. A low quantity
    or relatively poor position accuracy is indicated by 3. With each switch
    depression the numbers sequence as follows: 1, 2, 3, 1, etc.

7. Recall that operating the sector toggle switch on the tracking handle
    causes the FLR antenna sector width to be reduced to $\pm10°$ about the
    azimuth cursor. The forward position of the switch selects narrow scan.

8. Recall that squeezing the enable switch on the tracking handle allows
    the X-hair cursors to be repositioned.

9. Recall that by depressing ENTER on the NAV CORR panel, when neither
    OVERFLY or EVS have been selected, initiates a position update based
    upon FLRX-hair position if PPC is in.

ANCILLIARY OBJECTIVES:

1. Recall that when the FLR mode switch is in GND AUTO, the range and azimuth cursors are controlled by the ACU.

2. Recall that the displayed Seq. No. has been entered into the ACU either via the mission tape or through the IKB.

3. Recall that the Seq. No. is controlled by both the Forward/Reverse switch and the right Cross Hair Control switches and activation of any one switch overrides any previous activation.

4. Recall that if the Kalman does not accept the update, the IN UPDT annunicator light goes off and UPDT REJ light comes on.

5. Recall that the UPDT REJ light flashes for 17 seconds at the rate of 4 flashes per second and then deactivates.

6. Recall that operating the sector toggle switch on the tracking handle to the off position selects the wide scan on the FLR antenna sector width.

OPERATOR: OSO

TASK ELEMENTS:

9.2.1.1	9.2.1.7	9.2.1.13
9.2.1.2	9.2.1.8	6.3.2.9
9.2.1.3	9.2.1.9	
9.2.1.4	9.2.1.10	
9.2.1.5	9.2.1.11	
9.2.1.6	9.2.1.12	
11.5.2.1	11.5.2.5	11.5.2.9
11.5.2.2	11.5.2.6	11.5.2.10
11.5.2.3	11.5.2.7	11.5.2.11
11.5.2.4	11.5.2.8	11.5.2.12
		11.5.2.13

09.2.1.001.00*

SET FLR SELECT ROTARY SWITCH TO 'GND AUTO'*

	CRT DISPLAY SURFACE	¬=TBD
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND AUTO

09.2.1.002.00*

SET PPC SWITCH ON RADAR SET CONTROL TO 'IN'

	CRT DISPLAY SURFACE	¬=TBD
SET	PRESENT POSITION CORRECTION SW	
	PRESENT POSITION CORRECTION SW= IN	

09.2.1.003.00*

OBSERVE NEXT SEQ NO IS A CP ON SEQ NO DIGITAL READOUT

	SEQUENCE NUMBER	= TBD
OBSERVE	SEQUENCE NUMBER	
	SEQUENCE NUMBER AND PRE-PLANNED DATA SHEET	= TBD = TBD

09.2.1.004.00*

SET FLR RANGE SELECT ROTARY SWITCH TO DESIRED RANGE

	CRT DISPLAY SURFACE	¬=TBD*
SET	RANGE SWITCH-FLR	
	RANGE SWITCH-FLR	= TBD*

09.2.1.005.00*

IDENTIFY CP OF INTEREST ON FLR CRT SCOPE

	CRT DISPLAY SURFACE	¬=TBD*
IDENTIFY	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= TBD*

09.2.1.006.00* OBSERVE X-HAIR CURSOR POSITION RELATIVE TO CP

	RADAR CURSORS	= TBD*
OBSERVE	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= OBSERVED*

09.2.1.007.00*

SET FLR SELECT ROTARY SWITCH TO 'GND VEL'

	CRT DISPLAY SURFACE	¬=EXPANDED
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET AND CRT DISPLAY SURFACE	= GND VEL* = EXPANDED

09.2.1.008.00*

DEPRESS UPDT QUAL PUSHBUTTON SWITCH ON NAV CORR PANEL

	UPDATE QUALITY SELECTOR	¬=TBD*
DEPRESS	UPDATE QUALITY SELECTOR	
	UPDATE QUALITY SELECTOR	= TBD*

09.2.1.009.00*

SET NARROW SECTOR SCAN ON FLR WITH TRACKING HOLE PUSHBUTTON

	CRT DISPLAY SURFACE	¬=NARROW SECT SCAN*
DEPRESS	SECTOR SWITCH	
	CRT DISPLAY SURFACE	= NARROW SECT SCAN

09.2.1.010.00*

POSITION X-HAIR CURSORS TO COINCIDE WITH CHECKPOINT

	CRT DISPLAY SURFACE	¬=TBD*
POSITION	ENABLE SWITCH	
	X-HAIR CURSORS AND CRT DISPLAY SURFACE	= POSITIONED = TBD

09.2.1.011.00*
          DEPRESS 'ENTER' ON NAV CORR PANEL TO INTEGRATE CP UPDATE

	X-HAIR CURSORS	= POSITIONED
	AND CRT DISPLAY SURFACE	= TSD
DEPRESS	ENTER CONTROL	
	IN UPDT INDICATOR	= 'IN UPDT'*

09.2.1.012.00*
          ADVISE PILOT FLR UPDATE HAS BEEN ACCEPTED AND IS COMPLETE

	IN UPDT INDICATOR	= OFF*
COMMUNICATE	OSO INTERPHONE SWITCH	
	PILOT ICS	= ACKNOWLEDGED

09.2.1.013.00*
          OBSERVE AUTOPILOT STEERING CORRECTION ON VSD

	OSO ICS	= UPDATE COMPLETED
OBSERVE	VERTICAL SITUATION DISPLAY	
	VERTICAL SITUATION DISPLAY	= OBSERVED*

06.3.2.009.00*

<u>EXECUTE PRESENT POSITION UPDATE - AS REQUIRED*</u>

COMBAT MISSION FOLDER = CHECKED
AND PRESENT POSITION LONGITUDE = ERROR

SAME AS   9.2.1.1 - 9.2.1.13

AND

11.5.2.1 - 11.5.2.13

6.25

11.5.2.001.00*

SET FLR SELECT ROTARY SWITCH TO 'GND AUTO'*

	CRT DISPLAY SURFACE	¬=TBD*
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND AUTO

11.5.2.002.00*

SET PPC SWITCH ON RADAR SET CONTROL TO 'IN'

	CRT DISPLAY SURFACE	¬=TBD*
SET	PRESENT POSITION CORRECTION SW	
	PRESENT POSITION CORRECTION SW= IN	

11.5.2.003.00*

OBSERVE NEXT SEQ NO IS A CP ON SEQ NO DIGITAL READOUT

	SEQUENCE NUMBER	= TBD*
CHECK	SEQUENCE NUMBER	
	SEQUENCE NUMBER	= TBD
	AND PRE-PLANNED DATA SHEET	= TBD

11.5.2.004.00*

SET FLR RANGE SELECT ROTARY SWITCH TO DESIRED RANGE

	CRT DISPLAY SURFACE	¬=TBD*
SET	RANGE SWITCH-FLR	
	RANGE SWITCH-FLR	= TBD*

11.5.2.005.00*

IDENTIFY CP OF INTEREST ON FLR CRT SCOPE

	CRT DISPLAY SURFACE	¬=TBD*
IDENTIFY	CHECK POINT	
	CRT DISPLAY SURFACE	= TBD*

11.5.2.006.00*

OBSERVE X-HAIR CURSOR POSITION RELATIVE TO CP

	RADAR CURSORS	= TBD*
CHECK	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= OBSERVED*

11.5.2.007.00*

<u>SET FLR SELECT ROTARY SWITCH TO 'GND VEL'</u>

	CRT DISPLAY SURFACE	¬=EXPANDED
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET AND CRT DISPLAY SURFACE	= GND VEL* = EXPANDED

11.5.2.008.00*

<u>DEPRESS UPDT QUAL PUSHBUTTON SWITCH ON NAV CORR PANEL</u>

	UPDATE QUALITY SELECTOR OR UPDATE QUALITY SELECTOR	= '1'* = '3'
DEPRESS	UPDATE QUALITY SELECTOR	
	UPDATE QUALITY SELECTOR OR UPDATE QUALITY SELECTOR	= '1'* = '3'

11.5.2.009.00*

<u>SET NARROW SECTOR SCAN ON FLR WITH TRACKING HDLE PUSHBUTTON</u>

	CRT DISPLAY SURFACE	¬=NARROW SECT SCAN*
DEPRESS	SECTOR SWITCH	
	CRT DISPLAY SURFACE	= NARROW SECT SCAN

11.5.2.010.00*

<u>POSITION X-HAIR CURSORS TO COINCIDE WITH CHECK POINT</u>

	CRT DISPLAY SURFACE	¬=TBD*
DEPRESS	ENABLE SWITCH	
	X-HAIR CURSORS AND CRT DISPLAY SURFACE	= POSITIONED = TBD

11.5.2.011.00*

<u>DEPRESS 'ENTER' ON NAV CORR PANEL TO INTEGRATE CP UPDATE</u>

	X-HAIR CURSORS AND CRT DISPLAY SURFACE	= POSITIONED = TBD
DEPRESS	ENTER CONTROL	
	IN UPDT INDICATOR	= 'IN UPDT'*

11.5.2.012.00*

ADVISE PILOT ELB UPDATE HAS BEEN ACCEPTED AND IS COMPLETE

.

COMMUNICATE

IN UPDT INDICATOR   = OFF*

OSO ICS

PILOT ICS

                                     = ACKNOWLEDGED

11.5.2.013.00*

OBSERVE AUTOPILOT STEERING CORRECTION ON VSD

OSO ICS   = UPDATE COMPLETED

MONITOR-VISUAL   STEERING COMMAND SYMBOL-PIL
                      STEERING COMMAND SYMBOL-COP

                      STEERING COMMAND SYMBOL-PIL   = TBD*
                  AND STEERING COMMAND SYMBOL-COP   = TBD

MISSION SEGMENT 7

OBJECTIVE: PRE-RENDEZVOUS (PROCEDURES)   7.1

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. Radio communication with Tanker acknowledged by Tanker CP.

2. OSO accomplishes pre-rendezvous procedures.

PERFORMANCE LIMITS: 1. Proper sequence.
2. Switches in proper position.

ENABLING OBJECTIVES:

1. Recall UHF operation procedures.

2. Recall operation of Intercom panel.

3. Recall function of TACAN mode selector and TACAN frequency selecting procedures.

4. Interpret TACAN lock-on indications on HSI.

ANCILLARY OBJECTIVES:

1. Recall encode and decode features of X-BAND XPNDR.

2. Recall different display symbology for various USD modes.

OPERATOR: P/CP

TASK ELEMENTS: 7.1.1.1   7.1.1.8
                     7.1.1.3   7.1.1.10
                     7.1.1.3.1   7.1.1.12
                     7.1.1.3.2   7.1.1.13
                     7.1.1.5   7.1.1.14

7.1

07.1.1.001.00*

SET RADAR 'X-BAND XPNDR' POWER SELECT SWITCHES TO 'OPR'

	CHECKLIST	= SEQUENCE
SET	POWER SELECT SWITCH	
	POWER SELECT SWITCH	= OPR

07.1.1.003.00*

SET UHF RADIOS FOR AR FREQUENCY (UHF 1 AND UHF 2)

	MANUAL CHANNEL READOUT	¬=TBD

07.1.1.003.01*

SET UHF 1 RADIO FOR AR FREQUENCY*

	FUNCTION SELECT SW-PILOT	¬=ADF
	AND MANUAL CHANNEL READOUT-PIL	¬=TBD
SET	FUNCTION SELECT SW-PILOT	
	MANUAL-FREQUENCY SELECTOR-PIL	
	MANUAL CHANNEL READOUT-PIL	
	FUNCTION SELECT SW-PILOT	= ADF
	AND MANUAL CHANNEL READOUT-PIL	= TBD

07.1.1.003.02*

SET UHF 2 RADIO FOR AR FREQUENCY*

	FUNCTION SELECT SW-COPILOT	¬=MAIN
	AND MANUAL CHANNEL READOUT-COP	¬=TBD
SET	FUNCTION SELECT SW-COPILOT	
	MANUAL-FREQUENCY SELECTOR-COP	
	MANUAL CHANNEL READOUT-COP	
	FUNCTION SELECT SW-COPILOT	= MAIN
	AND MANUAL CHANNEL READOUT-COP	= TBD

07.1.1.005.00*

ESTABLISH INITIAL RADIO COMMUNICATION WITH TANKER

	MANUAL CHANNEL READOUT-COP	= TBD
ESTABLISH	PUSH-TO-TALK SWITCH-COPILOT	
	TANKER COPILOT UHF	= ACKNOWLEDGED

7.2

07.1.1.008.00*

SET TACAN A/R CHANNEL

CHANNEL SELECTOR-TACAN ¬=TBD

SET CHANNEL SELECTOR-TACAN

CHANNEL SELECTOR-TACAN = TBD

07.1.1.010.00*

SET TACAN MODE SELECTOR SWITCH TO 'AIR-AIR' MODE

MODE SELECTOR SWITCH-TACAN ¬=A-A

SET MODE SELECTOR SWITCH-TACAN

MODE SELECTOR SWITCH-TACAN = A-A

07.1.1.012.00*

MONITOR HSI FOR TACAN LOCK-ON

DIGITAL DISTANCE READOUT-COP ¬=LOCKED-ON
AND NAV BEARING POINTER-COPILOT ¬=LOCKED-ON

MONITOR-VISUAL DIGITAL DISTANCE READOUT-COP
NAV BEARING POINTER-COPILOT

DIGITAL DISTANCE READOUT-COP = LOCKED-ON
AND NAV BEARING POINTER-COPILOT = LOCKED-ON

07.1.1.013.00*

INFORM CREW OF TACAN LOCK-ON

DIGITAL DISTANCE READOUT-COP = LOCKED-ON
AND NAV BEARING POINTER-COPILOT = LOCKED-ON

INFORM PUSH-TO-TALK SWITCH-COPILOT
DIGITAL DISTANCE READOUT-COP
NAV BEARING POINTER-COPILOT

PILOT ICS = ACKNOWLEDGED
AND DSO ICS = ACKNOWLEDGED

07.1.1.014.00*

SET FLIR MODE ON VSD

MODE SELECT SWITCH-PILOT ¬=IR

SET MODE SELECT SWITCH-COPILOT

MODE SELECT SWITCH-COPILOT = IR

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. Crew acknowledges tanker beacon signature reception.

PERFORMANCE LIMITS: 1. Proper sequence
2. Switches in proper position

ENABLING OBJECTIVES:

1. Interpret Tanker rendezvous seq. no. on NAV panel.

2. Recall that when the AIR mode is selected on the FLR set control, all angle tracking of air targets or beacon replies is possible.

3. Recall that with the range mark control, slant range mark brightness can be adjusted from zero to full.

4. Recall that the 2.5, 5, 10, 30, 80, 200 range set can be selected when the radar mode switch is in AIR.

5. Recall that the range intensity control varies range cursor brightness from zero to full brightness.

6. Recall that the slope control is used to change the effective range of AMPL/OFF control. The control is inoperative in the AIR and BEACON modes.

7. Recall that the azimuth intensity control varies azimuth cursor brightness from zero to full brightness.

8. Recall that the antenna tilt meter indicates antenna tilt position from +30° to -30°.

9. Recall that the video control varies the amplitude of the video signal.

10. Recall that the IF GAIN control permits adjustment of receiver gain in the ground and beacon modes only.

11. Discriminate among various tanker beacons on the FLR CRT and recognize code of the assigned tanker.

ANCILLARY OBJECTIVES:

1. Recall that when the AIR mode on the FLR set control is selected, the tracking handle controls antenna elevation and the range and azimuth cursors.

2. Recall that when the NORTH-NORM switch is in NORTH, the display is oriented with north and when in NORM it is oriented with the top of the CRT coincident with air vehicle ground track.

OPERATOR: OSO

TASK ELEMENTS: 7.1.1.4
                      7.1.1.6
                      7.1.1.7
                      7.1.1.9
                      7.1.1.11

07.1.1.004.00*

SET_BCN_(BEACON)_ON_FLR_SET_CONTROL

         FTC-BCN SWITCH   ¬=BCN*

SET   FTC-BCN SWITCH
                CRT DISPLAY SURFACE

         FTC-BCN SWITCH   = BCN
  AND CRT DISPLAY SURFACE   = TBD

07.1.1.006.00*

SET_FLR_ROTARY_MODE_SWITCH_TO_'AIR'_MODE

         NUMBER IDENTIFIER-STEERING   = TBD*
  AND STEERING SEQUENCE NUMBER   = TBD

SET   NUMBER IDENTIFIER-STEERING
                MODE SWITCH-RADAR SET
                CRT DISPLAY SURFACE

         MODE SWITCH-RADAR SET   = AIR
  AND CRT DISPLAY SURFACE   = DISPLAYED

07.1.1.007.00*

ADJUST_FLR_VIDEO_DISPLAY_AS_REQUIRED*

         CRT DISPLAY SURFACE   ¬=TBD

07.1.1.009.00*

MONITOR_FLR_CRT_FOR_TANKER_BEACON_SIGNATURE

         CRT DISPLAY SURFACE   = TBD

MONITOR-VISUAL   CRT DISPLAY SURFACE

         CRT DISPLAY SURFACE   = TBD

07.1.1.011.00*

INFORM_CREW_OF_TANKER_BEACON_RECEPTION

         CRT DISPLAY SURFACE   = TBD

INFORM   CRT DISPLAY SURFACE
                DSO INTERPHONE SWITCH

         PILOT ICS   = ACKNOWLEDGED
  AND DSO ICS   = ACKNOWLEDGED

OBJECTIVE: TANKER IDENTIFICATION PROCEDURE   7.3

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                       2. Beacon signature displayed, TACAN lock on to tanker.
                       3. A-V greater than 80 NM from ARCP.

CONCURRENT TASKS:

INTERACTION TASKS: 1. Tanker (CP) acknowledges request by OSO for
                           beacon OPR.

PERFORMANCE LIMITS: 1. Proper sequence.
                       2. Switches in proper positions.

ENABLING OBJECTIVES:

1. Recall specification which determines initiation point for positive
    identification of tanker (should be well before 80 NM of ARCP before
    descent to refueling altitude).

2. Interpret various tanker codes as displayed on FLR CRT.

3. Recall UHF operation procedures.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 7.1.2.1
                       7.1.2.2
                       7.1.2.3
                       7.1.2.4
                       7.1.2.5

07.1.2.001.00*
       <u>REQUEST VIA UHF RADIO TANKER TO SET BEACON TO 'STBY'*</u>

	CRT DISPLAY SURFACE	= TBD
REQUEST	OSO MICROPHONE SWITCH	
	TANKER COPILOT UHF	= ACKNOWLEDGED

07.1.2.002.00*
       <u>MONITOR ELR FOR LOSS OF TANKER BEACON SIGNATURE</u>

	TANKER COPILOT UHF	= ACKNOWLEDGED
MONITOR-VISUAL	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	¬=TBD*

07.1.2.003.00*
       <u>REQUEST VIA UHF RADIO TANKER RETURN BEACON TO 'OPR'</u>

	CRT DISPLAY SURFACE	¬=TBD*
REQUEST	OSO MICROPHONE SWITCH	
	TANKER COPILOT UHF	= ACKNOWLEDGED

07.1.2.004.00*
       <u>MONITOR ELR FOR RETURN OF DESIGNATED TANKER BCN SIGNATURE</u>

	TANKER COPILOT UHF	= ACKNOWLEDGED
MONITOR-VISUAL	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= TBD*

07.1.2.005.00*
       <u>INFORM TANKER VIA UHF RADIO OF POSITIVE CONTACT</u>

	CRT DISPLAY SURFACE	= TBD
INFORM	OSO MICROPHONE SWITCH CRT DISPLAY SURFACE	
	TANKER COPILOT UHF	= ACKNOWLEDGED

OBJECTIVE: ARIP DESCENT PROCEDURES   7.4

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. Advise crew and tanker at ARIP
                      2. P/CP monitor altitude/heading

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall that the present position altitude readout on the navigation panel
   displays system barometric altitude or absolute altitude depending on the
   position of the H_{SL}/H_R switch.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 7.1.3.1
                7.1.3.10

07.1.3.001.00*

ADVISE (UHF RADIO) BOMBER CREW AND TANKER 'AT ARIP'

	CRT DISPLAY SURFACE	= TBD*
COMMUNICATE	OSO MICROPHONE SWITCH	
	PILOT ICS	= ACKNOWLEDGED

07.1.3.010.00*

MONITOR ALTITUDE/HEADING, AS REQUIRED

	CRT TUBE DISPLAY-COPILOT	¬=TBD*
	AND AVVI-COPILOT	¬=TKR ALT - 1000
MONITOR-VISUAL	CRT TUBE DISPLAY-COPILOT	
	HSI-COPILOT	
	AVVI-COPILOT	
	CRT TUBE DISPLAY-COPILOT	= TBD*
	AND AVVI-COPILOT	= TKR ALT - 1000

OBJECTIVE: EXECUTE ARIP DESCENT

                   CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Power level for cruise - TBD

CONCURRENT TASKS: 1. Track with control stick and rudders to hold
                         desired heading.

INTERACTION TASKS: 1. OSO monitors altitude/heading as required.

PERFORMANCE LIMITS: 1. Vertical velocity - TBD ($\pm$ ft/min)
                      2. Airspeed - TBD ($-$ kts)
                      3. Heading - TBD ($-$ degs)

ENABLING OBJECTIVES:

   1. Calculate power level setting for descent.

   2. Predict necessary pitch change for descent.

   3. Coordinate control stick and throttles for smooth transition from
      level flight to proper descent attitude.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 7.1.3.2   7.1.3.6
                 7.1.3.3   7.1.3.7
                 7.1.3.4   7.1.3.8
                 7.1.3.5   7.1.3.9
                                7.1.3.10

07.1.3.002.00*

<u>TRACK DESIRED PITCH/ROLL ATTITUDE WITH CONTROL STICK</u>

	CRT TUBE DISPLAY-PILOT	¬=TBD
TRACK	PILOTS FLIGHT CONTROL STICK
CRT TUBE DISPLAY-PILOT	
	CRT TUBE DISPLAY-PILOT	= TBD

07.1.3.003.00*

<u>READ VERTICAL SPEED FROM AVVI (ALTITUDE/VERTICAL VEL INDIC)</u>

	CRT TUBE DISPLAY-PILOT	= TBD*
READ	ALTITUDE RATE MOV SCALE-PIL	
	ALTITUDE RATE MOV SCALE-PIL	= TBD

07.1.3.004.00*

<u>CHECK HORIZONTAL SITUATION (HSI) FOR CORRECT HEADING</u>

	COMPASS CARD SCALE-PILOT	¬=TBD*
CHECK	COMPASS CARD SCALE-PILOT	
	COMPASS CARD SCALE-PILOT	= TBD

07.1.3.005.00*

<u>CHECK AVVI TO ACQUIRE REQUIRED ALTITUDE SEPARATION</u>

	AVVI-PILOT	> TKR ALT-1000*
CHECK	SENSITIVE ALT SCALE-PILOT	
	AVVI-PILOT	= TKR ALT-1000*

07.1.3.006.00*

<u>ADJUST THROTTLES AS REQUIRED</u>

	AIR-VEHICLE	< 80*
ADJUST	#3 THROTTLE LEVER*
AIRSPEED MOVING SCALE-PILOT	
	AIRSPEED MOVING SCALE-PILOT	= TBD*

07.1.3.007.00*

<u>TRACK DESIRED RATE OF DESCENT AND TURN WITH CONTROL STICK</u>

	#3 THROTTLE LEVER	= TBD*
	AND AIRSPEED MOVING SCALE-PILOT	= TBD
TRACK	PILOTS FLIGHT CONTROL STICK
CRT TUBE DISPLAY-PILOT	
	CRT TUBE DISPLAY-PILOT	= TBD*

07.1.3.008.00*

CHECK VERTICAL SPEED FROM AVVI

	CRT TUBE DISPLAY-PILOT	= TBD
CHECK	ALTITUDE RATE MOV SCALE-PIL	
	ALTITUDE RATE MOV SCALE-PIL	= TBD*

07.1.3.009.00*

ACTIVATE PITCH TRIM BUTTON

	PROPRIOCEPTION	= ABOVE NORMAL*
ACTIVATE	PLT TRIM SW (ON CONTR STICK)	
	PROPRIOCEPTION	= REDUCED

07.1.3.010.00*

MONITOR ALTITUDE/HEADING, AS REQUIRED

	CRT TUBE DISPLAY-COPILOT	¬=TBD*
	AND AVVI-COPILOT	¬=TKR ALT − 1000
MONITOR-VISUAL	CRT TUBE DISPLAY-COPILOT	
	HSI-COPILOT	
	AVVI-COPILOT	
	CRT TUBE DISPLAY-COPILOT	= TBD*
	AND AVVI-COPILOT	= TKR ALT − 1000

OBJECTIVE: EXECUTE PRE-ARCP LEVEL-OFF   7.6

                CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. 1,000 ft separation between A-V and tanker
                      2. Descent configuration

CONCURRENT TASKS: 1. Track with control stick to maintain level-off alt.
                      2. Track with control stick and rudders to hold desired heading
                      3. Reset power level to maintain Pre-ARCP airspeed or mach no.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD ($\pm$ kts)
                      2. Altitude - TBD ($\pm$ ft)
                      3. Vertical velocity - 0
                      4. Heading - TBD ($\pm$ deg)

ENABLING OBJECTIVES:

    1. Calculate power level setting for level-off.

    2. Calculate altitude lead to initiate power level change.

    3. Calculate altitude lead to initiate pitch attitude change.

    4. Predict necessary pitch change for level-off.

    5. Coordinate control stick and throttles to achieve level-off.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 7.1.4.1   7.1.4.4
                 7.1.4.2   7.1.4.5
                 7.1.4.3   7.1.4.6

07.1.4.001.00*
PULL BACK ON CONTROL STICK TO INITIATE LEVEL-OFF

AVVI-PILOT   = TKR ALT - 1000

PULL   PILOTS FLIGHT CONTROL STICK
            AVVI-PILOT
            CRT TUBE DISPLAY-PILOT

            CRT TUBE DISPLAY-PILOT   = TBD*

07.1.4.002.00*
CHECK PITCH ATTITUDE ON VSD

            CRT TUBE DISPLAY-PILOT   ¬=TBD*

CHECK   CRT TUBE DISPLAY-PILOT

            CRT TUBE DISPLAY-PILOT   = TBD*

07.1.4.003.00*
ADJUST THROTTLES TO MAINTAIN CONSTANT AIRSPEED

            CRT TUBE DISPLAY-PILOT   ¬=TBD*

ADJUST   #3 THROTTLE LEVER
            POWER LEVEL INDICATOR-ENG #1
            CRT TUBE DISPLAY-PILOT

            CRT TUBE DISPLAY-PILOT   = TBD*

07.1.4.004.00*
ADJUST CONTROL STICK TO STABILIZE A/S, ATTITUDE, ALTITUDE

            AMI-PILOT   ¬=TBD
        AND AVVI-PILOT   ¬=TBD

ADJUST   PILOTS FLIGHT CONTROL STICK

            AMI-PILOT   = TBD
        AND AVVI-PILOT   = TBD

07.1.4.005.00*
CHECK VERTICAL SPEED ON AVVI TO MAINTAIN LEVEL-OFF

            ALT RATE MOV INDEX-PILOT   ¬=0

CHECK   ALT RATE FIXED SCALE-PIL
            ALT RATE MOV INDEX-PILOT

            ALT RATE MOV INDEX-PILOT   = 0

0.7.1.4.006.00*   CHECK AMI TO HOLD AT TBD KIAS*

                         ALT RATE MOV INDEX-PILOT   = 0

CHECK   AMI-PILOT

                         AMI-PILOT   = TBD

OBJECTIVE: PRE ARCP LEVEL OFF COMMUNICATION AND TANKER TURN INITIATION   7.7

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Level off completed

CONCURRENT TASKS: 1. OSO monitors range between tanker and AV and counts down
                         to 70 NM to prepare tanker for turn to recip refuel track.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Distance TBD $\pm$ (miles)

ENABLING OBJECTIVES:

1. Interpret distance from tanker's transponder as displayed on the FLR CRT.

2. Recall that tanker will make a turn to the reciprocal refueling track
   at 70 NM. Countdown should be initiated at 100 NM with radio calls
   every 10 NM.

3. Recall UHF operation procedures.

ANCILLARY OBJECTIVES:

1. Recall that A/V heading should correspond with assigned aerial
   refueling track.

OPERATOR: OSO

TASK ELEMENTS: 7.1.4.7
                 7.1.5.1.1

07.1.4.007.00*
INFORM TANKER OF LEVEL-OFF ALTITUDE VIA UHF RADIO

	SENSITIVE ALT SCALE-PILOT	= TBD
	AND ALT RATE MOV INDEX-PILOT	= 0
INFORM	OSO MICROPHONE SWITCH	
	TANKER COPILOT UHF	= ACKNOWLEDGED

07.1.5.001.01*
AT 70NM INFORM TANKER TO START TURN TO RECIP OF REFUEL HEADG*

	CRT DISPLAY SURFACE	= 70
INFORM	OSO MICROPHONE SWITCH	
	TANKER COPILOT UHF	= ACKNOWLEDGED

OBJECTIVE: ESTABLISH AR FORMATION   7.8

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Deviation from desired position with tanker

CONCURRENT TASKS: 1. Track with control stick and rudders to hold
                        desired heading.

INTERACTION TASKS: 1. OSO intercom communication advise pilot to adjust
                        heading and airspeed as required.

PERFORMANCE LIMITS: 1. Airspeed - TBD ($\pm$ Kts)
                     2. Altitude - TBD ($\pm$ ft)
                     3. Heading - TBD ($\pm$ degs)

ENABLING OBJECTIVES:

    1. Calculate intercept angle from TACAN, VSD, HSI.

ANCILLARY TASKS:

OPERATOR: P/CP

TASK ELEMENTS: 7.1.5.1
                 7.1.5.2
                 7.1.5.13

07.1.5.001.00*

OBSERVE BEARING/DISTANCE TO TANKER VIA TACAN

```
                    HORIZONTAL SITUATION INDICATOR¬=TBD
                AND CRT DISPLAY SURFACE           ¬=TBD

OBSERVE             HORIZONTAL SITUATION INDICATOR
                    CRT TUBE DISPLAY-PILOT
                    CRT DISPLAY SURFACE

                    HORIZONTAL SITUATION INDICATOR= TBD
                AND CRT DISPLAY SURFACE          = TBD
```

07.1.5.002.00*

STEER TO DESIRED COURSE MAINTAINING ALTITUDE AND AIRSPEED

```
                    HSI-PILOT                     ¬=TBD

STEER               PILOTS FLIGHT CONTROL STICK
                    HSI-PILOT
                    AMI-PILOT

                    HSI-PILOT                     = TBD*
                AND AVVI-PILOT                    = TBD
```

07.1.5.013.00*

ADJUST HEADING AND AIRSPEED AS REQUIRED

```
                    OSO ICS                       = ADJ HDG AND A-S

ADJUST              PRIMARY THROTTLE LEVERS-PI
                    PILOTS AFCS MODE SELECT PANEL

                    CRT TUBE DISPLAY-PILOT        = TBD
```

OBJECTIVE: POST-ARCP PROCEDURES   7.9

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. Tanker within 30 NM range

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pilot adjusts airspeed and heading to keep from
                       overrunning tanker or falling too far in back
                       after tanker has completed turn.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

1. Determine point at which 30 NM range should be selected.

2. Recall that when the AIR mode is selected on the FLR set control, all-
   angle tracking of air targets or beacon replies is possible.

3. Recall that with the range mark control, slant range mark brightness
   can be adjusted from zero to full.

4. Recall that the 2.5, 5, 10, 30, 80, 200 range set can be selected when
   the radar mode switch is in AIR.

5. Recall that the range intensity control varies range cursor brightness
   from zero to full brightness.

6. Recall that the slope control is used to change the effective range of
   AMPL/OFF control. The control is inoperative in the AIR and BEACON modes.

7. Recall that the azimuth intensity control varies azimuth cursor brightness
   from zero to full brightness.

8. Recall that the antenna tilt meter indicates antenna tilt position
   from +30° to -30°.

9. Recall that the video control varies the amplitude of the video signal.

11. Recall that the IF GAIN control permits adjustment of receiver gain in the
    ground and beacon modes only.

12. Recall that more precise range information can be obtained with the beacon off and the FLR skin-painting the tanker.

13. Recall that by depressing the range search switch on the tracking handle breaks radar range lock and overrides the automatic range tracking.

14. Recall that by squeezing the enable switch, the range and azimuth cursors can be positioned over the tanker radar return.

15. Recall that the sector toggle switch on the tracking handle causes the sector width to be reduced to $\pm 10°$ about the azimuth cursor. In the air mode, it changes tracking handle fore/aft motion from control of antenna tilt to control of the range gate. Also, it initiates lock on and automatic range track. After lock on, the tracking handle is inoperative unless the range control switch is depressed.

16. Calculate range at which tanker should initiate turn to the refueling track.

17. Recall that tanker will make a standard rate turn at constant airspeed.

ANCILLARY OBJECTIVES:

1. Recall that with the FLR in wide scan depressing the range search switch on the tracking handle permits range strobe slewing.

OPERATOR: OSO

TASK ELEMENTS:	7.1.5.3	7.1.5.9
	7.1.5.4	7.1.5.1.1
	7.1.5.5	7.1.5.2.1
	7.1.5.6	7.1.5.12
	7.1.5.7	
	7.1.5.8	

07.1.5.003.00*
SET RANGE ROTARY SWITCH TO DECREASE FLR RANGE TO 30NM

	CRT DISPLAY SURFACE	= TBD
SET	RANGE SWITCH-FLR	
	RANGE SWITCH-FLR	= 30-10

07.1.5.004.00*
ADJUST FLR VIDEO DISPLAY AS REQUIRED*

| | CRT DISPLAY SURFACE | ¬=TBD |

07.1.5.005.00*
SET BEACON MODE TOGGLE SWITCH ON FLR CONTROL PANEL TO 'OFF'

	CRT DISPLAY SURFACE	= TBD
SET	FTC-BCN SWITCH	
	FTC-BCN SWITCH	= OFF*

07.1.5.006.00*
DEPRESS ENABLE AND 'BS AIR' SWITCHES ON TRACKING HANDLE

	RANGE CURSORS	¬=TKR VIDEO RETURN*
DEPRESS	RANGE CONTROL ENABLE SWITCH	
	RANGE CONTROL AND ENABLE SWITCH	= DEPRESSED = DEPRESSED

07.1.5.007.00*
POSITION AZIMUTH CURSOR OVER TANKER RADAR RETURN ON FLR

	RANGE CONTROL AND ENABLE SWITCH	= DEPRESSED = DEPRESSED
POSITION	ANTENNA INDICATOR CONTROL	
	AZIMUTH INT CONTROL	= TKR VIDEO RETURN

07.1.5.008.00*
DEPRESS NARROW SECTOR SCAN,ADJUST AZ CUR,RELEASE TRCK HANDLE*

	CRT DISPLAY SURFACE	= WIDE SECTOR SCAN
DEPRESS	SECTOR SWITCH CRT DISPLAY SURFACE ANTENNA INDICATOR CONTROL	
	SECTOR SWITCH	= DEPRESSED

7.23

07.1.5.009.00*

OBSERVE AUTOMATIC LOCK-ON TO TANKER RETURN

	CRT DISPLAY SURFACE	= NAR SECTOR SCAN
OBSERVE	LOCK INDICATOR	
	CRT DISPLAY SURFACE	
	LOCK INDICATOR	= ON*

07.1.5.001.01*

AI 70NM INFORM TANKER TO START TURN TO RECIP OF REFUEL HEADG*

	CRT DISPLAY SURFACE	= 70
INFORM	OSO MICROPHONE SWITCH	
	TANKER COPILOT UHF	= ACKNOWLEDGED

07.1.5.002.01*

AI 25NM INFORM TANKER OF TURN RANGE*

	CRT DISPLAY SURFACE	= 25
INFORM	OSO MICROPHONE SWITCH	
	TANKER COPILOT UHF	= ACKNOWLEDGED

07.1.5.012.00*

MONITOR TANKER RETURN THROUGH TURN AND ADVISE PILOT*

	CRT DISPLAY SURFACE	= TKR IN TURN
MONITOR-VISUAL	CRT DISPLAY SURFACE	
	OSO INTERPHONE SWITCH	
	PILOT ICS	= ACKNOWLEDGED

OBJECTIVE: CLOSURE ON TANKER PROCEDURES   7.10

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Navigation information received from OSO

CONCURRENT TASKS:

INTERACTION TASKS: 1. Range calls from OSO

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

   1. Recall that by selecting TKR RNDVS on the flt director panel, steering
      commands will direct the air vehicle to the tanker.

   2. Recall that heading commands on the VSD are from the air vehicle to tanker.

   3. Recall that the tanker should be approximately 2 to 4 miles ahead after
      its turn to the refueling track has been completed.

   4. Recall that the AFCS can be disengaged by depressing the engage push-
      button on the AFCS or the disengage switch on the control stick to
      the second detent.

   5. Recall that with the FDC mode switch in NAV, steering commands are
      referenced to the heading and course selected by the OSO.

ANCILLARY OBJECTIVES:

   1. Recall that directional information can be obtained from the HSI by
      adjusting the course and heading set knobs.

OPERATOR: P/CP

TASK ELEMENTS: 7.2.1.1   7.2.1.7   7.2.1.10
                7.2.1.2   7.2.1.8   7.2.1.12

07.2.1.001.00*

SET 'IKR RNDVS' FLT DIR MODE SWITCH

	CRT TUBE DISPLAY-PILOT	= TBD
SET	FLT DIR MODE SWITCH-PILOT	
	FLT DIR MODE SWITCH-PILOT	= TKR RNDVS

07.2.1.002.00*

SET IKR RNDVS BEARING AND HEADING PER OSO INSTRUCTIONS

	FLT DIR MODE SWITCH-PILOT	= TKR RNDVS
SET	COURSE SET KNOB	
	HEADING SET KNOB	
	NAV BEARING POINTER-PILOT	= TBD*
AND	CRT TUBE DISPLAY-PILOT	= TBD

07.2.1.007.00*

IDENTIFY TANKER VISUALLY*

	USO ICS	= RANGE CALL*
AND	CRT TUBE DISPLAYS	= TBD
IDENTIFY	FLASHBLINDNESS WINDOW-LEFT	
	FLASHBLINDNESS WINDOW-RIGHT	
	FLASHBLINDNESS WINDOW-LEFT	= TKR IDENTIFIED
AND	FLASHBLINDNESS WINDOW-RIGHT	= TKR IDENTIFIED

07.2.1.008.00*

MONITOR CLOSURE ON TKR USING FLR/FLASHBLINDNESS THERM WINDOW*

	FLASHBLINDNESS WINDOW-LEFT	= TKR IDENTIFIED
AND	FLASHBLINDNESS WINDOW-RIGHT	= TKR IDENTIFIED
MONITOR-VISUAL	CRT DISPLAY SURFACE	
	FLASHBLINDNESS WINDOW-LEFT	
	FLASHBLINDNESS WINDOW-RIGHT	
	HORIZONTAL SITUATION INDICATOR	= PROPER CLOSURE*
AND	FLASHBLINDNESS WINDOW-LEFT	= PROPER CLOSURE

07.2.1.010.00*

DEPRESS ENGAGE PUSH-BUTTON ON AFCS TO DISENGAGE AFCS

	CRT DISPLAY SURFACE	= 1*
DEPRESS	PILOTS ENGAGE PUSHBUTTON	
	PILOTS ENGAGE PUSHBUTTON	= 'ENGAGE' - W

07.2.1.012.00*

<u>SET FIC MODE SWITCH TO 'NAV'</u>

                FLASHBLINDNESS WINDOW-LEFT   = TKR VISUAL
AND FLASHBLINDNESS WINDOW-RIGHT   = TKR VISUAL

SET   FLT DIR MODE SWITCH-PILOT

                FLT DIR MODE SWITCH-PILOT   = NAV

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                      2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that the vertical tape fuel indicators display gross quantities
    for all fuel tanks except EXT and WPN BAY.

2. Recall that the precise quantity for all tanks can be obtained with
    SEL TK indicators.

3. Recall that the pointer on the ACT tape indicates the existing CG position.

4. Recall that the pointer on the TGT tape indicates the desired GG location.

5. Recall that the TGT indicator can be set by the crew or is set automatically
    from the control mechanization.

6. Recall that the GROSS WT digital readout displays air vehicle gross weight
    in hundreds of pounds.

ANCILLARY OBJECTIVES:

1. Recall that with the crew air source switch positioned to OFF, no conditioned
    cabin air is provided to maintain proper cabin conditioning and pressurization.

2. Recall that the FWD and AFT cg indicators represent the forward and aft cg
    limits, respectively, as determined from the FCGMS computer.

3. Recall that the CG LIMITS caution light will illuminate when the air
    vehicle CG exceeds either the forward or aft limits.

OPERATOR: P/CP

TASK ELEMENTS: 7.2.1.3
                      7.2.1.4
                      7.2.1.5   7.28

07.2.1.003.00*

CHECK CABIN PRESSURE ALTITUDE INDICATOR*

	CHECKLIST	= SEQUENCE
CHECK	CABIN PRESS ALT INDICATOR	
	CABIN PRESS ALT INDICATOR	= TBD

07.2.1.004.00*

SET CREW AIR SOURCE TOGGLE SWITCH ON ECS PANEL TO 'OFF'

	CHECKLIST	= SEQUENCE
SET	CREW AIR SOURCE MODE SWITCH	
	CREW AIR SOURCE MODE SWITCH	= OFF

07.2.1.005.00*

CHECK FLIGHT FUEL PANEL AND C.G. MANAGEMENT PANELS*

	CHECKLIST	= SEQUENCE
CHECK*	FUEL MGMT PNL	
	FUEL MGT PANEL	= TBD*
	AND PERCENT MACH INDICATOR	= TBD

OBJECTIVE: CLOSURE ON TANKER PROCEDURES   7.12

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Precision of closure instructions

ENABLING OBJECTIVES:

1. Recall FLR adjustment procedure for changes in tanker range.

2. Determine from FLR display that range to tanker is one mile.

3. Recall UHF operation procedures.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 7.2.1.6,
                 7.2.1.8
                 7.2.1.9

07.2.1.006.00*

INFORM TANKER OF 8-1 RANGE*

	CRT DISPLAY SURFACE	= 5
INFORM	USO MICROPHONE SWITCH	
	TANKER COPILOT UHF	= ACKNOWLEDGED

07.2.1.008.00*

MONITOR CLOSURE ON TKR USING FLR/FLASHBLINDNESS THERM WINDOW*

	FLASHBLINDNESS WINDOW-LEFT	= TKR IDENTIFIED
AND	FLASHBLINDNESS WINDOW-RIGHT	= TKR IDENTIFIED
MONITOR-VISUAL	CRT DISPLAY SURFACE	
	FLASHBLINDNESS WINDOW-LEFT	
	FLASHBLINDNESS WINDOW-RIGHT	
	HORIZONTAL SITUATION INDICATOR	= PROPER CLOSURE*
AND	FLASHBLINDNESS WINDOW-LEFT	= PROPER CLOSURE

07.2.1.0 09.00*

INFORM TANKER OF ONE MILE RANGE

	CRT DISPLAY SURFACE	= 1*
INFORM	USO MICROPHONE SWITCH	
	TANKER COPILOT UHF	= ACKNOWLEDGED

OBJECTIVE: ESTABLISH PRE-CONTACT POSITION

CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. Slipway doors open
                     3. Altimeter, heading or airspeed deviations
                     4. Range from tanker - 1 mile
                     5. A/V 1,000 ft below and visually in contact with tanker

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pre-contact procedures
                     2. Pre-contact checklist

PERFORMANCE LIMITS: 1. Airspeed - TBD ($\pm$ kts)
                     2. Altitude - TBD ($\pm$ ft)
                     3. Heading - TBD ($\pm$ deg)

ENABLING OBJECTIVES:

1. Calculate power level setting for pre-contact position.

2. Predict altitude lead to initiate pitch attitude change for level-off.

3. Predict necessary pitch change for climb and level-off.

4. Calculate wing sweep angle for refueling.

5. Coordinate control stick and throttles to achieve level-off.

ANCILLARY OBJECTIVES:

1. Calculate optimum fuel distribution to maintain proper cg during refueling.

OPERATOR: P/CP

TASK ELEMENTS: 7.2.1.9   7.2.2.1   7.2.2.9
                              7.2.2.2   7.2.2.10
                              7.2.2.3   7.2.2.16
                              7.2.2.4
                              7.2.2.5

07.2.1.009.00*

TRACK DESIRED ALTITUDE, HEADING AND AIRSPEED

	HSI-PILOT	¬=TBD
	AND AVVI-PILOT	¬=TBD
TRACK	PILOTS FLIGHT CONTROL STICK	
	PRIMARY THROTTLE LEVERS-PI	
	HSI-PILOT	= TBD*
	AND AVVI-PILOT	= TBD

07.2.2.001.00*

ADJUST THROTTLES TO DESIRED POSITION*

	CRT DISPLAY SURFACE	= 1
ADJUST	#3 THROTTLE LEVER	
	#3 THROTTLE LEVER	= ADJUSTED

07.2.2.002.00*

MONITOR AIRSPEED AND ADVISE PILOT

	CRT DISPLAY SURFACE	= 1*
MONITOR-VISUAL	AMI-PILOT	
	PILOT ICS	= ACKNOWLEDGED

07.2.2.003.00*

ESTABLISH CLIMB ATTITUDE AS DESIRED FOR PRE-CONTACT POSITION

	CRT TUBE DISPLAY-PILOT	= 1
	AND FLASHBLINDNESS WINDOW-LEFT	= TKR VISUAL
ESTABLISH	CRT TUBE DISPLAY-PILOT	
	PILOTS FLIGHT CONTROL STICK	
	CRT TUBE DISPLAY-PILOT	= TBD*

07.2.2.004.00*

MONITOR CLIMB RATE AND ADVISE PILOT

	AVVI-COPILOT	¬=TBD
	OR AVVI-COPILOT	= TBD
MONITOR-VISUAL	AVVI-COPILOT	
	PILOT ICS	= ACKNOWLEDGED

07.2.2.005.00*

MAINTAIN VISUAL CONTACT WITH TANKER

	FLASHBLINDNESS WINDOW-LEFT	> 0.5*
MAINTAIN	PILOTS FLIGHT CONTROL STICK	
	FLASHBLINDNESS WINDOW-LEFT	= PROPER CLOSURE*

07.2.2.009.00*

SET WING SWEEP AS DESIRED

	PILOT ICS	= HOOKUP ENVELOPE
SET	COPILOTS WING SWEEP HANDLE	
	COPILOTS WING SWEEP HANDLE	= TBD

07.2.2.010.00*

ADJUST THROTTLES AS REQUIRED

	FLASHBLINDNESS WINDOW-LEFT	¬=PROPER CLOSURE
ADJUST	PRIMARY THROTTLE LEVERS-PI	
	FLASHBLINDNESS WINDOW-LEFT	= PROPER CLOSURE

07.2.2.016.00*

TRACK TANKER AIRCRAFT IN PRECONTACT POSITION*

	FLASHBLINDNESS WINDOW-LEFT	¬=PROPER POSITION
TRACK	PRIMARY THROTTLE LEVERS-PI PILOTS FLIGHT CONTROL STICK PILOTS RUDDER PEDALS	
	FLASHBLINDNESS WINDOW-LEFT	= PROPER POSITION*

OBJECTIVE: PRE-CONTACT PROCEDURES   7.14

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                    2. Slipway doors open
                    3. .5 mile range to tanker

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pilot notifies crew air vehicle is within hookup envelope.

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

   1.   Recall UHF operation procedures.

ANCILLARY OBJECTIVES:

   1. Recall that all system filaments are still energized and that protective
      time delays are energized with the FLR in STBY.

   2. Recall that FLR in STBY precludes any possibility that radiation energy
      might trigger an explosion while fuel is being unloaded.

OPERATOR: OSO

TASK ELEMENTS: 7.2.2.6
                7.2.2.7

07.2.2.006.00*

INFORM BOMBER AND TANKER CREWS OF 0.5NM RANGE

                            CRT DISPLAY SURFACE   = 0.5

INFORM   OSO MICROPHONE SWITCH

                            PILOT ICS   = ACKNOWLEDGED
                AND TANKER COPILOT UHF   = ACKNOWLEDGED

07.2.2.007.00*

SET ELB MODE SWITCH TO 'STBY'

                            PILOT ICS   = HOOKUP ENVELOPE*

SET   MODE SWITCH-RADAR SET-2

                MODE SWITCH-RADAR SET-2   = STBY

OBJECTIVE: PRE-CONTACT PROCEDURES   7.15

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. Closing with tanker

CONCURRENT TASKS: 1. Flight control adjustments during closure

INTERRACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that the external lights silhouette the receiver air vehicle to
   assist the boom operator during hook-up and refueling.

2. Recall that the position lights are set to FLASH whenever the anti-
   collision lights are turned off.

3. Recall that extension of the slipway door handle positions the slipway
   door unlock to the open position, electrically turns on the refueling
   sequencer and puts the fuel system in the aerial refuel mode.

4. Recall that at the door full open position, the aerial refueling READY
   light and SLIPWAY EXT lights intensity control are armed.

5. Recall that by activating the TFR/TRR switch on the ICS panel, communications
   can be made with the tanker aircraft after boom contact has been established.

ANCILLARY OBJECTIVES:

1. Recall that the X-band transponder is positioned to standby to preclude
   the hazard of a radar signal triggering a fuel fumes explosion during
   the refueling operation.

2. Recall that the anti-collision lights are turned off to keep from dis-
   tracting the boom operator during hook-up and while refueling is in progress.

OPERATOR: P/CP

TASK ELEMENTS: 7.2.2.8   7.2.2.13
                  7.2.2.11   7.2.2.14
                  7.2.2.12   7.2.2.15
                                   7.2.2.17

07.2.2.008.00*

SET X-BAND XPNDR POWER SELECT SWITCH TO 'STBY'

	PILOT ICS	= HOOKUP ENVELOP
SET	POWER SELECT SWITCH-1	
	POWER SELECT SWITCH-1	= STBY

07.2.2.011.00*

SET ANTICLSN SWITCH TO 'OFF'

	BOOM OPERATOR UHF	= ANTICLSN - OFF
SET	ANTI-COLLISION CONTROL SWITCH	
	BOOM OPERATOR UHF	= CONFIRMS LTS OFF

07.2.2.012.00*

SET AERIAL REFUEL EXT AND WING FLOOD AND SLIPWAY LT CONTROLS

	BOOM OPERATOR UHF	= EXT AND SL - ON
SET	EXTERIOR LIGHTS SWITCH SLIPWAY LIGHTS SWITCH	
	BOOM OPERATOR UHF	= CONFIRMS LTS ON

07.2.2.013.00*

ADJUST SLIPWAY AND EXT WING FLOOD LIGHTS AS REQUIRED

	BOOM OPERATOR UHF	= EXT AND SL - ADJ
ADJUST	EXTERIOR LIGHTS SWITCH SLIPWAY LIGHTS SWITCH	
	BOOM OPERATOR UHF	= CONFIRMS LTS ADJ

07.2.2.014.00*

SET EXT POSITION LIGHTS TO FLASH

	PILOT ICS	= EXT LTS - FLASH
SET	POSITION LIGHT MODE SWITCH	
	POSITION LIGHT MODE SWITCH	= FLASH

07.2.2.015.00*

<u>PULL SLIPWAY DOOR HANDLE TO 'REFUEL' POSITION</u>

| | PILOT ICS | = SL DR - REFUEL |

PULL SLIPWAY DOOR HANDLE

OPEN-UNLOCKED CAUTION LIGHT = ON*

07.2.2.017.00*

<u>SET AND ADJUST ICS TFR/TKR SWITCH</u>

FLASHBLINDNESS WINDOW-LEFT = PROPER POSITION

SET TFR-TKR CONTROL SWITCH-PILOT

TFR-TKR INDICATOR LIGHT-PILOT = ON*

OBJECTIVE: ESTABLISH CONTACT POSITION   7.16

CRITICALITY: 2   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Tanker boom operator instructions for hook-up received.
2. Cruise configuration.
3. Slipway doors open.

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Elevation - TBD ($\pm$ ft)
2. Azimuth - TBD ($\pm$ deg)
3. Longitudinal - TBD($\pm$ ft)

ENABLING OBJECTIVES:

1. Predict lead in power level setting to move air-vehicle from 100 ft aft of tanker to inside boom envelope.

2. Predict lead in pitch attitude change to move air-vehicle from 50 feet below tanker to contact position.

3. Coordinate control stick, rudders and throttles to achieve and maintain contact position.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 7.3.1.1
7.3.1.2

07.3.1.001.00*

<u>TRACK WITH STICK AND THROTTLES AS REQUIRED FOR HOOKUP</u>

	BOOM OPERATOR UHF	= POSN INSTRUCTS*
TRACK	PILOTS FLIGHT CONTROL STICK PRIMARY THROTTLE LEVERS-PI PILOTS RUDDER PEDALS	
	FLASHBLINDNESS WINDOW-LEFT	= PROPER POSITION*

07.3.1.002.00*

<u>TRACK TANKER IN CONTACT POSITION*</u>

	FLASHBLINDNESS WINDOW-LEFT AND BOOM OPERATOR UHF	= PROPER POSITION* = STD BY - CONTACT
TRACK	PILOTS FLIGHT CONTROL STICK PRIMARY THROTTLE LEVERS-PI PILOTS RUDDER PEDALS	
	FLASHBLINDNESS WINDOW-LEFT	= CONTACT MADE

OBJECTIVE: AERIAL REFUELING CONTACT PROCEDURES   7.17

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                    2. Slipway doors open
                    3. Boom operator calls tanker contact

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Fuel qty indicator TBD ($\overset{+}{-}$ lbs.)
                    2. Cg indicator TBD ($\overset{+}{-}$ %MAC)

ENABLING OBJECTIVES:

1. Recall that the LATCHED advisory light is on only when the refueling
   toggles are latched.

2. Recall the normal fuel filling sequencing during aerial refueling.

3. Recall the extremes (fwd and aft) limits of the c g and whether the
   actual c g is being maintained with the target c g.

4. Recall what the individual fuel quantity indicators should read
   throughout the refueling operation.

ANCILLARY OBJECTIVES:

1. Recall which fill valves should be opened and which transfer pumps
   should be operating.

OPERATOR: P/CP

TASK ELEMENTS: 7.3.2.1   7.3.2.5
                7.3.2.2
                7.3.2.3

07.3.2.001.00*

CHECK_'LATCHED'_ADVISORY_LIGHT_IS_ON

        BOOM OPERATOR UHF   = TANKER CONTACT

CHECK   LATCHED ADVISORY LIGHT

        FLASHBLINDNESS WINDOW-LEFT   = CONTACT MADE*
        AND LATCHED ADVISORY LIGHT   = 'LATCHED'

07.3.2.002.00*

CHECK_FUEL_SEQUENCING_DISPLAY

        FUEL MGT PANEL   = TBD*

CHECK   FUEL MGT PANEL

        FUEL MGT PANEL   = TBD

07.3.2.003.00*

MONITOR_C.G._%_MAC_DISPLAY

        PERCENT MACH INDICATOR   = TBD

MONITOR-VISUAL   PERCENT MACH INDICATOR

        PERCENT MACH INDICATOR   = TBD

07.3.2.005.00*

MONITOR_FUEL_QUANTITY_INDICATORS

        FUEL MGT PANEL   ¬=TBD*
        AND SELECT QUANTITY DIGITAL READ ¬=TBD

MONITOR-VISUAL   SELECT TANK SWITCH
        FUEL MGT PANEL
        COUNTER READOUT-TOTAL FUEL

        FUEL MGT PANEL   = TBD*
        AND SELECT QUANTITY DIGITAL READ = TBD

CRITICALITY: 3   DIFFICULTY: 3

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Slipway doors open
                      3. Tanker contact

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Elevation - TBD ($\pm$ ft)
                      2. Azimuth - TBD ($\pm$ deg)
                      3. Longitudinal - TBD ($\pm$ ft)

ENABLING OBJECTIVES:

1. Coordinate control stick and throttles to maintain proper elevation and longitudinal position inside refueling envelope. As fuel is onloaded, the air vehicle becomes heavier and more angle of attack and power is required to hold contact position.

2. Coordinate lateral control stick and rudders to maintain wings level and zero azimuth position. Differential throttles could be used to assist in yaw control.

3. Predict visually by looking at tanker what control imputs are required to maintain contact.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 7.3.2.4

07.3.2.004.00*

<u>ADJUST PITCH AND ROLL AS REQUIRED</u>

FLASHBLINDNESS WINDOW-LEFT   = TBD*

ADJUST   PILOTS FLIGHT CONTROL STICK

PILOTS FLIGHT CONTROL STICK   = TBD

OBJECTIVE: DISCONNECT PROCEDURES

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Hooked-up with tanker
                      3. Slipway doors open
                      4. Offload is complete

CONCURRENT TASKS:

INTERACTION TASKS: 1. When offload complete, Pilot Depresses AIR disconnect
                        stick switch.
                     2. Copilot checks Aerial Refuel Disconnect Annuciator.

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall that squeezing the trigger on the control stick to the first
   detent opens the aerial refueling toggle latches and resets the
   aerial refueling amplifier.

2. Recall that the disconnect light will illuminate whenever the
   refueling boom is removed from the refueling receptacle.
   The light will go out when the aerial refueling sequence is reset.

3. Recall that the tanker boom operator will withdraw the refueling
   probe and will stow the boom after disconnect.

4. Recall that the aerial refuel exterior and slipway lights are used
   to assist the boom operator and should be turned off after refueling
   is complete.

ANCILLARY OBJECTIVES:

1. Recall that pushing the slipway door handle up mechanically positions
   a hydraulic actuator to close and lock the slipway door. The OPEN/UNLKD
   light goes out, the refueling amplifier is turned off and the fuel system
   is returned to the non-refueling mode.

2. Recall that in the event of hydraulic pressure failure pushing the refuel
   handle up may not close the slipway door.

OPERATOR: P/CP

TASK ELEMENTS: 7.4.1.1
                 7.4.1.2
                 7.4.1.3
                 7.4.1.4
                 7.4.1.5
                 7.4.1.6
                 7.4.1.7

07.4.1.001.00*

<u>DEPRESS A/R DISCONNECT STICK SWITCH</u>

	FUEL MGT PANEL	= TBD
	AND SELECT QUANTITY DIGITAL READ	= TBD
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	FLASHBLINDNESS WINDOW-LEFT	= BOOM RELEASED

07.4.1.002.00*

<u>CHECK AERIAL REFUEL DISCONNECT ANNUNCIATOR ADVISORY LIGHT</u>

	FUEL MGT PANEL	= TBD
	AND SELECT QUANTITY DIGITAL READ	= TBD
CHECK	DISCONNECT CAUTION LIGHT	
	DISCONNECT CAUTION LIGHT	= 'DISC'*

07.4.1.003.00*

<u>INFORM PILOT 'DISC' LIGHT IS ILLUMINATED*</u>

	DISCONNECT CAUTION LIGHT	= 'DISC'
INFORM	PUSH-TO-TALK SWITCH-PILOT	
	PILOT ICS	= ACKNOWLEDGED

07.4.1.004.00*

<u>INFORM TANKER BOOM OPERATOR 'DISCONNECT' COMPLETE</u>

	DISCONNECT CAUTION LIGHT	= 'DISC'
INFORM	PUSH-TO-TALK SWITCH-PILOT	
	BOOM OPERATOR UHF	= ACKNOWLEDGED

07.4.1.005.00*

<u>SET A/R EXTERIOR WING FLOOD AND SLIPWAY LIGHT CONTROLS</u>

	DISCONNECT CAUTION LIGHT	= 'DISC'
SET	EXTERIOR LIGHTS SWITCH	
	SLIPWAY LIGHTS SWITCH	
	EXTERIOR LIGHTS SWITCH	= OFF
	AND SLIPWAY LIGHTS SWITCH	= OFF

07.4.1.006.00*

<u>PUSH AERIAL REFUEL SLIPWAY DOOR HANDLE TO CLOSED POSITION</u>

	CHECKLIST	= SEQUENCE
PUSH	SLIPWAY DOOR HANDLE	
	READY-NWS ADVISORY LIGHT	= OFF*

7.48

07.4.1.007.00*

SET ANTI-CLSN TOGGLE SWITCH TO 'ANTI-CLSN'

FLASHBLINDNESS WINDOW-RIGHT   = A-V SEPARATION

SET   ANTI-COLLISION CONTROL SWITCH

ANTI-COLLISION CONTROL SWITCH = OFF

OBJECTIVE: POST-DISCONNECT MANEUVER   7.20

                       CRITICALITY: 2   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Disconnect with tanker completed.
                      2. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD ($\pm$ kts)
                    2. Altitude - TBD ($\pm$ ft)
                    3. Heading - TBD ($\pm$ degs)
                    4. Longitudinal - TBD ($\pm$ ft)

ENABLING OBJECTIVES:

1. Predict power level setting to move aft and down from tanker.

2. Coordinate control stick and throttles to maintain adequate elevation and longitudinal positions.

3. Coordinate lateral control stick and rudders to maintain wings level directly behind the tanker.

4. Predict visually by viewing the tanker the required control inputs to maintain desired position.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 7.4.1.8
                 7.4.1.9
                 7.4.1.10
                 7.4.1.11
                 7.4.1.12
                 7.4.1.13

07.4.1.008.00*

MONITOR POSITION OF TANKER VISUALLY

	FLASHBLINDNESS WINDOW-LEFT	= A V SEPARATION
MONITOR-VISUAL	FLASHBLINDNESS WINDOW-LEFT	
	FLASHBLINDNESS WINDOW-LEFT	= PROPER POSITION

07.4.1.009.00*

ADJUST THROTTLES TO 180 TO REDUCE AIRSPEED

	AIRSPEED DISPLAY-PILOT	¬=180*
ADJUST	PRIMARY THROTTLE LEVERS-PI	
	AIRSPEED DISPLAY-PILOT	= TBD

07.4.1.010.00*

ADJUST CONTROL STICK AS REQUIRED

	#3 THROTTLE LEVER	= IDLE
ADJUST	PILOTS FLIGHT CONTROL STICK	
	PITCH SCALE-PILOT	= TBD

07.4.1.011.00*

CHECK VERTICAL SPEED INDICATOR (AVVI)

	PITCH SCALE-PILOT	= TBD
CHECK	AVVI-PILOT	
	AVVI-PILOT	= TBD

07.4.1.012.00*

ADJUST TRIM SWITCH AS REQUIRED

	PROPRIOCEPTION	= ABOVE NORMAL*
ADJUST	PLT TRIM SW (ON CONTR STICK)	
	PROPRIOCEPTION	= REDUCED

07.4.1.013.00*

TRACK WITH CONTROL STICK AS REQUIRED

	PITCH SCALE-PILOT	¬=TBD
TRACK	PILOTS FLIGHT CONTROL STICK	
	PITCH SCALE-PILOT	= TBD

7.51

OBJECTIVE: DEPART TANKER

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. A-V clear from tanker
                     2. Cruise configuration

CONCURRENT TASKS: 1. Track with control stick to maintain level-off altitude.
                   2. Track with control stick and rudders to hold desired heading for the refueling track.
                   3. Reset power level to maintain desired airspeed.
                   4. Maintain post-refueling position.

PERFORMANCE LIMITS: 1. Vertical speed - TBD ($\pm$ ft/min)
                     2. Airspeed - TBD ($\pm$ kts)
                     3. Altitude - TBD ($\pm$ ft)
                     4. Heading - TBD ($\pm$ degs)

ENABLING OBJECTIVES:

1. Predict power level setting for descent and level-off behind tanker.

2. Predict necessary pitch change for level-off.

3. Coordinate control stick and throttles for descent and to achieve level-off.

4. Predict visually from viewing the tanker, the required control inputs to maintain post-refueling position.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 7.4.2.1
                7.4.2.2
                7.4.2.3
                7.4.2.4
                7.4.2.5

07.4.2.001.00*

<u>CHECK VERTICAL SPEED INDICATOR (AVVI)</u>

	PITCH SCALE-PILOT	= TBD
CHECK	AVVI-PILOT	
	AVVI-PILOT	= TBD

07.4.2.002.00*

<u>ADJUST TRIM SWITCH AS REQUIRED</u>

	PROPRIOCEPTION	= ABOVE NORMAL
ADJUST	PLT TRIM SW (ON CONTR STICK)	
	PROPRIOCEPTION	= REDUCED*
	AND AVVI-PILOT	= TBD

07.4.2.003.00*

<u>MONITOR TANKER POSITION VISUALLY</u>

	FLASHBLINDNESS WINDOW-LEFT	= A-V SEPARATION*
MONITOR-VISUAL	FLASHBLINDNESS WINDOW-LEFT	
	FLASHBLINDNESS WINDOW-LEFT	= PROPER POSITION

07.4.2.004.00*

<u>ADJUST CONTROL STICK AS REQUIRED FOR LEVEL OFF</u>

	FLASHBLINDNESS WINDOW-LEFT	= PROPER POSITION*
ADJUST	PILOTS FLIGHT CONTROL STICK	
	AVVI-PILOT	= TBD

07.4.2.005.00*

<u>ADJUST TRIM SWITCH AS REQUIRED</u>

	PROPRIOCEPTION	= ABOVE NORMAL
ADJUST	PLT TRIM SW (ON CONTR STICK)	
	PROPRIOCEPTION	= REDUCED*

OBJECTIVE: INITIATE CLIMB   7.22

              CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration.

CONCURRENT TASKS: 1. Track with control stick and rudders to hold desired
                        heading.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Heading - TBD ($\pm$ degrees)
                     2. Airspeed - TBD ($\pm$ kts)

ENABLING OBJECTIVES:

   1. Calculate power level setting for climb.

   2. Predict necessary pitch change for climb.

   3. Coordinate control stick and throttles for smooth transition from
      level flight to desired climb attitude.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 7.4.2.6
                7.4.2.7

07.4.2.006.00*

ADJUST CONTROL STICK AS REQUIRED FOR CLIMB

PITCH SCALE-PILOT ¬=TBD

ADJUST PILOTS FLIGHT CONTROL STICK

PITCH SCALE-PILOT = TBD

07.4.2.007.00*

ADJUST THROTTLES TO INITIATE CLIMB

PITCH SCALE-PILOT ¬=TBD

ADJUST #3 THROTTLE LEVER

AM1-PILOT = TBD*

OBJECTIVE: ENGAGE ALTITUDE HOLD AND AUTO THROTTLE

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Desired level-off altitude achieved
                      3. Desired cruise mach achieved

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                      2. Switches in proper position

ENABLING OBJECTIVES:

1. Recall that the alt hold and auto throt modes must be selected on
   the in command control panel.

2. Recall that the engage mode has to be selected before the altitude
   hold and auto throttle modes operate.

ANCILLARY OBJECTIVES:

1. Recall that the automatic throttle mode will not engage if the
   airspeed or mach hold modes are engaged.

OPERATOR: P/CP

TASK ELEMENTS: 7.4.2.8
                 7.4.2.9

07.4.2.008.00*

DEPRESS ALT HOLD PUSH-BUTTON ON AFCS MODE SELECT PANEL

AVVI-PILOT   = TBD

DEPRESS   PLTS ALTITUDE HOLD PUSHBUTTON

PLTS ALTITUDE HOLD PUSHBUTTON = 'ALT'-G*

07.4.2.009.00*

DEPRESS AUTO THROTTLE PUSHBUTTON ON AFCS MODE SELECT PANEL

AMI-PILOT   = TBD

DEPRESS   PILOTS AUTO THROT PUSHBUTTON

PILOTS AUTO THROT PUSHBUTTON = 'AUTO THROT'-G*

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. Departing tanker

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO sets FLR mode switch to XMIT.
                     2. OSO sets FLR selector switch to GND AUTO.

PERFORMANCE LIMITS: 1. Switches in proper positions.

ENABLING OBJECTIVES:

1. Recall that the TACAN mode selector was not in T/R during refueling
    to preclude the hazard of a transmitted signal triggering a fuel
    fumes explosion.

2. Recall that it is no longer necessary to monitor the aerial refueling
    UHF frequency.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 7.4.2.11
                      7.4.2.12

07.4.2.011.00*
SET TACAN MODE SW TO 'T-R' AND SELECT APPROPRIATE CHANNEL*

	CHECKLIST	= SEQUENCE
SET	CHANNEL SEL-KNOB TACAN	
	CHANNEL SEL-OUTER WHEEL-TACAN	
	MODE SELECTOR SWITCH-TACAN	

	CHANNEL SEL-KNOB TACAN	= TBD
AND	CHANNEL SEL-OUTER WHEEL-TACAN	= TBD
AND	MODE SELECTOR SWITCH-TACAN	= T-R

07.4.2.012.00*
SET UHF RADIOS AS DESIRED

	CHECKLIST	= SEQUENCE
SET	PILOT UHF COMM PANEL	
	COPILOT UHF COMM PANEL	

	PILOT UHF COMM PANEL	= TBD
AND	COPILOT UHF COMM PANEL	= TBD

OBJECTIVE: END AERIAL REFUELING   7.25

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. CP sets TACAN mode switch to T/R
                      2. P/CP set UHF radios as desired

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that the FLR rotary switch was positioned to STBY during the refueling operation to preclude the hazard of a radar transmission triggering a fuel-fumes explosion.

2. Recall that when the FLR mode switch is in the GND AUTO position, the range and azimuth cursors are controlled by the ACU.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 7.4.2.13
                7.4.2.14

07.4.2.013.00*   <u>SET ELR MODE ROTARY SWITCH TO 'XMIT'</u>

                              FUEL MGT PANEL   = TBD
                        AND SELECT QUANTITY DIGITAL READ   = TBD

        SET   MODE SWITCH-RADAR SET-2

                              MODE SWITCH-RADAR SET-2   = XMIT*
                        AND CRT DISPLAY SURFACE   = TBD

07.4.2.014.00*   <u>SET ELR MODE SELECTOR SWITCH TO GND AUTO'</u>

                              FUEL MGT PANEL   = TBD*
                        AND SELECT QUANTITY DIGITAL READ   = TBD

        SET   MODE SWITCH-RADAR SET

                              MODE SWITCH-RADAR SET   = GND AUTO

MISSION SEGMENT 8

OBJECTIVE: DECODE EXECUTION ORDER   8.1

                     CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO & DSO decode execution order

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

   1. Recall decoding procedure including appropriate documents.

   2. Recall appropriate Mode 1 and Mode 3/A IFF codes to set into
      selector windows.

   3. Recall from flight plan which IFF modes should be activated
      while in PCP orbit.

ANCILLARY OBJECTIVES:

   1. Recall that execution order may be received at any time.

OPERATOR: P/CP

TASK ELEMENTS; 8.1.1.1
                8.1.1.2
                8.1.1.3

08.1.1.001.00*

MONITOR HF COMMUNICATIONS (ARC-123)*

CLOCK-COPILOT   = TBD

MONITOR-AUDITORY   RADIO SET CONTROL PANEL

COPILOTS HF   = MESSAGE RECORDED

08.1.1.002.00*

DECODE HF COMMUNICATIONS

COPILOTS HF   = MESSAGE RECORDED

DECODE   COPILOTS HF

COPILOTS HF   = MESSAGE DECODED

08.1.1.003.00*

CHANGE CODE SETTING ON IFF PANEL*

CHECKLIST   = SEQUENCE*

CHANGE   IFF SYSTEM CONTROL

IFF SYSTEM CONTROL   = TBD*

OBJECTIVE: MONITOR/ADJUST SYSTEM AVIONICS   8.2

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that the selection of the bearing and heading sources for the BDHI
   is made at the front station.

2. Recall that the #1 needle is the relative bearing indicator for the TACAN.
   The #2 needle is either the bearing to a NAV checkpoint as selected by
   the ACU, or a bearing to a UHF/ADF station.

3. Recall how to adjust the FLR so the CRT displays the optimum presentation
   for the flight conditions being flown.

4. Recall how to adjust the MFD in the IR mode for the optimum presentation
   at the flight conditions being flown.

5. Recall how to adjust the left and right hand, SMS CRT for the optimum
   presentation under the lighting conditions in the cockpit.

6. Check the present position mission time and whether it is consistent with
   the flight plan.

7. Recall that the present position ground speed readout is dependent upon
   whether the display switch is on navigation, INS 1, INS 2, or DR.

8. Recall that the present position true heading readout is dependent upon
   whether the display switch is set on navigation INS 1, INS 2, or DR.

9. Recall that the present position ground track readout is dependent upon
   whether the display switch is set on navigation, INS 1, INS 2, or DR.

ANCILLARY OBJECTIVES:

1. Recall that the solid line on the attitude indicator's sphere represents the real world horizon. The scale at the botton indicates the air vehicle's attitude in degrees.

2. Recall that the compass card in the BDHI can be driven either by the inertial platform (NAV) or by the gyro stabilization system (GSS).

3. Recall that the CITS mode switch has 12 positions, some of which are used in flight only and others for ground operation only.

4. Recall that a matrix of 50 switch indicators are used to identify failures and allow selection of subsystems for display of failure information.

5. Recall that the 50 switch indicators are split-screen indicators. The upper half identifies a failure and the lower half indicates the availability of α-N display messages.

6. Recall that the RCD INIT/DIS TEST switch is used to initate a record and display a test on the CCD displays.

7. Recall that the left hand displays are of primary interest to the DSO and the right hand displays are of primary interest to the OSO.

8. Recall that a 20-character α-N readout is provided for display of CITS data that includes failure messages, failed LRU identification, etc.

9. Recall that the CITS can interface with two independent CITS indicators. The indicators will illuminate on computer command each time a new failure occurs.

10. Recall that the CMPTR/KYBD switch is used to display information from the computer or the keyboard.

11. Recall that the DIS RESET/DIS RECALL switch is used to reset the display and change the display to a former presentation.

12. Check that the present position wind direction and speed are from the most reliable source: IMU, doppler, last computed value, manually inserted or a memory point calculation.

13. Recall that the present position altitude displayed may be either system barometric altitude or absolute altitude.

OPERATOR: OSO

TASK ELEMENTS: 8.1.1.4

08.1.1.004.00*

<u>MONITOR-ADJUST SYSTEM AVIONICS</u>*

	PRESENT POSITION LATITUDE	¬=TBD
AND	PRESENT POSITION LONGITUDE	¬=TBD

MONITOR-VISUAL

PRESENT POSITION LATITUDE
PRESENT POSITION LONGITUDE

	PRESENT POSITION LATITUDE	= TBD*
AND	PRESENT POSITION LONGITUDE	= TBD

OBJECTIVE: RECEIVE AND VALIDATE MISSION EXECUTION ORDER   8.3

                    CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS: 1. After communication copied, pilot tracks to
                        turn on strike course

INTERACTION TASKS: 1. OSO & DSO validate message

PERFORMANCE LIMITS: 1. Correct sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

   1. Recall decoding procedure including determination of appropriate documents.

   2. Recall that in operate position, CSSC operation cycle is initiated.

   3. Recall that at the end of a CSSC operate cycle, steady CODE and ENABLE
      lights indicate transmittal of any of the six correct enable codes stored.

   4. Recall that a valid code consists of a six letter designation.

ANCILLARY OBJECTIVES:

   1. Recall that the CSSC controls the prearming of nuclear weapons.

   2. Recall that at the end of a CSSC operate cycle steady CODE and DISABLE
      lights indicate transmittal of a valid sum check.

   3. Recall that at the end of a CSSC operate cycle no light indicates
      transmittal of a wrong code.

OPERATOR: P/CP

TASK ELEMENTS: 8.1.2.1
                  8.1.2.2
                  8.1.2.3

08.1.2.001.00*

<u>RECEIVE EXECUTION ORDER (ARC-123) COMMUNICATION</u>*

| | PILOTS HF | = MONITOR-AUDITORY* |
| | AND OSO HF | = MONITOR-AUDITORY |

RECEIVE   RADIO SET CONTROL PANEL

| | PILOTS HF | = MESSAGE RECORDED |
| | AND OSO HF | = MESSAGE RECORDED |

08.1.2.002.00*

<u>OPEN CMF CONTAINER</u>*

| | PILOTS HF | = VALID MESSAGE* |
| | AND OSO HF | = VALID MESSAGE |

OPEN   SECURE STORAGE CONTAINER

SECURE STORAGE CONTAINER   = OPENED

08.1.2.003.00*

<u>PERFORM MESSAGE VALIDATION-AUTHENTICATION</u>*

| | PILOTS HF | = VALID MESSAGE |
| | AND OSO HF | = VALID MESSAGE |

PERFORM

| | EXECUTION MESSAGE | = VALIDATED* |
| | AND EXECUTION MESSAGE | = AUTHENTICATED |

OBJECTIVE: TURN ON STRIKE COURSE   8.4

                 CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS: 1. Track with control stick to maintain constant altitude.
                     2. Adjust power level to hold constant airspeed.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD ($\pm$ kts)
                     2. Altitude - TBD ($\pm$ ft)
                     3. Heading - TBD ($\pm$ degrees)

ENABLING OBJECTIVES:

   1. Predict heading lead to roll out on desired heading.

   2. Coordinate control stick and rudders for roll into and roll
      out of turn.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 8.1.2.4

08.1.2.004.00*

<u>TRACK WITH FLIGHT CONTROLS TO TURN ON STRIKE COURSE</u>

	PILOTS HF	= VALID MESSAGE
	AND OSO HF	= VALID MESSAGE
TRACK	PILOTS FLIGHT CONTROL STICK	
	HSI-PILOT	= TBD*

OBJECTIVE: HHCL ENTRY PROCEDURES   8.5

                  CRITICALITY: 2   DIFFICULTY

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO sets FLR mode switch in STBY

PERFORMANCE LIMITS: 1. Proper sequence
                       2. Switches in proper positions

ENABLING OBJECTIVES:

   1. Recall that all external lights are turned off and all radio and radar
      transmission signals are muted to preclude detection of the penetrating
      air vehicle.

   2. Recall that the SLIPWAY & EXT lights intensity control is armed only
      when the slipway door is fully opened.

ANCILLARY OBJECTIVES:

   1. Recall that if the slipway door becomes stuck in the open position, the
      SLIPWAY & EXT lights should be checked off.

OPERATOR: P/CP

TASK ELEMENTS: 8.2.1.1
                 8.2.1.2
                 8.2.1.3
                 8.2.1.4
                 8.2.1.5
                 8.2.1.6
                 8.2.1.8

08.2.1.001.00*

SET IFF MASTER CONTROL SELECT SWITCH TO 'STBY'*

                              HHCL   = CROSSED

        SET   MASTER CONTROL SELECT SWITCH

                              MASTER CONTROL SELECT SWITCH = STBY

08.2.1.002.00*

                    SET ANTI-CLSN LIGHT SWITCH TO 'OFF'*

                              CHECKLIST   = SEQUENCE

        SET   ANTI-COLLISION CONTROL SWITCH

                              ANTI-COLLISION CONTROL SWITCH = OFF

08.2.1.003.00*

            SET EXTERNAL POSITION LIGHT SELECT SWITCH TO 'OFF'

                              CHECKLIST   = SEQUENCE

        SET   POSITION LIGHT SWITCH

                              POSITION LIGHT SWITCH   = OFF

08.2.1.004.00*

        OBSERVE THAT AERIAL REFUEL EXTERIOR AND SLIPWAY LT SWS - OFF

                              CHECKLIST   = SEQUENCE

        CHECK   EXTERIOR LIGHTS SWITCH
                              SLIPWAY LIGHTS SWITCH

                              EXTERIOR LIGHTS SWITCH   = OFF
                         AND SLIPWAY LIGHTS SWITCH   = OFF

08.2.1.005.00*

            SET ILS (ARN-108) POWER SWITCH TO 'OFF'

                              CHECKLIST   = SEQUENCE

        SET   POWER SWITCH-ILS

                              POWER SWITCH-ILS   = OFF

08.2.1.006.00*

SET TACAN MODE SELECTOR SWITCH TO 'OFF'

	CHECKLIST	= SEQUENCE
SET	MODE SELECTOR SWITCH-TACAN	
	MODE SELECTOR SWITCH-TACAN	= OFF

08.2.1.008.00*

SET X-BAND XPNDR PWR SWITCHES TO 'OFF' (PANEL #1,#2)

	CHECKLIST	= SEQUENCE
SET	POWER SELECT SWITCH	
	POWER SELECT SWITCH	= OFF

OBJECTIVE: HHCL ENTRY PROCEDURES   8.6

                    CRITICIALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP set external light switches to off position
                       2. P/CP set TACAN, IFF and X-Bad XPNDR to off position

ENABLING OBJECTIVES:

   1. Recall that with the FLR mode switch in STBY, all system filaments and
      protective time delays are energized. The antenna is held in an azimuth
      limit with zero pitch and maximum up in tilt.

ANCILLARY OBJECTIVES:

   1. Recall that the FLR is set to the standby position to minimize detection
      of the A/V penetrating enemy defenses.

OPERATOR: OSO

TASK ELEMENTS: 8.2.1.7

08.2.1.007.00*

SET FLR MODE ROTARY SWITCH TO 'STBY'

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-RADAR SET-2	
	MODE SWITCH-RADAR SET-2	= STBY*

OBJECTIVE: PERFORM NUCLEAR PA/CONSENT PROCEDURES   8.7

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pilot Execute Nuclear PA/Consent concurrently
                    2. OSO request nuclear consent from pilot-pilot acknowledge
                    3. OSO acknowledge that flight station nuclear consent
                       is complete.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that the racks unlock and safe/pre-arm switch is wired in series with
   the nuclear consent control at the pilot's station. This provides two-man
   control for both safed and armed releases.

2. Recall that the nuclear caution light will illuminate immediately after
   the pilot has selected PA and REL.

3. Recall that the nuclear caution light will go out after PA has been
   selected with the PA/SAFE switch and PA ENBL with the PA/ENBL/SAFE switch.

ANCILLARY OBJECTIVES:

1. Recall that when the nuclear caution light illuminates after both the pilot
   and OSO have prearmed a weapon, there is a nuclear consent disagreement
   and nuclear pre-arm fault.

2. Recall that pre-arming and safing missiles is constrained to location,
   i.e., by bay or all at once.

3. Recall that gravity stores can be pre-armed or safed individually.

OPERATOR: OSO

TASK ELEMENTS: 8.2.2.1   8.2.2.5
                8.2.2.3   8.2.2.6
                               8.2.2.7

8.15

08.2.2.001.00*

NOTIFY_PILOT_OF_REQUEST_FOR_NUCLEAR_CONSENT*

	OSO ICS	= INTENT TO PREARM*
COMMUNICATE	OSO INTERPHONE SWITCH	
	PILOT ICS	= ACKNOWLEDGED

08.2.2.003.00*

LIFT_NCLR_RACK_UNL-SE_SW_GUARD_THEN_SET_SW_TO_'UNLOCK'

	PILOT ICS	= CONSENT COMPLETE*
SET	NUCLEAR RACK CONTROL SWITCH	
	NUCLEAR RACK CONTROL SWITCH	= UNLOCK

08.2.2.005.00*

LIFT_PAENEL-SAFE_SW_GUARD,_THEN_SET_SW_TO_'PA_ENBL'

	NUCLEAR RACK CONTROL SWITCH	= UNLOCK
SET	NUCLEAR PREARM ENABLE SWITCH	
	NUCLEAR PREARM ENABLE SWITCH	= PA ENBL

08.2.2.006.00*

SET_PA-SAFE_SWITCH_TO_'PA'

	NUCLEAR PREARM ENABLE SWITCH	= PA ENBL
SET	PA-SAFE SWITCH	
	PA-SAFE SWITCH	= PA

08.2.2.007.00*

NOTIFY_PILOT_AFT_STA_NUCLEAR_CONSENT_PROCEDURES_COMPLETE

	PA-SAFE SWITCH	= PA
COMMUNICATE	OSO INTERPHONE SWITCH	
	PILOT ICS	= ACKNOWLEDGED

8.16

OBJECTIVE: PERFORM NUCLEAR PA/CONSENT PROCEDURES   8.8

            CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. OSO request for nuclear consent

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO Execute Nuclear PA/Consent concurrently.
                     2. P notifies OSO that flight station nuclear consent
                        is complete: CSO acknowledges.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that the nuclear consent switch is wired in series with the racks
   unlock and safe/pre-arm control at the OSO's station. This provides two-
   man control for both safed and armed releases.

2. Recall that illumination of the nuclear caution light is a normal occurrence
   after the pilot has selected PA and REL.

3. Recall that the nuclear caution light will stay on until the OSO selects
   PA with the PA/SAFE switch and PA ENBL with the PA ENBL/SAFE switch.

ANCILLARY OBJECTIVES:

1. Recall that when the nuclear caution light illuminates after both the
   pilot and OSO have prearmed a weapon, there is a nuclear consent
   disagreement and nuclear pre-arm fault.

2. Recall that pre-arming and safing missiles is constrained to location,
   i.e., by bay or all at once.

3. Recall that gravity stores can be pre-armed or safed individually.

OPERATOR: P/CP

TASK ELEMENTS: 8.2.2.2
                8.2.2.4
                8.2.2.8

08.2.2.002.00*
LIFT NCLR CSNT SWT GUARD AND SWITCH TO 'PA AND REL' POSN*

	PILOT ICS	= ACKNOWLEDGED
SET	NUCLEAR CONSENT SWITCH	
	NUCLEAR CONSENT SWITCH	= PA-REL

08.2.2.004.00*
CHECK NUCLEAR CAUTION ANNUNCIATOR ILLUMINATED

	OSO ICS	= ACKNOWLEDGED
CHECK	NUCLEAR INDICATOR	
	NUCLEAR INDICATOR	= 'NUCLEAR'*

08.2.2.008.00*
CHECK NUCLEAR CAUTION ANNUNCIATOR IS BLANK

	PILOT ICS	= ACKNOWLEDGED*
CHECK	NUCLEAR INDICATOR	
	NUCLEAR INDICATOR	= OFF

OBJECTIVE: INITIATE WEAPONS MONITORING   8.9

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

  1. Recall that when either SMY, PRGM, INV, STAT, or FAULT in the data group
     has been selected, selection of a DIS (L,R,MFD, OR KYBD) switch deactivates
     the data switch.

ANCILLARY OBJECTIVES:

  1. Recall that formats are replaced on the SMS, MFD, and IKB CRT displays
     on last requested priority basis.

  2. Recall that a particular display can be blanked by selecting the
     appropriate DIS switch when a DATA switch has not been selected.

  3. Recall that DATA functional switches are deactivated by the selection
     of a DIS location.

OPERATOR: OSO

TASK ELEMENTS: 8.2.3.1
                8.2.3.2

08.2.3.001.00*
    DEPRESS 'SMS' + 'L' ON SMS PANEL FOR DATA DISPLAY ON L CRT

                        DISPLAY TUBE SURFACE-SMS CRT   ¬=SMY ON LEFT SIDE

    DEPRESS   SMY DATA CONTROL SWITCH
                        L DIS SELECTOR PUSHBUTTON

                        DISPLAY TUBE SURFACE-SMS CRT   = SMY ON LEFT SIDE*

08.2.3.002.00*
    DEPRESS 'INV'+ 'R' ON SMS PANEL FOR FULL INVTRY DATA DISPLAY

                        DISPLAY TUBE SURFACE-SMS CRT   ¬=INV ON RT SIDE

    DEPRESS   INV DATA CONTROL SWITCH
                        R DIS SELECTOR PUSHBUTTON

                        DISPLAY TUBE SURFACE-SMS CRT   = INV ON RT SIDE*

MISSION SEGMENT 9

OBJECTIVE: ESTABLISH SUPERSONIC FLIGHT   9.1

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS: 1. Track with control stick to maintain constant altitude.
                     2. Track with control stick to maintain heading.

INTERACTION TASKS: 1. OSO and DSO complete checklists.

PERFORMANCE LIMITS: 1. Altitude - TBD ($\pm$ ft)
                     2. Heading - TBD ($\pm$ degrees)
                     3. Airspeed - TBD ($\pm$ mach)

ENABLING OBJECTIVES:

1. Calculate optimum wing sweep angle for various speeds.

2. Predict lead in power level setting to maintain supersonic speed.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 9.1.1.2   9.1.1.5
               9.1.1.3   9.1.1.6
               9.1.1.4   9.1.1.7

09.1.1.002.00*

DEPRESS ENGAGE ON AFCS MODE PANEL TO DISENGAGE AFCS

DEPRESS   PILOTS ENGAGE PUSHBUTTON

                               PILOTS ENGAGE PUSHBUTTON   = 'ENGAGE'-W

09.1.1.003.00*

ADVANCE THROTTLES TO MAXIMUM POWER

                               PILOTS ENGAGE PUSHBUTTON   = 'ENGAGE'-W

                               PRIMARY THROTTLE LEVERS-PI

                               PRIMARY THROTTLE LEVERS-PI   = MAXIMUM POWER

09.1.1.004.00*

MONITOR ENGINE PERFORMANCE PARAMETERS*

                               PRIMARY THROTTLE LEVERS-PI   = MAXIMUM POWER

MONITOR-VISUAL   ENGINE INSTRUMENTS

                               ENGINE INSTRUMENTS   = MONITORED

09.1.1.005.00*

ADJUST WING SWEEP AS REQUIRED

                               PROPRIOCEPTION   = ACCELERATION*

ADJUST   PILOTS WING SWEEP HANDLE

                               WING SWEEP POSITION INDICATOR = TBD

09.1.1.006.00*

ADJUST THROTTLES TO OBTAIN TBD KIAS

                               AMI-PILOT   = TBD

ADJUST   PRIMARY THROTTLE LEVERS-PI

                               AMI-PILOT   = TBD

09.1.1.007.00*

ACTUATE PITCH TRIM BUTTON

                               PROPRIOCEPTION   = ABOVE NORMAL*

ACTIVATE   PLT TRIM SW (ON CONTR STICK)

                               PROPRIOCEPTION   = REDUCED

OBJECTIVE: PERFORM SUPERSONIC CLIMB   9.2

                CRITICALITY: 1   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS: 1. Track with control stick and rudders to hold desired heading.
                     2. Calculate fuel distribution to maintain optimum c.g.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Heading - TBD ($\pm$ degrees)
                     2. Airspeed - TBD ($\pm$ mach)

ENABLING OBJECTIVES:

1. Calculate optimum wing speed angle at various speeds in climb.

2. Predict necessary pitch change to initiate supersonic climb.

3. Track with control stick to maintain supersonic climb schedule.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 9.1.1.8

09.1.1.008.00*

<u>POSITION FLT CONTROLS FOR SUPERSONIC CLIMB SCHEDULE*</u>

AMI-PILOT   ¬=TBD*

ADJUST   PILOTS FLIGHT CONTROL STICK
                       PILOTS RUDDER PEDALS

AMI-PILOT   = TBD

OBJECTIVE: LEVEL-OFF SUPERSONICALLY   9.3

CRITICALITY: 1   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration - supersonic
                      2. Power level for supersonic climb - TBD
                      3. Vertical velocity - TBD
                      4. Air vehicle pitch attitude at supersonic
                         climb angle - TBD

CONCURRENT TASKS: 1. Track with control stick and rudders to hold
                         desired heading.
                      2. Calculate fuel distribution to maintain optimum c.g.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD ($\pm$ mach)
                      2. Heading - TBD ($\pm$ degrees)
                      3. Altitude - TBD ($\pm$ ft)

ENABLING OBJECTIVES:

   1. Calculate power level setting for level-off.

   2. Calculate optimum wing sweep angle for supersonic cruise.

   3. Calculate altitude lead to initiate power level change.

   4. Calculate altitude lead to initiate pitch attitude change.

   5. Calculate necessary pitch change for level-off.

   6. Track with control stick to maintain level-off altitude.

   7. Adjust power level to maintain supersonic mach number.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 9.1.1.9
                 9.1.1.10

09.1.1.009.00*

POSITION FLT CONTROLS AS REQUIRED TO OBTAIN LEVEL-OFF

	AVVI-PILOT	¬=TBD*
ADJUST	PILOTS FLIGHT CONTROL STICK	
	PILOTS RUDDER FEDALS	
	AVVI-PILOT	= TBD

09.1.1.010.00*

ADJUST THROTTLES TO POWER SETTING FOR SUPERSONIC CRUISE

	AVVI-PILOT	= TBD
ADJUST	PRIMARY THROTTLE LEVERS-P1	
	AMI-PILOT	= TBD

OBJECTIVE: ENGAGE AUTOPILOT AND ALTITUDE HOLD   9.4

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Supersonic cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

1. Recall that when a transfer of command is made, the AFCS will revert to the basic ENGAGE mode if AFCS is engaged except for TER FLW and AUTO THROT modes.

2. Recall that selection of the engage mode (TAKE COMD-green) provides flight path hold in the pitch axis and attitude hold in the roll axis.

3. Recall that in the FLT DIR mode coupling is provided to selected flight director functions on the FLT DIR panel.

4. Recall that the altitude hold mode is incompatible with either airspeed or mach hold modes.

ANCILLARY OBJECTIVES:

1. Recall that in the ENGAGE mode, control stick steering is provided by displacing the flight control sticks beyond .25 inch. A new reference value is established at the conditions existing when the flight control is returned to normal.

2. Recall that the flight director functions are: MAN HDG, NAV, ILS and AILA

OPERATOR: P/CP

TASK ELEMENTS: 9.1.1.11
                9.1.1.12
                9.1.1.13
                9.1.1.14

9.7

09.1.1.011.00*
     DEPRESS 'TAKE COMD' SWITCHLIGHT ON AFCS MODE SELECT PANEL

	AVVI-PILOT	= TBD
	AND AMI-PILOT	= TBD
DEPRESS	PILOTS TAKE COMMAND PUSHBUTTON	
	PILOTS TAKE COMMAND PUSHBUTTON= 'TAKE COMD'-G	

09.1.1.012.00*
     DEPRESS 'ENGAGE' SWITCHLIGHT ON AFCS MODE SELECT PANEL

	PILOTS TAKE COMMAND PUSHBUTTON= 'TAKE COMD'-G	
DEPRESS	PILOTS ENGAGE PUSHBUTTON	
	PILOTS ENGAGE PUSHBUTTON	= 'ENGAGE'-G

09.1.1.013.00*
     DEPRESS 'FLT DIR' SWITCHLIGHT ON AFCS MODE SELECT PANEL

	PILOTS ENGAGE PUSHBUTTON	= 'ENGAGE'-G
DEPRESS	PILOTS FLT DIR PUSHBUTTON	
	PILOTS FLT DIR PUSHBUTTON	= 'FLT DIR'-G

09.1.1.014.00*
     DEPRESS 'ALT' SWITCHLIGHT ON AFCS MODE SELECT PANEL

	AVVI-PILOT	= TBD
DEPRESS	PLTS ALTITUDE HOLD PUSHBUTTON	
	PLTS ALTITUDE HOLD PUSHBUTTON = 'ALT'-G	

OBJECTIVE: EXECUTE FLR UPDATE   9.5

                    CRITICALITY: 2   DIFFICULTY: 3

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P acknowledges FLR update communication.
                     2. Pilot observes AUTO PILOT steering correction on VSD.

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Switches in proper position.
                     3. Successful discrimination of CP.
                     4. X-hairs - $\pm$ TBD feet.

ENABLING OBJECTIVES:

1. Recall that when the PFC is IN, the tracking handle positions the FLR
    cursors and the ACU will accept a FLR update.

2. Recall that in GND AUTO, the range switch selects only one of the
    following ranges: 2.5, 5, 10, 30, 80 or 200.

3. Discriminate the CP on the radar scope from other radar returns in vicinity.

4. Recall that when GND VEL has been selected, the radar ground map remains
    stable on the display with the targets and cursors remaining at the center
    of the display.

5. Recall that in GND VEL, the range sweep selections are 7.5/2.5, 15/5, 30/10,
    90/30, 160/80 or 200/200. The first and second numbers represent range
    sweep and display scale (diameter) in miles, respectively.

6. Recall that the UPDT QUAL of a selected point can be either 1, 2 or 3
    where a high position accuracy is represented by number 1. A low quantity
    or relatively poor position accuracy is indicated by 3. With each switch
    depression the numbers sequence as follows: 1, 2, 3, 1, etc.

7. Recall that operating the sector toggle switch on the tracking handle
    causes the FLR antenna sector width to be reduced to +10° about the
    azimuth cursor. The forward position of the switch selects narrow scan.

8. Recall that squeezing the enable switch on the tracking handle allows
    the X-hair cursors to be repositioned.

9. Recall that by depressing ENTER on the NAV CORR panel, when neither
    OVERFLY or EVS have been selected, initiates a position update based
    upon FLRX-hair position if PPC is in.

ANCILLIARY OBJECTIVES:

1. Recall that when the FLR mode switch is in GND AUTO, the range and azimuth cursors are controlled by the ACU.

2. Recall that the displayed Seq. No. has been entered into the ACU either via the mission tape or through the IKB.

3. Recall that the Seq. No. is controlled by both the Forward/Reverse switch and the right Cross Hair Control switches and activation of any one switch overrides any previous activation.

4. Recall that if the Kalman does not accept the update, the IN UPDT annunicator light goes off and UPDT REJ light comes on.

5. Recall that the UPDT REJ light flashes for 17 seconds at the rate of 4 flashes per second and then deactivates.

6. Recall that operating the sector toggle switch on the tracking handle to the off position selects the wide scan on the FLR antenna sector width.

OPERATOR: OSO

TASK ELEMENTS:

9.2.1.1	9.2.1.7	9.2.1.13
9.2.1.2	9.2.1.8	6.3.2.9 (same as 9.2.1.1 - 9.2.1.13)
9.2.1.3	9.2.1.9	
9.2.1.4	9.2.1.10	
9.2.1.5	9.2.1.11	
9.2.1.6	9.2.1.12	

11.5.2.1	11.5.2.5	11.5.2.9
11.5.2.2	11.5.2.6	11.5.2.10
11.5.2.3	11.5.2.7	11.5.2.11
11.5.2.4	11.5.2.8	11.5.2.12
		11.5.2.13

09.2.1.001.00*

SET FLR SELECT ROTARY SWITCH TO 'GND AUTO'*

CRT DISPLAY SURFACE ¬=TBD

SET MODE SWITCH-RADAR SET

MODE SWITCH-RADAR SET = GND AUTO

09.2.1.002.00*

SET PPC SWITCH ON RADAR SET CONTROL TO 'IN'

CRT DISPLAY SURFACE ¬=TBD

SET PRESENT POSITION CORRECTION SW

PRESENT POSITION CORRECTION SW= IN

09.2.1.003.00*

OBSERVE NEXT SEQ NO IS A CP ON SEQ NO DIGITAL READOUT

SEQUENCE NUMBER = TBD

OBSERVE SEQUENCE NUMBER

SEQUENCE NUMBER = TBD
AND PRE-PLANNED DATA SHEET = TBD

09.2.1.004.00*

SET FLR RANGE SELECT ROTARY SWITCH TO DESIRED RANGE

CRT DISPLAY SURFACE ¬=TBD*

SET RANGE SWITCH-FLR

RANGE SWITCH-FLR = TBD*

09.2.1.005.00*

IDENTIFY CP OF INTEREST ON FLR CRT SCOPE

CRT DISPLAY SURFACE ¬=TBD*

IDENTIFY CRT DISPLAY SURFACE

CRT DISPLAY SURFACE = TBD*

9.11

09.2.1.006.00*

OBSERVE X-HAIR CURSOR POSITION RELATIVE TO CP

	RADAR CURSORS	= TBD*
OBSERVE	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= OBSERVED*

09.2.1.007.00*

SET FLR SELECT ROTARY SWITCH TO 'GND VEL'

	CRT DISPLAY SURFACE	¬=EXPANDED
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET AND CRT DISPLAY SURFACE	= GND VEL* = EXPANDED

09.2.1.008.00*

DEPRESS UPDT QUAL PUSHBUTTON SWITCH ON NAV CORR PANEL

	UPDATE QUALITY SELECTOR	¬=TBD*
DEPRESS	UPDATE QUALITY SELECTOR	
	UPDATE QUALITY SELECTOR	= TBD*

09.2.1.009.00*

SET NARROW SECTOR SCAN ON FLR WITH TRACKING HOLE PUSHBUTTON

	CRT DISPLAY SURFACE	¬=NARROW SECT SCAN*
DEPRESS	SECTOR SWITCH	
	CRT DISPLAY SURFACE	= NARROW SECT SCAN

09.2.1.010.00*

POSITION X-HAIR CURSORS TO COINCIDE WITH CHECKPOINT

	CRT DISPLAY SURFACE	¬=TBD*
POSITION	ENABLE SWITCH	
	X-HAIR CURSORS AND CRT DISPLAY SURFACE	= POSITIONED = TBD

09.2.1.011.00*

DEPRESS 'ENTER' ON NAV CORR PANEL TO INTEGRATE CP UPDATE

	X-HAIR CURSORS	= POSITIONED
	AND CRT DISPLAY SURFACE	= TSD
DEPRESS	ENTER CONTROL	
	IN UPDT INDICATOR	= 'IN UPDT'*

09.2.1.012.00*

ADVISE PILOT FLR UPDATE HAS BEEN ACCEPTED AND IS COMPLETE

	IN UPDT INDICATOR	= OFF*
COMMUNICATE	OSO INTERPHONE SWITCH	
	PILOT ICS	= ACKNOWLEDGED

09.2.1.013.00*

OBSERVE AUTOPILOT STEERING CORRECTION ON VSD

	OSO ICS	= UPDATE COMPLETED
OBSERVE	VERTICAL SITUATION DISPLAY	
	VERTICAL SITUATION DISPLAY	= OBSERVED*

06.3.2.009.00*

<u>EXECUTE PRESENT POSITION UPDATE - AS REQUIRED*</u>

COMBAT MISSION FOLDER = CHECKED
AND PRESENT POSITION LONGITUDE = ERROR

SAME AS 9.2.1.1 - 9.2.1.13
AND
11.5.2.1 - 11.5.2.13

11.5.2.001.00*

SET FLR SELECT ROTARY SWITCH TO 'GND AUTO'*

	CRT DISPLAY SURFACE	¬=TBD*
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND AUTO

11.5.2.002.00*

SET PPC SWITCH ON RADAR SET CONTROL TO 'IN'

	CRT DISPLAY SURFACE	¬=TBD*
SET	PRESENT POSITION CORRECTION SW	
	PRESENT POSITION CORRECTION SW= IN	

11.5.2.003.00*

OBSERVE NEXT SEQ NO IS A CP ON SEQ NO DIGITAL READOUT

	SEQUENCE NUMBER	= TBD*
CHECK	SEQUENCE NUMBER	
	SEQUENCE NUMBER	= TBD
	AND PRE-PLANNED DATA SHEET	= TBD

11.5.2.004.00*

SET FLR RANGE SELECT ROTARY SWITCH TO DESIRED RANGE

	CRT DISPLAY SURFACE	¬=TBD*
SET	RANGE SWITCH-FLR	
	RANGE SWITCH-FLR	= TBD*

11.5.2.005.00*

IDENTIFY CP OF INTEREST ON FLR CRT SCOPE

	CRT DISPLAY SURFACE	¬=TBD*
IDENTIFY	CHECK POINT	
	CRT DISPLAY SURFACE	= TBD*

11.5.2.006.00*

OBSERVE X-HAIR CURSOR POSITION RELATIVE TO CP

	RADAR CURSORS	= TBD*
CHECK	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= OBSERVED*

9.15

11.5.2.007.00*

SET FLR SELECT ROTARY SWITCH TO 'GND VEL'

	CRT DISPLAY SURFACE	¬=EXPANDED
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL*
	AND CRT DISPLAY SURFACE	= EXPANDED

11.5.2.008.00*

DEPRESS UPDT QUAL PUSHBUTTON SWITCH ON NAV CORR PANEL

	UPDATE QUALITY SELECTOR	= '1'*
	OR UPDATE QUALITY SELECTOR	= '3'
DEPRESS	UPDATE QUALITY SELECTOR	
	UPDATE QUALITY SELECTOR	= '1'*
	OR UPDATE QUALITY SELECTOR	= '3'

11.5.2.009.00*

SET NARROW SECTOR SCAN ON FLR WITH TRACKING HOLE PUSHBUTTON

	CRT DISPLAY SURFACE	¬=NARROW SECT SCAN*
DEPRESS	SECTOR SWITCH	
	CRT DISPLAY SURFACE	= NARROW SECT SCAN

11.5.2.010.00*

POSITION X-HAIR CURSORS TO COINCIDE WITH CHECK POINT

	CRT DISPLAY SURFACE	¬=TBD*
DEPRESS	ENABLE SWITCH	
	X-HAIR CURSORS	= POSITIONED
	AND CRT DISPLAY SURFACE	= TBD

11.5.2.011.00*

DEPRESS 'ENTER' ON NAV CORR PANEL TO INTEGRATE CP UPDATE

	X-HAIR CURSORS	= POSITIONED
	AND CRT DISPLAY SURFACE	= TBD
DEPRESS	ENTER CONTROL	
	IN UPDT INDICATOR	= 'IN UPDT'*

11.5.2.012.00*
      <u>ADVISE PILOT ELB UPDATE HAS BEEN ACCEPTED AND IS COMPLETE</u>

	IN UPDT INDICATOR	= OFF*
COMMUNICATE	OSO ICS	
	PILOT ICS	= ACKNOWLEDGED

11.5.2.013.00*
      <u>OBSERVE AUTOPILOT STEERING CORRECTION ON VSD</u>

	OSO ICS	= UPDATE COMPLETED
MONITOR-VISUAL	STEERING COMMAND SYMBOL-PIL	
	STEERING COMMAND SYMBOL-COP	
	STEERING COMMAND SYMBOL-PIL	= TBD*
AND	STEERING COMMAND SYMBOL-COP	= TBD

OBJECTIVE: EXECUTE ALTITUDE CALIBRATION   9.6

                            CRITICALITY: 2   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE TASKS: 1. X-hair lay TBD ($\pm$ ft)
                       2. Proper sequence
                       3. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that when GND VEL has been selected, the radar ground map remains stable on the display with the targets and cursors remaining at the center of the display.

2. Recall that in GND VEL, the range sweep selections are 7.5/2.5, 15/5, 20/10, 90/30, 160/80 or 200/200. The first and second numbers represent range sweep and display scale (diameter) in miles, respectively.

3. Recall that squeezing the enable switch permits all tracking handle functions except changing the sector width.

4. Recall how to identify the calibration point from other radar returns in the vicinity.

5. Recall that prior to an altitude calibration, the ELEV portion of the ELEV/▲ALT switch will be lit to indicate the terrain elevation of the calibration point.

6. Recall that if the ACPT/REJ toggle switch is set to REJ, the ELEV/▲ ALT indicators will blank until the start of the turn to the next planned calibration destination.

7. Recall how to evaluate the ▲ALT readout for acceptability.

ANCILLARY OBJECTIVES:

1. Recall that if the correct ground speed is used the X-hairs will not drift from the scheduled elevation calibration point.

2. Recall that the terrain elevation will be shown on the elevation/⚠
   altitude indicator as a numerical readout.

OPERATOR: OSO

TASK ELEMENTS: 9.2.2.2   10.2.4.1   11.5.3.1
                9.2.2.3   10.2.4.2   11.5.3.2
                9.2.2.4   10.2.4.3   11.5.3.3
                9.2.2.5   10.2.4.4   11.5.3.4
                9.2.2.6   10.2.4.5   11.5.3.5
                9.2.2.9   10.2.4.6   11.5.3.6
                9.2.2.10   10.2.4.7   11.5.3.7
                9.2.2.11   10.2.4.8   11.5.3.8
                9.2.2.12   10.2.4.9   11.5.3.9
                9.2.2.13   10.2.4.10   11.5.3.10
                               10.2.4.11

09.2.2.002.00*
　　　SET ROTARY MODE SWITCH ON FLR CONTROL PANEL TO 'GND VEL'*

	CRT DISPLAY SURFACE	¬=HI-ALTIT CALIB.
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL

09.2.2.003.00*
　　　DEPRESS TH 'ENBL' SW TO COMMAND FLR ANT TO MAX DNWD ANGLE*

	ANTENNA TILT INDICATOR	= 0
DEPRESS	ENABLE SWITCH	
	ANTENNA TILT INDICATOR	= -30
	AND CRT DISPLAY SURFACE	= READY

09.2.2.004.00*
　　　DEPRESS TH 'ENBL' SW TO POSITION RNG CURS ON NEAREST RETURN

	RANGE CURSORS	¬=POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= POSITIONED*
	AND CRT DISPLAY SURFACE	= OBSERVED

09.2.2.005.00*
　　　DETERMINE GRD RTN 'COINCIDES' WITH SCHEDULED ELEV CALIB PT*

	STEERING DISTANCE READOUT	= TBD*
DETERMINE	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= TBD*
	AND RANGE CURSORS	= POSITIONED

09.2.2.006.00*
　　　DEPRESS TH 'ENBL' SWITCH TO POSN RNG CURSOR FOR FINE ADJUSTM

	CRT DISPLAY SURFACE	= TBD
	AND RANGE CURSORS	= POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= COINCIDENT*

09.2.2.009.00*

DEPRESS 'ELEV-DALT' PUSHBUTTON TO INITIATE ALTIT CALIBRATION*

              ALTITUDE-ELEVATION SELECTOR   = 'ELEV'-FLASHING

DEPRESS   ALTITUDE-ELEVATION SELECTOR

              ALTITUDE-ELEVATION SELECTOR   = 'DALT'*

09.2.2.010.00*

DEPRESS 'ELEV-DALT' PUSHBUTTON TO FREEZE ELEVATION READOUT

              AIR-VEHICLE   = OFF
            AND STEERING TIME READOUT   = 0

DEPRESS   ALTITUDE-ELEVATION SELECTOR

              ALTITUDE-ELEVATION SELECTOR   = 'DALT'-STEADY*

09.2.2.011.00*

EVALUATE DALT READOUT VALUE ON 'ALT CALBR' DIGITAL INDICATOR*

              ALTITUDE-ELEVATION SELECTOR   = 'DALT'-STEADY

EVALUATE   ELEVATION-DELTA ALTITUDE IND

              ELEVATION-DELTA ALTITUDE IND = ACCEPTABLE

09.2.2.012.00*

SET 'ACPT-REJ' TOGGLE SWITCH TO 'ACPT'

              ELEVATION-DELTA ALTITUDE IND = ACCEPTABLE

SET   ALTITUDE CALIBRATION SWITCH

              IN UPDT INDICATOR   = 'IN UPDT'

09.2.2.013.00*

NOTE KALMAN FILTER ACCEPTANCE OF ALTITUDE UPDATE

              IN UPDT INDICATOR   = OFF*
            AND ELEVATION-DELTA ALTITUDE IND = OFF

OBSERVE   ALTITUDE-ELEVATION SELECTOR

              ALTITUDE-ELEVATION SELECTOR   = OFF

10.2.4.001.00*

    <u>SET ROTARY MODE SWITCH ON FLR CONTROL PANEL TO 'GND VEL'</u>

	CRT DISPLAY SURFACE	¬=LOW-ALTIT CALIB
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL

10.2.4.002.00*

    <u>DEPRESS TH 'ENBL' SW TO COMMAND FLR ANT TO MAX DNWD ANGLE</u>

	ANTENNA TILT INDICATOR	= 0
DEPRESS	ENABLE SWITCH	
	ANTENNA TILT INDICATOR AND CRT DISPLAY SURFACE	= -30 = READY

10.2.4.003.00*

    <u>DEPRESS TH 'ENBL' SW TO POSITION RNG CURS ON NEAREST RETURN*</u>

	RANGE CURSORS	¬=POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS AND CRT DISPLAY SURFACE	= POSITIONED* = OBSERVED

10.2.4.004.00*

    <u>DETERMINE GRD BIN 'COINCIDES' WITH SCHEDULED ELEV CALIB PI*</u>

	STEERING DISTANCE READOUT	= TBD*
DETERMINE	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE AND RANGE CURSORS	= TBD* = POSITIONED

10.2.4.005.00*

    <u>DEPRESS TH 'ENBL' SWITCH TO POSN RNG CURSOR FOR FINE ADJUSTM</u>

	CRT DISPLAY SURFACE AND RANGE CURSORS	= TBD = POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= COINCIDENT*

10.2.4.006.00*
DEPRESS 'ELEV-DALT' PUSHBUTTON TO INITIATE ALTIT CALIBRATION*

	ALTITUDE-ELEVATION SELECTOR	= 'ELEV'-FLASHING
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'*

10.2.4.007.00*
DEPRESS 'ELEV-DALT' PUSHBUTTON TO FREEZE ELEVATION READOUT

	AIR-VEHICLE	= OFF
	AND STEERING TIME READOUT	= 0
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY*

10.2.4.008.00*
EVALUATE DALT READOUT VALUE ON 'ALT CALBR' DIGITAL INDICATOR*

	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY
EVALUATE	ELEVATION-DELTA ALTITUDE IND	
	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE

10.2.4.009.30*
SET 'ACPT-REJ' TOGGLE SWITCH TO 'ACPT'

	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE
SET	ALTITUDE CALIBRATION SWITCH	
	IN UPDT INDICATOR	= 'IN UPDT'

10.2.4.010.00*
NOTE KALMAN FILTER ACCEPTANCE OF ALTITUDE UPDATE

	IN UPDT INDICATOR	= OFF*
	AND ELEVATION-DELTA ALTITUDE IND	= OFF
OBSERVE	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= OFF

10.2.4.011.00*

SET TRUE ALTITUDE (MSL) IN PRESSURE ALTIMETERS

	CHECKLIST	= SEQUENCE
SET	AVVI-PILOT	
	AVVI-COPILOT	
	BAROMETRIC SETTING KNOB	
	AVVI-PILOT	= TBD*
AND	AVVI-COPILOT	= TBD
AND	BAROMETRIC SETTING KNOB	= TBD

11.5.3.001.00*
<u>SET ROTARY MODE SWITCH ON FLR CONTROL PANEL TO 'GND VEL'*</u>

	CRT DISPLAY SURFACE	¬=LOW-ALTIT CALIB.
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL

11.5.3.002.00*
<u>DEPRESS TH 'ENBL' SW TO COMMAND FLR ANT TO MAX DNWD ANGLE*</u>

	ANTENNA TILT INDICATOR	= 0
DEPRESS	ENABLE SWITCH	
	ANTENNA TILT INDICATOR	= -30
	AND CRT DISPLAY SURFACE	= TBD

11.5.3.003.00*
<u>DEPRESS TH 'ENBL' SW TO POSITION RNG CURS ON NEAREST RETURN</u>

	RANGE CURSORS	¬=POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= POSITIONED*
	AND CRT DISPLAY SURFACE	= TBD

11.5.3.004.00*
<u>DETERMINE GRD RTN 'COINCIDES' WITH SCHEDULED ELEV CALIB PT*</u>

	STEERING DISTANCE READOUT	= TBD*
CHECK	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= TBD*
	AND RANGE CURSORS	= POSITIONED

11.5.3.005.00*
<u>DEPRESS TH 'ENBL' SWITCH TO POSN RNG CURSOR FOR FINE ADJUSTM</u>

	CRT DISPLAY SURFACE	= TBD
	AND RANGE CURSORS	= POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= COINCIDENT*

11.5.3.006.00*

DEPRESS 'ELEV-DALT' PUSHBUTTON TO INITIATE ALTIT CALIBRATION*

	ALTITUDE-ELEVATION SELECTOR	= 'ELEV'-FLASHING
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'*

11.5.3.007.00*

DEPRESS 'ELEV-DALT' PUSHBUTTON TO FREEZE ELEVATION READOUT

	AIR-VEHICLE	= DOF
	AND STEERING TIME READOUT	= 0
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY*

11.5.3.008.00*

EVALUATE DALT READOUT VALUE ON 'ALT CALBR' DIGITAL INDICATOR*

	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY
EVALUATE	ELEVATION-DELTA ALTITUDE IND	
	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE

11.5.3.009.00*

SET 'ACPT-REJ' TOGGLE SWITCH TO 'ACPT'

	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE
SET	ALTITUDE CALIBRATION SWITCH	
	IN UPDT INDICATOR	= 'IN UPDT'

11.5.3.010.00*

NOTE KALMAN FILTER ACCEPTANCE OF ALTITUDE UPDATE

	IN UPDT INDICATOR	= OFF*
	AND ELEVATION-DELTA ALTITUDE IND	= OFF
CHECK	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= OFF

OBJECTIVE: PERFORM IP ACQUISITION   9.7

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. Advise pilot IP target has been acquired.

PERFORMANCE LIMITS: 1. X-hair lay = TBD (+ ft)
                     2. Proper sequence

ENABLING OBJECTIVES:

   1. Recall that the sequence number defines the TTD and DIST data on the
       display.

   2. Recall that TTD indicates in hours and minutes until within one
       minute prior to the IP when the right two digits will display time
       in seconds.

   3. Recall that by depressing the DEST X-hair control, the X-hairs
       will be positioned on the IP.

   4. Recall how to distinguish between the IP radar signature and other
       returns in the vicinity.

ANCILLARY OBJECTIVES:

   1. Recall how to reposition the X-hairs on the IP return if the X-hairs
       do not overlay the IP.

OPERATOR: OSO

TASK ELEMENTS: 9.3.1.1
                        9.3.1.2
                        9.3.1.3
                        9.3.1.4
                        9.3.1.5

09.3.1.001.00*

<u>OBSERVE PROGRAMMED SEQ NO IS A DOF ON SEQ NO DIGITAL READOUT</u>

| | NUMBER IDENTIFIER-STEERING | = 'DOF' |
| | AND STEERING SEQUENCE NUMBER | = TBD |

OBSERVE
STEERING SEQUENCE NUMBER
PRE-PLANNED DATA SHEET

| | STEERING SEQUENCE NUMBER | = TBD* |
| | AND PRE-PLANNED DATA SHEET | = TBD |

09.3.1.002.00*

<u>OBSERVE TTD READOUT ON STEERING TIME READOUT</u>

| | STEERING TIME READOUT | ¬=TBD |

OBSERVE
STEERING TIME READOUT

| | STEERING TIME READOUT | = TBD* |

09.3.1.003.00*

<u>DEPRESS 'DEST' LIGHTED PUSHBUTTON TO ACQUIRE X-HAIR CONTROL</u>

DEPRESS
DESTINATION X-HAIR CONTROL

| | GRAVITY TARGETS X-HAIR CONTROL | = ON |
| | AND CRT DISPLAY SURFACE | = TBD |

09.3.1.004.00*

<u>IDENTIFY INITIAL POINT-TARGET</u>

| | DESTINATION X-HAIR CONTROL | = ON |

IDENTIFY
CRT DISPLAY SURFACE

| | CRT DISPLAY SURFACE | = TBD* |

09.3.1.005.00*

<u>ADVISE PILOT IP-TARGET HAS BEEN ACQUIRED</u>

| | CRT DISPLAY SURFACE | = TBD* |

COMMUNICATE
OSO INTERPHONE SWITCH

| | PILOT ICS | = ACKNOWLEDGED |

OBJECTIVE: PERFORM GRAVITY STORE PRE-RELEASE   9.8

                         CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO perform GRAVITY STORE PRE-RELEASE concurrently.

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

1. Recall that the Point/Sequence readout displays a T for target.

2. Recall that the TTD will indicate in minutes between IP and TGT until
    one minute prior to release when it will indicate time in seconds.

3. Recall that BOMB will be displayed for all types of nuclear or conventional
    gravity bombs and OMSL for offensive missiles.

4. Recall that the bay from which the next store is to be released is
    illuminated 99 seconds prior to release of either a SRAM or a gravity
    weapon.

5. Recall that the steering mode legend BOMB appears in the lower right-hand
    corner of the DU screen. Any steering command information on the VSD will
    be referenced to the bomb run.

ANCILLARY OBJECTIVES:

1. Recall that it is possible for two bay indicators to be illuminated
    simultaneously since both a SRAM and gravity can be in countdown
    concurrently.

OPERATOR: P/CP

TASK ELEMENTS: 9.3.2.1
                      9.3.2.5
                      9.3.2.6
                      9.3.2.7
                      9.3.2.8

09.3.2.001.00*

    <u>OBSERVE CURRENT SMWDP SEQ NO IS A GRAVITY WEAPON RELEASE*</u>

| | NUMBER IDENTIFIER-STEERING | = 'TG' |
| | AND TYPE STORE INDICATOR | = 'BOMB' |

OBSERVE   SEQUENCE NUMBER
         SEQUENCE POINT READOUT
         SEQUENCE NUMBER IDENTIFIER

         NUMBER IDENTIFIER-STEERING   = 'TG'

09.3.2.005.00*

    <u>OBSERVE TTG INDICATOR ON PILOT STORES PANEL</u>

         TIME-TO-GO READOUT   > 0*

OBSERVE   TIME-TO-GO READOUT

         SEQUENCE POINT READOUT   = T
     AND TIME TO GO-RANGE DISPLAY-PIL   = TBD

09.3.2.006.00*

    <u>CHECK SELECTED STORE TYPE ON PILOT STORES PANEL</u>

         TIME-TO-GO READOUT   > 0

CHECK   TYPE STORE INDICATOR

         TYPE STORE INDICATOR   = 'BOMB'

09.3.2.007.00*

    <u>IDENTIFY SELECTED GRAVITY STORE BAY LOCATION ON PLT SIRS PAN*</u>

         TIME-TO-GO READOUT   > 0

IDENTIFY   BAY INDICATOR-FORWARD LIGHT
         BAY INDICATOR-INTMD LIGHT
         BAY INDICATOR-AFT LIGHT

         BAY INDICATOR-FORWARD LIGHT   = FWD
     OR BAY INDICATOR-AFT LIGHT   = AFT

09.3.2.008.00*

    <u>OBSERVE THAT BOMB STEERING IS INITIATED</u>

         TIME-TO-GO READOUT   > 0

OBSERVE   STEERING MODE LEGEND-PILOT

         STEERING MODE LEGEND-PILOT   = 'BOMB'

OBJECTIVE: PERFORM GRAVITY STORE PRE-RELEASE   9.9

                    CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP performs GRAVITY STORE PRE-RELEASE concurrently.

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Proper switch positions.

ENABLING OBJECTIVES:

    1. Recall that TG shows at two locations on the navigation panel.

    2. Recall that the gravity target sequence number defines the TTD and
        DIST data on the display.

    3. Recall that the TTD will indicate in minutes between IP and TGT until
        within one minute prior to release when it will indicate time in seconds.

    4. Recall that by depressing PRGM and R DIS, the next program scheduled for
        release will be displayed on the right SMS CRT.

    5. Recall that by depressing STAT and L DIS, the weapon status at all
        locations will be displayed on the left SMS CRT.

ANCILLARY OBJECTIVES:

    1. Recall that it may not be necessary to depress the bomb delivery
        AUTO/MAN switch, if the next check point is a TGT.

OPERATOR: OSO

TASK ELEMENTS: 9.3.2.1
                        9.3.2.2
                        9.3.2.3
                        9.3.2.4

09.3.2.001.00*

OBSERVE CURRENT SMWDP SEQ NO IS A GRAVITY WEAPON RELEASE*

	NUMBER IDENTIFIER-STEERING	= 'TG'
	AND TYPE STORE INDICATOR	= 'BOMB'

OBSERVE   SEQUENCE NUMBER
         SEQUENCE POINT READOUT
         SEQUENCE NUMBER IDENTIFIER

         NUMBER IDENTIFIER-STEERING = 'TG'

09.3.2.002.00*

DEPRESS 'PRGM' ON SMS TO DISPLAY FULL SMWDP, THEN DPB 'RDIS'

DEPRESS   PRGM DATA CONTROL SWITCH
         R DIS SELECTOR PUSHBUTTON

         DISPLAY TUBE SURFACE = TBD*

09.3.2.003.00*

DEPRESS 'STAT' ON SMS TO DISPLAY FULL STATUS THEN DPB 'LDIS'*

DEPRESS   STAT DATA CONTROL SWITCH
         L DIS SELECTOR PUSHBUTTON

         DISPLAY TUBE SURFACE = TBD*

09.3.2.004.00*

DEPRESS BOMB DLVY SELECT LIGHTED SWITCH TO 'AUTO'

         BOMB DELIVERY CONTROL = 'MAN'

DEPRESS   BOMB DELIVERY CONTROL

         BOMB DELIVERY CONTROL = 'AUTO'.

OBJECTIVE: PERFORM BOMB RUN TRACKING   9.10

CRITICALITY: 2   DIFFICULTY: 3

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Weapon delivery run initiated

CONCURRENT TASKS: 1. OSO advise P/CP of required steering corrections.

INTERACTION TASKS: 1. Pilot monitor OSO steering corrections.

PERFORMANCE LIMITS: 1. X-hair lay = TBD (± ft)
                      2. Proper sequence
                      3. Proper switch position

ENABLING OBJECTIVES:

   1. Recall how to distinguish between the OAP 1 and OAP 2 radar returns
       and other returns in the vicinity.

   2. Recall that steering or bomb release are not affected by activation
       of the OAP 1 or OAP 2 switches.

   3. Recall that once OAP 1 or OAP 2 has been selected, changes to the X-hair
       position via the tracking handle does affect steering and alters the
       aircraft course.

ANCILLARY OBJECTIVES:

   1. Recall how to reposition the X-hairs on the OAPs if the X-hairs do not
       overlay the OAPs.

   2. Recall that if the target "breaks out" during the bomb run, the X-hairs
       can be positioned on the TGT rather than on OAP1 or OAP2 and a more
       accurate bomb drop accomplished.

OPERATOR: OSO

TASK ELEMENTS: 9.3.2.9
                        9.3.2.10
                        9.3.2.11
                        9.3.2.12
                        9.3.2.13

09.3.2.009.00*

       <u>DEPRESS 'OAP 1' ON NAV PANEL, THEN IDENTIFY OAP ON FLR</u>

DEPRESS   OFFSET AIM POINT-1 CONTROL

                         OFFSET AIM POINT-1 CONTROL   = ON*
                 AND CRT DISPLAY SURFACE   = TBD

09.3.2.010.00*

       <u>DEPRESS 'OAP 2' ON NAV PANEL, THEN IDENTIFY OAP ON FLR</u>

DEPRESS   OFFSET AIM POINT-2 CONTROL

                         OFFSET AIM POINT-2 CONTROL   = ON*
                 AND CRT DISPLAY SURFACE   = TBD

09.3.2.011.00*

       <u>ADVISE PILOT OF REQUIRED STEERING CORRECTIONS*</u>

                         X-HAIR CURSORS   ¬=POSITIONED*
                 AND CRT DISPLAY SURFACE   = TBD

COMMUNICATE   OSO INTERPHONE SWITCH

                         PILOT ICS   = ACKNOWLEDGED

09.3.2.012.00*

       <u>POSITION X-HAIRS TO COINCIDE WITH OAP USING TRACKING HANDLE*</u>

                         X-HAIR CURSORS   ¬=POSITIONED*
                 AND CRT DISPLAY SURFACE   = TBD

POSITION   ENABLE SWITCH

                         X-HAIR CURSORS   = POSITIONED*
                 AND CRT DISPLAY SURFACE   = TBD

09.3.2.013.00*

       <u>DEPRESS 'OAP 2' LIGHTED PUSHBUTTON ON NAV PANEL</u>

                         X-HAIR CURSORS   ¬=POSITIONED*
                 AND CRT DISPLAY SURFACE   = TBD

DEPRESS   OFFSET AIM POINT-2 CONTROL

                         X-HAIR CURSORS   = POSITIONED
                 AND CRT DISPLAY SURFACE   = TBD

OBJECTIVE: SET FLR FOR GRAVITY STORE RELEASE   9.11

                    CRITICALITY: 2   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERRACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

   1. Recall that when GND VEL has been selected, the radar ground map remains
      stable on the display with the targets and cursors remaining at the center
      of the display.

   2. Recall that in GND VEL, the range sweep selections are 7.5/2.5, 15/5,
      30/10, 90/30, 160/80 or 200/200. The first and second numbers represent
      range sweep and display scale (diameter) in miles, respectively.

   3. Recall that operating the sector toggle switch on the tracking handle
      causes the FLR antenna sector width to be reduced to $\pm$ 10° about the
      azimuth cursor. The forward position of the switch selects narrow scan.
      The off position selects the wide scan.

ANCILLARY OBJECTIVES:

   1. Recall that the off position of the sector toggle switch on the tracking
      handle selects the wide scan of the FLR.

OPERATOR: OSO

TASK ELEMENTS: 9.3.2.14
                 9.3.2.15
                 9.3.2.16

09.3.2.014.00*

SET FLR RANGE SELECT ROTARY SWITCH TO DESIRED RANGE*

	CRT DISPLAY SURFACE	¬=TBD*
SET	RANGE SWITCH-FLR	
	RANGE SWITCH-FLR	= TBD*

09.3.2.015.00*

SET FLR SELECT ROTARY SWITCH TO 'GND VEL'

	CRT DISPLAY SURFACE	¬=EXPANDED
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL*
	AND CRT DISPLAY SURFACE	= EXPANDED

09.3.2.016.00*

SET NARROW SECTOR SCAN ON FLR WITH TRACKING HOLE PUSHBUTTON

	CRT DISPLAY SURFACE	¬=NARROW SECT SCAN*
DEPRESS	SECTOR SWITCH	
	CRT DISPLAY SURFACE	= NARROW SECT SCAN

                              CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO perform gravity store release concurrently.
                     2. Notify other crewmembers of imminent shock.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that the TTD will indicate in seconds when approaching release.

2. Recall that the bomb bay door indicators flash twice a second when in
    a transient state.

3. Recall that the AWAY indicator illuminates when the weapon has separated
    from the rack.

4. Recall that if a second weapon is scheduled for release, the bomb legend
    on the VSD will go to a steady on state; otherwise, the legend will
    correspond to the steering mode selected previously.

5. Calculate shock arrival time based on the type of weapon, type of burst
    (air or ground), method of descent (free-fall, retarded), etc.

ANCILLARY OBJECTIVES:

1. Recall that the AFCS will be disengaged if the trigger switch on the
    stick is depressed to the second detent.

2. Recall that the steering symbol will blink three times a second when
    the A/V is outside of weapon release limits.

OPERATOR: P/CP

TASK ELEMENTS: 9.3.2.17   9.3.2.23
                      9.3.2.19   9.3.2.23.1
                      9.3.2.21   9.3.2.24
                      9.3.2.22

09.3.2.017.00*

<u>MONITOR TTG INDICATOR ON PILOT STORES PANEL</u>

TIME-TO-GO READOUT	> 0*
AND STEERING TIME READOUT	> 0

MONITOR-VISUAL

TIME-TO-GO READOUT
STEERING TIME READOUT

TIME-TO-GO READOUT	= TBD*
AND STEERING TIME READOUT	= TBD

09.3.2.019.00*

<u>DEPRESS AFCS INTERR-DISC TRIG SW ON STICK TO FIRST DETENT</u>

CRT TUBE DISPLAY-PILOT   = TBD*

DEPRESS   PILOT AFCS INTRPT-DISENG CNTRL

PILOT AFCS INTRPT-DISENG CNTRL= FIRST DETENT*

09.3.2.021.00*

<u>CHECK A-V FLT CONDITS ARE WITHIN SAFE WEAPON REL LIMITS</u>

TIME-TO-GO READOUT   > 0*

CHECK   STEERING COMMAND SYMBOL-PIL

STEERING COMMAND SYMBOL-PIL   = ON-STEADY

09.3.2.022.00*

<u>OBSERVE SELECTED STORES BAY DOORS STATUS INDICATORS*</u>

BAY DOOR STATUS INDICATORS	= FLASHING*
AND FWD BAY DOOR CONTROL	= FLASHING

OBSERVE

BAY DOOR STATUS INDICATORS
FWD BAY DOOR CONTROL

BAY DOOR STATUS INDICATORS	= 'FULL'*
AND FWD BAY DOOR CONTROL	= FULL

09.3.2.023.00*
CHECK GRAVITY STORE RELEASE, USING VSD, PLT ST, ST DEL PANS

CHECK

09.3.2.023.01*
CHECK GRAVITY STORE RELEASE USING VSD AND PILOT STORES PANEL

| | TIME-TO-GO READOUT | = 0* |
| | AND STEERING MODE LEGEND-PILOT | = 'BOMB'-FLASHING |

CHECK | TIME-TO-GO READOUT | |
| | STORES AWAY INDICATOR | |
| | STEERING MODE LEGEND-PILOT | |

| | STORES AWAY INDICATOR | = OFF* |
| | OR STEERING MODE LEGEND-PILOT | = OFF |

09.3.2.024.00*
NOTIFY P OSO DSO SHOCK ARRIVAL IS IMMINENT

| | CLOCK-COPILOT | = TBD* |

COMMUNICATE | PUSH-TO-TALK SWITCH-COPILOT | |

| | PILOT ICS | = ACKNOWLEDGED |
| | AND DSO ICS | = ACKNOWLEDGED |

OBJECTIVE: PERFORM GRAVITY STORE RELEASE   9.13

                      CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pilot perform GRAVITY STORE RELEASE concurrently.
                     2. Pilot informed to initiate insure planned bombing altitude.

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

   1. Recall that when the full, part open, or door close position is selected,
       the switch flashes twice a second until the door reaches the selected
       position.

   2. Recall that the REL SIG and AWAY indicators will light with the first
       release and pulse twice a second until a multiple release is complete.

   3. Recall that the AWAY indicator illuminates when any scheduled weapon is
       physically separated from the rack.

ANCILLARY OBJECTIVES:

   1. Recall that the REL SIG illuminates when any scheduled release signal
       is sent from the ACU to the store rack.

OPERATOR: OSO

TASK ELEMENTS: 9.3.2.18
                      9.3.2.22
                      9.3.2.23
                      9.3.2.23.2

09.3.2.018.00*

ADVISE PILOT TO INITIATE-INSURE PLANNED BOMBING ALTITUDE

	CRT TUBE DISPLAY-PILOT	¬=TBD*
COMMUNICATE	OSO INTERPHONE SWITCH	
	PILOT ICS	= ACKNOWLEDGED

09.3.2.022.00*

OBSERVE SELECTED STORES BAY DOORS STATUS INDICATORS*

	BAY DOOR STATUS INDICATORS	= FLASHING*
	AND FWD BAY DOOR CONTROL	= FLASHING
OBSERVE	BAY DOOR STATUS INDICATORS	
	FWD BAY DOOR CONTROL	
	BAY DOOR STATUS INDICATORS	= 'FULL'*
	AND FWD BAY DOOR CONTROL	= FULL

09.3.2.023.00*

CHECK GRAVITY STORE RELEASE, USING VSD, PLT ST, ST DEL PANS

09.3.2.023.02*

CHECK GRAVITY STORE RELEASE USING STORES DELIVERY PANELS

	RELEASE SIGNAL ANNUNCIATOR	= 'REL SIG'*
	AND AWAY ANNUNCIATOR	= 'AWAY'
CHECK	RELEASE SIGNAL ANNUNCIATOR	
	AWAY ANNUNCIATOR	
	RELEASE SIGNAL ANNUNCIATOR	= OFF*
	AND AWAY ANNUNCIATOR	= OFF

OBJECTIVE: BOMB RUN ALTITUDE CHANGE   9.14

                        CRITICALITY: 2   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration-supersonic

CONCURRENT TASKS: 1. Track with control stick and rudders to hold bomb
                        run heading.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD (±Mach)
                     2. Heading - TBD (±degrees)

ENABLING OBJECTIVES:

   1. Predict necessary pitch change to perform climb or descent and level-off
      at desired bombing altitude.

   2. Track with control stick to maintain proper attitude for climb or
      descent and after level-off.

   3. Adjust power level to maintain desired bomb run Mach number.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 9.3.2.20

09.3.2.020.00*
TRACK WITH CONTROL STICK TO ATTAIN DESIRED BOMBING ALTITUDE

CRT TUBE DISPLAY-PILOT   = TBD

TRACK   PILOTS FLIGHT CONTROL STICK

AVVI-PILOT   = TBD
AND PILOT AFCS INTRPT-DISENG CNTRL= RELEASED

MISSION SEGMENT 10

                        CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper position

ENABLING OBJECTIVES:

1. Recall that the POWER/SET/TEST control knob of the radar altimeter does not
   incorporate the power on/off switching function. The power control function
   is included with the channel selector switch on the RADAR ALTM control panel.

2. Recall that when the TFR range control is set to E, the elevation scan for
   TF operation is selected.

3. Recall that with the ride control set to HARD, the maximum dive (push-over)
   command is such that the vertical g force imposed on the air vehicle in the
   TF mode is 0g absolute. The maximum climb (pull-up) command causes a +3g
   absolute manuever regardless of ride selection.

4. Recall that the volume control for the aural command will cause a low
   frequency tone when the A/V is above the clearance plane setting and a
   high frequency tone when the A/V is below the setting.

5. Recall that when the clearance plane is set to 500, the TFR is in a special
   weather mode which employs additional video blanking and limits the area
   from which radar returns are processed.

6. Recall that when the TER FLW switchlight is WHITE the air vehicle will not
   be controlled automatically in response to pitch signals for the avionics.

7. Recall that actuation of the AFCS pitch interrupt switch provides terrain
   following fly-up interrupt as well as interruption of the AFCS pitch function.

8. Recall that with the ALT REF/TER FLW switch in the TER FLW position, the
   pitch steering commands on the VSD and SADI are generated in the TFR.

9. Recall that a CLIMB tone should be heard since the radar altimeter is set on 1000 and clearance plan at 500 with one of the TFR mode select switches set to TF.

10. Recall that release of the pitch interrupt establishes a new reference value at the release time and causes the AFCS to revert to the pitch operation prior to actuation.

11. Recall that when the TEST pushbutton is depressed, a pseudo 400-foot altitude signal is transmitted from the TFR data terminal to the TFR computer.

12. Recall that both the VSD and SADI steering commands should indicate an upward or climb command at the same time a CLIMB tone is heard.

13. Recall that when the trigger switch is released on the control stick from the first detent, the air vehicle will respond to the climb or fly-up signal.

14. Recall that when the TFR mode switch is changed from TF to STBY, power is still applied to the channel for warmup.

15. Recall that when the air vehicle is above 5,000 feet and the AUTO LTDN ENBL switch is set to ENBL, pseudo signals are sent to the TFR to permit automatic blind letdown.

16. Recall that when the AFCS is engaged with TER/FLW in the green, with the clearance plane set below the air vehicle's altitude, and with the AFCS pitch interrupt switch depressed, a dive tone should be heard on the headset.

ANCILLARY OBJECTIVES:

1. Recall that when the TFR range control is set to E, the range of the TFR on the horizontal axis is 10 NM.

2. Recall that the pitch interrupt switch allows manual control of the air vehicle.

3. Recall that if the clearance plane is set to 500, the LOW ALT FLY UP displays TEST if both TFR low altitude fly-up circuits are operable. If only one or neither are operable, the display will indicate FAIL.

4. Recall that the TFR fail lamps illuminate for one of the following reasons:

   a. the channel is not ready for operation (STBY-WARMUP).
   b. the channel has malfunctioned.
   c. an input to the TFR has malfunctioned.

5. Recall that prior to engagement of TER FLW, the following switches must be set:

    a. ALT REF/TER FLW switches on both FLT DIR panels to TER FLW.
    b. Mode switches on both VSDs set to ADI.
    c. Clearance switch on TFR control panel set to the desired ground clearance.
    d. RIDE switch on TFR control panel set to the desired ride control.
    e. Both mode switches on TFR control panel set to TF position.
    f. AUTO LTDN ENBL switch on the RDR ALTM panel set to AUTO LTDN ENBL position.

6. Recall that the TER FLW mode can be disengaged by actuating the trigger switch on the control stick to the second detent or by setting both ALT REF/TER FLW switches out of TER FLW position.

OPERATOR: P/CP

TASK ELEMENTS:

10.1.1.1	10.1.1.21	10.1.1.51
10.1.1.2	10.1.1.22	10.1.1.52
10.1.1.3	10.1.1.23	10.1.1.53
10.1.1.4	10.1.1.24	10.1.1.54
10.1.1.5	10.1.1.25	10.1.1.55
10.1.1.6	10.1.1.26	10.1.1.56
10.1.1.7	10.1.1.27	10.1.1.57
10.1.1.8	10.1.1.28	
10.1.1.9	10.1.1.29	
10.1.1.10	10.1.1.30	
10.1.1.11	10.1.1.31	
10.1.1.12	10.1.1.32	
10.1.1.13	10.1.1.33	
10.1.1.14	10.1.1.34	
10.1.1.15	10.1.1.35	
10.1.1.16	10.1.1.36	
10.1.1.17	10.1.1.37	
10.1.1.18	10.1.1.38	
10.1.1.19	10.1.1.39	
10.1.1.20	10.1.1.40	

10.1.1.001.00
<u>SET POWER-SET-TEST CONTROL KNOB ON RADAR ALTIMETER TO '1000'*</u>

	CHECKLIST	= SEQUENCE
SET	POWER-SET-TEST CONTROL KNOB	
	VARIABLE ALTITUDE INDEX MARKER	= 1000*

10.1.1.002.00
<u>SET TER RANGE ROTARY CONTROL TO 'E'*</u>

	CHECKLIST	= SEQUENCE
SET	RANGE SWITCH-TF	
	RANGE SWITCH-TF	= E

10.1.1.003.00
<u>SET RIDE COAXIAL CONTROL TO 'HARD'</u>

	CHECKLIST	= SEQUENCE
SET	RIDE SELECT SWITCH	
	RIDE SELECT SWITCH	= HARD

10.1.1.004.00
<u>SET VOL COAXIAL CONTROL TO DESIRED AURAL COMMAND VOLUME</u>

	CHECKLIST	= SEQUENCE
SET	VOL ROTARY KNOB	
	VOL ROTARY KNOB	= TBD

10.1.1.005.00
<u>SET CLEARANCE ROTARY CONTROL TO '500'</u>

	CHECKLIST	= SEQUENCE
SET	CLEARANCE SELECT SWITCH	
	CLEARANCE SELECT SWITCH	= 500

10.1.1.006.00
<u>OBSERVE 'TER FLW' SWITCHLIGHT ON AFCS PANEL IS 'WHITE'</u>

	CHECKLIST	= SEQUENCE
OBSERVE	COPILOTS TER FLWG PUSHBUTTON	
	COPILOTS TER FLWG PUSHBUTTON	= 'TER FLW'-W

10.1.1.007.00*
      DEPRESS AFCS PITCH INTERRUPT TRIGGER SW ON STICK TO 1ST DET

	TF INDICATOR SCREEN	= TBD
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL	= 1ST DETENT

10.1.1.008.00*
      DEPRESS AND HOLD TEST PB ON RDR ALTM CONTROL PANEL*

	PILOT AFCS INTRPT-DISENG CNTRL	= 1ST DETENT
DEPRESS	TEST PUSHBUTTON	
	LOW ALT FLYUP EM INDICATOR	= 'FAIL'

10.1.1.009.00*
      SET ALT REF-TER FLW MODE SW ON FLT DIR PANELS TO 'TER FLW'

	CHECKLIST	= SEQUENCE
SET	ALT REF-TER FLW SW-PILOT ALT REF-TER FLW SW-COPILOT	
	ALT REF-TER FLW SW-PILOT	= TER FLW
	AND ALT REF-TER FLW SW-COPILOT	= TER FLW

10.1.1.010.00*
      SET R TER MODE SELECT SWITCH TO 'TF'

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-RIGHT	
	TFR MODE SWITCH-RIGHT	= TF
	AND CO-PILOT ICS	= CLIMB TONE

10.1.1.011.00*
      SCAN FOR PROPER TF VISUAL DISPLAY CONFIGURATIONS

	CHECKLIST	= SEQUENCE
MONITOR-VISUAL	STEERING COMMAND SYMBOL VERTICAL STEERING POINTER TER FLW WARNING LIGHT	
	STEERING COMMAND SYMBOL	= TBD
	AND TER FLW WARNING LIGHT	= 'TER FLW'

10.1.1.012.00*
DEPRESS L AND R CHANNEL PB TO CHECK TFR 'FAIL' LAMPS

	CHECKLIST	SEQUENCE
DEPRESS	FAIL INDICATOR-LEFT	
	FAIL INDICATOR-RIGHT	
	FAIL INDICATOR-LEFT	= ON
AND	FAIL INDICATOR-RIGHT	= ON

10.1.1.013.00*
DEPRESS TO RELEASE AFCS PITCH INTERRUPT TRIGGER SW ON STICK

	CHECKLIST	= SEQUENCE
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL	= RELEASED
AND	AIR-VEHICLE	= FLY-UP

10.1.1.014.00*
DEPRESS AFCS PITCH INTERRUPT TRIGGER SW ON STICK TO 1ST DET

	TF INDICATOR SCREEN	= TBD
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL	= 1ST DETENT
AND	AIR-VEHICLE	¬=FLY-UP

10.1.1.015.00*
SET R TFR MODE SELECT SWITCH TO 'STB'

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-RIGHT	
	TFR MODE SWITCH-RIGHT	= STBY

10.1.1.016.00*
SET L TFR MODE SELECT SWITCH TO 'TF'

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-LEFT	
	TFR MODE SWITCH-LEFT	= TF

10.1.1.017.00*
DEPRESS AND HOLD TEST PB ON BDR ALTM CONTROL PANEL*

	CHECKLIST	= SEQUENCE
DEPRESS	TEST PUSHBUTTON	
	LOW ALT FLYUP EM INDICATOR	= 'FAIL'

10.6

10.1.1.018.00*
SCAN FOR PROPER TF VISUAL DISPLAY CONFIGURATIONS

	CHECKLIST	= SEQUENCE
MONITOR-VISUAL	STEERING COMMAND SYMBOL	
	VERTICAL STEERING POINTER	
	TER FLW WARNING LIGHT	
	STEERING COMMAND SYMBOL	= TBD
	AND TER FLW WARNING LIGHT	= 'TER FLW'

10.1.1.019.00*
DEPRESS TO RELEASE AFCS PITCH INTERRUPT TRIGGER SW ON STICK

	CHECKLIST	= SEQUENCE
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL	= RELEASED
	AND AIR-VEHICLE	= FLY-UP

10.1.1.020.00*
DEPRESS AFCS PITCH INTERRUPT TRIGGER SW ON STICK TO 1ST DET

DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL	= 1ST DETENT

10.1.1.021.00*
SET CLEARANCE ROTARY SWITCH ON RDR SET CONTROL TO '300'

	CHECKLIST	= SEQUENCE
SET	CLEARANCE SELECT SWITCH	
	CLEARANCE SELECT SWITCH	= 300

10.1.1.022.00*
DEPRESS AFCS 'TER FLW' SWITCHLIGHT TO ENGAGE AFCS

	CHECKLIST	= SEQUENCE
DEPRESS	PILOTS TER FLWG PUSHBUTTON	
	PILOTS TER FLWG PUSHBUTTON	= 'TER FLW'-G

10.1.1.023.00*
SCAN TF VISUAL & AURAL DISPLAYS FOR PROPER CONFIGURATIONS*

	PILOTS TER FLWG PUSHBUTTON	= 'TER FLW'-G

10.1.1.023.01*

SCAN FOR PROPER TF VISUAL DISPLAY CONFIGURATIONS

```
                        PILOTS TER FLWG PUSHBUTTON      = 'TER FLW'-G

MONITOR-VISUAL          STEERING COMMAND SYMBOL
                        VERTICAL STEERING POINTER
                        TER FLW WARNING LIGHT

                        STEERING COMMAND SYMBOL         = TFD
                    AND TER FLW WARNING LIGHT           = 'TER FLW'
```

10.1.1.023.02*

SCAN FOR PROPER TF VISUAL DISPLAY CONFIGURATION

```
                        PILOTS TER FLWG PUSHBUTTON      = 'TER FLW'-G

MONITOR-VISUAL          LOW ALT FLYUP EM INDICATOR

                        LOW ALT FLYUP EM INDICATOR      = 'FAIL'
```

10.1.1.023.03*

MONITOR AURAL TONE FOR PROPER SIGNAL

```
                        PILOTS TER FLWG PUSHBUTTON      = 'TER FLW'-G

MONITOR-AUDITORY        PILOT ICS
                        CO-PILOT ICS

                        PILOT ICS                       = DIVE TONE
                    AND CO-PILOT ICS                    = DIVE TONE
```

10.1.1.024.00*

DEPRESS TO RELEASE AFCS PITCH INTERRUPT TRIGGER SW ON STICK

```
                        LOW ALT FLYUP EM INDICATOR      = 'FAIL'
                    AND CO-PILOT ICS                    = DIVE TONE

DEPRESS                 PILOT AFCS INTRPT-DISENG CNTRL

                        PILOT AFCS INTRPT-DISENG CNTRL= RELEASED
                    AND AIR-VEHICLE                     = DIVE
```

10.1.1.025.00*

DEPRESS AFCS PITCH INTERRUPT TRIGGER SW ON STICK TO 1ST DET

```
                        PILOT AFCS INTRPT-DISENG CNTRL= RELEASED
                    AND AIR-VEHICLE                     = DIVE

DEPRESS                 PILOT AFCS INTRPT-DISENG CNTRL

                        PILOT AFCS INTRPT-DISENG CNTRL= 1ST DETENT
                    AND AIR-VEHICLE                     ¬=DIVE
```

10.1.1.026.00*

SET L TFR MODE SELECT SWITCH TO 'STBY'

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-LEFT	
	TFR MODE SWITCH-LEFT	= STBY

10.1.1.027.00*

SET R TFR MODE SELECT SWITCH TO 'TF'

	TFR MODE SWITCH-LEFT	= STBY
SET	TFR MODE SWITCH-RIGHT	
	TFR MODE SWITCH-RIGHT	= TF

10.1.1.028.00*

SCAN TF VISUAL & AURAL DISPLAYS FOR PROPER CONFIGURATIONS*

	TFR MODE SWITCH-RIGHT	= TF

10.1.1.028.01*

SCAN FOR PROPER TF VISUAL DISPLAY CONFIGURATIONS

	TFR MODE SWITCH-RIGHT	= TF
MONITOR-VISUAL	STEERING COMMAND SYMBOL VERTICAL STEERING POINTER TER FLW WARNING LIGHT	
	STEERING COMMAND SYMBOL AND TER FLW WARNING LIGHT	= TBD = 'TER FLW'

10.1.1.028.02*

SCAN FOR PROPER TF VISUAL DISPLAY CONFIGURATION

	TFR MODE SWITCH-RIGHT	= TF
MONITOR-VISUAL	LOW ALT FLYUP EM INDICATOR	
	LOW ALT FLYUP EM INDICATOR	= 'FAIL'

10.1.1.028.03*

<u>MONITOR AURAL TONE FOR PROPER SIGNAL</u>

	TFR MODE SWITCH-RIGHT	= TF
MONITOR-AUDITORY	PILOT ICS	
	CO-PILOT ICS	
	PILOT ICS	= DIVE TONE
	AND CO-PILOT ICS	= DIVE TONE

10.1.1.029.00*

<u>DEPRESS TO RELEASE AFCS PITCH INTERRUPT TRIGGER SW ON STICK</u>

	LOW ALT FLYUP EM INDICATOR	= 'FAIL'
	AND CO-PILOT ICS	= DIVE TONE
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL	= RELEASED
	AND AIR-VEHICLE	= DIVE

10.1.1.030.00*

<u>DEPRESS AFCS PITCH INTERRUPT TRIGGER SW ON STICK TO 1ST DET</u>

	PILOT AFCS INTRPT-DISENG CNTRL	= RELEASED
	AND AIR-VEHICLE	= DIVE
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL	= 1ST DETENT
	AND AIR-VEHICLE	¬=DIVE

10.1.1.031.00*

<u>RELEASE TEST PUSHBUTTON ON ROB ALTM CONTROL PANEL</u>

	AIR-VEHICLE	¬=DIVE
RELEASE	TEST PUSHBUTTON	
	LOW ALT FLYUP EM INDICATOR	= 'OFF'

10.1.1.032.00*

<u>DEPRESS AFCS 'TLR-FLW' SWITCHLIGHT TO DISENGAGE AFCS</u>

	CHECKLIST	= SEQUENCE
DEPRESS	PILOTS TER FLWG PUSHBUTTON	
	PILOTS TER FLWG PUSHBUTTON	= 'TER FLW'-W

10.1.1.033.00*

<u>SET CLEARANCE ROTARY CONTROL TO '1000'</u>

	CHECKLIST	= SEQUENCE
SET	CLEARANCE SELECT SWITCH	
	CLEARANCE SELECT SWITCH	= 1000

10.1.1.034.00*

<u>SET AUTO LTDN LEVER-LOCKED TOGGLE SWITCH TO 'ENBL'</u>

	CHECKLIST	= SEQUENCE
SET	AUTO LTDN ENBL SWITCH	
	AUTO LTDN ENBL SWITCH	= ENBL

10.1.1.035.00*

<u>DEPRESS AFCS PITCH INTERRUPT TRIGGER SW ON STICK TO 1ST DET</u>

	TF INDICATOR SCREEN	= TBD
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL	= 1ST DETENT

10.1.1.036.00*

<u>SET R TFR MODE SELECT SWITCH TO 'STB'</u>

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-RIGHT	
	TFR MODE SWITCH-RIGHT	= STBY

10.1.1.037.00*

<u>SET L TFR MODE SELECT SWITCH TO 'TF'</u>

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-LEFT	
	TFR MODE SWITCH-LEFT	= TF

10.1.1.038.00*

<u>DEPRESS AND HOLD TEST PB ON RDR ALTM CONTROL PANEL</u>

	TFR MODE SWITCH-LEFT	= TF
DEPRESS	TEST PUSHBUTTON	
	LOW ALT FLYUP EM INDICATOR	= 'FAIL'

10.1.1.039.00*
      MONITOR IF VISUAL & AURAL DISPLAYS FOR PROPER CONFIGURATIONS*

                     LOW ALT FLYUP EM INDICATOR   = 'FAIL'

10.1.1.039.01*
      SCAN FOR PROPER IF VISUAL DISPLAY CONFIGURATIONS

                     LOW ALT FLYUP EM INDICATOR   = 'FAIL'

MONITOR-VISUAL   STEERING COMMAND SYMBOL
                     VERTICAL STEERING POINTER
                     TER FLW WARNING LIGHT

                     STEERING COMMAND SYMBOL   = -8
          AND TER FLW WARNING LIGHT   = 'TER FLW'

10.1.1.039.02*
      SCAN FOR PROPER IF VISUAL DISPLAY CONFIGURATIONS

                     LOW ALT FLYUP EM INDICATOR   = 'FAIL'

MONITOR-VISUAL   FAIL INDICATOR-LEFT
                     FAIL INDICATOR-RIGHT

                     FAIL INDICATOR-LEFT   = OFF
         AND FAIL INDICATOR-RIGHT   = OFF

10.1.1.039.03*
      MONITOR AURAL TONE FOR PROPER SIGNAL

                     LOW ALT FLYUP EM INDICATOR   = 'FAIL'

MONITOR-AUDITORY   PILOT ICS
                     CO-PILOT ICS

                     PILOT ICS   = DIVE TONE
         AND CO-PILOT ICS   = DIVE TONE

10.1.1.040.00*
      DEPRESS TO RELEASE AFCS PITCH INTERRUPT TRIGGER SW ON STICK

                     LOW ALT FLYUP EM INDICATOR   = 'FAIL'
         AND CO-PILOT ICS   = DIVE TONE

DEPRESS   PILOT AFCS INTRPT-DISENG CNTRL

                     PILOT AFCS INTRPT-DISENG CNTRL= RELEASED
         AND AIR-VEHICLE   = DIVE

10.1.1.051.00*

SET L TFR MODE SELECT SWITCH TO 'STB'

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-LEFT	
	TFR MODE SWITCH-LEFT	= STBY

10.1.1.052.00*

SET L TFR MODE SELECT SWITCH TO 'TF'

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-LEFT	
	TFR MODE SWITCH-LEFT	= TF
	AND FAIL INDICATOR-LEFT	= ON

10.1.1.053.00*

SET L TFR MODE SELECT SWITCH TO 'STB'

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-LEFT	
	TFR MODE SWITCH-LEFT	= STBY

10.1.1.054.00*

SET R TFR MODE SELECT SWITCH TO 'TF'

	TFR MODE SWITCH-LEFT	= STBY
SET	TFR MODE SWITCH-RIGHT	
	TFR MODE SWITCH-RIGHT	= TF

10.1.1.055.00*

SET L TFR MODE SELECT SWITCH TO 'TF'

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-LEFT	
	TFR MODE SWITCH-LEFT	= TF
	AND FAIL INDICATOR-LEFT	= ON

10.1.1.056.00*

__MONITOR TF RADAR CONTROL 'FAIL' ANNUNCIATOR LIGHTS__

TFR MODE SWITCH-LEFT	= TF
AND TFR MODE SWITCH-RIGHT	= TF

MONITOR-VISUAL   FAIL INDICATOR-LEFT
                       FAIL INDICATOR-RIGHT

FAIL INDICATOR-LEFT	= OFF
AND FAIL INDICATOR-RIGHT	= OFF

10.1.1.057.00*

__DEPRESS TO RELEASE AFCS PITCH INTERRUPT TRIGGER SW ON STICK*__

FAIL INDICATOR-LEFT	= OFF
AND FAIL INDICATOR-RIGHT	= OFF

DEPRESS   PILOT AFCS INTRPT-DISENG CNTRL

                   PILOT AFCS INTRPT-DISENG CNTRL= RELEASED

OBJECTIVE: EXECUTE TF OPERATION CHECKS   10.2

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise Configuration

CONCURRENT TASKS: 1. Track with control stick and rudders to return to original course.
2. Coordinate control stick and throttles to maintain altitude and airspeed.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD (±Mach)
2. Altitude - TBD (±ft)
3. Heading - TBD (±degrees)

ENABLING OBJECTIVES:

1. Predict necessary lateral control stick motion to achieve required rate of roll.

2. Predict necessary lateral control stick motion to return to level flight.

3. Recall that depressing trigger switch on stick to first detent interrupts AFCS and permits A/V to be maneuvered.

4. Recall proper configuration of TF aural and visual displays.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS:	10.1.1.41	10.1.1.42.1	10.1.1.47.1
	10.1.1.42	10.1.1.42.2	10.1.1.47.2
	10.1.1.43	10.1.1.42.3	10.1.1.47.3
	10.1.1.44		
	10.1.1.45		
	10.1.1.46		
	10.1.1.47		
	10.1.1.48		
	10.1.1.49		
	10.1.1.50		

10.1.1.041.00*

TRACK WITH FLT CONTROLS TO INITIATE BANK AT > 2 DEG PER SEC*

| | PILOT AFCS INTRPT-DISENG CNTRL | = RELEASED |
| AND | AIR-VEHICLE | = DIVE |

TRACK | PILOTS FLIGHT CONTROL STICK |
| PILOTS RUDDER PEDALS |

| ROLL SCALE-PILOT | > 45 |

10.1.1.042.00*

MONITOR IF VISUAL & AURAL DISPLAYS FOR PROPER CONFIGURATION*

| ROLL SCALE-PILOT | > 45 |

10.1.1.042.01*

SCAN FOR PROPER IF VISUAL DISPLAY CONFIGURATIONS

| ROLL SCALE-PILOT | > 45 |

MONITOR-VISUAL | STEERING COMMAND SYMBOL |
| VERTICAL STEERING POINTER |

| STEERING COMMAND SYMBOL | = CLIMB |
| AND VERTICAL STEERING POINTER | = CLIMB |

10.1.1.042.02*

SCAN FOR PROPER IF VISUAL DISPLAY CONFIGURATIONS

| ROLL SCALE-PILOT | > 45 |

MONITOR-VISUAL | FAIL INDICATOR-LEFT |
| FAIL INDICATOR-RIGHT |
| TFR TURN G-LIMIT CAUTION LT |

| FAIL INDICATOR-LEFT | = ON |
| AND TFR TURN G-LIMIT CAUTION LT | = 'TFR TURN G-LIMI |

10.1.1.042.03*

MONITOR AURAL TONE FOR PROPER SIGNAL

| ROLL SCALE-PILOT | > 45 |

MONITOR-AUDITORY | PILOT ICS |
| CO-PILOT ICS |

| PILOT ICS | = CLIMB TONE |
| AND CO-PILOT ICS | = CLIMB TONE |

10.1.1.043.00*

DEPRESS AFCS PITCH INTERRUPT TRIGGER SW ON STICK TO 1ST DET

	TF INDICATOR SCREEN	= TBD
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL	= 1ST DETENT
AND	AIR-VEHICLE	¬=FLY-UP

10.1.1.044.00*

TRACK WITH FLT CONTROLS TO RETURN A-V TO WINGS LEVEL FLIGHT

	AIR-VEHICLE	¬=FLY-UP
TRACK	PILOTS FLIGHT CONTROL STICK	
	PILOTS RUDDER PEDALS	
	ROLL SCALE-PILOT	= 0

10.1.1.045.00*

MONITOR VISUAL DISPLAYS FOR PROPER CONFIGURATION*

	ROLL SCALE-PILOT	= 0
MONITOR-VISUAL	FAIL INDICATOR-LEFT	
	FAIL INDICATOR-RIGHT	
	TFR TURN G-LIMIT CAUTION LT	
	FAIL INDICATOR-LEFT	= ON
AND	TFR TURN G-LIMIT CAUTION LT	= OFF

10.1.1.046.00*

TRACK WITH FLT CONTROLS TO INITIATE BANK AT > 2 DEG PER SEC*

	FAIL INDICATOR-LEFT	= ON
AND	TFR TURN G-LIMIT CAUTION LT	= OFF
TRACK	PILOTS FLIGHT CONTROL STICK	
	PILOTS RUDDER PEDALS	
	ROLL SCALE-PILOT	> 45

10.1.1.047.00*

MONITOR TF VISUAL & AURAL DISPLAYS FOR PROPER CONFIGURATION*

	ROLL SCALE-PILOT	> 45

10.1.1.047.01*

SCAN FOR PROPER TF VISUAL DISPLAY CONFIGURATIONS

	ROLL SCALE-PILOT	> 45
MONITOR-VISUAL	STEERING COMMAND SYMBOL	
	VERTICAL STEERING POINTER	
	STEERING COMMAND SYMBOL	= CLIMB
AND	VERTICAL STEERING POINTER	= CLIMB

10.1.1.047.02*

SCAN FOR PROPER TF VISUAL DISPLAY CONFIGURATIONS

	ROLL SCALE-PILOT	> 45
MONITOR-VISUAL	FAIL INDICATOR-LEFT	
	FAIL INDICATOR-RIGHT	
	TFR TURN G-LIMIT CAUTION LT	
	FAIL INDICATOR-LEFT	= ON
AND	TFR TURN G-LIMIT CAUTION LT	= 'TFR TURN G-LIMI

1C.1.1.047.C3*

MONITOR AURAL TONE FOR PROPER SIGNAL

	ROLL SCALE-PILOT	> 45
MONITOR-AUDITORY	PILOT ICS	
	CO-PILOT ICS	
	PILOT ICS	= CLIMB TONE
AND	CO-PILOT ICS	= CLIMB TONE

10.1.1.048.00*

DEPRESS AFCS PITCH INTERRUPT TRIGGER SW ON STICK TO 1ST DET

	TF INDICATOR SCREEN	= 16D
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL	= 1ST DETENT
AND	AIR-VEHICLE	¬=FLY-UP

10.1.1.049.00*

TRACK WITH FLT CONTROLS TO RETURN A-V TO WINGS LEVEL FLIGHT

	AIR-VEHICLE	¬=FLY-UP
TRACK	PILOTS FLIGHT CONTROL STICK	
	PILOTS RUDDER PEDALS	
	ROLL SCALE-PILOT	= C

10.1.1.050.00*

<u>MONITOR VISUAL DISPLAYS FOR PROPER CONFIGURATION</u>

	ROLL SCALE-PILOT	= 0
MONITOR-VISUAL	FAIL INDICATOR-LEFT	
	FAIL INDICATOR-RIGHT	
	TFR TURN G-LIMIT CAUTION LT	
	FAIL INDICATOR-LEFT	= ON
AND	TFR TURN G-LIMIT CAUTION LT	= OFF

<u>MONITOR VISUAL DISPLAYS FOR PROPER CONFIGURATION</u>

OBJECTIVE: COMPLETE PRE-DESCENT TO LOW LEVEL   10.3

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP set FLT DIR Switches to NAV.
                     2. P/CP set FLT DIR Panel Switches to TER FLW.
                     3. P/CP set IR pod control to VV.

PERFORMANCE LIMITS: 1. Switch in proper position

ENABLING OBJECTIVES:

  1. Recall that with the FLR mode switch in XMIT the system is energized
     completely both transmitting and receiving.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 10.1.2.1

10.1.2.001.00*

<u>SET FLR FUNCTION SWITCH TO 'XMIT'*</u>

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-RADAR SET-2	
	MODE SWITCH-RADAR SET-2	= XMIT

OPERATOR: COMPLETE PRE-DESCENT TO LOW LEVEL   10.4

                      CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO sets FLR function switch to XMIT

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

  1. Recall that with the FLT DIR mode switch in NAV, the steering commands on
     the VSD and SADI are referenced to the heading and course selected by
     the OSO.

  2. Recall that with the ALT REF/TER FLW switch in the TER FLW position, the
     pitch steering commands on the VSD and SADI are generated in the TFR.

  3. Recall that with the IR pod control in VV, pod extension is commanded.

ANCILLARY OBJECTIVES:

  1. Recall that in VV, cage mode command steering is to the flight vector
     reference line.

  2. Recall that in VV, OSO steering is denied.

OPERATOR: P/CP

TASK ELEMENTS: 10.1.2.2   10.1.2.3
                 10.1.2.2.1   10.1.2.4
                 10.1.2.2.2.   10.1.2.5

10.1.2.002.00*

SET BOTH FLT DIR MODE SELECT SWITCHES TO 'NAV'*

        CHECKLIST   = SEQUENCE

10.1.2.002.01*

SET FLT DIR SWS TO 'NAV' AND MONITOR VSD, SADI & HSI*

        CHECKLIST   = SEQUENCE

SET   FLT DIR MODE SWITCH-PILOT
             FLT DIR MODE SWITCH-COPILOT

        FLT DIR MODE SWITCH-PILOT   = NAV
  AND STEERING COMMAND SYMBOL   = TBD

10.1.2.002.02*

SET FLT DIR SWS TO 'NAV' AND MONITOR VSD, SADI & HSI

        CHECKLIST   = SEQUENCE

SET   FLT DIR MODE SWITCH-PILOT
             FLT DIR MODE SWITCH-COPILOT

        COURSE DEVIATION BAR-PILOT   = TBD
  AND VERTICAL STEERING POINTER   = TBD

10.1.2.003.00*

SET BOTH FLT DIR PANEL TOGGLE SWITCHES TO 'TER FLW'*

        CHECKLIST   = SEQUENCE

SET   ALT REF-TER FLW SW-PILOT
             ALT REF-TER FLW SW-COPILOT

        ALT REF-TER FLW SWITCH   = TER FLW
  AND HORIZONTAL STEERING POINTER   = TBD

10.1.2.004.00*

CHECK RDR ALTM POWER-SET-TEST KNOB IS SET TO '1000'*

        CHECKLIST   = SEQUENCE

CHECK   POWER-SET-TEST CONTROL KNOB

        VARIABLE ALTITUDE INDEX MARKER= 1000

10.1.2.005.00*

SET IR POD CONTROL TO 'VV'

CHECKLIST   = SEQUENCE

SET

    IR POD CONTROL

    IR POD CONTROL   = VV
    IR POD CONTROL   = VV

OBJECTIVE: PERFORM PRE-DESCENT TO LOW LEVEL CHECKS   10.5

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Proper switch position

ENABLING OBJECTIVES:

1. Recall that the display switch in the normal position provides full
    display capability.

2. Recall that the SYM BRT controls all symbology simultaneously from zero
    to maximum.

3. Recall that CONTRST controls the video gain from zero to maximum.

4. Recall that BRT controls the roster brightness from zero to 0.50 ± 0.15
    maximum intensity.

ANCILLARY OBJECTIVES:

1. Recall that with the display switch in the declutter position, the
    pitch scale is removed.

2. Recall that with the mode switch in ADI and the display switch in
    declutter, the pitch scale and other TBD symbols are removed.

OPERATOR: P/CP

TASK ELEMENTS: 10.1.2.7   10.1.2.10
                        10.1.2.8   10.1.2.11
                        10.1.2.8.1   10.1.2.11.1
                        10.1.2.8.2   10.1.2.11.2
                        10.1.2.9

10.1.2.007.00*

MONITOR BOTH VSD DISPLAYS

| | VSD-PILOT | ¬=TBD* |
| | AND VSD-COPILOT | ¬=TBD |

MONITOR-VISUAL   VSD-PILOT
                    VSD-COPILOT

                    VSD-PILOT   = TBD*
                    AND VSD-COPILOT   = TBD

10.1.2.008.00*

ADJUST BRIGHTNESS, CONTRAST, CLUTTER & DECLUTTER KNOBS

10.1.2.008.01*

ADJUST SYMBOL BRIGHTNESS AND CONTRAST ON VSD

                    CRT TUBE DISPLAYS   ¬=TBD

ADJUST   SYMBOL BRIGHTNESS CONTROL
                    SENSOR CONTRAST CONTROL

                    SYMBOL BRIGHTNESS CONTROL   = TBD
                    AND CRT TUBE DISPLAYS   = TBD

10.1.2.008.02*

ADJUST DECLUTTER AND SENSOR BRIGHTNESS CONTROLS ON VSD

                    CRT TUBE DISPLAYS   ¬=TBD

ADJUST   DISPLAY SWITCH
                    SENSOR BRIGHTNESS CONTROL

                    DISPLAY SWITCH   = TBD
                    AND CRT TUBE DISPLAYS   = TBD

10.1.2.009.00*

SET MODE SELECTOR SWITCH ON VSD TO 'IR'

                    CHECKLIST   = SEQUENCE

SET   MODE SELECT SWITCH-PILOT
                    MODE SELECT SWITCH-COPILOT

                    MODE SELECT SWITCH-PILOT   = IR
                    AND MODE SELECT SWITCH-COPILOT = IR

10.26

10.1.2.010.00*

<u>MONITOR BOTH VSD DISPLAYS</u>

| | VSD-PILOT | ¬=TBD* |
| AND | VSD-COPILOT | ¬=TBD |

MONITOR-VISUAL   VSD-PILOT
                     VSD-COPILOT

| | VSD-PILOT | = TBD* |
| AND | VSD-COPILOT | = TBD |

10.1.2.011.00*

<u>ADJUST BRIGHTNESS, CONTRAST, CLUTTER & DECLUTTER KNOBS</u>

10.1.2.011.01*

<u>ADJUST SYMBOL BRIGHTNESS AND CONTRAST ON VSD</u>

CRT TUBE DISPLAYS   ¬=TBD

ADJUST   SYMBOL BRIGHTNESS CONTROL
             SENSOR CONTRAST CONTROL

| | SYMBOL BRIGHTNESS CONTROL | = TBD |
| AND | CRT TUBE DISPLAYS | = TBD |

10.1.2.011.02*

<u>ADJUST DECLUTTER AND SENSOR BRIGHTNESS CONTROLS ON VSD</u>

CRT TUBE DISPLAYS   ¬=TBD

ADJUST   DISPLAY SWITCH
             SENSOR BRIGHTNESS CONTROL

| | DISPLAY SWITCH | = TBD |
| AND | CRT TUBE DISPLAYS | = TBD |

OBJECTIVE: INITIATE DESCENT   10.6

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Power level for cruise - TBD

CONCURRENT TASKS: 1. Track with control stick and rudders to hold desired heading.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Heading - TBD (±degrees)
                      2. Airspeed - TBD (±Kts)

ENABLING OBJECTIVES:

    1. Predict power level setting for descent.

    2. Predict necessary pitch change for descent.

    3. Coordinate control stick and throttles for smooth transition from
       level flight to desired descent attitude.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 10.2.1.1
                 10.2.1.2
                 10.2.1.3

10.2.1.001.00*

        POSITION THROTTLES TO TBD POWER LEVEL*

            CRT TUBE DISPLAY-PILOT   = TBD

POSITION   PRIMARY THROTTLE LEVERS-PI

            POWER LEVEL INDICATOR   = TBD

10.2.1.002.00*

        PUSH CONTROL STICK FORWARD

            PITCH SCALE-PILOT   ¬=TBD*

PUSH   PILOTS FLIGHT CONTROL STICK

            PITCH SCALE-PILOT   = TBD*

10.2.1.003.00*

          ADJUST PITCH TRIM

            PROPRIOCEPTION   = ABOVE NORMAL*

ADJUST   PLT TRIM SW (ON CONTR STICK)

            PROPRIOCEPTION   = REDUCED*

OBJECTIVE: PERFORM DESCENT   10.7

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                       2. Power level for descent - TBD

CONCURRENT TASKS: 1. Calculate fuel distribution to maintain optimum cg position.
                       2. Track with control stick to maintain or achieve
                          desired heading.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Vertical velocity - TBD (±ft/min)
                       2. Airspeed - TBD (±Kts)
                       3. Heading - TBD (±degrees)

ENABLING OBJECTIVES:

    1. Track with control stick to maintain desired rate of descent.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 10.2.1.4
                 10.2.1.5
                 10.2.1.6
                 10.2.1.7

10.2.1.004.00*

ADJUST_THROTTLES_AND-OR_SPEEDBRAKE_AS_REQUIRED

	ALT RATE FIXED SCALE-PIL	¬=TBD*
ADJUST	PRIMARY THROTTLE LEVERS-PI	
	ALT RATE FIXED SCALE-PIL	= TBD*

10.2.1.005.00*

MONITOR_HSI_FOR_HEADING_DEVIATIONS

	ALT RATE FIXED SCALE-PIL	= TBD
MONITOR-VISUAL	NAV BEARING POINTER-PILOT	
	NAV BEARING POINTER-COPILOT	
	NAV BEARING POINTER-PILOT	¬=TBD*
	AND NAV BEARING POINTER-COPILOT	¬=TBD

10.2.1.006.00*

TRACK_WITH_FLT_CONTROLS_TO_CORRECT_HEADING_ERROR

	NAV BEARING POINTER-PILOT	¬=TBD
TRACK	PILOTS FLIGHT CONTROL STICK	
	PILOTS RUDDER PEDALS	
	COMMAND HEADING SYMBOL-PILOT	= TBD*

10.2.1.007.00*

ADJUST_WING_SWEEP_CONTROL_TO_SET_ANGLE_OF_WINGS*

	WING SWEEP POSITION INDICATOR	¬=TBD*
ADJUST	PILOTS WING SWEEP HANDLE	
	WING SWEEP POSITION INDICATOR	= TBD*

OBJECTIVE: TURN TO INITIAL CHECKPOINT   10.8

                          CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. Power level for descent

CONCURRENT TASKS: 1. Adjust power level as necessary to hold
                       constant airspeed or Mach number in descent

INTERACTION TASKS: OSO monitors present position parameters during
                    let down

PERFORMANCE LIMITS: 1. Vertical velocity - TBD ($\pm$ ft/min)
                     2. Airspeed - TBD ($\pm$ kts)

ENABLING OBJECTIVES:

   1. Predict heading lead in order to roll out on desired course.

   2. Coordinate control stick and rudders for roll into and
       roll out of turn.

   3. Track with control stick to maintain desired rate of descent.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 10.2.2.1
                   10.2.2.2
                   10.2.2.3

10.2.2.001.00
MONITOR PRESENT POSITION PARAMETERS DURING LETDOWN*

10.2.2.001.01
MONITOR PRESENT POSITION PARAMETERS DURING LETDOWN

MONITOR-VISUAL   SEQUENCE NUMBER
SEQUENCE NUMBER IDENTIFIER
PRESENT POSITION ALTITUDE

SEQUENCE NUMBER   = TBD
AND PRESENT POSITION ALTITUDE   = TBD

10.2.2.001.02
MONITOR PRESENT POSITION PARAMETERS DURING LETDOWN

MONITOR-VISUAL   ATTITUDE DIRECTOR INDICATOR
BEARING-DISTANCE-HEADING IND
AIRSPEED-ALTITUDE INDICATOR

ATTITUDE DIRECTOR INDICATOR   = TBD
AND AIRSPEED-ALTITUDE INDICATOR   = TBD

10.2.2.001.03
MONITOR PRESENT POSITION PARAMETERS DURING LETDOWN

MONITOR-VISUAL   GROUND TRACK READOUT
GROUND SPEED READOUT
TRUE HEADING READOUT

GROUND TRACK READOUT   = TBD
AND TRUE HEADING READOUT   = TBD

10.2.2.002.00
MONITOR STEERING BAR ON HSI

COURSE DEVIATION BAR-PILOT   = TBD*
AND COURSE DEVIATION BAR-COPILOT   = TBD

MONITOR-VISUAL   COURSE DEVIATION BAR-PILOT
COURSE DEVIATION BAR-COPILOT

COURSE DEVIATION BAR-PILOT   ¬=TBD*
AND COURSE DEVIATION BAR-COPILOT   ¬=TBD

10.2.2.003.00

<u>TRACK WITH FLT CONTROLS, AS REQUIRED, TO MANEUVER A-V</u>

COURSE DEVIATION BAR-PILOT   ¬=TBD

TRACK   PILOTS FLIGHT CONTROL STICK
PILOTS RUDDER PEDALS

COURSE DEVIATION BAR-PILOT   = TBD*

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall that the sequence number identifier may be one of the following: CP, OAP, TG, TM, ITS, IOF, DTS, DOF or TRZ.

2. Recall that the sequence number defines the TTD and DIST data on the display.

3. Recall that the present position altitude readout displays either barometric altitude or absolute altitude from the radar altimeter.

4. Recall that the ground track of the air vehicle is dependent upon the navigation display mode selected. There are four modes: N_v (Navigation Mode), 1(INS1), 2(INS2) and DR (Dead Reckon).

5. Recall that the present position ground speed readout is dependent upon the navigation display mode selected similar to 4. above.

6. Recall that the present position true heading readout is dependent upon the navigation display mode selected similar to 4. above.

7. Recall that the selection of the bearing and heading sources for the BDHI is made at the front station.

8. Recall that the #1 needle is the relative bearing indicator for the TACAN. The #2 needle is either the bearing to a NAV checkpoint as selected by the ACU, or a bearing to a UHF/ADF station.

9. Recall that the heading can be either magnetic or grid depending upon the navigation mode selected.

10. Recall that the mileage window readout displays the mileage to the selected TACAN station or the NAV turn point.

11. Recall that the CAS/TAS indicator is used to display ground speed, ballistic parameters, navigational parameters, etc. The information is supplied from whichever Air Data System has been selected at the pilots station.

12. Interpret acceptability of present position parameters.

ANCILLARY OBJECTIVES:

1. Recall that the solid line on the indicator's sphere represents the real world horizon. The scale at the bottom indicates the aircraft's roll attitude in degrees.

2. Recall that the compass card in the BDHI can be driven either by the inertial platform (NAV) or by the gyro stabilization system (GSS).

OPERATOR: OSO

TASK ELEMENTS: 10.2.2.1
                  10.2.2.1.1
                  10.2.2.1.2
                  10.2.2.1.3

10.2.2.001.00*
    MONITOR PRESENT POSITION PARAMETERS DURING LETDOWN*

10.2.2.001.01*
    MONITOR PRESENT POSITION PARAMETERS DURING LETDOWN

MONITOR-VISUAL   SEQUENCE NUMBER
                          SEQUENCE NUMBER IDENTIFIER
                          PRESENT POSITION ALTITUDE

                          SEQUENCE NUMBER   = TBD
                      AND PRESENT POSITION ALTITUDE   = TBD

10.2.2.001.02*
    MONITOR PRESENT POSITION PARAMETERS DURING LETDOWN

MONITOR-VISUAL   ATTITUDE DIRECTOR INDICATOR
                          BEARING-DISTANCE-HEADING IND
                          AIRSPEED-ALTITUDE INDICATOR

                          ATTITUDE DIRECTOR INDICATOR   = TBD
                      AND AIRSPEED-ALTITUDE INDICATOR   = TBD

10.2.2.001.03*
    MONITOR PRESENT POSITION PARAMETERS DURING LETDOWN

MONITOR-VISUAL   GROUND TRACK READOUT
                          GROUND SPEED READOUT
                          TRUE HEADING READOUT

                          GROUND TRACK READOUT   = TBD
                      AND TRUE HEADING READOUT   = TBD

OBJECTIVE: PERFORM PRE-LEVEL-OFF AT TF ALTITUDE   10.10

                  CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS: 1. Interpret terrain characteristics from TFR display.

INTERACTION TASKS: 1. OSO monitor-X-check altitude indicators.

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall that the moving pointer of the radar altimeter indicates current
    radar altitude from zero to 5,000 feet AGL.

2. Recall that when the AUTO LTDN ENBL switch is on and the air vehicle
    is higher than 5000 feet above the terrain, pseudo signals are provided
    to the TFR to permit automatic blind letdowns.

3. Recall that below 5000 feet, letdown continues to the clearance plane
    selected on the TFR.

4. Recall that the TFR indicator provides a direct-viewing vertical scan when
    in TF mode.

5. Recall that the present position altitude readout displays absolute
    altitude from the radar altimeter.

6. Recall that the fixed aircraft symbol on the VSD should coincide with
    the horizontal bar of the steering command symbol.

7. Recall that when the command altitude value is in view, the command
    marker is superimposed and tracks that value. When it coincides with
    the altitude scale index line, the air vehicle is at the commanded
    altitude.

8. Recall that the dive command change will show up as a downward deflection
    of the steering command symbol.

ANCILLARY OBJECTIVES:

1. Recall that unreliable operation of the radar altimeter causes the
   pointer to go behind the masked portion of the indicator dial as well
   as the appearance of the OFF flag.

OPERATOR: P/CP

TASK ELEMENTS: 10.2.3.1
                  10.2.3.2
                  10.2.3.3

10.2.3.001.00*

<u>MONITOR RADAR ALTIMETER LOCK-ON AT 5000 FEET ALTITUDE</u>

	RADAR ALTIMETER INDICATOR	¬=5000*
MONITOR-VISUAL	RADAR ALTIMETER INDICATOR OFF FLAG AUTO LTDN ENBL SWITCH	
	OFF FLAG	= NO FLAG*
	AND STEERING COMMAND SYMBOL-PIL	= -10

10.2.3.002.00*

<u>MONITOR TER DISPLAY FOR APPROPRIATE TERRAIN CHARACTERISTICS</u>

	RADAR ALTIMETER INDICATOR	< 5000
MONITOR-VISUAL	TF INDICATOR SCREEN	
	TF INDICATOR SCREEN	= TBD*

10.2.3.003.00*

<u>MONITOR-X-CHECK ALTITUDE INDICATORS</u>

	CHECKLIST	= SEQUENCE
MONITOR-VISUAL	RADAR ALTIMETER INDICATOR SENSITIVE ALT SCALE MKR-PIL STANDBY ALTIMETER	
	RADAR ALTIMETER INDICATOR AND STANDBY ALTIMETER	= TBD* = TBD

OBJECTIVE: LEVEL-OFF AT TF ALTITUDE   10.11

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P level off at 1000' AGL

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall that the present position altitude readout on the navigation
   panel displays system barometric altitude or absolute altitude
   depending on position of the H_{SL}/H_R switch.

ANCILLARY OBJECTIVES:

1. Recall that the IKB nine option switches correspond to lines 1
   through 9 of the CRT format.

2. Recall that the selection of a FUNT switch on the IKB such as NAV
   allows sub-functions of a logic tree to be presented on the IKB.

3. Recall that 9 lines of data with 28 characters per line can be
   presented on the IKB CRT.

OPERATOR: OSO

TASK ELEMENTS: 10.2.3.4

10.2.3.004.00*

MONITOR-X-CHECK ALTITUDE INDICATORS

CHECKLIST   = SEQUENCE

MONITOR-VISUAL   PRESENT POSITION ALTITUDE

PRESENT POSITION ALTITUDE   = TBD

OBJECTIVE: LEVEL-OFF AT TF ALTITUDE   10.12

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Power level for descent

CONCURRENT TASKS: 1. Track with control stick and rudders to hold
                        desired heading

                    2. Calculate fuel distribution to maintain optimum c.g.

INTERACTION TASKS: OSO check mission time

PERFORMANCE LIMITS: 1. Airspeed - TBD (+ kts)
                        2. Altitude - TBD (+ ft)
                        3. Heading - TBD (+ degrees)

ENABLING OBJECTIVES:

    1. Calculate power level setting for level-off

    2. Calculate altitude lead to initiate pitch attitude change

    3. Predict necessary pitch change for level-off

    4. Coordinate control stick and throttles to achieve level-off

    5. Track with control stick to maintain level-off altitude

    6. Adjust power level to maintain cruise airspeed or Mach number

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 10.2.3.5
                  10.2.3.7

10.2.3.005.00*

      TRACK WITH CONTROL STICK TO LEVEL-OFF AT 1000 FEET AGL

	AIR-VEHICLE	> 1000*
TRACK	PILOTS FLIGHT CONTROL STICK	
	SENSITIVE ALT SCALE MKR-PIL	= TBD*
	AND AIR-VEHICLE	= 1000

10.2.3.007.00*

      MONITOR VSD AIRSPEED READOUT FOR SPEED DEVIATION*

	AIR-VEHICLE	= 1000
MONITOR-VISUAL	AIRSPEED DISPLAY-PILOT	
	AIRSPEED DISPLAY-PILOT	= TBD

<u>OBJECTIVE</u>:   EXECUTE ALTITUDE CALIBRATION   10.13

                    <u>CRITICALITY</u>: 2   <u>DIFFICULTY</u>: 2

<u>INITIAL CONDITIONS</u>: 1. Cruise configuration

<u>CONCURRENT TASKS</u>:

<u>INTERACTION TASKS</u>:

<u>PERFORMANCE TASKS</u>:   1. X-hair lay TBD ($\pm$ ft)
                        2. Proper sequence
                        3. Proper switch positions

<u>ENABLING OBJECTIVES</u>:

1. Recall that when GND VEL has been selected, the radar ground map remains
   stable on the display with the targets and cursors remaining at the center
   of the display.

2. Recall that in GND VEL, the range sweep selections are 7.5/2.5, 15/5,
   20/10, 90/30, 160/80 or 200/200. The first and second numbers represent
   range sweep and display scale (diameter) in miles, respectively.

3. Recall that squeezing the enable switch permits all tracking handle
   functions except changing the sector width.

4. Recall how to identify the calibration point from other radar returns
   in the vicinity.

5. Recall that prior to an altitude calibration, the ELEV portion of the
   ELEV/△ ALT switch will be lit to indicate the terrain elevation of the
   calibration point.

6. Recall that if the ACPT/REJ toggle switch is set to REJ, the ELEV/△ ALT
   indicators will blank until the start of the turn to the next planned
   calibration destination.

7. Recall how to evaluate the △ALT readout for acceptability.

<u>ANCILLARY OBJECTIVES</u>:

1. Recall that if the correct ground speed is used the X-hairs will not drift
   from the scheduled elevation calibration point.

2. Recall that the terrain elevation will be shown on the elevation/⟁
   altitude indicator as a numerical readout.

OPERATOR: OSO

TASK ELEMENTS:	9.2.2.2	10.2.4.1	11.5.3.1
	9.2.2.3	10.2.4.2	11.5.3.2
	9.2.2.4	10.2.4.3	11.5.3.3
	9.2.2.5	10.2.4.4	11.5.3.4
	9.2.2.6	10.2.4.5	11.5.3.5
	9.2.2.9	10.2.4.6	11.5.3.6
	9.2.2.10	10.2.4.7	11.5.3.7
	9.2.2.11	10.2.4.8	11.5.3.8
	9.2.2.12	10.2.4.9	11.5.3.9
	9.2.2.13	10.2.4.10	11.5.3.10
		10.2.4.11	

09.2.2.002.00*

SET ROTARY MODE SWITCH ON FLR CONTROL PANEL TO 'GND VEL'*

	CRT DISPLAY SURFACE	⇥HI-ALTIT CALIB.
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL

09.2.2.003.00*

DEPRESS TH 'ENBL' SW TO COMMAND FLR ANT TO MAX DNWD ANGLE*

	ANTENNA TILT INDICATOR	= 0
DEPRESS	ENABLE SWITCH	
	ANTENNA TILT INDICATOR	= -30
AND	CRT DISPLAY SURFACE	= READY

09.2.2.004.00*

DEPRESS TH 'ENBL' SW TO POSITION RNG CURS ON NEAREST RETURN

	RANGE CURSORS	⇥POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= POSITIONED*
AND	CRT DISPLAY SURFACE	= OBSERVED

09.2.2.005.00*

DETERMINE GRD RTN 'COINCIDES' WITH SCHEDULED ELEV CALIB PT*

	STEERING DISTANCE READOUT	= TBD*
DETERMINE	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= TBD*
AND	RANGE CURSORS	= POSITIONED

09.2.2.006.00*

DEPRESS TH 'ENBL' SWITCH TO POSN RNG CURSOR FOR FINE ADJUSTM

	CRT DISPLAY SURFACE	= TBD
AND	RANGE CURSORS	= POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= COINCIDENT*

09.2.2.007.00*

NOTE HEADING DEVIATION OF FLIGHT PATH,CALIBRATION POINT

	RANGE CURSORS	= TBD
OBSERVE	RANGE CURSORS	
	SYSTEM MALFUNCTION INDICATOR	= TBD*

10.47

09.2.2.009.00*
    <u>DEPRESS 'ELEV-DALT' PUSHBUTTON TO INITIATE ALTIT CALIBRATION*</u>

	ALTITUDE-ELEVATION SELECTOR	= 'ELEV'-FLASHING
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'*

09.2.2.010.00*
    <u>DEPRESS 'ELEV-DALT' PUSHBUTTON TO FREEZE ELEVATION READOUT</u>

	AIR-VEHICLE	= DOF
	AND STEERING TIME READOUT	= 0
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY*

09.2.2.011.00*
    <u>EVALUATE DALT READOUT VALUE ON 'ALT CALBR' DIGITAL INDICATOR*</u>

	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY
EVALUATE	ELEVATION-DELTA ALTITUDE IND	
	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE

09.2.2.012.00*
    <u>SET 'ACPT-REJ' TOGGLE SWITCH TO 'ACPT'</u>

	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE
SET	ALTITUDE CALIBRATION SWITCH	
	IN UPDT INDICATOR	= 'IN UPDT'

09.2.2.013.00*
    <u>NOTE KALMAN FILTER ACCEPTANCE OF ALTITUDE UPDATE</u>

	IN UPDT INDICATOR	= OFF*
	AND ELEVATION-DELTA ALTITUDE IND	= OFF
OBSERVE	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= OFF

10.2.4.001.00*

> SET ROTARY MODE SWITCH ON FLR CONTROL PANEL TO 'GND VEL'

	CRT DISPLAY SURFACE	¬=LOW-ALTIT CALIB
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL

10.2.4.002.00*

> DEPRESS TH 'ENBL' SW TO COMMAND FLR ANT TO MAX DNWD ANGLE

	ANTENNA TILT INDICATOR	= 0
DEPRESS	ENABLE SWITCH	
	ANTENNA TILT INDICATOR	= -30
	AND CRT DISPLAY SURFACE	= READY

10.2.4.003.00*

> DEPRESS TH 'ENBL' SW TO POSITION RNG CURS ON NEAREST RETURN*

	RANGE CURSORS	¬=POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= POSITIONED*
	AND CRT DISPLAY SURFACE	= OBSERVED

10.2.4.004.00*

> DETERMINE GRD RTN 'COINCIDES' WITH SCHEDULED ELEV CALIB PT*

	STEERING DISTANCE READOUT	= TBD*
DETERMINE	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= TBD*
	AND RANGE CURSORS	= POSITIONED

10.2.4.005.00*

> DEPRESS TH 'ENBL' SWITCH TO POSN RNG CURSOR FOR FINE ADJUSTM

	CRT DISPLAY SURFACE	= TBD
	AND RANGE CURSORS	= POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= COINCIDENT*

10.2.4.006.00*

> DEPRESS 'ELEV-DALT' PUSHBUTTON TO INITIATE ALTIT CALIBRATION*

	ALTITUDE-ELEVATION SELECTOR	= 'ELEV'-FLASHING
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'*

10.2.4.009.00*

<u>DEPRESS 'ELEV-DALT' PUSHBUTTON TO FREEZE ELEVATION READOUT</u>

| | AIR-VEHICLE | = OOF |
| | AND STEERING TIME READOUT | = 0 |

DEPRESS ALTITUDE-ELEVATION SELECTOR

ALTITUDE-ELEVATION SELECTOR = 'DALT'-STEADY*

10.2.4.010.00*

<u>EVALUATE DALT READOUT VALUE ON 'ALT CALBR' DIGITAL INDICATOR*</u>

ALTITUDE-ELEVATION SELECTOR = 'DALT'-STEADY

EVALUATE ELEVATION-DELTA ALTITUDE IND

ELEVATION-DELTA ALTITUDE IND = ACCEPTABLE

10.2.4.011.00*

<u>SET 'ACPT-REJ' TOGGLE SWITCH TO 'ACPT'</u>

ELEVATION-DELTA ALTITUDE IND = ACCEPTABLE

SET ALTITUDE CALIBRATION SWITCH

IN UPDT INDICATOR = 'IN UPDT'

11.5.3.001.00*
    <u>SET ROTARY MODE SWITCH ON FLR CONTROL PANEL TO 'GND VEL'*</u>

	CRT DISPLAY SURFACE	¬=LOW-ALTIT CALIB.
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL

11.5.3.002.00*
    <u>DEPRESS TH 'ENBL' SW TO COMMAND FLR ANT TO MAX DNWD ANGLE*</u>

	ANTENNA TILT INDICATOR	= 0
DEPRESS	ENABLE SWITCH	
	ANTENNA TILT INDICATOR	= -30
	AND CRT DISPLAY SURFACE	= TBD

11.5.3.003.00*
    <u>DEPRESS TH 'ENBL' SW TO POSITION RNG CURS ON NEAREST RETURN</u>

	RANGE CURSORS	¬=POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= POSITIONED*
	AND CRT DISPLAY SURFACE	= TBD

11.5.3.004.00*
    <u>DETERMINE GRD RTN 'COINCIDES' WITH SCHEDULED ELEV CALIB PT*</u>

	STEERING DISTANCE READOUT	= TBD*
CHECK	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= TBD*
	AND RANGE CURSORS	= POSITIONED

11.5.3.005.00*
    <u>DEPRESS TH 'ENBL' SWITCH TO POSN RNG CURSOR FOR FINE ADJUSTM</u>

	CRT DISPLAY SURFACE	= TBD
	AND RANGE CURSORS	= POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= COINCIDENT*

11.5.3.006.00*
     <u>DEPRESS 'ELEV-DALT' PUSHBUTTON TO INITIATE ALTII CALIBRATION*</u>

	ALTITUDE-ELEVATION SELECTOR	= 'ELEV'-FLASHING
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'*

11.5.3.007.00*
     <u>DEPRESS 'ELEV-DALT' PUSHBUTTON TO FREEZE ELEVATION READOUT</u>

	AIR-VEHICLE	= DOF
	AND STEERING TIME READOUT	= 0
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY*

11.5.3.008.00*
     <u>EVALUATE DALT READOUT VALUE ON 'ALT CALBR' DIGITAL INDICATOR*</u>

	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY
EVALUATE	ELEVATION-DELTA ALTITUDE IND	
	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE

11.5.3.009.00*
     <u>SET 'ACPT-REJ' TOGGLE SWITCH TO 'ACPT'</u>

	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE
SET	ALTITUDE CALIBRATION SWITCH	
	IN UPDT INDICATOR	= 'IN UPDT'

11.5.3.010.00*
     <u>NOTE KALMAN FILTER ACCEPTANCE OF ALTITUDE UPDATE</u>

	IN UPDT INDICATOR	= OFF*
	AND ELEVATION-DELTA ALTITUDE IND	= OFF
CHECK	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= OFF

MISSION SEGMENT 11

OBJECTIVE: SELECT TF MODES FOR ATF

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that the display switch in the normal position provides full display
    capability.

2. Recall that the PITCH TRIM rotary control is provided to permit adjusting
    the horizon line for various conditions of speed and/or A/V configurations.
    The horizon can be moved 15+5 degrees upward or downward.

3. Recall that the SYM BRT controls all symbology simultaneously from zero
    to maximum.

4. Recall that CONTRST controls the video gain from zero to maximum.

5. Recall that BRT controls the raster brightness from zero to 0.50 ± 0.15
    maximum intensity.

6. Recall that the clearance plane switch provides a specific altitude in
    the TF mode.

ANCILLARY OBJECTIVES:

1. Recall that with the display switch in the declutter position, the pitch
    scale is removed.

2. Recall that with the mode switch in ADI and the display switch in
    declutter, the pitch scale and other TBD symbols are removed.

OPERATOR: P/CP

TASK ELEMENTS: 11.1.1.1   11.1.1.4
                 11.1.1.2   11.1.1.5
                 11.1.1.3   11.1.1.6

11.1.1.001.00*

SET_MODE_ON_VSD_TO_FLIR

11.1.1.001.01*

SET_MODE_ON_VSD_TO_FLIR

	CHECKLIST	= SEQUENCE
SET	MODE SELECT SWITCH-PILOT	
	MODE SELECT SWITCH-PILOT	= **FLIR***
	AND CRT TUBE DISPLAY-PILOT	= TBD

11.1.1.001.02*

SET_MODE_ON_VSD_TO_FLIR

	CHECKLIST	= SEQ
SET	MODE SELECT SWITCH-COPILOT	
	MODE SELECT SWITCH-COPILOT	= **FLIR***
	AND CRT TUBE DISPLAY-COPILOT	= TBD

11.1.1.002.00*

SET_VSD_DISPLAY_SWITCH_TO_'DCLTR'*

	CRT TUBE DISPLAY-PILOT	¬=TPD*
SET	DISPLAY SWITCH-PILOT	
	CRT TUBE DISPLAY-PILOT	= TBD*

11.1.1.003.00*

ADJUST_PITCH_TRIM_ROTARY_CONTROL_AS_NECESSARY

	CRT TUBE DISPLAY-PILOT	¬=TBD*
ADJUST	PITCH TRIM CONTROL-PILOT	
	CRT TUBE DISPLAY-PILOT	= TBD*

11.1.1.004.00*

ADJUST_SYM_BRT_ROTARY_CONTROL_AS_NECESSARY

	CRT TUBE DISPLAY-PILOT	¬=TBD*
ADJUST	SYMBOL BRIGHTNESS CONT-PILOT	
	CRT TUBE DISPLAY-PILOT	= TBD*

11.1.1.005.00*
<u>ADJUST SENSOR CONTRAST AND BRIGHTNESS CONTROLS AS NECESSARY</u>

	CRT TUBE DISPLAY-PILOT	¬=TBD*
ADJUST	SENSOR CONTRAST CONT-PILOT	
	SENSOR BRT CONTROL-PILOT	
	CRT TUBE DISPLAY-PILOT	= TBD*

11.1.1.006.00*
<u>SET CLEARANCE SWITCH ON TFR PANEL TO DESIRED CLEARANCE PLANE</u>*

	CHECKLIST	= SEQUENCE
SET	CLEARANCE SELECT SWITCH	
	CLEARANCE SELECT SWITCH	= TBD*

OBJECTIVE: COMPLETE AFCS & TFR CHECKS   11.2

                CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequences
                     2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that when a transfer of command is made by depressing TAKE COMD,
    the AFCS will revert to the basic ENGAGE mode if AFCS is engaged, except
    for TER FLW and AUTO THROT modes.

2. Recall that by depressing ENGAGE, the basic AFCS mode of flight path
    hold in the pitch axis and attitude hold in the roll axis is engaged.

3. Recall that if both TFR mode switches are positioned to TF, the second
    channel selected automatically goes to a standby condition.

4. Recall that when the TFR mode switch is set to SIT, the presentation on
    the indicator is a sector PP1 (azimuth scan) display.

ANCILLARY OBJECTIVES:

1. Recall that with ENGAGE in the green, control stick steering is provided
    by flight control stick movement exceeding 0.25 inch.

2. Recall that the ENGAGE mode may be deactivated only by depressing the
    AFCS disengage switch on the flight control stick.

3. Recall that prior to engagement of TER FLW, the following switches must
    be set:
    a. ALT RFF/TER FLW switches on both P's and CP's FLR DIR panels set
        to TER FLW.
    b. Mode switches on both P's & CP's VSD set to ADI.
    c. CL (clearance) switch on TFR control panel set to the desired ground
        clearance.
    d. RIDE switch on TFR control panel set to the desired ride control.
    e. Both MODE switches on TFR control panel set to TF position.
    f. AUTO LTDN ENBL switch on the RDR ALTM panel set to AUTO LTDN ENBL
        position.

ANCILLARY OBJECTIVES: (Continued)

4. Recall that the TER FLW mode can be disengaged by actuating the trigger switch on the central stick to the second detent or by setting both ALT REF/TER FLW switches out of TER FLW position.

5. Recall that if both TFR mode switches are set to TF, the second channel will take over automatically if the operating channel fails.

OPERATOR: P/CP

TASK ELEMENTS: 11.1.2.1
11.1.2.5
11.1.2.6

11.1.2.001.00*

<u>ENGAGE AFCS AND SELECT 'TER FLW' MODE</u>*

	CHECKLIST	= SEQUENCE
PUSH	PILOTS TAKE COMMAND PUSHBUTTON	
	PILOTS ENGAGE PUSHBUTTON	
	PILOTS TER FLWG PUSHBUTTON	
	PILOTS ENGAGE PUSHBUTTON	= 'ENGAGE'-G*
AND	AVVI-PILOT	= TBD

11.1.2.005.00*

<u>VERIFY THAT (1) TFR CHANNEL MODE SW IS POSITIONED TO 'TF'</u>*

	CHECKLIST	= SEQUENCE
CHECK	TFR MODE SWITCH-RIGHT	
	TFR MODE SWITCH-RIGHT	= TF*

11.1.2.006.00*

<u>SET TFR MODE SWITCH ON (1) TF CHANNEL TO 'SIT' (SITUATION)</u>

	CHECKLIST	= SEQUENCE
SET	TFR MODE SWITCH-LEFT	
	TFR MODE SWITCH-LEFT	= SIT*

OBJECTIVE: LOW LEVEL CRUISE (ATF)   11.3

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS: 1. Verify that air vehicle maintains proper clearance plane
                      2. Verify that air vehicle continues to fly desired heading

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD(±Mach)
                     2. Clearance plane - TBD (±ft)
                     3. Heading - TBD (±degrees)

ENABLING OBJECTIVES:

   1. Predict power level setting to maintain ATF cruise airspeed.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 11.1.2.2
                 11.1.2.3
                 11.1.2.4

11.1.2.002.00*

MONITOR RADAR ALTIMETER

	AVVI-PILOT	= TBD*
MONITOR-VISUAL	RADAR ALTIMETER INDICATOR	
	AIR-VEHICLE	= TBD*

11.1.2.003.00*

ADJUST THROTTLES TO OBTAIN REQUIRED IF AIRSPEED*

	AMI-PILOT	¬=TBD
ADJUST	PRIMARY THROTTLE LEVERS-PI	
	AMI-PILOT	= TBD
	AND PILOTS AUTO THROT PUSHBUTTON	= 'AUTO THROT'-W

11.1.2.004.00*

ADJUST WING SWEEP LEVER TO TBD DEG FOR ATE PENETRATION

	CHECKLIST	= SEQUENCE
ADJUST	PILOTS WING SWEEP HANDLE	
	WING SWEEP POSITION INDICATOR	= TBD*

OBJECTIVE: MONITOR TF MODES FOR ATF   11.4

CRITICALITY: 3   DIFFICULTY: 3

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP advised of potential terrain obstacles
                    2. P/CP acknowledge

PERFORMANCE LIMITS: 1. Proper terrain characteristics interpretation.

ENABLING OBJECTIVES:

1. Recall how to interpret radar ground returns on the FLR CRT.

2. Recall that the present position true heading readout is dependent upon
    the navigation display mode selected.

3. Recall that the selection of the bearing and heading sources for the
    BDHI is made at the front station.

4. Recall that the #1 needle is the relative bearing indicator for the TACAN.
    The #2 needle is either the bearing to a NAV checkpoint as selected by the
    ACU, or a bearing to a UHF/ADF station.

5. Recall that the heading can be either magnetic or grid depending upon the
    navigation mode selected.

6. Recall that the mileage window readout displays the mileage to the
    selected TACAN station or the NAV turn point.

7. Recall that the CAS/TAS indicator is used to display ground speed, ballistic
    parameters, navigational parameters, etc. The information is supplied from
    whichever Air Data System has been selected at the pilot's station.

8. Recall that the range of the FLR exceeds the capability of the TFR and
    pilots should be forewarned well in advance of potential obstacles.

ANCILLARY OBJECTIVES:

1. Recall that the solid line on the indicator's sphere represents the real
    world horizon. The scale at the bottom indicates the aircraft's roll
    attitude in degrees.

2. Recall that the compass card in the BDHI can be driven either by the
    inertial platform (NAV) or by the gyro stabilization system (GSS).

OPERATOR: OSO

TASK ELEMENTS: 11.1.3.1
                 11.1.3.2
                 11.1.3.3

11.1.3.001.00*
MONITOR FLR DISPLAY AS REQD FOR POTENTIAL OBSTACLE RETURNS*

	CRT DISPLAY SURFACE	= TBD*
MONITOR-VISUAL	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= TBD*

11.1.3.002.00*
MONITOR FLT INSTRUMENTS (ADI, BDHI AIRSPEED-ALT INDICATOR)

	ATTITUDE DIRECTOR INDICATOR	= TBD*
AND	AIRSPEED-ALTITUDE INDICATOR	= TBD
MONITOR-VISUAL	ATTITUDE DIRECTOR INDICATOR	
	BEARING-DISTANCE-HEADING IND	
	AIRSPEED-ALTITUDE INDICATOR	
	ATTITUDE DIRECTOR INDICATOR	= TBD*
AND	AIRSPEED-ALTITUDE INDICATOR	= TBD

11.1.3.003.00*
ADVISE PILOT(S) OF POTENTIALLY HAZARDOUS TERRAIN OBSTACLES*

	CRT DISPLAY SURFACE	¬=TBD*
COMMUNICATE	OSO ICS	
	PILOT ICS	= ACKNOWLEDGED
AND	CO-PILOT ICS	= ACKNOWLEDGED

11.11

OBJECTIVE: MONITOR DISPLAYS FOR ATF   11.5

                    CRITICALITY: 3   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration
                     2. ATF

CONCURRENT TASKS: 1. Interpret VSD, IR display to verify clearance plane
                       and flight path free of obstacles

PERFORMANCE LIMITS: 1. Airspeed - TBD ($\pm$ Mach or $\pm$ kts)
                     2. Altitude - TBD ($\pm$ ft)
                     3. Clearance plane - TBD ($\pm$ ft)

ENABLING OBJECTIVES:

   1. Recall that the flight path angle and angle rate is referenced to the
       horizon.

   2. Recall that the radar altimeter indicates increments of 10-feet from
       zero to 200 feet, 50-feet increments from 200 to 2000 feet and 500-foot
       increments from 2000 to 5000 feet.

   3. Recall that the steering command symbol on the VSD provides pitch and
       course steering. Proper steering is when the steering symbol is centered
       over the short center bar of the fixed aircraft symbol.

   4. Recall that the heading marker on the HSI reflects the value set by the
       heading set knob and indicates the relative difference between it and
       the current heading of the air vehicle at the top of the instrument.

   5. Recall how the oncoming terrain should look when viewed through the thermal
       flash blindness window. The clearance plane should be constant except when
       the air vehicle is deviating over or around obstacles.

ANCILLARY OBJECTIVES:

   1. Recall that the low altitude warning lights illuminates whenever the air
       vehicle descends to or below the preselected altitude.

   2. Recall that the TFR fail lamps indicate that the channel has malfunctioned
       or that an input to the TFR has malfunctioned.

OPERATOR: P/CP

TASK ELEMENTS: 11.1.3.4   11.1.3.7   11.1.3.10
                11.1.3.5   11.1.3.8
                11.1.3.6   11.1.3.9

11.1.3.004.00*

<u>MONITOR AIRSPEED-MACH INDICATOR</u>

MONITOR-VISUAL   AMI-PILOT
                        AMI-COPILOT

                        AMI-PILOT   = TBD*
               AND AMI-COPILOT   = TBD

11.1.3.005.00*

<u>MONITOR COMPUTED FLIGHT PATH ON VSD SCOPE</u>

MONITOR-VISUAL   FLIGHT PATH ANGLE SYMBOL
                        FLIGHT PATH ANGLE RATE

                        FLIGHT PATH ANGLE SYMBOL   = TBD*
            AND FLIGHT PATH ANGLE RATE   = TBD

11.1.3.006.00*

<u>MONITOR RADAR ALTIMETER</u>

MONITOR-VISUAL   RADAR ALTIMETER INDICATOR

                        RADAR ALTIMETER INDICATOR   = TBD*

11.1.3.007.00*

<u>MONITOR AIE PITCH STEERING ON VSD</u>

MONITOR-VISUAL   STEERING COMMAND SYMBOL-PIL
                        STEERING COMMAND SYMBOL-COP

                        STEERING COMMAND SYMBOL-PIL   = TBD*
       AND STEERING COMMAND SYMBOL-COP   = TBD

11.1.3.008.00*

<u>MONITOR COURSE STEERING ON THE VSD AND-OR HSI</u>

MONITOR-VISUAL   HEADING READOUT
                        HEADING MARKER

                        HEADING READOUT   = TBD*
            AND HEADING MARKER   = TBD

11.1.3.009.00*

<u>MONITOR TFR FAIL INDICATORS</u>

MONITOR-VISUAL   TFR FAIL INDICATORS

                        TFR FAIL INDICATORS   = OFF*

11.1.3.010.00*

MONITOR IR ON VSD OR VISUAL CONTACT THROUGH TFB WINDOW

MONITOR-VISUAL   CRT TUBE DISPLAYS*
         FLASHBLINDNESS WINDOW-LEFT
         FLASHBLINDNESS WINDOW-RIGHT

         CRT TUBE DISPLAYS   = TBD*
     AND FLASHBLINDNESS WINDOW-RIGHT = TBD

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. ATF

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall that all engaged modes will be disengaged when the trigger is
    depressed to the second detent.

2. Recall that all green mode lights except TAKE COMD will switch to white
    when the trigger on the control stick is depressed to the second detent.

3. Recall that manual trim becomes operative when the AFCS is disengaged.

ANCILLARY OBJECTIVES:

1. Recall that the AFCS will be interrupted in pitch when the trigger switch
    is depressed to the first detent.

OPERATOR: P/CP

TASK ELEMENT: 11.2.1.1

11.2.1.001.00*
<u>DEPRESS AUTOPILOT DISENGAGE TRIGGER SWITCH ON CONTROL STICK</u>

DEPRESS   PILOT AFCS INTRPT-DISENG CNTRL

                             PILOT AFCS INTRPT-DISENG CNTRL= SECOND DETENT
             AND PILOTS ENGAGE PUSHBUTTON   = 'ENGAGE'-W

OBJECTIVE: LOW LEVEL CRUISE (MTF)   11.7

                          CRITICALITY: 3   DIFFICULTY: 3

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD (±Mach)
                     2. Clearance plane - TBD (±ft)
                     3. Heading - TBD (±degrees)

ENABLING OBJECTIVES:

1. Adjust power level to maintain .85 mach number.

2. Coordinate control stick and throttles to maintain desired clearance plane.

3. Coordinate control stick and rudders to hold desired heading.

ANCILLARY OBJECTIVES:

OPERATOR: P./CP

TASK ELEMENTS: 11.2.1.2
                  11.2.1.3
                  11.2.1.4

11.2.1.002.00*
          TRACK PITCH STEERING COMMAND ON VSD WITH CONTROL STICK

                         STEERING COMMAND SYMBOL-PIL   ¬=TBD*

          TRACK   PILOTS FLIGHT CONTROL STICK

                         STEERING COMMAND SYMBOL-PIL   = TBD*

11.2.1.003.00*
          POSITION THROTTLES AS REQUIRED TO TRACK MACH .85

                         AM1-PILOT   ¬=.85

          ADJUST   PRIMARY THROTTLE LEVERS-PI

                         AM1-PILOT   = .85

11.2.1.004.00*
          TRACK STEERING AZ COMMAND ON VSD WITH FLIGHT CONTROLS

                         STEERING COMMAND SYMBOL-PIL   ¬=TBD*

          TRACK   PILOTS FLIGHT CONTROL STICK
                         PILOTS RUDDER PEDALS

                         STEERING COMMAND SYMBOL-PIL   = TBD*

OBJECTIVE: MONITOR DISPLAYS FOR MTF   11.8

CRITICALITY: 3   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration
                     2. MTF

CONCURRENT TASKS:

INTERACTION TASKS: 1. Close crew coordination for safe TF

PERFORMANCE LIMITS: 1. Airspeed - TBD (+ Kts)
                     2. Clearance plane - TBD (+ ft)
                     3. Heading - TBD (+ degrees)

ENABLING OBJECTIVES:

1. Recall that the steering command symbol should be superimposed over the
   fixed aircraft symbol on the VSD.

2. Recall that the heading marker on the HSI reflects the value set by the
   heading set knob and indicates the relative difference between it and
   the current heading of the air vehicle at the top of the instrument.

3. Recall that the TFR shows a sector PPI (Azimuth Scan) display when in
   SIT or GM modes and a vertical scan in the TF mode.

4. Recall that the E-display has a 10 NM range displayed on the horizontal
   axis.

5. Recall how the on-coming terrain should look when viewed through the
   thermal flash blindness window. The clearance plane should be constant
   except when the air vehicle is deviating over or around obstacles.

6. Recall that the radar altimeter indicates increments of 10-feet from zero
   to 200 feet, 50-foot increments from 200 to 2000 feet and 500-foot
   increments from 2000 to 5000 feet.

ANCILLARY OBJECTIVES:

1. Recall that the low altitude warning light illuminates whenever the air
   vehicle descends to or below the preselected altitude.

2. Recall that the TFR fail lamps indicate that the channel has malfunctioned
   or that an input to the TFR has malfunctioned.

OPERATOR: P/CP

TASK ELEMENTS: 11.2.2.1
11.2.2.2
11.2.2.3
11.2.2.4
11.2.2.5
11.2.2.6

11.2.2.001.00*

<u>MONITOR AIRSPEED-MACH DISPLAY*</u>

MONITOR-VISUAL   AMI-PILOT
         AMI-COPILOT

         AMI-PILOT   = TBD*
      AND AMI-COPILOT   = TBD

11.2.2.002.00*

<u>MONITOR TF PITCH STEERING ON VSD DISPLAY</u>

MONITOR-VISUAL   STEERING COMMAND SYMBOL-PIL

         STEERING COMMAND SYMBOL-PIL = TBD*

11.2.2.003.00*

<u>MONITOR HSI COMMAND HEADING MKR AGAINST NAV BEARING MONITOR</u>

MONITOR-VISUAL   HEADING MARKER-PILOT
         HEADING MARKER-COPILOT

         HEADING MARKER-PILOT   = TBD*
      AND HEADING MARKER-COPILOT = TBD

11.2.2.004.00*

<u>MONITOR TF SCOPE OR VISUALLY THROUGH FLASHBLINDNESS WINDOW*</u>

MONITOR-VISUAL   TF INDICATOR SCREEN
         FLASHBLINDNESS WINDOW-LEFT
         FLASHBLINDNESS WINDOW-RIGHT

         TF INDICATOR SCREEN   = TBD*
     AND FLASHBLINDNESS WINDOW-RIGHT = TBD

11.2.2.005.00*

<u>MONITOR RADAR ALTIMETER</u>

MONITOR-VISUAL   RADAR ALTIMETER INDICATOR

         RADAR ALTIMETER INDICATOR = TBD*
    AND RADAR ALTITUDE DISPLAY-COPILOT= TBD

11.2.2.006.00*

<u>MONITOR TFR FAIL INDICATORS</u>

MONITOR-VISUAL   TFR FAIL INDICATORS

         TFR FAIL INDICATORS   = OFF*

OBJECTIVE: DETERMINE LATERAL COURSE DEVIATION   11.9

CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS : 1. Cruise configuration
                     2. TF

CONCURRENT TASKS:

INTERACTION TASKS: 1. DSO communicate that threat exists
                   2. OSO OK course change
                   3. Close crew coordination essential

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Interpret TFR presentation to determine that proposed flight path is clear
   of obstacles and additional threats.

2. Recall that the TFR shows a sector PPI (Azimuth Scan) display when in SIT
   or GM modes and a vertical scan in the TF mode.

3. Recall that the E-display has a 10 NM range displayed on the horizontal
   axis.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 11.3.1.1
                  11.3.1.2
                  11.3.1.3

11.3.1.001.00*
COMMUNICATE WITH OSO-DSO ON THREAT SITUATION*

	DSO ICS	= THREAT EXISTS
COMMUNICATE	ICS	
	PILOT ICS	= CHANGE COURSE
	AND DSO ICS	= AGREED

11.3.1.002.00*
VERIFY CONDITIONS SUITABLE FOR MANUAL LATERAL CONTROL

	DSO ICS	= THREAT EXISTS*
	AND DSO ICS	= OK TO CHG COURSE
CHECK	TF INDICATOR SCREEN	
	CRT DISPLAY SURFACE	
	TF INDICATOR SCREEN	= CHECKED*
	AND CRT DISPLAY SURFACE	= CHECKED

11.3.1.003.00*
DETERMINE BEST PATH AROUND THREAT

	DSO ICS	= THREAT EXISTS*
	AND DSO ICS	= OK TO CHG COURSE
CHECK	TF INDICATOR SCREEN	
	CRT DISPLAY SURFACE	
	TF INDICATOR SCREEN	= TBD*
	AND CRT DISPLAY SURFACE	= TBD

OBJECTIVE: DETERMINE LATERAL COURSE DEVIATION   11.10

CRITICALITY: 3   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration
                     2. TF

CONCURRENT TASKS

INTERACTION TASKS: 1. DSO communicate that threat exists
                    2. OSO OK course change and communicate w/P/CP
                    3. Close crew coordination essential

PERFORMANCE LIMITS: 1. Accurate course-change determination

ENABLING OBJECTIVES:

1. Interpret the FLR presentation to determine that the proposed flight path
    is clear of obstacles and additional threats.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 11.3.1.1
                11.3.1.2
                11.3.1.3

11.3.1.001.00*

      <u>COMMUNICATE WITH DSO-OSO ON THREAT SITUATION</u>*

	DSO ICS	= THREAT EXISTS
COMMUNICATE	ICS	
	PILOT ICS	= CHANGE COURSE
	AND OSO ICS	= AGREED

11.3.1.002.00*

      <u>VERIFY CONDITIONS SUITABLE FOR MANUAL LATERAL CONTROL</u>

	DSO ICS	= THREAT EXISTS*
	AND OSO ICS	= OK TO CHG COURSE
CHECK	TF INDICATOR SCREEN	
	CRT DISPLAY SURFACE	
	TF INDICATOR SCREEN	= CHECKED*
	AND CRT DISPLAY SURFACE	= CHECKED

11.3.1.003.00*

      <u>DETERMINE BEST PATH AROUND THREAT</u>

	DSO ICS	= THREAT EXISTS*
	AND OSO ICS	= OK TO CHG COURSE
CHECK	TF INDICATOR SCREEN	
	CRT DISPLAY SURFACE	
	TF INDICATOR SCREEN	= TBD*
	AND CRT DISPLAY SURFACE	= TBD

OBJECTIVE: MANEUVER A/V AT LOW LEVEL   11.11

<center>CRITICALITY: 1   DIFFICULTY: 2</center>

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD (±Mach)
                       2. Clearance plane - TBD (±ft)
                       3. Heading - TBD (±degrees)

ENABLING OBJECTIVES:

   1. Adjust power level to maintain .85 mach while maneuvering.

   2. Coordinate control stick and throttles to maintain desired clearance plane.

   3. Predict necessary bank angle to make lateral maneuver.

   4. Predict heading lead so as to roll out on desired course.

   5. Coordinate control stick and rudders for roll into and roll out of turns.

   6. Track with control stick and rudders to hold desired heading.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 11.3.1.4
                  11.3.1.9

<center>11.26</center>

11.3.1.004.00*

TRACK WITH FLT CONTROLS & THROTTLES TO INITIATE DEVIATION

TF INDICATOR SCREEN	= TBD*
AND CRT DISPLAY SURFACE	= TBD

TRACK

    PILOTS FLIGHT CONTROL STICK
    PILOTS RUDDER PEDALS
    PRIMARY THROTTLE LEVERS-PI

VSD-PILOT	= TBD*
AND FLASHBLINDNESS WINDOW-LEFT	= TBD

11.3.1.009.00*

TRACK WITH FLT CONTROLS & THROTTLES TO RETURN A-V TO TRACK*

TRACK

    PILOTS FLIGHT CONTROL STICK
    PILOTS RUDDER PEDALS
    PRIMARY THROTTLE LEVERS-PI

VSD-PILOT	= TBD*
AND FLASHBLINDNESS WINDOW-LEFT	= TBD

OBJECTIVE: MONITOR LATERAL COURSE DEVIATION

CRITICALITY: 3   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration
                      2. TF course deviation

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. AMI within acceptable tolerance
                      2. TFR scope within acceptable tolerance
                      3. Course deviation acceptable

ENABLING OBJECTIVES:

1. Interpret the VSD, IR presentation to verify that clearance plane and
    flight path free of obstructions.

2. Recall how the on-coming terrain should look when viewed through the
    thermal flash blindness window. The clearance plane should be constant
    except when the air vehicle is deviating over or around obstacles.

3. Recall that the TFR shows a sector PPI (Azimuth Scan) display when in SIT
    or GM modes and a vertical scan in the TF mode.

4. Recall that the E-display has a 10 NM range displayed in the horizontal
    axis.

5. Recall that the radar altimeter indicates increments of 10 feet from
    zero to 200 feet, 50-foot increments from 200 to 2000 feet and 500-foot
    increments from 2000 to 5000 feet.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 11.3.1.5
                 11.3.1.6
                 11.3.1.7
                 11.3.1.8

11.3.1.005.00*

MONITOR VSD AND VIEW FROM THERMAL FLASHBLINDNESS WINDOW

| | VERTICAL SITUATION DISPLAY | ¬=TBD* |
| | AND FLASHBLINDNESS WINDOWS | ¬=TBD |

MONITOR-VISUAL   VERTICAL SITUATION DISPLAY
                 FLASHBLINDNESS WINDOWS

| | VERTICAL SITUATION DISPLAY | = TBD |
| | AND FLASHBLINDNESS WINDOWS | = TBD |

11.3.1.006.00*

MONITOR AIRSPEED-MACH INDICATOR

MONITOR-VISUAL   AMI-PILOT
                 AMI-COPILOT

| | AMI-PILOT | = TBD* |
| | AND AMI-COPILOT | = TBD |

11.3.1.007.00*

MONITOR TFR SCOPE FOR TERRAIN OBSTACLES

MONITOR-VISUAL   TF INDICATOR SCREEN

| | TF INDICATOR SCREEN | = TBD* |

11.3.1.008.00*

MONITOR HSI FOR COURSE DEVIATION

MONITOR-VISUAL   HEADING MARKER-PILOT
                 HEADING MARKER-COPILOT

| | HEADING MARKER-PILOT | = TBD* |
| | AND HEADING MARKER-COPILOT | = TBD |

OBJECTIVE: ENGAGE AFCS FOR ATF   11.13

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1.   Cruise configuration
                      2.   TF

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1.   Proper sequence
                      2.   Proper switch positions

ENABLING OBJECTIVES:

1.   Recall that by depressing ENGAGE, the basic AFCS mode of flight path hold
     in the pitch axis and attitude hold in the roll axis is engaged.

2.   Recall that selection of FLT DIR provides coupling to other flight
     director functions on the FLT DIR panel.

3.   Recall that when AUTO THROT is selected, the MACH hold mode controls
     engine thrust to maintain Mach number at the value existing prior to
     AUTO THROT being selected.

4.   Recall that AUTO THROT is not compatible with the Mach or A/S hold modes
     of the AFCS.

ANCILLARY OBJECTIVES:

1.   Recall that with ENGAGE in the green, control stick steering is provided by
     flight control stick movement exceeding 0.25 inch.

2.   Recall that the engage mode may be deactivated only by depressing the
     AFCS disengage switch on the flight control stick.

3.   Recall that prior to engagement of TER FLW, the following switches must
     be set:

     a.   ALT RFF/TER FLW switches on both P's and CP's FLR DIR panels set
          to TER FLW.
     b.   MODE switches on both P's & CP's VSD set to ADI.
     c.   CL (clearance) switch on TFR control panel set to the desired ground
          clearance.
     d.   RIDE switch on TFR control panel set to the desired ride control.
     e.   Both MODE switches on TFR control panel set to TF position.
     f.   AUTO LTDN ENBL switch on the RDR ALTM panel set to AUTO LTDN ENBL position.

ANCILLARY OBJECTIVES: (Continued)

    4. Recall that the TER FLW mode can be disengaged by actuating the trigger switch on the control stick to the second detent or by setting both ALT REF/TER FLW switches out of TER FLW position.

    5. Recall that AUTO THROT can be disengaged by:

        a. actuating disengage on the control sticks
        b. pushing the AUTO THROT DISC button on one of the #4 throttle levers
        c. selecting Mach or A/S hold modes
        d. pushing the AUTO THROT select light a second time

OPERATOR: P/CP

TASK ELEMENTS: 11.4.1.1
                        11.4.1.2
                        11.4.1.3
                        11.4.1.4

11.4.1.001.00*

DEPRESS 'ENGAGE' BUTTON ON AECS PANEL

DEPRESS   PILOTS ENGAGE PUSHBUTTON

                           PILOTS ENGAGE PUSHBUTTON   = 'ENGAGE'-G

11.4.1.002.00*

DEPRESS 'FLT DIR' LIGHTED PUSHBUTTON ON AECS PANEL

DEPRESS   PILOTS FLT DIR PUSHBUTTON

                           PILOTS FLT DIR PUSHBUTTON   = 'FLT DIR'-G

11.4.1.003.00*

DEPRESS 'TER FLW' LIGHTED PUSHBUTTON ON AECS PANEL

DEPRESS   .   PILOTS TER FLWG PUSHBUTTON

                           PILOTS TER FLWG PUSHBUTTON   = 'TER FLW'-G

11.4.1.004.00*

DEPRESS 'AUTO THROT' LIGHTED PUSHBUTTON ON AECS PANEL

DEPRESS   PILOTS AUTO THROT PUSHBUTTON

                           PILOTS AUTO THROT PUSHBUTTON   = 'AUTO THROT'-G

OBJECTIVE: PERFORM EVS UPDATE   11.14

                        CRITICALITY: 2   DIFFICULTY: 3

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO advise pilot that EVS update is required.
                      2. OSO request of pilot that EVS control be transferred to OSO.
                      3. OSO request pilot extend EVS pod.
                      4. OSO advise pilot update complete.

PERFORMANCE LIMITS: 1. Proper sequence
                      2. Proper switch positions
                      3. Update accuracy (I TBD miles)

ENABLING OBJECTIVES:

  1. Recall that the sequence number identifier may be one of the following:
     CP, OAP, TG, TM, ITS, IOF, DTS, DOF, or TRZ.

  2. Recall that the sequence number defines the TTD and DIST data on the display.

  3. Recall that when the COMD light is on either the PILOT or COPILOT light will
     be lit in the FLIR section of the EVS control panel.

  4. Recall that when the BNS or MAN light is lit, control of the EVS sensor is
     accomplished by the OSO.

  5. Recall that in the BNS mode, the sensor tracks the coordinates of the SEL PT
     displayed on the Navigation panel. In the MAN mode, the sensor steering
     is accomplished with the tracking handle.

  6. Recall that SYMBOLS ON refers to line of sight (LOS) symbology being
     displayed on the MFD.

  7. Recall that the LOS elevation and azimuth angles are oriented with respect
     to the aircraft reference line.

  8. Recall that the elevation scale is oriented vertically on the left side of
     the MFD. The azimuth scale is oriented horizontally across the lower portion
     of the display.

                                    11.33

ENABLING OBJECTIVES: (continued.)

9. Recall that the MFD brightness control provides a continuous variation of video signal level from zero to a maximum.

10. Recall that the MFD contrast control provides a continuous variation of video signal amplitude from zero to a maximum.

11. Recall that a QUAL 3 will be automatically assigned, if no quality has been assigned the mission tape.

12. Recall that the UPDT QUAL can be modified by depressing update quality pushbutton on the NAV CORR panel.

13. Recall that the EVS update can be operated only if the EVS sensor being displayed on MFD is in the BNS steering mode.

14. Recall that when the EVS switch is activated, the EVS steering command mechanization is changed to MAN/track.

15. Recall that position fixing with the EVS requires two target angle observations.

16. Recall that the ACU accepts the first set of angles after the operator has centered the target with the tracking handle on the EVS X-hairs and activates the ENTER switch.

17. Recall that the triangulation sequence is completed when the X-hairs are realigned on the target and the ENTER switch is reactivated.

18. Recall that the fixtaking sequence can be terminated at any time by activating the EVS switch a second time.

19. Recall how to distinguish on the MFD between the checkpoint and other identifying points in the vicinity.

ANCILLARY OBJECTIVES:

1. Recall that if the KALMAN rejects the update, the UPDT REJ light comes on. It flashes for 17 seconds at 4 flashes/second and then deactivates.

OPERATOR: OSO

TASK ELEMENTS:

11.5.1.1	11.5.1.11
11.5.1.2	11.5.1.12
11.5.1.3	11.5.1.13
11.5.1.5	11.5.1.14
11.5.1.6	11.5.1.15
11.5.1.7	11.5.1.16
11.5.1.8	11.5.1.17
11.5.1.9	11.5.1.18
11.5.1.10	11.5.1.19
	11.5.1.20

11.5.1.001.00*

ADVISE PILOT EVS UPDATE REQUIRED

	CRT DISPLAY SURFACE	¬=TBD*
COMMUNICATE	OSO ICS	
	PILOT ICS	= ACKNOWLEDGED

11.5.1.002.00*

NOTE NEXT SEQ. NO. IS A CP (CHECK POINT)

	SEQUENCE NUMBER IDENTIFIER	= CP
CHECK	SEQUENCE NUMBER	
	SEQUENCE NUMBER	= TBD*

11.5.1.003.00*

REQUEST EVS CONTROL BE TRANSFERRED TO OSO*

	MULTIFUNCTION DISPLAY	= BLANK*
COMMUNICATE	OSO ICS	
	PILOT ICS	= ACKNOWLEDGED

11.5.1.005.00*

NOTE FRONT STATION RELEASE OF EVS COMMAND CONTROL

	IR PILOT-COPILOT COMD	= 'PILOT'*
	ANDIR PILOT-COPILOT COMD	= OFF
CHECK	IR PILOT-COPILOT COMD	
	IR STEER	
	IR STEER	= 'BNS'
	OR IR STEER	= 'MAN'

11.5.1.006.00*

    SET SENSOR TO BE DISPLAYED (FLIR) VIA VIDEO SELECT SWITCH

	VIDEO SELECT SWITCH	= FLIR
SET	VIDEO SELECT SWITCH	
	VIDEO SELECT SWITCH	= FLIR

11.5.1.007.00*

    SET 'SYMBOLS ON' VIA EVS PANEL FOR ELEVATION AND AZIMUTH

	MULTIFUNCTION DISPLAY	¬=TBD*
SET	SYMBOLS SWITCH	
	MULTIFUNCTION DISPLAY	= TBD*

11.5.1.008.00*

    ADJUST MFD BRIGHTNESS AS NECESSARY

	MULTIFUNCTION DISPLAY	¬=TBD*
ADJUST	BRIGHTNESS CONTROL	
	MULTIFUNCTION DISPLAY	= TBD*

11.5.1.009.00*

    ADJUST MFD CONTRAST AS NECESSARY

	MULTIFUNCTION DISPLAY	¬=TBD*
ADJUST	CONTRAST CONTROL-MFD	
	MULTIFUNCTION DISPLAY	= TBD*

11.5.1.010.00*

    SELECT 'UPDATE QUALITY' PUSHBUTTON ON NAV CORR PANEL

	UPDATE QUALITY SELECTOR	= '1'*
	OR UPDATE QUALITY SELECTOR	= '3'
SELECT	UPDATE QUALITY SELECTOR	
	UPDATE QUALITY SELECTOR	= '1'*
	OR UPDATE QUALITY SELECTOR	= '3'

11.5.1.011.00*
DEPRESS EVS UPDATE MODE SWITCH ON NAV CORR PANEL

	EVS CONTROL SWITCH	= OFF
DEPRESS	EVS CONTROL SWITCH	
	EVS CONTROL SWITCH	= ON

11.5.1.012.00*
SET 'PPC' TOGGLE SWITCH ON RADAR CONTROL PANEL TO 'OUT'*

	PRESENT POSITION CORRECTION SW= IN
SET	PRESENT POSITION CORRECTION SW
	PRESENT POSITION CORRECTION SW= OUT

11.5.1.013.00*
IDENTIFY CHECK POINT OF INTEREST ON MFD

IDENTIFY	CHECK POINT	
	MULTIFUNCTION DISPLAY	= TBD*

11.5.1.014.00*
NOTE PRESENT POSITION ERROR ON MFD

CHECK	MULTIFUNCTION DISPLAY	
	FIDUCIALS	¬=TBD*

11.5.1.015.00*
MOVE VIDEO IMAGE FOR FIDUCIALS-CHECK POINT COINCIDENCE

	FIDUCIALS	¬=TBD*
DEPRESS	ENABLE SWITCH	
	FIDUCIALS	= TBD*

11.5.1.016.00*
DEPRESS 'ENTER' ON NAV CORR PANEL TO INITIATE UPDATE

	FIDUCIALS	= TBD*
DEPRESS	ENTER CONTROL	
	EVS CONTROL SWITCH	= ON*

11.5.1.017.00*

<u>MOVE VIDEO IMAGE FOR FIDUCIALS-CHECK POINT COINCIDENCE</u>*

	FIDUCIALS	¬=TBD*
DEPRESS	ENABLE SWITCH	
	FIDUCIALS	= TBD*

11.5.1.018.00*

<u>DEPRESS 'ENTER' ON NAV CORR PANEL TO COMPLETE UPDATE</u>

	FIDUCIALS	= TBD*
DEPRESS	ENTER CONTROL	
	EVS CONTROL SWITCH	= ON*

11.5.1.019.00*

<u>NOTE UPDATE VALIDITY ON NAV CORR PANEL</u>*

	IN UPDT INDICATOR	= 'IN UPDT'
CHECK	IN UPDT INDICATOR	
	IN UPDT INDICATOR	= OFF

11.5.1.020.00*

<u>ADVISE PILOT THAT EVS UPDATE HAS BEEN COMPLETED</u>

	IN UPDT INDICATOR	= OFF
COMMUNICATE	OSO ICS	
	PILOT ICS	= ACKNOWLEDGED*

OBJECTIVE: PERFORM EVS UPDATE   11.15

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. TF

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO advise pilot EVS update required.
                      2. OSO request pilot transfer EVS control to OSO.
                      3. OSO request pilot extent EVS pod.
                      4. OSO advise pilot update complete.

ENABLING OBJECTIVES:

    1. Recall that the EXD position of the IR pod control provides the primary
        means to lower the pod. In this position, steering can be accomplished
        with the tracking handle.

    2. Recall that the steering command symbol should be superimposed over the
        fixed aircraft symbol on the VSD.

ANCILLARY OBJECTIVES:

    1. Recall that in the FIXED or VECTOR positions, pod extension is
        commanded but steering is denied.

OPERATOR: P/CP

TASK ELEMENTS: 11.5.1.4
                      11.5.1.21

11.5.1.004.00*

SET EVS POD CONTROL ROTARY SWITCH TO 'EXD'*

                     OSO ICS   = REQ EVS CONTROL

SET   IR POD CONTROL

                     IR POD CONTROL   = EXD

11.5.1.021.00*

OBSERVE AUTO PILOT STEERING CORRECTION ON VSD

                     OSO ICS   = CORR COMPLETED

MONITOR-VISUAL   STEERING COMMAND SYMBOL-PIL
                     STEERING COMMAND SYMBOL-COP

                     STEERING COMMAND SYMBOL-PIL   = TBD*
         AND STEERING COMMAND SYMBOL-COP   = TBD

OBJECTIVE: EXECUTE FLR UPDATE   11.16

                CRITICALITY: 2   DIFFICULTY: 3

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P acknowledges FLR update communication.
                     2. Pilot observes AUTO PILOT steering correction on VSD.

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Switches in proper position.
                     3. Successful discrimination of CP.
                     4. X-hairs - $\pm$ TBD feet.

ENABLING OBJECTIVES:

   1. Recall that when the PPC is IN, the tracking handle positions the FLR
       cursors and the ACU will accept a FLR update.

   2. Recall that in GND AUTO, the range switch selects only one of the
       following ranges: 2.5, 5, 10, 30, 80 or 200.

   3. Discriminate the CP on the radar scope from other radar returns in vicinity.

   4. Recall that when GND VEL has been selected, the radar ground map remains
       stable on the display with the targets and cursors remaining at the center
       of the display.

   5. Recall that in GND VEL, the range sweep selections are 7.5/2.5, 15/5, 30/10,
       90/30, 160/80 or 200/200. The first and second numbers represent range
       sweep and display scale (diameter) in miles, respectively.

   6. Recall that the UPDT QUAL of a selected point can be either 1, 2 or 3
       where a high position accuracy is represented by number 1. A low quantity
       or relatively poor position accuracy is indicated by 3. With each switch
       depression the numbers sequence as follows: 1, 2, 3, 1, etc.

   7. Recall that operating the sector toggle switch on the tracking handle
       causes the FLR antenna sector width to be reduced to +10° about the
       azimuth cursor. The forward position of the switch selects narrow scan.

   8. Recall that squeezing the enable switch on the tracking handle allows
       the X-hair cursors to be repositioned.

   9. Recall that by depressing ENTER on the NAV CORR panel, when neither
       OVERFLY or EVS have been selected, initiates a position update based
       upon FLRX-hair position if PPC is in.

<u>ANCILLIARY OBJECTIVES</u>:

1. Recall that when the FLR mode switch is in GND AUTO, the range and azimuth cursors are controlled by the ACU.

2. Recall that the displayed Seq. No. has been entered into the ACU either via the mission tape or through the IKB.

3. Recall that the Seq. No. is controlled by both the Forward/Reverse switch and the right Cross Hair Control switches and activation of any one switch overrides any previous activation.

4. Recall that if the Kalman does not accept the update, the IN UPDT annunicator light goes off and UPDT REJ light comes on.

5. Recall that the UPDT REJ light flashes for 17 seconds at the rate of 4 flashes per second and then deactivates.

6. Recall that operating the sector toggle switch on the tracking handle to the off position selects the wide scan on the FLR antenna sector width.

OPERATOR: OSO

<u>TASK ELEMENTS:</u>

9.2.1.1	9.2.1.7	9.2.1.13
9.2.1.2	9.2.1.8	6.3.2.9
9.2.1.3	9.2.1.9	
9.2.1.4	9.2.1.10	
9.2.1.5	9.2.1.11	
9.2.1.6	9.2.1.12	
11.5.2.1	11.5.2.5	11.5.2.9
11.5.2.2	11.5.2.6	11.5.2.10
11.5.2.3	11.5.2.7	11.5.2.11
11.5.2.4	11.5.2.8	11.5.2.12
		11.5.2.13

09.2.1.001.00*

SET ELR SELECT ROTARY SWITCH TO 'GND AUTO'*

	CRT DISPLAY SURFACE	¬=TBD
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND AUTO

09.2.1.002.00*

SET PPC SWITCH ON RADAR SET CONTROL TO 'IN'

	CRT DISPLAY SURFACE	¬=TBD
SET	PRESENT POSITION CORRECTION SW	
	PRESENT POSITION CORRECTION SW= IN	

09.2.1.003.00*

OBSERVE NEXT SEQ NO IS A CP ON SEQ NO DIGITAL READOUT

	SEQUENCE NUMBER	= TBD
OBSERVE	SEQUENCE NUMBER	
	SEQUENCE NUMBER	= TBD
	AND PRE-PLANNED DATA SHEET	= TBD

09.2.1.004.00*

SET ELR RANGE SELECT ROTARY SWITCH TO DESIRED RANGE

	CRT DISPLAY SURFACE	¬=TBD*
SET	RANGE SWITCH-FLR	
	RANGE SWITCH-FLR	= TBD*

09.2.1.005.00*

IDENTIFY CP OF INTEREST ON ELR CRT SCOPE

	CRT DISPLAY SURFACE	¬=TBD*
IDENTIFY	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= TBD*

11.44

09.2.1.006.00*

<u>OBSERVE X-HAIR CURSOR POSITION RELATIVE TO CP</u>

	RADAR CURSORS	= TBD*
OBSERVE	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= OBSERVED*

09.2.1.007.00*

<u>SET FLR SELECT ROTARY SWITCH TO 'GND VEL'</u>

	CRT DISPLAY SURFACE	¬=EXPANDED
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET AND CRT DISPLAY SURFACE	= GND VEL* = EXPANDED

09.2.1.008.00*

<u>DEPRESS UPDT QUAL PUSHBUTTON SWITCH ON NAV CORR PANEL</u>

	UPDATE QUALITY SELECTOR	¬=TBD*
DEPRESS	UPDATE QUALITY SELECTOR	
	UPDATE QUALITY SELECTOR	= TBD*

09.2.1.009.00*

<u>SET NARROW SECTOR SCAN ON FLR WITH TRACKING HOLE PUSHBUTTON</u>

	CRT DISPLAY SURFACE	¬=NARROW SECT SCAN*
DEPRESS	SECTOR SWITCH	
	CRT DISPLAY SURFACE	= NARROW SECT SCAN

09.2.1.010.00*

<u>POSITION X-HAIR CURSORS TO COINCIDE WITH CHECKPOINT</u>

	CRT DISPLAY SURFACE	¬=TBD*
POSITION	ENABLE SWITCH	
	X-HAIR CURSORS AND CRT DISPLAY SURFACE	= POSITIONED = TBD

09.2.1.011.00*
     DEPRESS 'ENTER' ON NAV CORR PANEL TO INTEGRATE CP UPDATE

	X-HAIR CURSORS	= POSITIONED
	AND CRT DISPLAY SURFACE	= TSD
DEPRESS	ENTER CONTROL	
	IN UPDT INDICATOR	= 'IN UPDT'*

09.2.1.012.00*
     ADVISE PILOT FLR UPDATE HAS BEEN ACCEPTED AND IS COMPLETE

	IN UPDT INDICATOR	= OFF*
COMMUNICATE	OSO INTERPHONE SWITCH	
	PILOT ICS	= ACKNOWLEDGED

09.2.1.013.00*
     OBSERVE AUTOPILOT STEERING CORRECTION ON VSD

	OSO ICS	= UPDATE COMPLETED
OBSERVE	VERTICAL SITUATION DISPLAY	
	VERTICAL SITUATION DISPLAY	= OBSERVED*

06.3.2.009.00*

<u>EXECUTE PRESENT POSITION UPDATE - AS REQUIRED*</u>

COMBAT MISSION FOLDER = CHECKED
AND PRESENT POSITION LONGITUDE = ERROR

SAME AS   9.2.1.1 - 9.2.1.13
AND
11.5.2.1 - 11.5.2.13

11.5.2.001.00*

SET FLR SELECT ROTARY SWITCH TO 'GND AUTO'*

CRT DISPLAY SURFACE ¬=TBD*

SET MODE SWITCH-RADAR SET

MODE SWITCH-RADAR SET = GND AUTO

11.5.2.002.00*

SET PPC SWITCH ON RADAR SET CONTROL TO 'IN'

CRT DISPLAY SURFACE ¬=TBD*

SET PRESENT POSITION CORRECTION SW

PRESENT POSITION CORRECTION SW= IN

11.5.2.003.00*

OBSERVE NEXT SEQ NO IS A CP ON SEQ NO DIGITAL READOUT

SEQUENCE NUMBER = TBD*

CHECK SEQUENCE NUMBER

SEQUENCE NUMBER = TBD
AND PRE-PLANNED DATA SHEET = TBD

11.5.2.004.00*

SET FLR RANGE SELECT ROTARY SWITCH TO DESIRED RANGE

CRT DISPLAY SURFACE ¬=TBD*

SET RANGE SWITCH-FLR

RANGE SWITCH-FLR = TBD*

11.5.2.005.00*

IDENTIFY CP OF INTEREST ON FLR CRT SCOPE

CRT DISPLAY SURFACE ¬=TBD*

IDENTIFY CHECK POINT

CRT DISPLAY SURFACE = TBD*

11.5.2.006.00*

OBSERVE X-HAIR CURSOR POSITION RELATIVE TO CP

RADAR CURSORS = TBD*

CHECK CRT DISPLAY SURFACE

CRT DISPLAY SURFACE = OBSERVED*

11.48

11.5.2.007.00*

<u>SET FLR SELECT ROTARY SWITCH TO 'GND VEL'</u>

	CRT DISPLAY SURFACE	¬=EXPANDED
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL*
	AND CRT DISPLAY SURFACE	= EXPANDED

11.5.2.008.00*

<u>DEPRESS UPDT QUAL PUSHBUTTON SWITCH ON NAV CORR PANEL</u>

	UPDATE QUALITY SELECTOR	= '1'*
	OR UPDATE QUALITY SELECTOR	= '3'
DEPRESS	UPDATE QUALITY SELECTOR	
	UPDATE QUALITY SELECTOR	.= '1'*
	OR UPDATE QUALITY SELECTOR	= '3'

11.5.2.009.00*

<u>SET NARROW SECTOR SCAN ON FLR WITH TRACKING HOLE PUSHBUTTON</u>

	CRT DISPLAY SURFACE	¬=NARROW SECT SCAN*
DEPRESS	SECTOR SWITCH	
	CRT DISPLAY SURFACE	= NARROW SECT SCAN

11.5.2.010.00*

<u>POSITION X-HAIR CURSORS TO COINCIDE WITH CHECK POINT</u>

	CRT DISPLAY SURFACE	¬=TBD*
DEPRESS	ENABLE SWITCH	
	X-HAIR CURSORS	= POSITIONED
	AND CRT DISPLAY SURFACE	= TBD

11.5.2.011.00*

<u>DEPRESS 'ENTER' ON NAV CORR PANEL TO INTEGRATE CP UPDATE</u>

	X-HAIR CURSORS	= POSITIONED
	AND CRT DISPLAY SURFACE	= TBD
DEPRESS	ENTER CONTROL	
	IN UPDT INDICATOR	= 'IN UPDT'*

11.5.2.012.00*

ADVISE PILOT ELB UPDATE HAS BEEN ACCEPTED AND IS COMPLETE

	IN UPDT INDICATOR	= OFF*
COMMUNICATE	OSO ICS	
	PILOT ICS	= ACKNOWLEDGED

11.5.2.013.00*

OBSERVE AUTOPILOT STEERING CORRECTION ON VSD

	OSO ICS	= UPDATE COMPLETED
MONITOR-VISUAL	STEERING COMMAND SYMBOL-PIL	
	STEERING COMMAND SYMBOL-COP	
	STEERING COMMAND SYMBOL-PIL	= TBD*
AND	STEERING COMMAND SYMBOL-COP	= TBD

OBJECTIVE: EXECUTE ALTITUDE CALIBRATION   11.17

                    CRITICALITY: 2   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE TASKS: 1. X-hair lay TBD ($\pm$ ft)
                       2. Proper sequence
                       3. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that when GND VEL has been selected, the radar ground map remains
   stable on the display with the targets and cursors remaining at the center
   of the display.

2. Recall that in GND VEL, the range sweep selections are 7.5/2.5, 15/5,
   20/10, 90/30, 160/80 or 200/200. The first and second numbers represent
   range sweep and display scale (diameter) in miles, respectively.

3. Recall that squeezing the enable switch permits all tracking handle
   functions except changing the sector width.

4. Recall how to identify the calibration point from other radar returns
   in the vicinity.

5. Recall that prior to an altitude calibration, the ELEV portion of the
   ELEV/△ ALT switch will be lit to indicate the terrain elevation of the
   calibration point.

6. Recall that if the ACPT/REJ toggle switch is set to REJ, the ELEV/△ ALT
   indicators will blank until the start of the turn to the next planned
   calibration destination.

7. Recall how to evaluate the △ALT readout for acceptability.

ANCILLARY OBJECTIVES:

1. Recall that if the correct ground speed is used the X-hairs will not drift
   from the scheduled elevation calibration point.

11.51

2. Recall that the terrain elevation will be shown on the elevation/△ altitude indicator as a numerical readout.

OPERATOR: OSO

TASK ELEMENTS:

9.2.2.2	10.2.4.1	11.5.3.1
9.2.2.3	10.2.4.2	11.5.3.2
9.2.2.4	10.2.4.3	11.5.3.3
9.2.2.5	10.2.4.4	11.5.3.4
9.2.2.6	10.2.4.5	11.5.3.5
9.2.2.9	10.2.4.6	11.5.3.6
9.2.2.10	10.2.4.7	11.5.3.7
9.2.2.11	10.2.4.8	11.5.3.8
9.2.2.12	10.2.4.9	11.5.3.9
9.2.2.13	10.2.4.10	11.5.3.10
	10.2.4.11	

09.2.2.002.00*
   SET ROTARY MODE SWITCH ON FLR CONTROL PANEL TO 'GND VEL'*

	CRT DISPLAY SURFACE	¬=HI-ALTIT CALIB.
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL

09.2.2.003.00*
   DEPRESS TH 'ENBL' SW TO COMMAND FLR ANT TO MAX DNWD ANGLE*

	ANTENNA TILT INDICATOR	= 0
DEPRESS	ENABLE SWITCH	
	ANTENNA TILT INDICATOR	= -30
	AND CRT DISPLAY SURFACE	= READY

09.2.2.004.00*
   DEPRESS TH 'ENBL' SW TO POSITION RNG CURS ON NEAREST RETURN

	RANGE CURSORS	¬=POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= POSITIONED*
	AND CRT DISPLAY SURFACE	= OBSERVED

09.2.2.005.00*
   DETERMINE GRD RTN 'COINCIDES' WITH SCHEDULED ELEV CALIB P1*

	STEERING DISTANCE READOUT	= TBD*
DETERMINE	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE	= TBD*
	AND RANGE CURSORS	= POSITIONED

09.2.2.006.00*
   DEPRESS TH 'ENBL' SWITCH TO POSN RNG CURSOR FOR FINE ADJUSTM

	CRT DISPLAY SURFACE	= TBD
	AND RANGE CURSORS	= POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= COINCIDENT*

09.2.2.009.00*
DEPRESS 'ELEV-DALT' PUSHBUTTON TO INITIATE ALTIT CALIBRATION*

	ALTITUDE-ELEVATION SELECTOR	= 'ELEV'-FLASHING
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'*

09.2.2.010.00*
DEPRESS 'ELEV-DALT' PUSHBUTTON TO FREEZE ELEVATION READOUT

	AIR-VEHICLE	= OOF
	AND STEERING TIME READOUT	= 0
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY*

09.2.2.011.00*
EVALUATE DALT READOUT VALUE ON 'ALT CALBR' DIGITAL INDICATOR*

	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY
EVALUATE	ELEVATION-DELTA ALTITUDE IND	
	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE

09.2.2.012.00*
SET 'ACPT-REJ' TOGGLE SWITCH TO 'ACPT'

	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE
SET	ALTITUDE CALIBRATION SWITCH	
	IN UPDT INDICATOR	= 'IN UPDT'

09.2.2.013.00*
NOTE KALMAN FILTER ACCEPTANCE OF ALTITUDE UPDATE

	IN UPDT INDICATOR	= OFF*
	AND ELEVATION-DELTA ALTITUDE IND	= OFF
OBSERVE	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= OFF

10.2.4.001.00*
     SET ROTARY MODE SWITCH ON FLR CONTROL PANEL TO 'GND VEL'

	CRT DISPLAY SURFACE	¬=LOW-ALTIT CALIB
SET	MODE SWITCH-RADAR SET	
	MODE SWITCH-RADAR SET	= GND VEL

10.2.4.002.00*
     DEPRESS TH 'ENBL' SW TO COMMAND FLR ANT TO MAX DNWD ANGLE

	ANTENNA TILT INDICATOR	= C
DEPRESS	ENABLE SWITCH	
	ANTENNA TILT INDICATOR AND CRT DISPLAY SURFACE	= -3C = READY

10.2.4.003.00*
     DEPRESS TH 'ENBL' SW TO POSITION RNG CURS ON NEAREST RETURN*

	RANGE CURSORS	¬=POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS AND CRT DISPLAY SURFACE	= POSITIONED* = OBSERVED

10.2.4.004.00*
     DETERMINE GRD RTN 'COINCIDES' WITH SCHEDULED ELEV CALIB PT*

	STEERING DISTANCE READOUT	= TBD*
DETERMINE	CRT DISPLAY SURFACE	
	CRT DISPLAY SURFACE AND RANGE CURSORS	= TBD* = POSITIONED

10.2.4.005.00*
     DEPRESS TH 'ENBL' SWITCH TO POSN RNG CURSOR FOR FINE ADJUSTM

	CRT DISPLAY SURFACE AND RANGE CURSORS	= TBD = POSITIONED
DEPRESS	ENABLE SWITCH	
	RANGE CURSORS	= COINCIDENT*

10.2.4.006.00*

    <u>DEPRESS 'ELEV-DALT' PUSHBUTTON TO INITIATE ALTIT CALIBRATION*</u>

	ALTITUDE-ELEVATION SELECTOR	= 'ELEV'-FLASHING
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'*

10.2.4.007.00*

    <u>DEPRESS 'ELEV-DALT' PUSHBUTTON TO FREEZE ELEVATION READOUT</u>

	AIR-VEHICLE	= OFF
	AND STEERING TIME READOUT	= 0
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY*

10.2.4.008.00*

    <u>EVALUATE DALT READOUT VALUE ON 'ALT CALBR' DIGITAL INDICATOR*</u>

	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY
EVALUATE	ELEVATION-DELTA ALTITUDE IND	
	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE

10.2.4.009.00*

    <u>SET 'ACPT-REJ' TOGGLE SWITCH TO 'ACPT'</u>

	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE
SET	ALTITUDE CALIBRATION SWITCH	
	IN UPDT INDICATOR	= 'IN UPDT'

10.2.4.010.00*

    <u>NOTE KALMAN FILTER ACCEPTANCE OF ALTITUDE UPDATE</u>

	IN UPDT INDICATOR	= OFF*
	AND ELEVATION-DELTA ALTITUDE IND	= OFF
OBSERVE	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= OFF

10.2.4.011.00*

<u>SET TRUE ALTITUDE (MSL) IN PRESSURE ALTIMETERS</u>

	CHECKLIST	= SEQUENCE
SET	AVVI-PILOT	
	AVVI-COPILOT	
	BAROMETRIC SETTING KNOB	
	AVVI-PILOT	= TBD*
	AND AVVI-COPILOT	= TBD
	AND BAROMETRIC SETTING KNOB	= TBD

11.5.3.001.00*
    SET ROTARY MODE SWITCH ON FLR CONTROL PANEL TO 'GND VEL'*

                        CRT DISPLAY SURFACE   ¬=LOW-ALTIT CALIB.

    SET   MODE SWITCH-RADAR SET

                        MODE SWITCH-RADAR SET   = GND VEL

11.5.3.002.00*
    DEPRESS TH 'ENBL' SW TO COMMAND FLR ANT TO MAX DNWD ANGLE*

                        ANTENNA TILT INDICATOR   = 0

    DEPRESS   ENABLE SWITCH

                        ANTENNA TILT INDICATOR   = -30
                    AND CRT DISPLAY SURFACE   = TBD

11.5.3.003.00*
    DEPRESS TH 'ENBL' SW TO POSITION RNG CURS ON NEAREST RETURN

                        RANGE CURSORS   ¬=POSITIONED

    DEPRESS   ENABLE SWITCH

                        RANGE CURSORS   = POSITIONED*
                    AND CRT DISPLAY SURFACE   = TBD

11.5.3.004.00*
    DETERMINE GRD BIN 'COINCIDES' WITH SCHEDULED ELEV CALIB PT*

                        STEERING DISTANCE READOUT   = TBD*

    CHECK   CRT DISPLAY SURFACE

                        CRT DISPLAY SURFACE   = TBD*
                    AND RANGE CURSORS   = POSITIONED

11.5.3.005.00*
    DEPRESS TH 'ENBL' SWITCH TO POSN RNG CURSOR FOR FINE ADJUSTM

                        CRT DISPLAY SURFACE   = TBD
                    AND RANGE CURSORS   = POSITIONED

    DEPRESS   ENABLE SWITCH

                        RANGE CURSORS   = COINCIDENT*

11.58

11.5.3.006.00*
DEPRESS 'ELEV-DALT' PUSHBUTTON TO INITIATE ALTIT CALIBRATION*

	ALTITUDE-ELEVATION SELECTOR	= 'ELEV'-FLASHING
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'*

11.5.3.007.00*
DEPRESS 'ELEV-DALT' PUSHBUTTON TO FREEZE ELEVATION READOUT

	AIR-VEHICLE	= DOF
	AND STEERING TIME READOUT	= 0
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY*

11.5.3.008.00*
EVALUATE DALT READOUT VALUE ON 'ALT CALBR' DIGITAL INDICATOR*

	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY
EVALUATE	ELEVATION-DELTA ALTITUDE IND	
	ELEVATION-DELTA ALTITUDE IND	= ACCEPTABLE

11.5.3.009.00*
DEPRESS 'ELEV-DALT' PUSHBUTTON TO INITIATE ALTIT CALIBRATION*

	ALTITUDE-ELEVATION SELECTOR	= 'ELEV'-FLASHING
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'*

11.5.3.010.00*
DEPRESS 'ELEV-DALT' PUSHBUTTON TO FREEZE ELEVATION READOUT

	AIR-VEHICLE	= DOF
	AND STEERING TIME READOUT	= 0
DEPRESS	ALTITUDE-ELEVATION SELECTOR	
	ALTITUDE-ELEVATION SELECTOR	= 'DALT'-STEADY*

MISSION SEGMENT 12

OBJECTIVE: PERFORM BDA OPERATIONS   12.1

                              CRITICALITY: 2   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO advise BDA required.
                    2. OSO communicate with pilot that EVS sensor required.
                    3. OSO confirm FLIR available on the MFD.
                    4. OSO inform P of "bomb" or flyby decision -
                        P acknowledge.

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Proper switch positions.
                     3. Proper decision to "bomb" or "flyby".

ENABLING OBJECTIVES:

1. Recall that the BDA REQ indicator lights one minute prior to the
    scheduled assessment and deactivates after the target has passed.
    It pulses at 4 times per second for the first five seconds and then
    goes steady.

2. Recall that with the video select switch on FLIR, standard video is
    presented on the MFD. Also, inverted video is available if FLIR-REV
    is selected.

3. Recall that in FLIR BNS STEER, the sensor tracks the coordinates of
    the SEL PT displayed on the navigation panel.

4. Interpret target BDA from radar and IR presentations on the FLR and
    MFD, respectively.

5. Recall that when the photo toggle switch is placed in AUTO, photographs
    are taken automatically once every 20 antenna frames (40 scans).

6. Recall what the criteria are whether to bomb the target or perform a
    "flyby".

7. Recall that depressing BOMB DLVY after the light is lit deactivates
    the bomb mode.

ANCILLARY OBJECTIVES:

1. Recall that if the target button is not depressed, it will automatically illuminate and the cross hairs will lay on the target when the air vehicle passes the IP.

2. Recall that in the BOMB mode photos are taken once every two antenna frames.

OPERATOR: OSO

TASK ELEMENTS:

12.1.1.1	12.1.1.11
12.1.1.6	12.1.1.12
12.1.1.7	12.1.1.13
12.1.1.8	12.1.1.14
12.1.1.9	12.1.1.15
12.1.1.10	

12.1.1.001.00*

<u>ADVISE PILOT OF REQUIRED BDA</u>

	BDA REQ ANNUNCIATOR	= 'BDA REQ'*
COMMUNICATE	OSO ICS	
	PILOT ICS	= ACKNOWLEDGED

12.1.1.006.00*

<u>SET VIDEO SELECT ROTARY SWITCH TO 'FLIR'</u>

	BDA REQ ANNUNCIATOR	= 'BDA REQ'
SET	VIDEO SELECT SWITCH	
	VIDEO SELECT SWITCH	= FLIR

12.1.1.007.00*

<u>SET BNS MODE SWITCH TO FLIR BNS ON EVS STEERING CONTROL</u>

	VIDEO SELECT SWITCH	= STV
SET	IR STEER	
	IR STEER	= 'BNS'

12.1.1.008.00*

<u>CHECK THAT CURRENT STEER PT IS A GRAVITY TGT ON SEQ NO IDENT</u>

	BDA REQ ANNUNCIATOR	= 'BDA REQ'
CHECK	NUMBER IDENTIFIER-STEERING	
	NUMBER IDENTIFIER-STEERING	= 'TG'*
	AND STEERING SEQUENCE NUMBER	= TBD

12.1.1.009.00*

<u>DEPRESS NAV PANEL X-HAIR 'TGT' PB TO OVERLAY X-HAIRS ON TGT</u>

	GRAVITY TARGETS X-HAIR CONTROL	= OFF
DEPRESS	GRAVITY TARGETS X-HAIR CONTROL	
	GRAVITY TARGETS X-HAIR CONTROL	= ON*
	AND X-HAIR CURSORS	= POSITIONED

12.1.1.010.00*

IDENTIFY_BDA_TARGET_USING_MED_AND_FLR_SCOPES

| | FIDUCIALS
AND X-HAIR CURSORS | = TBD*
= POSITIONED |

IDENTIFY   TARGET

| | CRT DISPLAY SURFACE
AND MULTIFUNCTION DISPLAY | = TBD*
= TBD |

12.1.1.011.00*

ASSESS_TARGET_DAMAGE

| | CRT DISPLAY SURFACE
AND MULTIFUNCTION DISPLAY | = TBD*
= TBD |

IDENTIFY   TARGET DAMAGE

| | CRT DISPLAY SURFACE
AND MULTIFUNCTION DISPLAY | = TBD
= TBD |

12.1.1.012.00*

SET_PHOTO_TOGGLE_SW_TO_'AUTO'_ON_FLR_INDIC-RECORDER_PANEL

| | CRT DISPLAY SURFACE
AND MULTIFUNCTION DISPLAY | = TBD*
= TBD |

SET   PHOTO CONTROL

| | PHOTO CONTROL | = AUTO* |

12.1.1.013.00*

NOTIFY_PILOT_OF_DECISION_TO_DEPLOY-WITHHOLD_WEAPON*

| | CRT DISPLAY SURFACE
AND MULTIFUNCTION DISPLAY | = TBD*
= TBD |

COMMUNICATE   OSO ICS

| | PILOT ICS | = ACKNOWLEDGED |

12.1.1.014.00*

DEPRESS_BOMB_DLVY_ON_STORES_DEL_PANEL_TO_DEACTIVATE_BOMB_MODE

| | CRT DISPLAY SURFACE
AND MULTIFUNCTION DISPLAY | = TBD*
= TBD |

DEPRESS   BOMB MODE CONTROL

| | BOMB MODE CONTROL | = OFF |

12.4

12.1.1.015.00*

SET PHOTO SWITCH ON FLR INDICATOR-RECORDER TO OFF

	BOA REQ ANNUNCIATOR	= OFF
SET	PHOTO CONTROL	
	PHOTO CONTROL	= OFF*

SET PHOTO SWITCH ON FLR INDICATOR-RECORDER TO OFF

OBJECTIVE: PERFORM BDA OPERATIONS   12.2

                        CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. BDA required

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO advise BDA required.
                     2. OSO communicate with pilot that EVS sensor required.
                     3. OSO confirm FLIR available on the MFD.
                     4. OSO inform pilot of "bomb" or "flyby" decision.

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Proper switch positions.

ENABLING OBJECTIVES:

  1. Recall that the FLIR pod can only be extended from the front station.

  2. Recall that in the EXD position, FLIR steering can be accomplished
      manually with the tracking handle or via the BNS mode of the ACU.

  3. Recall that FLIR will be displayed on the VSD's only when IR is
      selected on the mode switch.

ANCILLARY OBJECTIVES:

  1. Recall that in the fixed or vector positions, OSO steering is denied.

  2. Recall that in the fixed or vector positions, pod extension can be
      commanded.

OPERATOR: P/CP

TASK ELEMENTS: 12.1.1.2
                      12.1.1.3
                      12.1.1.4
                      12.1.1.5

12.1.1.002.00*

ACKNOWLEDGE EVS SENSOR REQUIRED FOR BDA*

	OSO ICS	= REQ EVS CONTRO
COMMUNICATE	PILOT ICS	
	OSO ICS	= ACKNOWLEDGED

12.1.1.003.00*

SET EVS POD CONTROL ROTARY SWITCH TO 'EXD' IF RETRACTED

	IR POD CONTROL	= RET
SET		
	IR POD CONTROL	
	VSD-PILOT	= TBD
	OR VSD-COPILOT	= TBD

12.1.1.004.00*

CONFIRM EVS VIDEO IMAGE AVAILABLE TO OSO*

	IR POD CONTROL	= EXD
COMMUNICATE	PILOT ICS	
	OSO ICS	= IMAGE AVAILABL

12.1.1.005.00*

SET IR EVS POD CONTROL TO 'EXD' IF NOT RETRACTED*

12.7

OBJECTIVE: PERFORM SRAM INITIALIZATION   12.3

                    CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1.   Cruise configuration
                      2.   Target programmed for SRAM

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

    1.   Recall that OMSL will be displayed on the Pilot's Stores Panel,
         indicating that an offensive missile will be released next.

    2.   Recall that within one second after store release, the next weapon
         to be released will be displayed.

ANCILLARY TASKS:

OPERATOR: P/CP

TASK ELEMENTS: 12.1.2.1

12.1.2.001.00*
OBSERVE CURRENT SMWDP SEQ NO IS A GRAVITY WEAPON RELEASE*

                          NUMBER IDENTIFIER-STEERING   = 'TG'
                      AND TYPE STORE INDICATOR   = 'BOMB'

        OBSERVE   SEQUENCE NUMBER
                              SEQUENCE POINT READOUT
                              SEQUENCE NUMBER IDENTIFIER

                          NUMBER IDENTIFIER-STEERING   = 'TG'

OBJECTIVE: PERFORM SRAM INITIALIZATION   12.4

                    CRITICALITY: 2   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Target programmed for SRAM

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                      2. Switches in proper position

ENABLING OBJECTIVES:

1. Recall that the selected point sequence number is a three digit number
    with a dash addendum number.   The number in the navigation panel should
    correspond to the SRAM missile release scheduled in the combat mission
    file (CMF).

2. Recall that by depressing PRGM on the stores management panel, the next
    program scheduled for release is displayed.

3. Recall that when RDIS is depressed, after PRGM has been depressed, the
    next program is displayed on the right SMS CRT.

4. Recall that by depressing STAT on the SMS panel, the weapon status at
    all locations is displayed on the left SMS CRT after LDIS is depressed.

5. Recall that by selecting the location (fwd, intmd, or aft), selected
    weapon locations and data are displayed.

6. Recall that the STA numeric keys enable the OSO to select a specific
    weapon station when the STAT display mode has been selected.

7. Recall that when the Store Power switch is selected and the store is a
    missile, electronics (initialization) power would be applied to all
    stations in the bay.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 12.1.2.1
                      12.1.2.2   12.1.2.5
                      12.1.2.3   12.1.2.6
                      12.1.2.4

12.1.2.001.00*
OBSERVE CURRENT SMWDP SEQ NO IS A GRAVITY WEAPON RELEASE*

                                NUMBER IDENTIFIER-STEERING   = 'TG'
                        AND TYPE STORE INDICATOR   = 'BOMB'

        OBSERVE   SEQUENCE NUMBER
                                SEQUENCE POINT READOUT
                                SEQUENCE NUMBER IDENTIFIER

                                NUMBER IDENTIFIER-STEERING   = 'TG'

12.1.2.002.00*
DEPRESS 'PRGM' ON SMS TO DISPLAY FULL SMWDP, THEN DPR 'RDIS'

        DEPRESS   PRGM DATA CONTROL SWITCH
                                R DIS SELECTOR PUSHBUTTON

                                DISPLAY TUBE SURFACE   = TBD*

12.1.2.003.00*
DEPRESS 'STAT' ON SMS TO DISPLAY FULL STATUS, THEN DPR 'LDIS'

        DEPRESS   STAT   DATA CONTROL SWITCH
                                L DIS SELECTOR PUSHBUTTON

                                DISPLAY TUBE SURFACE   = TBD*

12.1.2.004.00*
DEPRESS 'LOCATION' TO SELECT 'FWD', INTMD, OR 'AFT' LOCATION

                                L DIS SELECTOR PUSHBUTTON   = ON*
                        AND SMS CRT READOUT ASSEMBLY-LEFT   = TBD

        DEPRESS   LOCATION SELECT

                                LOCATION SELECT   = FWD
                        OR LOCATION SELECT   = AFT

12.1.2.005.00*
DEPRESS 'STA' NUMERIC PB TO SELECT SPECIFIC WEAPON STATION

                                LOCATION SELECT   = FWD
                        OR LOCATION SELECT   = AFT

        DEPRESS   STATION NUMERIC KEYBOARD

                                STATION NUMERIC KEYBOARD   = '1'*
                        OR STATION NUMERIC KEYBOARD   = '3'

12.1.2.006.00*
    SET SI PWR TOGGLE SWITCH TO 'ON' FOR INITIALIZATION (SI PWR)

                              STATION NUMERIC KEYBOARD   = '1'*

    SET   STORE POWER SWITCH .

                              STORE POWER SWITCH   = ON

OBJECTIVE: PERFORM SRAM PRE-LAUNCH OPERATION   12.5

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO notify pilot to initiate TAL.
                      2. Pilot verifies missile target within range.
                      3. Pilot verifies launch conditions within safe weapon
                          release limits.
                      4. Pilot observes selected stores bay doors status indicators.

PERFORMANCE LIMITS: 1. Switches in proper position
                      2. Proper sequence

ENABLING OBJECTIVES:

1. Recall that a transfer alignment turn (TAL) must be made prior to the
    launch of a missile.

2. Recall under what conditions an automatic or manual release of a missile
    should be made.

3. Recall that when the IN RNG indicator is lit on the Stores Deliver Panel,
    a missile is within maximum range.

4. Recall that when the SAFE indicator is lit on the Stores Deliver Panel, a
    missile is within maximum range and outside the minimum range.

5. Recall that the weapons bay door control on the Stores Management Panel
    allows the doors to be fully or partially open by depressing the
    appropriate switch. The indicator flashes twice a second when in a
    transient state and illuminates steady when in either the full or part
    open position.

ANCILLARY OBJECTIVES:

1. Recall that the weapons bay door indicators flashes twice a second
    when in a transient state and illuminate steady when in the full or
    part open position.

OPERATOR: OSO

TASK ELEMENTS: 12.1.3.1
12.1.3.4
12.1.3.8
12.1.3.9
12.1.3.10

12.1.3.001.00
<u>NOTIFY (P) TO INITIATE TRANSFER ALIGNMENT TURN (TAL)</u>

	SMS CRT READOUT ASSEMBLY-LEFT	= 'TAL REQ'*
COMMUNICATE	OSO ICS	
	PILOT ICS	= ACKNOWLEDGED

12.1.3.004.00
<u>DEPRESS MISSILE DELIVERY SELECT PUSHBUTTON TO 'AUTO'</u>

	MISSILE DELIVERY CONTROL	= 'MAN'
DEPRESS	MISSILE DELIVERY CONTROL	
	MISSILE DELIVERY CONTROL	= 'AUTO'*

12.1.3.008.00
<u>VERIFY MISSILE TARGET IS WITHIN RANGE OF AIR VEHICLE POSN</u>

	TIME-TO-GO READOUT	< 59
CHECK	INRANGE INDICATOR ANNUNCIATOR INDICATOR-STORES	
	INRANGE INDICATOR	= 'INRNG'*
	AND ANNUNCIATOR INDICATOR-STORES	= 'IN RNG'

12.1.3.009.00
<u>VERIFY LAUNCH CONDITIONS ARE WITHIN SAFE WEAPON REL LIMITS</u>

	TIME-TO-GO READOUT	< 59
CHECK	SAFE INDICATOR ANNUNCIATOR INDICATOR-STORES	
	SAFE INDICATOR	= 'SAFE'*
	AND ANNUNCIATOR INDICATOR-STORES	= 'SAFE'

12.1.3.010.00
<u>OBSERVE SELECTED STORES BAY DOORS STATUS INDICATOR*</u>

	FWD BAY DOOR STATUS IND	= 'PART'*
	AND FWD BAY DOOR CONTROL	= PART
CHECK	BAY DOOR STATUS INDICATORS BAY DOOR CONTROL	
	FWD BAY DOOR STATUS IND	= 'FULL'*
	AND FWD BAY DOOR CONTROL	= FULL

OBJECTIVE: PERFORM SRAM PRE-LAUNCH OPERATIONS   12.6

                          CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS: 1. Maintain altitude during TAL maneuvers

INTERACTION TASKS: 1. OSO monitor MFD and FLR during the transfer
                        alignment turn (TAL).

PERFORMANCE LIMITS: 1. Heading - TBD (±degrees)
                     2. Altitude - TBD (±ft)
                     3. Airspeed - TBD (±Kts)

ENABLING OBJECTIVES:

1. Recall that the heading of the A/V can be changed by overpowering the
   AFCS; however, stick pressure will have to be maintained to hold the
   heading offset.

2. Recall that control stick steering (CSS) is available only in the basic
   AFCS mode of flight path hold in the pitch axis and attitude hold in the
   roll axis.

3. Recall that CSS is operational when the TAKE COMD and ENGAGE switchlights
   are green and all other lights on the AFCS panel are white.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 12.1.3.2
                 12.1.3.3

12.1.3.002.00*
        POSITION CONTROL STICK TO BANK A-V FOR 15 DEG HEADING CHANGE*

                        HEADING READOUT-PILOT   ¬=TBD*

        TRACK   PILOTS FLIGHT CONTROL STICK

                        HEADING READOUT-PILOT   = TBD*

12.1.3.003.00*
        RELEASE POSITIVE OVERRIDE CONTROL FORCE TO RETURN TO TRACK

                        SMS CRT READOUT ASSEMBLY-LEFT ¬='TAL REQ'
                    AND OSU ICS   = TAL REQ BLANKED

        RELEASE   PILOTS FLIGHT CONTROL STICK

                        HEADING READOUT-PILOT   = TBD*

OBJECTIVE: PERFORM SRAM PRE-LAUNCH PROCEDURES   12.7

                    CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO verifies missile target is within range
                     2. OSO verifies launch conditions within safe weapons
                         release limits.
                     3. OSO observes selected stores bay doors status.

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

    1. Recall that the time-to-go is time remaining to store release when the
        point type in the Point/Sequence readout is T.

    2. Recall that when the IN RNG indicator is lit on the Pilot Stores Panel,
        store power is on and the air vehicle launch position is within maximum
        range for the selected trajectory.

    3. Recall that when the SAFE indicator is lit on the Pilot Stores Panel,
        store power is on and a missile is within maximum range and outside the
        minimum range for the selected trajectory.

    4. Recall that the weapons bay door indicator flashes twice a second
        when in a transient state and illuminates steady when in either the
        part or full open commanded position.

ANCILLARY OBJECTIVES:

    1. Recall that the next weapon to be released will be displayed as store
        type within one second after store release.

    2. Recall that the indicator showing the bay from which the next store will
        be released is illuminated 99 seconds prior to release.

    3. Recall that a SRAM and a gravity weapon can be in countdown concurrently
        and so it is possible for two bay indicators to be illuminated
        simultaneously.

OPERATOR: P/CP

TASK ELEMENTS: 12.1.3.5   12.1.3.8
                         12.1.3.6   12.1.3.9
                         12.1.3.7   12.1.3.10

12.1.3.005.00

        MONITOR TTG INDICATOR ON PILOT STORES PANEL

	TIME-TO-GO READOUT	< 59*
MONITOR-VISUAL	TIME-TO-GO READOUT	
	TIME-TO-GO READOUT	= 0*

12.1.3.006.00

        VERIFY SELECTED STORE ON PILOTS STORES PANEL READS 'MSL'

	TIME-TO-GO READOUT	< 59
CHECK	TYPE STORE INDICATOR	
	TYPE STORE INDICATOR	= 'MSL'

12.1.3.007.00

        IDENTIFY SELECTED STORE LOCATION ON PILOT STORES PANEL

	TIME-TO-GO READOUT	< 59
CHECK	BAY LOCATION INDICATORS	
	BAY LOCATION INDICATORS	= 'FWD'*
	OR BAY LOCATION INDICATORS	= 'AFT'

12.1.3.008.00

        VERIFY MISSILE TARGET IS WITHIN RANGE OF AIR VEHICLE POSN

	TIME-TO-GO READOUT	< 59
CHECK	INRANGE INDICATOR ANNUNCIATOR INDICATOR-STORES	
	INRANGE INDICATOR	= 'INRNG'*
	AND ANNUNCIATOR INDICATOR-STORES	= 'IN RNG'

12.1.3.009.00

        VERIFY LAUNCH CONDITIONS ARE WITHIN SAFE WEAPON REL LIMITS

	TIME-TO-GO READOUT	< 59
CHECK	SAFE INDICATOR ANNUNCIATOR INDICATOR-STORES	
	SAFE INDICATOR	= 'SAFE'*
	AND ANNUNCIATOR INDICATOR-STORES	= 'SAFE'

12.1.3.010.00

OBSERVE SELECTED STORES BAY DOORS STATUS INDICATOR*

	FWD BAY DOOR STATUS IND	= 'PART'*
	AND FWD BAY DOOR CONTROL	= PART
CHECK	BAY DOOR STATUS INDICATORS	
	BAY DOOR CONTROL	
	FWD BAY DOOR STATUS IND	= 'FULL'*
	AND FWD BAY DOOR CONTROL	= FULL

OBJECTIVE: PERFORM SRAM LAUNCH OPERATIONS   12.8

                   CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. SRAM initialization complete

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO verifies missile launch on Stores Delivery Panel.
                      2. OSO verifies stores bay doors closing.
                      3. OSO verifies missile release sequence complete.

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

    1. Interpret when the AFCS pitch steering is abnormal and indicates that
        pitch should be flown manually.

    2. Recall that the AWAY indicator on the Pilot's Stores Panel is lit and
        remains on for 5 seconds after the weapon has separated from the rack.

    3. Recall that the weapons bay door indicator flashes twice a second when
        in the transient closing state.

ANCILLARY OBJECTIVES:

    1. Recall the nominal release parameters of the missile to insure that
        the missile doesn't hit the ground after launch.

    2. Recall that when a multiple release is in progress the AWAY indicator
        on the Pilot's Stores Panel flashes twice a second until the multiple
        release is complete, at which time the light goes on steady for 5 seconds.

OPERATOR: P/CP

TASK ELEMENTS: 12.1.3.11   12.1.3.14
                      12.1.3.12   12.1.3.15
                      12.1.3.13

12.1.3.011.00

<u>MONITOR AFCS PITCH STEERING</u>

	TIME-TO-GO READOUT	= 5
MONITOR-VISUAL	STEERING COMMAND SYMBOL-PIL	
	STEERING COMMAND SYMBOL-PIL	= TBD*

12.1.3.012.00

<u>MAINTAIN FLIGHT PATH TO ASSURE RELEASE PARAMETERS MET</u>

	TIME-TO-GO READOUT	= 5
MONITOR-VISUAL	FLIGHT PATH ANGLE SYMBOL-PIL	
	AMI-PILOT	
	AVVI-PILOT	
	FLIGHT PATH ANGLE SYMBOL-PIL	= TBD*
AND	AVVI-PILOT	= TBD

12.1.3.013.00

<u>VERIFY MISSILE LAUNCH ON SI DLVY AND PILOT STORES PANEL</u>

	TIME-TO-GO READOUT	= 0
AND	ANNUNCIATOR INDICATOR-STORES	¬='REL SIG'
MONITOR-VISUAL	STORES AWAY INDICATOR	
	ANNUNCIATOR INDICATOR-STORES	
	STORES AWAY INDICATOR	= 'AWAY'*
AND	ANNUNCIATOR INDICATOR-STORES	= 'AWAY'

12.1.3.014.00

<u>VERIFY STORES BAY DOORS CLOSING*</u>

	FWD BAY DOOR STATUS IND	= 'PART'
AND	FWD BAY DOOR CONTROL	= PART
CHECK	BAY DOOR STATUS INDICATORS	
	BAY DOOR CONTROL	
	FWD BAY DOOR STATUS IND	= OFF
AND	FWD BAY DOOR CONTROL	= OFF

12.1.3.015.00

VERIFY WEAPON RELEASE SEQUENCE COMPLETE

                        FWD BAY DOOR STATUS IND   = OFF
                 AND FWD BAY DOOR CONTROL   = OFF

CHECK   SAFE-INRANGE-STORES AWAY IND
                        ANNUNCIATOR INDICATOR-STORES

                        SAFE-INRANGE-STORES AWAY IND   = OFF
                 AND ANNUNCIATOR INDICATOR-STORES   = OFF

OBJECTIVE: PERFORM SRAM LAUNCH OPERATIONS   12.9

                    CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. SRAM initialization complete

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pilot verifies missile launch on Pilot Stores Panel.
                      2. Pilot verifies stores bay doors closing.
                      3. Pilot verifies missile release sequence complete.

PERFORMANCE LIMITS: 1. Proper sequence.

ENABLING OBJECTIVES:

   1. Recall that any scheduled release signal to the stores rack illuminates
       the REL SIG for 5 seconds.

   2. Recall that the AWAY indicator is lit and remains on for 5 seconds
       after the weapon has separated from the rack.

   3. Recall that the weapons bay door indicator flashes twice a second
       when the doors are in the transient closing state.

ANCILLARY OBJECTIVES:

   1. Recall that when a multiple release is in progress the REL SIG comes
       on with the first release and pulses twice a second until the multiple
       release is complete, at which time the light goes on steady for 5 seconds.

   2. Recall that for a multiple release the AWAY indicator operates the same
       as the REL SIG indicator described above.

OPERATOR: OSO

TASK ELEMENTS: 12.1.3.13
                      12.1.3.14
                      12.1.3.15

12.1.3.013.00

VERIFY MISSILE LAUNCH ON SI OLVY AND PILOT STORES PANEL

```
                    TIME-TO-GO READOUT            = 0
                AND ANNUNCIATOR INDICATOR-STORES   ¬='REL SIC'

MONITOR-VISUAL      STORES AWAY INDICATOR
                    ANNUNCIATOR INDICATOR-STORES

                    STORES AWAY INDICATOR         = 'AWAY'*
                AND ANNUNCIATOR INDICATOR-STORES  = 'AWAY'
```

12.1.3.014.00

VERIFY STORES BAY DOORS CLOSING*

```
                    FWD BAY DOOR STATUS IND       = 'PART'
                AND FWD BAY DOOR CONTROL          = PART

CHECK               BAY DOOR STATUS INDICATORS
                    BAY DOOR CONTROL

                    FWD BAY DOOR STATUS IND       = OFF
                AND FWD BAY DOOR CONTROL          = OFF
```

12.1.3.015.00

VERIFY WEAPON RELEASE SEQUENCE COMPLETE

```
                    FWD BAY DOOR STATUS IND       = OFF
                AND FWD BAY DOOR CONTROL          = OFF

CHECK               SAFE-INRANGE-STORES AWAY IND
                    ANNUNCIATOR INDICATOR-STORES

                    SAFE-INRANGE-STORES AWAY IND  = OFF
                AND ANNUNCIATOR INDICATOR-STORES  = OFF
```

OBJECTIVE: PERFORM GRAVITY STORE PRE-RELEASE   12.10

                         CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pilot performs gravity store pre-release at the same time.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that TG shows at two locations on the navigator panel.

2. Recall that the gravity target sequence number defines the TTD and DIST
   data on the display.

3. Recall that by depressing PRGM and R DIS, the next program scheduled for
   release will be displayed on the right SMS CRT.

4. Recall that by depressing STAT and L DIS, the weapon status at all locations
   will be displayed on the left SMS CRT.

5. Recall that it may not be necessary to depress the bomb delivery AUTO/MAN
   switch. The AUTO segment is illuminated when the bomb mode is initiated.

6. Recall that time-to-go is presented on the MFD with the prefix TR (time
   to travel actual range to release point).

7. Recall that the keys on the station numeric keyboard are mutually exclusive.

ANCILLARY OBJECTIVES:

1. Recall that the TTD will indicate in minutes between IP and TGT until
   within one minute prior to release when it will indicate time in seconds.

2. Recall that a specific weapon can be selected when the STAT display mode
   has been selected. If a selection procedure has not been completed the
   selected key blinks twice each second.

OPERATOR: OSO

TASK ELEMENTS: 12.1.4.1
                12.1.4.2
                12.1.4.3
                12.1.4.4
                12.1.4.5.2
                12.1.4.8

12.1.4.001.00*

      <u>OBSERVE CURRENT SMWDP SEQ NO IS A GRAVITY WEAPON RELEASE*</u>

	NUMBER IDENTIFIER-STEERING	= 'TG'
	AND TYPE STORE INDICATOR	= 'BOMB'
OBSERVE	SEQUENCE NUMBER	
	SEQUENCE POINT READOUT	
	SEQUENCE NUMBER IDENTIFIER	
	NUMBER IDENTIFIER-STEERING	= 'TG'

12.1.4.002.00*

      <u>DEPRESS 'PRGM' ON SMS TO DISPLAY FULL SMWDP, THEN DPR 'RDIS'</u>

DEPRESS	PRGM DATA CONTROL SWITCH	
	R DIS SELECTOR PUSHBUTTON	
	DISPLAY TUBE SURFACE	= TBD*

12.1.4.003.00*

      <u>DEPRESS 'STAT' ON SMS TO DISPLAY FULL STATUS, THEN DPR 'LDIS'</u>

DEPRESS	STAT DATA CONTROL SWITCH	
	L DIS SELECTOR PUSHBUTTON	
	DISPLAY TUBE SURFACE	= TBD*

12.1.4.004.00*

      <u>DEPRESS BOMB DLVY SELECT LIGHTED SWITCH TO 'AUTO'</u>

	BOMB DELIVERY CONTROL	= 'MAN'
DEPRESS	BOMB DELIVERY CONTROL	
	BOMB DELIVERY CONTROL	= 'AUTO'

12.1.4.005.02*

      <u>OBSERVE TTG ON MED</u>

	MULTIFUNCTION DISPLAY	> 0*
MONITOR-VISUAL	MULTIFUNCTION DISPLAY	
	MULTIFUNCTION DISPLAY	= TBD

12.1.4.006.00*

      <u>DEPRESS 'STA' NUMERIC PB TO SELECT SPECIFIC WEAPON STATION</u>

	LOCATION SELECT	= FWD
	OR LOCATION SELECT	= AFT
DEPRESS	STATION NUMERIC KEYBOARD	
	STATION NUMERIC KEYBOARD	= '1'*
	OR STATION NUMERIC KEYBOARD	= '3'

OBJECTIVE: PERFORM GRAVITY STORE PRE-RELEASE   12.11

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO performs gravity store pre-release at the same time

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

1. Recall that the Point/Sequence readout displays a T for target.

2. Recall that the TTD will indicate in minutes between IP and TGT until one minute prior to release when it will indicate time in seconds.

3. Recall that BOMB will be displayed for all types of nuclear or conventional gravity bombs and OMSL for offensive missiles.

4. Recall that the bay from which the next store is to be released is illuminated 99 seconds prior to release of either a SRAM or gravity.

5. Recall that it is possible for two bay indicators to be illuminated simultaneously since both a SRAM and gravity weapon can be in countdown concurrently.

6. Recall that the steering mode legend BOMB appears in the lower right-hand corner of the DU screen.

ANCILLARY OBJECTIVES:

1. Recall that when BOMB appears on the VSD any steering command information will be referenced to the bomb run.

OPERATOR: P/CP

TASK ELEMENTS: 12.1.4.5
12.1.4.5.1
12.1.4.6
12.1.4.7
12.1.4.9

12.1.4.005.00*

OBSERVE TTG ON PLT STORES PANEL AND MFD*

12.1.4.005.01*

OBSERVE TTG INDICATOR ON PILOT STORES PANEL

                              TIME-TO-GO READOUT   > 0*

MONITOR-VISUAL   SEQUENCE POINT READOUT
                              TIME-TO-GO READOUT
                              TIME TO GO-RANGE DISPLAY-PIL

                              SEQUENCE POINT READOUT   = T
              AND TIME TO GO-RANGE DISPLAY-PIL   = TBD

12.1.4.006.00*

CHECK SELECTED STORE TYPE ON PILOT STORES PANEL

                              TIME-TO-GO READOUT   > 0

CHECK   TYPE STORE INDICATOR

                              TYPE STORE INDICATOR   = 'BOMB'

12.1.4.007.00*

IDENTIFY SELECTED GRAVITY STORE BAY LOCATION ON PLT STRS PAN

                              TIME-TO-GO READOUT   > 0

IDENTIFY   BAY INDICATOR-FORWARD LIGHT
                              BAY INDICATOR-INTMD LIGHT
                              BAY INDICATOR-AFT LIGHT

                              BAY INDICATOR-FORWARD LIGHT   = 'FWD'
              OR BAY INDICATOR-AFT LIGHT   = 'AFT'

12.1.4.009.00*

OBSERVE THAT BOMB STEERING IS INITIATED

                              TIME-TO-GO READOUT   > 0

OBSERVE   STEERING MODE LEGEND-PILOT

                              STEERING MODE LEGEND-PILOT   = 'BOMB'

OBJECTIVE: PERFORM BOMB RUN TRACKING   12.12

                    CRITICALITY: 2   DIFFICULTY: 3

INITIAL CONDITIONS: 1. Cruise configuration
                     2. Weapon delivery run initiated

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO advise pilot of required steering corrections.
                     2. Pilot monitor OSO steering corrections.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions
                     3. X-hair lay - TBD(±ft)

ENABLING OBJECTIVES:

    1. Recall how to distinguish between the OAP 1 and OAP 2 radar returns and
        other returns in the vicinity.

    2. Recall that steering or bomb release are not affected by activation of the
        OAP 1 or OAP 2 switches.

    3. Recall that once OAP 1 or OAP 2 has been selected, changes to the X-hair
        position via the tracking handle does affect steering and alters the
        aircraft course.

ANCILLARY OBJECTIVES:

    1. Recall how to reposition the X-hairs on the OAPs if the X-hairs do not
        overlay the OAPs.

    2. Recall that if the target breaks out during the bomb run, the X-hairs
        can be positioned on the TGT rather than on OAP 1 or OAP 2 and a more
        accurate bomb drop accomplished.

OPERATOR: OSO

TASK ELEMENTS: 12.1.4.10
                  12.1.4.11
                  12.1.4.12
                  12.1.4.13
                  12.1.4.14

12.1.4.010.00*

       <u>DEPRESS 'OAP 1' ON NAV PANEL,THEN IDENTIFY OAP ON FLR</u>

DEPRESS   OFFSET AIM POINT-1 CONTROL

                         OFFSET AIM POINT-1 CONTROL   = ON*
                    AND CRT DISPLAY SURFACE   = TBD

12.1.4.011.00*

       <u>DEPRESS 'OAP 2' ON NAV PANEL, THEN IDENTIFY OAP ON FLR</u>

DEPRESS   OFFSET AIM POINT-2 CONTROL

                         OFFSET AIM POINT-2 CONTROL   = ON*
                    AND CRT DISPLAY SURFACE   = TBD

12.1.4.012.00*

       <u>ADVISE PILOT OF REQUIRED STEERING CORRECTIONS*</u>

                         X-HAIR CURSORS   ¬=POSITIONED*
                    AND CRT DISPLAY SURFACE   = TBD

COMMUNICATE   OSO INTERPHONE SWITCH

                         PILOT ICS   = ACKNOWLEDGED

12.1.4.013.00*

       <u>POSITION X-HAIRS TO COINCIDE WITH OAP USING TRACKING HANDLE*</u>

                         X-HAIR CURSORS   ¬=POSITIONED*
                    AND CRT DISPLAY SURFACE   = TBD

POSITION   ENABLE SWITCH

                         X-HAIR CURSORS   = POSITIONED*
                    AND CRT DISPLAY SURFACE   = TBD

12.1.4.014.00*

       <u>DEPRESS 'OAP 2' LIGHTED PUSHBUTTON ON NAV PANEL</u>

                         X-HAIR CURSORS   ¬=POSITIONED*
                    AND CRT DISPLAY SURFACE   = TBD

DEPRESS   OFFSET AIM POINT-2 CONTROL

                         X-HAIR CURSORS   = POSITIONED
                    AND CRT DISPLAY SURFACE   = TBD

OBJECTIVE: PERFORM GRAVITY STORE RELEASE   12.13

                    CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                      2. Gravity store pre-release complete

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO performs gravity store release procedures at the
                         same time.
                      2. OSO advises pilot to initiate-insure planned bombing
                         altitude.
                      3. Notify other crew members of imminent shock.

PERFORMANCE LIMITS: 1. Proper sequence
                      2. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that the TTD will indicate in seconds when approaching release.

2. Recall that the steering symbol will blink three times a second when
   the A/V is outside of weapon release limits.

3. Recall that the bomb bay door indicators flash twice a second when in
   a transient state.

4. Recall that the AWAY indicator is ACU controlled to illuminate when
   the weapon has separated from the rack.

5. Recall that if a second weapon is scheduled for release, the bomb
   legend on the VSD will go to a steady on state; otherwise, the legend
   will correspond to the steering bomb selected previously.

6. Calculate shock arrival time based on the type of weapon, type of burst
   (air or ground), method of descent (free-fall, retarded, etc.)

7. Recall how to judge what is the lowest appropriate clearance plane
   setting for various flight and weather conditions.

<u>ANCILLARY OBJECTIVES</u>:

1. Recall that the AFCS will be disengaged if the trigger switch on the stick is depressed to the second detent.

2. Recall that if the clearance plane setting is set on 500 the TFR is in a special weather mode that employs additional video blanking. The area from which radar returns are processed is limited.

<u>OPERATOR</u>:   P/CP

<u>TASK ELEMENTS</u>:   12.1.4.18
                       12.1.4.20
                       12.1.4.22
                       12.1.4.23
                       12.1.4.24
                       12.1.4.25
                       12.1.4.26
                       12.1.4.27
                       12.1.4.28

12.1.4.018.00*

   MONITOR TTG INDICATOR ON PILOT STORES PANEL

| | TIME-TO-GO READOUT | > 0* |
| | AND STEERING TIME READOUT | > 0 |

MONITOR-VISUAL   TIME-TO-GO READOUT
                      STEERING TIME READOUT

| | TIME-TO-GO READOUT | = TBD* |
| | AND STEERING TIME READOUT | = TBD |

12.1.4.020.00*

   DEPRESS AFCS INTERR-DISC TRIG SW ON STICK TO FIRST DETENT

                      CRT TUBE DISPLAY-PILOT   = TBD*

DEPRESS   PILOT AFCS INTRPT-DISENG CNTRL

                      PILOT AFCS INTRPT-DISENG CNTRL = FIRST DETENT*

12.1.4.022.00*

   SET CL SW TO SELECT APPROPRIATE CLEARANCE PLANE FOR W.D.

                      AVVI-PILOT   = TBD

SET   CLEARANCE SELECT SWITCH

                      CLEARANCE SELECT SWITCH   = TBD*

12.1.4.023.00*

   CHECK A-V FLT CONDITS ARE WITHIN SAFE WEAPON REL LIMITS

                      TIME-TO-GO READOUT   > 0*

CHECK   STEERING COMMAND SYMBOL-PIL

                      STEERING COMMAND SYMBOL-PIL   = ON-STEADY

12.1.4.024.00*

   OBSERVE SELECTED STORES BAY DOORS STATUS INDICATORS*

| | BAY DOOR STATUS INDICATORS | = FLASHING* |
| | AND FWD BAY DOOR CONTROL | = FLASHING |

OBSERVE   BAY DOOR STATUS INDICATORS
                      FWD BAY DOOR CONTROL

| | BAY DOOR STATUS INDICATORS | = 'FULL'* |
| | AND FWD BAY DOOR CONTROL | = ON-G |

12.1.4.025.00*
          CHECK GRAVITY STORE RELEASE, USING VSD, PLT ST, ST DEL PANS

    CHECK

12.1.4.025.01*
          CHECK GRAVITY STORE RELEASE USING VSD AND PILOT STORES PANEL

                              TIME-TO-GO READOUT   = 0*
                          AND STEERING MODE LEGEND-PILOT   = 'BOMB'-FLASHING

          CHECK   TIME-TO-GO READOUT
                              STORES AWAY INDICATOR
                              STEERING MODE LEGEND-PILOT

                              STORES AWAY INDICATOR   = OFF*
                          OR STEERING MODE LEGEND-PILOT   = OFF

12.1.4.025.02*
          CHECK GRAVITY STORE RELEASE USING STORES DELIVERY PANELS

                              RELEASE SIGNAL ANNUNCIATOR   = 'REL SIG'*
                          AND AWAY ANNUNCIATOR   = 'AWAY'

          CHECK   RELEASE SIGNAL ANNUNCIATOR
                              AWAY ANNUNCIATOR

                              RELEASE SIGNAL ANNUNCIATOR   = OFF*
                          AND AWAY ANNUNCIATOR   = OFF

12.1.4.026.00*

                          VERIFY STORES BAY DOORS CLOSING*

                              FWD BAY DOOR STATUS IND   = 'PART'
                          AND FWD BAY DOOR CONTROL   = 'PART'

          CHECK   BAY DOOR STATUS INDICATORS
                              BAY DOOR CONTROL

                              FWD BAY DOOR STATUS IND   = OFF
                          AND FWD BAY DOOR CONTROL   = OFF

12.1.4.027.00*
SET CL SW TO LOWEST APPROPRIATE CLEARANCE PLANE SETTING

                         FWD BAY DOOR STATUS IND   = OFF
                     AND FWD BAY DOOR CONTROL   = OFF

SET   CLEARANCE SELECT SWITCH

                         CLEARANCE SELECT SWITCH   = TBD
                     AND STEERING COMMAND SYMBOL-PIL   = TBD

12.1.4.028.00*
NOTIFY P OSO DSO SHOCK ARRIVAL IS IMMINENT

                         CLOCK-COPILOT   = TBD*

COMMUNICATE   PUSH-TO-TALK SWITCH-COPILOT

                         PILOT ICS   = ACKNOWLEDGED
                     AND DSO ICS   = ACKNOWLEDGED

OBJECTIVE: PERFORM GRAVITY STORE RELEASE (OSO)   12.14

                    CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. Gravity store pre-release complete

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pilot performs gravity store release procedures at the
                        same time.
                     2. OSO advise P to initiate-insure planned bombing altitude.

PERFORMANCE LIMITS: 1. Proper sequence

ENABLING OBJECTIVES:

   1. Recall that when the full, part open, or door close position is selected,
      the switch flashes twice a second until the door reaches the selected
      position.

   2. Recall that the REL SIG and AWAY indicators will light with the first
      release and pulse twice a second until a multiple release is complete.

   3. Recall that the REL SIG illuminates when any scheduled release signal
      is sent from the ACU to the store rack.

   4. Recall that the AWAY indicator illuminates when any scheduled weapon
      is physically separated from the rack.

   5. Recall that the weapons bay door indicator flashes twice a second when
      in the transient closing state.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 12.1.4.19   12.1.4.25.01
                  12.1.4.24   12.1.4.25.02
                  12.1.4.25
                  12.1.4.26

12.1.4.019.00*

ADVISE_PILOT_TO_INITIATE-INSURE_PLANNED_BOMBING_ALTITUDE

	CRT TUBE DISPLAY-PILOT	¬=TBD*
COMMUNICATE	USO INTERPHONE SWITCH	
	PILOT ICS	= ACKNOWLEDGED

12.1.4.024.00*

OBSERVE_SELECTED_STORES_BAY_DOORS_STATUS_INDICATORS*

	BAY DOOR STATUS INDICATORS	= FLASHING*
	AND FWD BAY DOOR CONTROL	= FLASHING
OBSERVE	BAY DOOR STATUS INDICATORS	
	FWD BAY DOOR CONTROL	
	BAY DOOR STATUS INDICATORS	= 'FULL'*
	AND FWD BAY DOOR CONTROL	= ON-G

12.1.4.025.00*

CHECK_GRAVITY_STORE_RELEASE,_USING_VSD,_PLT_ST,_ST_DEL_PANS

CHECK

12.1.4.025.01*

CHECK_GRAVITY_STORE_RELEASE_USING_VSD_AND_PILOT_STORES_PANEL

	TIME-TO-GO READOUT	= 0*
	AND STEERING MODE LEGEND-PILOT	= 'BOMB'-FLASHING
CHECK	TIME-TO-GO READOUT	
	STORES AWAY INDICATOR	
	STEERING MODE LEGEND-PILOT	
	STORES AWAY INDICATOR	= OFF*
	OR STEERING MODE LEGEND-PILOT	= OFF

12.1.4.025.02*

CHECK_GRAVITY_STORE_RELEASE_USING_STORES_DELIVERY_PANELS

	RELEASE SIGNAL ANNUNCIATOR	= 'REL SIG'*
	AND AWAY ANNUNCIATOR	= 'AWAY'
CHECK	RELEASE SIGNAL ANNUNCIATOR	
	AWAY ANNUNCIATOR	
	RELEASE SIGNAL ANNUNCIATOR	= OFF*
	AND AWAY ANNUNCIATOR	= OFF

12.1.4.026.00*

<u>VERIFY STORES BAY DOORS CLOSING*</u>

| | FWD BAY DOOR STATUS IND | = 'PART' |
| AND | FWD BAY DOOR CONTROL | = 'PART' |

CHECK

BAY DOOR STATUS INDICATORS
BAY DOOR CONTROL

| | FWD BAY DOOR STATUS IND | = OFF |
| AND | FWD BAY DOOR CONTROL | = OFF |

MISSION SEGMENT 13

OBJECTIVE: TERMINATE TF PROCEDURES   13.1

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS: 1. Track with control stick and rudders to maintain
                        desired heading.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD (±Kts)
                     2. Altitude - TBD (±ft)

ENABLING OBJECTIVES:

    1. Calculate power level setting for withdrawal.

    2. Calculate optimum withdrawal speed.

    3. Calculate the best wing sweep angle for optimum speed.

    4. Coordinate control stick and rudders for best withdrawal.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 13.1.1.5
                 13.1.1.6
                 13.1.1.7

13.1.1.005.00*

AJUSI IHRGIILES. IF REGUIRED. FOR OPTIMUM WITHDRAWAL SPEED

AMI-PILOT ¬=TBD*

POSITION PRIMARY THROTTLE LEVERS-PI

POWER LEVEL INDICATOR = TBD
AND AMI-PILOT = TBD

13.1.1.006.00*

AJJUSI WING SWEEP LEVER TO TBD ANGLE

WING SWEEP POSITION INDICATOR ¬=TBD*

POSITION PILOTS WING SWEEP HANDLE

WING SWEEP POSITION INDICATOR = TBD
AND AMI-PILOT = TBD

13.1.1.007.00*

MANIPULATE CONTROL STICK TO INITIATE WITHDRAWAL CLIMBOUT

PITCH SCALE-PILOT ¬=TBD*

TRACK PILOTS FLIGHT CONTROL STICK

PITCH SCALE-PILOT = TBD*

OBJECTIVE: TERMINATE TF OPERATIONS   13.2

                        CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. TF

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Proper switch positions

ENABLING OBJECTIVES:

1. Recall that when TER FLW is disengaged, the AFCS reverts to the basic
    mode of flight path hold in pitch and attitude hold in roll.

2. Recall that with the TER FLW/ALT REF switch in the OFF position, neither
    a reference altitude nor clearance plane can be followed.

3. Recall that with the left and right TFR mode switches in standby, both
    channels are in warmup and ready for operation in the terrain following
    situation or ground mapping modes.

4. Recall that when AUTO THROT is disengaged, mach will not be maintained
    as it was in the terrain following mode with automatic throttle control.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 13.1.1.1
                      13.1.1.2
                      13.1.1.3
                      13.1.1.4

13.1.1.001.00*

<u>DEPRESS 'TER FLW' PB SWITCHLIGHT TO DISENGAGE TF*</u>

	COMBAT MISSION FOLDER	= TBD*
DEPRESS	PILOTS TER FLWG PUSHBUTTON	
	PILOTS TER FLWG PUSHBUTTON	= 'TER FLW'-W

13.1.1.002.00*

<u>SET 'TER FLW-ALT REF' SW ON FLT DIR PANELS TO OFF</u>

	PILOTS TER FLWG PUSHBUTTON	= 'TER FLW'-W
SET	ALT REF-TER FLW SW-PILOT ALT REF-TER FLW SW-COPILOT	
	ALT REF-TER FLW SW-PILOT	= OFF
AND	ALT REF-TER FLW SW-COPILOT	= OFF

13.1.1.003.00*

<u>SET L AND R TER MODE SWITCHES TO 'STBY'</u>

	ALT REF-TER FLW SW-PILOT	= OFF
AND	ALT REF-TER FLW SW-COPILOT	= OFF
SET	TER MODE SWITCH-LEFT TER MODE SWITCH-RIGHT	
	TER MODE SWITCH-LEFT	= STBY
AND	TER MODE SWITCH-RIGHT	= STBY

13.1.1.004.00*

<u>DEPRESS 'AUTO THROT' PB TO DISENGAGE AUTO THROTTLE CONTROL</u>

	TER MODE SWITCH-LEFT	= STBY
AND	TER MODE SWITCH-RIGHT	= STBY
DEPRESS	PILOTS AUTO THROT PUSHBUTTON	
	PILOTS AUTO THROT PUSHBUTTON	= 'AUTO THROT'-W

13.4

OBJECTIVE: ESTABLISH SUBSONIC CRUISE OPERATIONS   13.3

CRITICALITY: 1   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS: 1. Track with control stick and rudders to hold desired heading.

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Altitude - TBD (±ft)
                      2. Heading - TBD (±degrees)
                      3. Airspeed - TBD (±Kts)

ENABLING OBJECTIVES:

1. Calculate altitude lead to initiate pitch attitude change.

2. Predict necessary pitch change for level-off.

3. Coordinate control stick and throttles to achieve level-off.

4. Track with control stick to maintain level-off altitude.

5. Adjust power level to maintain cruise airspeed or Mach number.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 13.1.2.2

13.1.2.002.00*

<u>TRACK WITH STICK & RUDDERS TO ATTAIN DESIRED CLEARANCE PLANE</u>

                              AVVI-PILOT   ¬=TBD*

        TRACK   PILOTS FLIGHT CONTROL STICK
                              PILOTS RUDDER PEDALS

                              AVVI-PILOT   =·TBD*

OBJECTIVE: ESTABLISH SUBSONIC CRUISE PROCEDURES

13.4

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. TF withdrawal in progress

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Airspeed - TBD (+Kts)
                     2. Heading - TBD (+K̄ts)
                     3. Altitude - TBD (+ft)

ENABLING OBJECTIVES:

1. Recall that either airspeed, mach or altitude hold may be selected
    but no two of these modes may be selected concurrently.

2. Recall that the reference (airspeed, mach or altitude) may be changed
    through the AFCS interrupt switch on the control switch. After the
    pilot manually changes to the new reference and releases the interrupt
    switch, the air vehicle will maintain the new reference.

ANCILLARY OBJECTIVES:

1. Recall what the airspeed and angle of attack limits are for the
    flight condition being flown.

2. Recall that in the airspeed and mach hold modes, airspeed or mach is
    maintained by changes in air vehicle altitude and not by changes in
    engine throttle settings.

OPERATOR: P/CP

TASK ELEMENTS: 13.1.2.3
                      13.1.2.4
                      13.1.2.5

13.1.2.003.00*

MONITOR MACH-AIRSPEED INDICATOR (AMI)

	AMI-PILOT	= TBD*
MONITOR-VISUAL	AMI-PILOT	
	AMI-PILOT	= TBD*
	AND AOA INDICATOR-PILOT	= TBD

13.1.2.004.00*

MONITOR HSI FOR CORRECT HEADING

	HSI-PILOT	= TBD*
MONITOR-VISUAL	HSI-PILOT	
	HSI-PILOT	= TBD*

13.1.2.005.00*

SELECT DESIRED AFCS MODES, IF REQUIRED

DEPRESS

PLTS ALTITUDE HOLD PUSHBUTTON
PILOT AIRSPEED HOLD PUSHBUTTON
PLTS MACH (MACH HOLD) PSHBTN

PLTS ALTITUDE HOLD PUSHBUTTON = 'ALT'-G*
OR PLTS MACH (MACH HOLD) PSHBTN = 'MACH'-G

OBJECTIVE: ASSEMBLE STRIKE REPORT INFORMATION   13.5

                            CRITICALITY: 1   DIFFICULTY: 1
INITIAL CONDITIONS: 1. Cruise configuration
                      2. TF withdrawal

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO advise CP of damage effectiveness.

PERFORMANCE LIMITS: 1. Accurate damage assessment.

ENABLING OBJECTIVES:

   1. Interpret damage effectiveness from observing the target return on the FLR.

ANCILLARY OBJECTIVES:

   1. Recall that the estimate should be based on how well X-hair
       synchronization was accomplished prior to weapon release. It will
       be impossible to check how well synchronization was maintained after release
       unless the weapon was a dud.

OPERATOR: OSO

TASK ELEMENTS: 13.2.1.4

13.2.1.004.00*   ADVISE CP OF ESTIMATED DAMAGE EFFECTIVENESS*

COMMUNICATE   OSO ICS

                         CO-PILOT ICS   = ACKNOWLEDGED

OBJECTIVE: TRANSMIT STRIKE REPORT   13.6

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                     2. TF withdrawal

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO advise CP of estimated damage effectiveness.

PERFORMANCE LIMITS: 1. Transmit proper strike success code.

ENABLING OBJECTIVES:

   1. Recall that there are six knobs used to set frequency.

   2. Recall that the RF gain control provides better signal to noise ratio.

   3. Recall that when the HF button is pulled on the ICS panel and the
       white HF light is ON, the other channels are electrically locked out.

ANCILLARY OBJECTIVES:

   1. Recall that the HF radio has three modes of operation SSB, AME and FSK
       with 280,000 channels available.

   2. Recall that to prevent selection of frequencies below 2,000 KHz, the
       1000 KHz and 10,000 KHz knobs are interlocked.

OPERATOR: P/CP

TASK ELEMENTS: 13.2.1.5
                      13.2.1.6
                      13.2.1.7
                      13.2.1.8
                      13.2.1.9

13.2.1.005.00*

SET HF MODE SWITCH TO 'SSB' (SINGLE SIDEBAND)

SET   RADIO MODE SELECT SWITCH

RADIO MODE SELECT SWITCH   = SSB

13.2.1.006.00*

SET FREQUENCY INDICATOR-SELECTOR KNOBS TO DESIRED HF FREQ.

RADIO MODE SELECT SWITCH   = SSB

SET   FREQUENCY INDICATOR-SELECTOR

FREQUENCY INDICATOR-SELECTOR   = TBD*

13.2.1.007.00*

PULL HF RADIO SWITCH KNOB ON ICS PANEL

FREQUENCY INDICATOR-SELECTOR   = TBD

PULL   HF CONTROL SWITCH-COPILOT

HF TRANS MODE LIGHT-COPILOT   = ON

13.2.1.008.00*

ADJUST HF GAIN, VOLUME AND SQUELCH CONTROLS, AS REQUIRED

HF TRANS MODE LIGHT-COPILOT   = ON

ADJUST   SQUELCH CONTROL
                         VOLUME CONTROL-RADIO
                         RF GAIN CONTROL

SQUELCH CONTROL   = TBD
AND RF GAIN CONTROL   = TBD

13.2.1.009.00*

DEPRESS MIC ON #4 THROTTLE AND TRANSMIT STRIKE SUCCESS CODE

SQUELCH CONTROL   = TBD
AND RF GAIN CONTROL   = TBD

COMMUNICATE   COPILOTS HF

COPILOTS HF   = MESS TRANSMITTED

MISSION SEGMENT 14

OBJECTIVE: REVIEW PENETRATION PROCEDURES   14.1

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO & DSO review the penetration and approach procedures.

PERFORMANCE LIMITS: 1. Switch in proper position

ENABLING OBJECTIVES:

    1. Recall how to interpret the procedures depicted on the specific letdown
       chart for the post-strike landing base.

ANCILLARY OBJECTIVES:

    1. Recall that if no standard instrument approach is available, the normal
       SAC penetration to the AILA should be followed.

    2. Recall that when the MDA is set into the radar altimeter, the low-
       altitude warning light will illuminate if the A/V descends below the MDA.

OPERATOR: P/CP

TASK ELEMENTS: 14.1.1.1
               14.1.1.2

14.1.1.001.00*

REVIEW PENETRATION AND APPROACH PROCEDURES

CHECKLIST = SEQUENCE

REVIEW PENETRATION & APPR PROCEDURES

PENETRATION & APPR PROCEDURES = REVIEWED

14.1.1.002.00*

SET BOB ALTM VARIABLE ALT INDEX MARKER AT MDA

CHECKLIST = SEQUENCE

SET POWER-SET-TEST CONTROL KNOB

VARIABLE ALTITUDE INDEX MARKER= TBD*

REVIEW PENETRATION AND APPROACH PROCEDURES

CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO executes pre-descent operations concurrently.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Proper frequencies set

ENABLING OBJECTIVES:

1. Recall that the proper UHF frequencies will have to be set in each
    control box manually if they are not preset channels.

2. Recall that the function selector switch may be set on either the
    MAIN or BOTH positions for transmissions to be made.

3. Recall that only one transmission can be made at a time because of
    the electrical interlocks on the ICS panel.

ANCILLARY OBJECTIVES:

1. Recall that the frequency select toggle switch must be set to the
    MANUAL position for manual frequency selection.

OPERATOR: P/CP

TASK ELEMENTS: 14.1.1.3
                        14.1.1.4
                        14.1.1.5
                        14.1.1.6

14.1.1.003.00* SET PROPER TACTICAL FREQUENCY ON UHF #2

                        MANUAL-FREQUENCY SELECTOR-COP ¬=TBD*

                        MANUAL-FREQUENCY SELECTOR-COP

    SET   MANUAL-FREQUENCY SELECTOR-COP = TBD

14.1.1.004.00* PULL UHF #2 KNOB ON COPILOT ICS PANEL

                        UHF 2 TRANSFER MODE LIGHT-COP = OFF*

                        UHF 2 CONTROL SWITCH-COPILOT

    PULL   UHF 2 TRANSFER MODE LIGHT-COP = ON

14.1.1.005.00* SET POST STRIKE BASE TOWER FREQ ON UHF #1

                        MANUAL-FREQUENCY SELECTOR-PIL ¬=TBD*

                        MANUAL-FREQUENCY SELECTOR-PIL

    SET   MANUAL-FREQUENCY SELECTOR-PIL = TBD

14.1.1.006.00* PULL UHF #1 KNOB ON PILOT ICS PANEL

                        UHF 2 TRANSFER MODE LIGHT-PIL = OFF*

                        UHF 2 CONTROL SWITCH-PILOT

    PULL   UHF 2 TRANSFER MODE LIGHT-PIL = ON

OBJECTIVE: PERFORM PRE-DESCENT PROCEDURES   14.3

                    CRITICALITY: 3   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pilots execute pre-descent operations concurrently.

PERFORMANCE LIMITS: 1. Proper sequence.
                     2. Proper switch positions.

ENABLING OBJECTIVES:

1. Recall that the steering sequence number (SSN) is a three digit number
    with a dash addendum number. The SSN identifier can be one of nine
    alpha readouts.

2. Recall that when the NAV function is selected on the IKB, it has a set
    of subfunctions which, in turn, consist of one or more levels of options.

3. Recall what combination of PB switches must be depressed to select
    the AILA option.

4. Recall that manual ALT CAL is a subfunction under the option AUX NAV.

5. Recall that when the DEST switchlight is depressed, the X-hairs will
    be positioned near the desired landing point or on an offset aim point
    depending upon whether the sequence number identifier is DOF or OAP.

6. Recall how to position the X-hairs with the tracking handle.

7. Recall that moving the toggle switch forward on the tracking handle
    selects narrow sector scan. The sector width is reduced to $\pm 10°$ about
    the azimuth cursor.

ANCILLARY OBJECTIVES:

1. Recall that nine lives of data can be presented on the IKB CRT. The
    selected glide slope for the AILA will be included.

2. Recall that ALT CAL is a subfunction under the option CONTROL BACKUP.

3. Recall that in all modes except GND VEL, the ranges selected can be
    2.5, 5, 10, 30, 80 or 200. In GND VEL, the ranges are 7.5/2.5, 15/5,
    30/10, 90/30, 160/80 or 200/200. The numbers represent range
    sweep and display scale (diameter) in miles, respectively.

ANCILLARY OBJECTIVES: (Continued)

4. Recall that when GND VEL has been selected, the radar ground
    map remains stable on the display with the targets and cursors
    remaining at the center of the display.

OPERATOR: OSO

TASK ELEMENTS: 14.1.1.7   14.1.1.13
                        14.1.1.8   14.1.1.15
                        14.1.1.10   14.1.1.16
                        14.1.1.11   14.1.1.17
                        14.1.1.12   14.1.1.18

14.1.1.007.00*

NOTE THAT NEXT SEQ NO IS FOR DESTINATION OVERFLY (DOF)*

	CHECKLIST	= SEQUENCE
OBSERVE	NUMBER IDENTIFIER-STEERING STEERING SEQUENCE NUMBER	
	NUMBER IDENTIFIER-STEERING AND STEERING SEQUENCE NUMBER	= 'DOF' = TBD

14.1.1.008.00*

DEPRESS NAV FUNCTION SWITCH ON IKB (INTEGRATED KEYBOARD)

	FUNCTION SWITCH	= OFF
DEPRESS	FUNCTION SWITCH	
	FUNCTION SWITCH AND DISPLAY TUBE SURFACE	= ON* = TBD

14.1.1.010.00*

SELECT AILA OPTION ON IKB

	OPTION SELECT SWITCHES AND DISPLAY TUBE SURFACE	= OFF* = TBD
SELECT	OPTION SELECT SWITCHES	
	OPTION SELECT SWITCHES AND OPTION SELECT SWITCHES	= ON* = OFF

14.1.1.011.00*

CONFIRM GLIDE SLOPE ANGLE IS CORRECT ON IKB CRT READOUT

	DISPLAY TUBE SURFACE	= TBD*
CHECK	DISPLAY TUBE SURFACE	
	DISPLAY TUBE SURFACE	= TBD*

14.1.1.012.00*

DEPRESS_NAV_FCTN_PUSHBUTTON_SWITCH_ON_IKB

	FUNCTION SWITCH	= OFF*
DEPRESS	FUNCTION SWITCH	
	FUNCTION SWITCH	= ON
	AND DISPLAY TUBE SURFACE	= TBD

14.1.1.013.00*

SELECT_ALT_CAL_OPTION_ON_IKB

	FUNCTION SWITCH	= ON*
	AND DISPLAY TUBE SURFACE	= TBD
SELECT	OPTION SELECT SWITCHES	
	DISPLAY TUBE SURFACE	= TBD*

14.1.1.015.00*

DEPRESS_DEST_PB_ON_NAV_PANEL_FOR_AUTO_X-HAIR_LAY_ON_DEST*

	X-HAIR CURSORS	= OFF*
DEPRESS	DESTINATION X-HAIR CONTROL	
	DESTINATION X-HAIR CONTROL	= ON*
	AND CRT DISPLAY SURFACE	= TBD

14.1.1.016.00*

MAINTAIN_X-HAIR_ALIGNMENT_ON_DESIRED_FLR_AIM_PT._AS_REQUIRED

	X-HAIR CURSORS	¬=POSITIONED*
POSITION	ENABLE SWITCH	
	X-HAIR CURSORS	= POSITIONED*
	AND CRT DISPLAY SURFACE	= TBD

14.1.1.017.00*

SET_TRACKING_HANDLE_TOGGLE_SW_TO_SELECT_NARROW_SECTOR_SCAN*

	CRT DISPLAY SURFACE	= WIDE SECT SCAN
DEPRESS	SECTOR SWITCH	
	CRT DISPLAY SURFACE	= NARROW SECT SCAN

14.1.1.018.00*

REDUCE_RADAR_RANGE_AS_REQUIRED_ON_RANGE_SELECT_CONTROL

	CRT DISPLAY SURFACE	¬=TBD*
SET	RANGE SWITCH-FLR	
	RANGE SWITCH-FLR	= TBD*
	AND CRT DISPLAY SURFACE	= TBD

14.8

OBJECTIVE: CONFIGURE FLIGHT STATION FOR DESCENT PROCEDURES 14.4

CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Descent configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO sets local altimeter for landing at recovery site.

PERFORMANCE LIMITS: 1. Proper sequence.

ENABLING OBJECTIVES:

1. Recall that when the control stick disconnect is depressed to the second detent, the TAKE COMD light will stay green at the pilot or copilot station that had control of the AFCS.

2. Recall that both flight director control panels must be set on AILA for an automatic approach to be possible.

3. Recall that the APRCH ARM light will illuminate when the circuitry and equipment associated with the FDC/MON is ready to "fly" the selected approach mode.

4. Recall that the course set knob on the HSI sets both the course pointer (a white, airplane-shaped pointer) and the digital course readout.

5. Recall that the heading marker consists of two small squares separated by a narrow gap and is set manually with the heading set knob.

6. Recall that the local altimeter setting should be set in all altimeters when below 18,000 feet and prior to reaching the final approach fix.

ANCILLARY OBJECTIVES:

1. Recall that the localizer and glide slope information is derived from the attack radar and navigational computer.

OPERATOR: P/CP

TASK ELEMENTS: 14.1.2.1   14.1.2.20
                        14.1.2.2   14.1.2.21
                        14.1.2.3
                        14.1.2.4

14.9

14.1.2.001.00*

DEPRESS TRIGGER ON CONTROL STICK TO 2ND DETENT

	CHECKLIST	= SEQUENCE
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOT AFCS INTRPT-DISENG CNTRL= SECOND DETENT*	

14.1.2.002.00*

SET AILA MODE ON BOTH FLT DIR CONTROL PANELS

	APRCH ARM INDICATOR-PILOT	¬='APRCH ARM'*
	AND APRCH ARM INDICATOR-COPILOT	¬='APRCH ARM'
SET	MODE SWITCH-FLT DIR	
	MODE SWITCH-FLT DIR	= AILA
	AND APRCH ARM INDICATOR-COPILOT	= 'APRCH ARM'

14.1.2.003.00*

SET INBOUND AILA COURSE ON BOTH HSI'S USING COURSE SET KNOB

	COURSE POINTER-PILOT	¬=TBD*
	AND COURSE POINTER-COPILOT	¬=TBD
SET	COURSE SET KNOB-PILOT	
	COURSE SET KNOB-COPILOT	
	COURSE POINTER-PILOT	= TBD*
	AND COURSE POINTER-COPILOT	= TBD

14.1.2.004.00*

SET COMD HDG MARKERS TO DESIRED HEADING

	HEADING MARKER-PILOT	¬=TBD*
	AND HEADING MARKER-COPILOT	¬=TBD
SET	HEADING MARKER-PILOT	
	HEADING MARKER-COPILOT	
	HEADING MARKER-PILOT	= TBD*
	AND HEADING MARKER-COPILOT	= TBD

14.1.2.020.00*
ESTABLISH UHF COMM WITH POST STRIKE RECOVERY SITE (UHF #1)*

                                          A-V   = TBD*

COMMUNICATE   COPILOT UHF COMM PANEL

                                        COPILOT UHF COMM PANEL   = COMM ESTABLISHED*

14.1.2.021.00*
SET BARO-ALTIMETERS FOR LANDING AT RECOVERY SITE

                                        COPILOT UHF COMM PANEL   = ALTIM SETTING*

SET   BARO-SET KNOB
                                          BAROMETRIC SETTING KNOB
                                          BAROMETER CONTROL

                                    BARO PRESSURE COUNTER   = TBD*
                            AND IN. HG READOUT   = TBD

OBJECTIVE: CONFIGURE FLIGHT STATION FOR DESCENT CHECKS   14.5

CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration

CONCURRENT TASKS:

INTERRACTION TASKS: 1. DSO calculate landing data
                       2. OSO selects appropriate FOV for the FLIR on the MFD.
                       3. OSO & DSO check that restraint harnesses are secured.

PERFORMANCE LIMITS: 1. Proper sequence
                       2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall how to compute the landing data which includes final approach
   speed, landing distance, etc.

2. Recall that with the nuclear consent switch in the NORM position, the
   weapons are in the unarmed position.

3. Recall that the optimum wing sweep position for descent may be different
   than the setting used for landing.

4. Recall that with the windshield power select switch in BOTH, left and
   right windshields and side window panels are defogged or anti-iced depending
   on the position of the windshield mode select switch.

5. Recall that with the ANTI-ICE switch in the AUTO position, the ice detectors
   are linked electronically to the anti-ice bleed valves and automatic
   initiation of the anti-ice cycle is provided.

6. Recall that with pitot heat on, heater elements in the CADS, total
   temperature probe and angle of attack sensor are thermostatically controlled.

7. Recall that with anti-skid on automatic brake control is provided by
   limiting the braking so that maximum braking is obtained with no tire
   skidding.

8. Recall that with nose wheel steering in TO/LDG, the system is armed.

9. Recall that setting the EVS knob to VV the pod is extended and command
   steering is to the flight vector reference line.

10. Recall that with IR selected on the VSD, the attitude director indicator mode is negated.

12. Recall that the restraint harnesses should be secured in preparation for landing.

13. Recall crew station check, checklist (6.2.1).

ANCILLARY OBJECTIVES:

1. Recall that with nosewheel steering in TO/LDG, the nosewheel can be moved 30 degrees left or right of center after the nosewheel is on the ground and the steering engage switch is set to ENGAGE.

OPERATOR: P/CP

TASK ELEMENTS: 14.1.2.5   14.1.2.11
               14.1.2.6   14.1.2.12
               14.1.2.7   14.1.2.13
               14.1.2.8   14.1.2.14
               14.1.2.9   14.1.2.18
               14.1.2.10   14.1.2.19

14.1.2.005.00*

<u>COMPUTE AND CHECK LANDING DATA</u>

	CHECKLIST	= SEQUENCE
CALCULATE	LANDING DATA	
	LANDING DATA	= CALCULATED*
	AND CO-PILOT ICS	= ACKNOWLEDGED

14.1.2.006.00*

<u>CONFIRM NUCLEAR CONSENT SW IS AT NORM & SW GUARD IS DOWN</u>

	CHECKLIST	= SEQUENCE
CHECK	NUCLEAR CONSENT SWITCH	
	NUCLEAR CONSENT SWITCH	= NORM*

14.1.2.007.00*

<u>SET WING SWEEP CONTROL HANDLE FOR DESCENT</u>

	CHECKLIST	= SEQUENCE
SET	PILOTS WING SWEEP HANDLE	
	COPILOTS WING SWEEP HANDLE	
	WING SWEEP POSITION INDICATOR = TBD*

14.1.2.008.00*

<u>CHECK WINDSHIELD POWER SELECT SWITCH IS IN 'BOTH' POSITION</u>

	CHECKLIST	= SEQUENCE
CHECK	WINDSHIELD POWER SELECT SWITCH	
	WINDSHIELD POWER SELECT SWITCH= BOTH

14.1.2.009.00*

<u>CHECK THAT ENGINE INLET ANTI-ICE SWITCH IS IN AUTO MODE</u>

	CHECKLIST	= SEQUENCE
CHECK	ENGINE ANTI-ICE SWITCH	
	ENGINE ANTI-ICE SWITCH	= AUTO

14.1.2.010.00*

<u>CHECK THAT PITOT HEAT CONTROL SWITCH IS ON</u>

	CHECKLIST	= SEQUENCE
CHECK	PITOT HEAT CONTROL SWITCH	
	PITOT HEAT CONTROL SWITCH	= PITOT HEAT

14.1.2.011.00*

<u>CHECK THAT ANTI-SKID SWITCH IS ON</u>

	CHECKLIST	= SEQUENCE
CHECK	ANTI-SKID TEST SWITCH	= ON
	ANTI-SKID TEST SWITCH	= ON

14.1.2.012.00*

<u>SET NOSE WHEEL STEERING MODE CONTROL SWITCH TO 'TO-LDG' MODE</u>

	CHECKLIST	= SEQUENCE
SET	STEERING MODE CONTROL SWITCH	
	STEERING MODE CONTROL SWITCH	= TO-LDG

14.1.2.013.00*

<u>SET EVS IR ROTARY SELECTION KNOBS TO 'VV'</u>

	CHECKLIST	= SEQUENCE
SET		
	IR POD CONTROL	
	IR POD CONTROL	= VV*

14.1.2.014.00*

<u>SET BOTH VSD MODE SELECT SWS TO DESIRED SENSOR (IR)</u>

	CHECKLIST	= SEQUENCE
SET	MODE SELECT SWITCH-PILOT	
	MODE SELECT SWITCH-COPILOT	
	MODE SELECT SWITCH-PILOT	= IR
	AND MODE SELECT SWITCH-COPILOT	= IR

14.1.2.018.00*

<u>PERFORM CREW STATION CHECKS*</u>

	CHECKLIST	= SEQUENCE*
CHECK		
	CHECKLIST	= COMPLETED*
	AND FLIGHT LOG	= RECORDED

14.1.2.019.00*

<u>CHECK THAT RESTRAINT HARNESSES ARE CONNECTED</u>

	CHECKLIST	= SEQUENCE
CHECK	RESTRAINT ASSY	
	RESTRAINT ASSY	= CHECKED*

OBJECTIVE: CONFIGURE FLIGHT STATION FOR DESCENT PROCEDURES   14.6

                        CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS:

CONCURRENT TASKS:

INTERACTION TASKS: 1. P/CP and DSO checks performed concurrently.
                      2. CP computes and checks landing data.
                      3. P confirms nuclear consent switch.
                      4. P/CP set wing sweep.
                      5. P checks windshield power switch.
                      6. CP checks engine anti-ice, pilot heat, anti-skid,
                         nosewheel steering and EVS IR rotary knob.
                      7. P/CP set VSD mode switch to IR.
                      8. P/CP check restraint harnesses.

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

   1. Recall that the EVS field of view mode is active only if the front station
      has relinquished the caged command for the FLIR.

   2. Recall that the restraint harnesses should be secured in preparation for
      landing.

ANCILLARY OBJECTIVES:

   1. Recall that the NFOV mode is generally not selected until the runway has
      been positively identified and the A/V is close in to the landing field.

OPERATOR: OSO

TASK ELEMENTS: 14.1.2.15
               14.1.2.19

14.1.2.015.00*

<u>DEPRESS EVS FOV AS DESIRED</u>

    CHECKLIST   = SEQUENCE

DEPRESS   IR   NARROW-FIELD-OF-VIEW

             IR   NARROW-FIELD-OF-VIEW   = 'ON'*

14.1.2.019.00*

<u>CHECK THAT RESTRAINT HARNESSES ARE CONNECTED</u>

    CHECKLIST   = SEQUENCE

CHECK   RESTRAINT ASSY

            RESTRAINT ASSY   = CHECKED*

OBJECTIVE: EXECUTE DESCENT   14.7

                        CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise Configuration

CONCURRENT TASKS: 1. Monitor AGL when below 5,000 ft AGL.
                     2. Monitor TFR to ensure adequate clearance above terrain.
                     3. Calculate fuel distribution for optimum c.g.

INTERACTION TASKS: 1. OSO and DSO accomplish altitude calls at 5,000 ft
                        intervals - P acknowledge.
                     2. OSO monitor heading indicator.
                     3. OSO monitor FLR for obstructions.

PERFORMANCE LIMITS: 1. Airspeed - TBD (±Kts)
                     2. Altitude - TBD (±ft)
                     3. Heading - TBD (±degrees)

ENABLING OBJECTIVES:

   1. Calculate power level setting for descent and for level-off after descent.

   2. Calculate altitude lead to initiate pitch attitude change.

   3. Predict necessary pitch change for level-off.

   4. Calculate optimum wing sweep angle for level-off.

   5. Adjust power level to maintain cruise airspeed after level-off.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 14.2.1.1
                  14.2.1.2
                  14.2.1.3
                  14.2.1.6

14.2.1.001.00*

POSITION THROTTLES TO TBD POWER SETTING FOR DESCENT

	POWER LEVEL INDICATOR	¬=TBD*
POSITION	PRIMARY THROTTLE LEVERS-PI	
	POWER LEVEL INDICATOR	= TBD

14.2.1.002.00*

MANIPULATE FLT CONTROLS AND TRIM TO OBTAIN DESCENT ATTITUDE

	PITCH SCALE-PILOT	¬=TBD*
TRACK	PILOTS FLIGHT CONTROL STICK	
	PILOTS RUDDER PEDALS	
	PLT TRIM SW (ON CONTR STICK)	
	PITCH SCALE-PILOT	= TBD*
AND	PILOTS FLIGHT CONTROL STICK	= NEUTRAL PRESSURE

14.2.1.003.00*

MONITOR ATTITUDE, AIRSPEED, AND HEADING AS REQUIRED

	ALTITUDE-VERTICAL VELOCITY IND> TBD*
MONITOR-VISUAL	VERTICAL SITUATION DISPLAY
	AIRSPEED-MACH NUMBER INDICATOR
	ALTITUDE-VERTICAL VELOCITY IND
	VERTICAL SITUATION DISPLAY = TBD*
AND ALTITUDE-VERTICAL VELOCITY IND= TBD

14.2.1.006.00*

MANIPULATE CONTROL STICK TO INITIATE LEVEL OFF ATTITUDE

	AVVI-PILOT	> TBD*
TRACK	PILOTS FLIGHT CONTROL STICK	
	VSD-PILOT	= TBD*
AND	HEADING MARKER-PILOT	= TBD

OBJECTIVE: CROSSCHECK ALTIMETERS   14.8

                      CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Descent configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO crosschecks altimeter during the descent.
                     2. DSO crosschecks altimeter during the descent.

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

   1. Recall how to read the gross and fine altitude scales on the tape
       altitude display.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 14.2.1.4

14.2.1.004.00*

   ACCOMPLISH ALTITUDE CALLS AT 5000 FOOT ALTITUDE INTERVALS*

	CHECKLIST		= SEQUENCE
COMMUNICATE	ICS		
	PILOT ICS		= ACKNOWLEDGED

OBJECTIVE: PERFORM DESCENT PROCEDURES   14.9

                          CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Descent configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. Pilot's crosscheck altimeter throughout the descent.

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

    1. Recall that with the local altimeter set in the airspeed/altitude
        indicator, the digital altitude readout represents elevation above
        mean sea level.

    2. Recall that the #2 needle can show the bearing to a NAV checkpoint
        as selected by the ACU or the bearing to a UHF/ADF station.

    3. Recall how the radar presentation of a runway appears on the FLR CRT.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 14.2.1.4
                      14.2.1.5

14.2.1.004.00*

      <u>ACCOMPLISH ALTITUDE CALLS AT 5000 FOOT ALTITUDE INTERVALS</u>*

	CHECKLIST	= SEQUENCE
COMMUNICATE	ICS	
	PILOT ICS	= ACKNOWLEDGED

14.2.1.005.00*

      <u>MONITOR AIR VEHICLE POSITION ON BDHI AND ELB</u>

	ALTITUDE READOUT	= TBD*
MONITOR-VISUAL	CRT DISPLAY SURFACE BEARING-DISTANCE-HEADING IND	
	CRT DISPLAY SURFACE	= TBD*
	AND BEARING-DISTANCE-HEADING IND	= TBD

OBJECTIVE: CONFIGURE FOR LANDING APPROACH   14.10

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Cruise configuration
                       2. Wing sweep set at TBD degrees after penetration.

CONCURRENT TASKS: 1. Monitor heading to maintain correct intercept angle
                          for final approach.

INTERACTION TASKS: 1. OSO performs low altitude calibration.
                       2. OSO monitors altitude > FAF altitude.
                       3. OSO monitors course so it will intercept final
                          approach course.

PERFORMANCE LIMITS: 1. Airspeed - TBD (±Kts)
                       2. Altitude - TBD (±ft)
                       3. Heading - TBD (±degrees)

ENABLING OBJECTIVES:

   1. Calculate altitude lead to initiate pitch attitude change for FAF
      altitude level-off.

   2. Calculate power level setting to maintain TBD airspeed at FAF altitude.

   3. Recall that with the flight director switch in ALT REF the pitch steering
      commands on the VSD and SADI represent displacements from the pressure
      altitude at which the A/V was flying when ALT REF was selected.

ANCILLAY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 14.2.2.1
                  14.2.2.2
                  14.2.2.3

14.2.2.001.00*

MANIPULATE FLT CONTROLS & TRIM TO LEVEL OFF AT INIT APP ALT

	AVVI-PILOT	= TBD*
TRACK	PILOTS FLIGHT CONTROL STICK	
	PLT TRIM SW (ON CONTR STICK)	
	PITCH SCALE-PILOT	= TBD*
	AND AMI-PILOT	= TBD

14.2.2.002.00*

ADJUST THROTTLES TO ACQUIRE DESIRED AIRSPEED

	AVVI-PILOT	= TBD*
POSITION	PRIMARY THROTTLE LEVERS-PI	
	AMI-PILOT	= TBD*

14.2.2.003.00*

SET FLIGHT DIRECTOR TOGGLE SWITCHES (2) TO 'ALT REF'

	AVVI-PILOT	= TBD*
	AND PITCH SCALE-PILOT	= TBD
SET	ALT REF-TER FLW SW-PILOT	
	ALT REF-TER FLW SW-COPILOT	
	ALT REF-TER FLW SW-PILOT	= ALT REF
	AND ALT REF-TER FLW SW-COPILOT	= ALT REF

MANIPULATE FLT CONTROLS & TRIM TO LEVEL OFF AT INIT APP ALT

OBJECTIVE: VERIFY MAGNETIC VARIATION   14.11

                    CRITICALITY: 1   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Descent configuration
                     2. Leveled off at initial landing approach altitude

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Mag. variation obtained

ENABLING OBJECTIVES:

    1. Recall that the MAG VAR is a subfunction under the option AUX NAV.

    2. Recall that the NAV function must be selected on the integrated
        keyboard before the MAG VAR option can be selected.

ANCILLARY TASKS:

OPERATOR: OSO

TASK ELEMENTS: 14.2.2.5

14.2.2.005.00*

VERIFY MAGNETIC VARIATION VIA IKB

<div style="margin-left: 4em;">

OPTION SELECT SWITCHES   = OFF*
AND DISPLAY TUBE SURFACE   = TBD

SELECT   OPTION SELECT SWITCHES

OPTION SELECT SWITCHES   = ON*
AND DISPLAY TUBE SURFACE   = TBD

</div>

MISSION SEGMENT 15

OBJECTIVE: PERFORM BEFORE LANDING CHECKS   15.1

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Landing configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO verify correct AILA course as selected

PERFORMANCE LIMITS: 1. Proper sequence
                    2. Proper AILA course selected

ENABLING OBJECTIVES:

    1. Recall that the wing sweep handles are mechanically interconnected and
       track each other over the complete range of operation.

    2. Recall that the landing gear is lowered by pushing a small spring-loaded
       lever and then applying a downward force.

    3. Recall that movement of the FLAP/SLAT handle 10 degrees to the gate detent
       will extend the slats and leave the flaps full up.

    4. Recall that to by-pass the gate detent, a small finger-operated lever on
       the control handle must be raised.

    5. Recall that movement of the FLAP/SLAT control handle off of the gate
       detent provides flap extension proportional to handle position.

    6. Recall that the flap position indicator ranges from UP to full DOWN which
       corresponds to zero and 40 degrees of flap travel.

    7. Recall that the landing/taxi light control switch must be positioned up
       for landing.

    8. Recall that the AILA course should be shown in the right-hand digital
       readout on the HSI and also by the white, airplane shaped pointer that
       rotates around the inside edge of the compass card scale.

1. Recall that the wing sweep handles operate with a sliding friction force to prevent inadvertent movements.

2. Recall that the down position of the landing gear handle is heavily detented but not locked.

3. Recall that the DN position of the landing gear handle initiates (via EMUX) the electrical commands to the hydraulic system to open the gear doors, unlock, and extend and lock the gear in the down position and close main gear doors.

4. Recall that the red lights in the landing gear handle will illuminate when the gear is in transit. They will go out as soon as the landing gear is locked. If not out within 15 seconds or within 30 seconds in cold weather, a landing gear malfunction is indicated.

5. Recall that three green advisory lights illuminate when each landing gear is down and locked.

6. Recall that slats can be extended and retracted at any wing sweep.

7. Recall that the barberpole on the slats position indicator is displayed when the slats are in transit or if there is a malfunction in the slat indicating system.

8. Recall that the flap position indicator gradations are provided at each one-quarter position.

OPERATOR: P/CP

TASK ELEMENTS: 15.1.1.1   15.1.1.6
                 15.1.1.2   15.1.1.7
                 15.1.1.3   15.1.1.8
                 15.1.1.4   15.1.1.9
                 15.1.1.5

15.1.1.001.00*

        <u>REQUEST CP READ LANDING CHECKLIST*</u>

	AVVI-PILOT	= TBD*
COMMUNICATE	PILOT ICS	
	CO-PILOT ICS	= ACKNOWLEDGED

15.1.1.002.00*

        <u>SET WING SWEEP CONTROL TO 'TBD' FOR LANDING*</u>

	CHECKLIST	= SEQUENCE
POSITION	PILOTS WING SWEEP HANDLE	
	WING SWEEP POSITION INDICATOR	= TBD

15.1.1.003.00*

        <u>POSITION LANDING GEAR HANDLE TO 'DOWN'*</u>

	CHECKLIST	= SEQUENCE
AND	AVVI-PILOT	= TBD
POSITION	PRIMARY LANDING GEAR CONTROL	
	PRIMARY LANDING GEAR CONTROL	= DN

15.1.1.004.00*

        <u>MONITOR LANDING GEAR LIGHTS FOR POSITIVE DOWN AND LOCKED</u>

	GEAR WARNING LIGHT	= OFF
MONITOR-VISUAL	NOSE GEAR ADVISORY LIGHT	
	LEFT GEAR ADVISORY LIGHT	
	RIGHT GEAR ADVISORY LIGHT	
	NOSE GEAR ADVISORY LIGHT	= 'NOSE'
AND	RIGHT GEAR ADVISORY LIGHT	= 'R'

15.1.1.005.00*

        <u>EXTEND SLATS BY POSITIONING HANDLE TO 1ST DETENT*</u>

	CHECKLIST	= SEQUENCE
EXTEND	FLAP-SLAT CONTROL HANDLE	
	FLAP-SLAT CONTROL HANDLE	= SLAT EXD*
AND	SLATS POSITION INDICATOR	= 'EXD'

15.1.1.006.00*

        <u>EXTEND FLAPS BY RELEASING LOCK LEVER UNDER HANDLE TOP*</u>

	CHECKLIST	= SEQUENCE
EXTEND	FLAP-SLAT CONTROL HANDLE	
	FLAP-SLAT CONTROL HANDLE	= TBD*
AND	FLAP POSITION INDICATOR	= TBD

15.1.1.007.00*

VERIFY FLAPS AND SLATS POSITION INDICATORS

	FLAP-SLAT CONTROL HANDLE	= TBD*
CHECK	FLAP POSITION INDICATOR	
	SLATS POSITION INDICATOR	
	FLAP POSITION INDICATOR	= TBD
	AND SLATS POSITION INDICATOR	= 'EXD'

15.1.1.008.00*

SET LANDING-TAXI LIGHT CONTROL SWITCH TO 'TO-LDG'*

	CHECKLIST	= SEQUENCE
SET	LANDING/TAXI LIGHT CONTROL SW	
	LANDING/TAXI LIGHT CONTROL SW	= TO-LDG

15.1.1.009.00*

VERIFY CORRECT AILA COURSE IS SELECTED

	CHECKLIST	= SEQUENCE
CHECK	DIGITAL READOUT-PILOT	
	DIGITAL READOUT-COPILOT	
	CRT DISPLAY SURFACE	
	PILOT ICS	= AILA CRSE CHKD
	AND OBO ICS	= AILA CRSE CHKD

OBJECTIVE: PERFORM PRE-AILA OPERATIONS   15.2

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Landing configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO verifies proper X-hair placement on desired TD point.
                      2. OSO monitors flight insturments for the AILA.

PERFORMANCE LIMITS: 1. Proper sequence
                      2. Switches in proper positions

ENABLING OBJECTIVES:

  1. Recall that the approximate power level setting is to maintain the
     approach airspeed/AOA.

  2. Recall that in the landing approach with AUTO THRO selected, the AOA
     hold mode controls engine thrust to maintain lift margin to a value
     computed by the AOA computer.

  3. Recall how to compute the final approach airspeed for different gross
     weights.

  4. Recall that the approach airspeed set in the AMI should be the approach
     airspeed for the specific gross weight.

  5. Recall that the digital readout in the upper right-hand corner of the
     VSD gives radar altitude to the nearest 10 feet when above 100 feet AGL
     and to 2 feet when below 100 feet.

  6. Recall that airspeed will be displayed in the upper left-hand corner of the VSD.

  7. Recall that the letters AILA will be shown in the lower right-hand corner
     of the VSD.

ANCILLARY OBJECTIVES:

  1. Recall that the AUTO THROT can be selected on the AFCS prior to the
     engage mode being selected.

  2. Recall that the ENGAGE mode must be selected prior to selecting the
     FLT DIR or ALT hold modes.

3. Recall that the basic AFCS mode of flight path hold in the pitch axis and altitude hold in the roll axis is operative when ENGAGE is in the green.

4. Recall that in the ENGAGE mode, control stick steering is available and .25 inch stick displacement will set in a new reference.

5. Recall that FLT DIR must be selected before coupling with the AILA can occur.

6. Recall that when ALT HOLD is selected the altitude at the time of selection will be maintained.

7. Recall that both command heading markers should be set at the inbound heading for a straight-in approach or should be set at a prescribed intercept angle, e.g., 30 degrees.

8. Recall that the course deviation bar (CDB) will show a full scale deflection prior to intercepting the final approach course.

9. Recall that in a no-wind or headwind condition the heading marker and the course pointer should be aligned. For a crosswind condition the heading pointer should be displaced to the upwind side of the course.

10. Recall that the unit AOA shown on the AMI should be a constant regardless of the gross weight. It will however vary with the wing sweep angle and the flap/slat configuration.

11. Recall that the rate of descent will vary with glideslope angle, airspeed and head- or tail-wind component.

12. Recall that steering command information is displayed as fly-to commands. It will be centered over the fixed aircraft symbol when the A/V is on course and glide path.

13. Recall that the ILS symbol will show the localizer and glideslope errors. One inch of vertical movement indicates 1/2 deg. glideslope movement and one inch of horizontal movement represents 1-1/4 deg. of localizer error.

14. Recall that the low-altitude warning light on the radar altimeter will come on when the air vehicle descends below a preset value.

15. Recall that the moving pointer of the radar altimeter indicates current altitude between zero and 5,000 feet.

16. Recall that the variable altitude index marker should be set to the minimum decision height for the approach.

17. Recall that depressing the AFCS interrupt switch to the first detent permits changing the reference altitude.

18. Recall that radar altimeter pointer will go behind the masked portion of the instrument when unreliable information is received.

OPERATOR: P/CP

TASK ELEMENTS: 15.1.1.10
                  15.1.1.11
                  15.1.1.12
                  15.1.2.2
                  15.1.2.3
                  15.1.2.3.1
                  15.1.2.3.2
                  15.1.2.3.3

15.1.1.010.00*

POSITION THROTTLES TO OBTAIN APPROACH AIRSPEED-ADA

	AIR-VEHICLE	= LANDING CONFIG
POSITION	PRIMARY THROTTLE LEVERS-PI	
	POWER LEVEL INDICATOR AND ADA INDICATOR-PILOT	= TBD* = TBD

15.1.1.011.00*

DEPRESS AFCS 'AUTO THROT' MODE ON AFCS MODE SELECT PANEL

	ADA INDICATOR-PILOT	= TBD*
DEPRESS	PILOTS AUTO THROT PUSHBUTTON	
	PILOTS AUTO THROT PUSHBUTTON	= 'AUTO-THROT'-C

15.1.1.012.00*

DEPRESS AFCS 'ENGAGE, FLT DIR, & ALT HOLD' MODES ON AFCS

	AIR-VEHICLE	¬=AUTO APPROACH*
DEPRESS	PILOTS ENGAGE PUSHBUTTON PILOTS FLT DIR PUSHBUTTON PLTS ALTITUDE HOLD PUSHBUTTON	
	PILOTS ENGAGE PUSHBUTTON AND PLTS ALTITUDE HOLD PUSHBUTTON	= 'ENGAGE'-C = 'ALT'-C

VERIFY AUTO COMMAND HDG OBLS FOR PILOTS SIDE L-1 INTERCEPT

	AIR-VEHICLE	¬=AUTO APPROACH*
CHECK	HEADING MARKER-PILOT HEADING MARKER-COPILOT	
	HEADING MARKER-PILOT AND HEADING MARKER-COPILOT	= TBD* = TBD

15.1.2.003.00*

MONITOR FLIGHT & ENGINE INSTRUMENTS FOR AILA

15.1.2.003.01*

MONITOR FLIGHT INSTRUMENTS FOR AILA

	AIR-VEHICLE	= AUTO APPROACH
MONITOR-VISUAL	HORIZONTAL SITUATION INDICATOR AIRSPEED-MACH NUMBER INDICATOR ALTITUDE-VERTICAL VELOCITY IND	
	HORIZONTAL SITUATION INDICATOR AND ALTITUDE-VERTICAL VELOCITY IND	= TBD = TBD

15.1.2.003.02*

<u>MONITOR FLIGHT INSTRUMENTS FOR AILA</u>

AIR-VEHICLE   = AUTO APPROACH

MONITOR-VISUAL   CRT TUBE DISPLAY-PILOT
                        CRT TUBE DISPLAY-COPILOT

                        CRT TUBE DISPLAY-PILOT   = TBD*
                AND CRT TUBE DISPLAY-COPILOT   = TBD

15.1.2.003.03*

<u>MONITOR FLIGHT & ENGINE INSTRUMENTS FOR AILA</u>

AIR-VEHICLE   = AUTO APPROACH

MONITOR-VISUAL   RADAR ALTIMETER INDICATOR
                        STANDBY ALTIMETER
                        POWER LEVEL INDICATOR

                        RADAR ALTIMETER INDICATOR   = TBD
                AND POWER LEVEL INDICATOR   = TBD

OBJECTIVE: PERFORM PRE-AILA OPERATIONS

CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Landing Configuration

CONCURRENT TASKS:

INTERACTIONS TASKS: 1. DSO monitors flight and engine instruments for AILA
                     2. Pilot verifies proper X-hair placement

PERFORMANCE LIMITS: 1. X-hair cursors - TBD ($\pm$ ft)

ENABLING OBJECTIVES:

1. Recall that the FLR's X-hairs should be displaced TBD feet from the runway threshold to preclude the A/V touching down short of the runway.

2. Recall that the #2 needle of the BDHI can represent the bearing to the touchdown point if it is designated as a NAV check point in the ACU.

3. Recall that the mileage window of the BDHI displays distance to the NAV point, which can be the touchdown point, depending upon the position of the BRG switch on the Instrument Select Mode Panel at the front section.

4. Recall that the TAS/CAS switch should be set in the CAS switch position throughout the approach. The airspeed readout should correlate directly with the airspeed at the front station.

ANCILLARY TASKS:

1. Recall that the X-hairs may be positioned on an offset aiming point but the steering information displayed to the pilot will direct him to the runway.

2. Recall that the barometric altimeter setting should be set to the local setting or as determined from a radar altimeter fix over a checkpoint with a known elevation.

OPERATOR: OSO

TASK ELEMENTS: 15.1.2.1
                15.1.2.3.4

15.1.2.001.00*

VERIFY PROPER X-HAIRS PLACEMENT ON DESIRED TOUCHDOWN POINT*

	AIR-VEHICLE	¬=AUTO APPROACH*
CHECK	X-HAIR CURSORS	
	X-HAIR CURSORS	= POSITIONED
	AND PILOT ICS	= ACKNOWLEDGED

15.1.2.003.04*

MONITOR FLIGHT INSTRUMENTS FOR AILA

	AIR-VEHICLE	= AUTO APPROACH
MONITOR-VISUAL	BEARING-DISTANCE-HEADING IND	
	AIRSPEED-ALTITUDE INDICATOR	
	BEARING-DISTANCE-HEADING IND	= TBD
	AND AIRSPEED-ALTITUDE INDICATOR	= TBD

OBJECTIVE: PERFORM AUTOMATIC AILA   15.4

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Landing configuration
                     2. Pre-AILA operations complete

CONCURRENT TASKS: Monitor outside the A/V for runway environment.

INTERACTIONS:

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall that the CDI and steering cross will not be centered prior to
    localizer intercept because of the necessary lead provided by the
    computer.

2. Recall that engagement of the automatic approach mode in the roll axis
    occurs at localizer capture - localizer light comes on and approach
    arm light goes out.

3. Recall that engagement of the automatic approach mode in the pitch
    axis occurs at glide slope capture.

ANCILLARY OBJECTIVES:

1. Recall that prior to glide slope capture, the ILS symbol box will be high
    above the on-course position and will gradually move downward until it
    centers over the fixed aircraft symbol at the final approach fix point.

2. Recall that the steering command symbol will be centered in the ILS
    symbol box when the A/V is stabilized in the descent.

OPERATOR: P/CP

TASK ELEMENTS: 15.1.2.4   15.1.2.8
                 15.1.2.5   15.1.2.9
                 15.1.2.6
                 15.1.2.7

15.1.2.004.00*
<u>MONITOR A-V ROLL MANEUVER TO ACQUIRE FINAL APPR LOC COURSE</u>

```
                          ROLL POINTER-PILOT              = TBD*

MONITOR-VISUAL            COURSE DEVIATION BAR-PILOT
                         STEERING COMMAND SYMBOL-PIL

                         COURSE DEVIATION BAR-PILOT       = CENTERED*
                     AND STEERING COMMAND SYMBOL-PIL      = CENTERED
```

15.1.2.005.00*
<u>MONITOR LOC ANNUNCIATOR FOR LOCALIZER CAPTURE SIGNAL</u>

```
                         COURSE DEVIATION BAR-PILOT       = TBD*
                     AND STEERING COMMAND SYMBOL-PIL      = TBD

MONITOR-VISUAL           LOC LIGHT-PILOT
                         LOC LIGHT-COPILOT

                         LOC LIGHT-PILOT                  = 'LOC'*
                     AND LOC LIGHT-COPILOT                = 'LOC'
```

15.1.2.006.00*
<u>MONITOR VSD GLIDE SLOPE RAW DATA SCALE ERROR</u>

```
                         ILS SYMBOL-PILOT                 ¬=TBD*
                     AND ILS SYMBOL-COPILOT               ¬=TBD

MONITOR-VISUAL           ILS SYMBOL-PILOT
                         ILS SYMBOL-COPILOT

                         ILS SYMBOL-PILOT                 = CENTERED*
                     AND ILS SYMBOL-COPILOT               = CENTERED
```

15.1.2.007.00*
<u>MONITOR GLIDE SLOPE ANNUNCIATOR FOR GLIDE SLOPE CAPTURE SIGN</u>

```
                         ILS SYMBOL-PILOT                 = CENTERED*
                     AND ILS SYMBOL-COPILOT               = CENTERED

MONITOR-VISUAL           GLIDE SLOPE LIGHT-PILOT
                         GLIDE SLOPE LIGHT-COPILOT

                         GLIDE SLOPE LIGHT-PILOT          = 'GLIDE SLOPE'*
                     AND GLIDE SLOPE LIGHT-COPILOT        = 'GLIDE SLOPE'
```

15.1.2.008.00*

<u>MONITOR AIR VEHICLE INITIATION OF DESCENT</u>

	GLIDE SLOPE LIGHT-PILOT	= 'GLIDE SLOPE'*
AND	GLIDE SLOPE LIGHT-COPILOT	= 'GLIDE SLOPE'

MONITOR-VISUAL

AVVI-PILOT	
AVVI-COPILOT	

	AVVI-PILOT	= TBD*
AND	AVVI-COPILOT	= TBD

15.1.2.009.00*

<u>REQUEST LANDING CLEARANCE FROM POST-STRIKE RECOVERY SITE</u>

	STEERING COMMAND SYMBOL-COP	= CENTERED*
AND	ILS SYMBOL-COPILOT	= CENTERED
AND	AVVI-COPILOT	= TBD

COMMUNICATE

COPILOTS UHF

COPILOTS UHF   = CLEARED TO LAND*

OBJECTIVE: ACQUIRE RUNWAY VISUALLY   15.5

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Landing configuration

CONCURRENT TASKS: 1. Monitor VSD for proper indications of AILA

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Missed approach or landing decision.

ENABLING OBJECTIVES:

   1. Recall that the MIN DECN HGT light will illuminate when the absolute
      altitude of the A/V is at or below the minimum altitude set into the
      radar altimeter.

ANCILLARY OBJECTIVES:

   1. Recall that the automatic approach mode can be disengaged after localizer
      and/or glide slope capture through the control stick steering function.
      Therefore it is not necessary to depress the pitch disconnect trigger
      switch to the second detent.

   2. Recall that the RGA (Rotate Go-Around) button should be depressed at the
      minimum decision height if the runway environment is not acquired.

OPERATOR: P/CP

TASK ELEMENTS: 15.2.1.1
                  15.2.1.2

15.2.1.001.00*

NOTIFY_PILOT_THAT_RUNWAY_IS_OR_IS_NOT_VISIBLE*

	MIN DECN HGT LIGHT-PILOT AND FLASHBLINDNESS WINDOW-RIGHT	= 'MIN DECN HGT'* = TBD
COMMUNICATE	CO-PILOT ICS	
	PILOT ICS	= RUNWAY IN SIGHT

15.2.1.002.00*

DEPRESS_AFCS_PITCH_DISCONNECT_TRIG_SW_ON_STICK_TO_2ND_DETENT

	A-V	¬=AUTO APPROACH*
DEPRESS	PILOT AFCS INTRPT-DISENG CNTRL	
	PILOTS ENGAGE PUSHBUTTON AND PILOTS AUTO THROT PUSHBUTTON	= 'ENGAGE'-W* = 'AUTO-THROT'-W

15.16

OBJECTIVE: PERFORM TOUCHDOWN   15.6

                         CRITICALITY: 3   DIFFICULTY: 3

INITIAL CONDITIONS: 1. Landing configuration

CONCURRENT TASKS: 1. Correct for crosswind change from crab technique
                        to partial crab/wing low slip technique to maintain
                        runway alignment.

INTERACTION TASKS: 1. OSO and DSO monitor A/V position relative to optimum
                        touchdown point.
                     2. OSO and DSO monitor airspeed to ensure that it is
                        >minimum touchdown speed.

PERFORMANCE LIMITS: 1. Airspeed - TBD (±Kts)
                     2. Sink Rate - TBD (±ft/sec)
                     3. Flare altitude - TBD (±ft)

ENABLING OBJECTIVES:

   1. Recall how to judge flare-initiation altitude (too low will cause excessive
      sink rate at touchdown; too high will cause rapid airspeed bleed off and
      excessive sink rate at touchdown or stair step flare to touchdown).

   2. Recall how much power should be reduced in the flare depending upon the
      crosswinds or gusty wind conditions and whether the flare was performed
      too low or too high.

   3. Recall how much power should be left on until the main wheels contact the
      runway.

ANCILLARY OBJECTIVES:

OPERATOR: P/CP

TASK ELEMENTS: 15.2.2.1

15.2.2.001.00*

MANIPULATE FLIGHT CONTROLS & THROTTLES TO ESTABLISH FLARE*

AIR-VEHICLE
AND AVVI-PILOT

¬=AUTO APPROACH
< MDH

OBJECTIVE: DECELERATE ON LANDING ROLL   15.7

                    CRITICALITY: 3   DIFFICULTY: 2

INITIAL CONDITIONS: 1. Landing configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Runway alignment - ±TBD feet.

ENABLING OBJECTIVES:

1. Recall that all four spoiler segments on each wing are deflected full up
    when the speed brake control on the #4 throttle is set to OUT and the
    A/V is on the ground.

2. Recall that nosewheel steering should be engaged immediately after the
    nosewheel is on the runway.

3. Recall that the READY/STEER annunciator light will illuminate when nose
    gear steering is engaged, the nose gear load switch is made, and
    hydraulic power is available for steering.

ANCILLARY OBJECTIVES:

1. Recall that the nosewheel should be lowered as soon as possible after
    touchdown.

2. Recall that in the TO/LDG position, nosewheel steering is electronically
    controlled with nosewheel steering proportional to rudder pedal movement
    and steering angles compatible with landing speed.

3. Recall that a combination of aileron, rudder, differential braking and
    nosewheel steering can be used to correct for a crosswind condition.

OPERATOR: P/CP

TASK ELEMENTS: 15.2.3.1
                  15.2.3.2
                  15.2.3.3
                  15.2.3.4
                  15.2.3.5
                  15.2.3.6

15.2.3.001.00*

SET SPEED BRAKE CONTROL ON #4 THROTTLE TO 'OUT'

AIR-VEHICLE   = ON RUNWAY*

SET   PILOTS SPD BRK CONTR #4 THROT

PILOTS SPD BRK CONTR #4 THROT = OUT

15.2.3.002.00*

MANEUVER CONTROL STICK AND RUDDERS TO LOWER NOSEWHEEL TO R-W

AM1-PILOT   = TBD*

TRACK   PILOTS FLIGHT CONTROL STICK
             PILOTS RUDDER PEDALS

AIR-VEHICLE   = NOSEWHEEL ON R-W*

15.2.3.003.00*

DEPRESS RUDDER PEDALS TO APPLY WHEEL BRAKES

AM1-PILOT   = TBD*

DEPRESS   PILOTS RUDDER PEDALS

PROPRIOCEPTION   = LONGIT DECEL*

15.2.3.004.00*

SET NWS SWITCH TO 'TO-LDG' TO ENGAGE NOSEWHEEL STEERING

AM1-PILOT   = TBD*

SET   STEERING MODE CONTROL SWITCH

STEERING MODE CONTROL SWITCH = TO-LDG*
AND READY-NWS ADVISORY LIGHT = 'READY-NWS'

15.2.3.005.00*

MAINTAIN DIRECTIONAL CONTROL USING CONTROL STICK & RUD PEDS

AIR-VEHICLE   ¬=ALIGNED ON RNWY*

TRACK   PILOTS FLIGHT CONTROL STICK
             PILOTS RUDDER PEDALS

AIR-VEHICLE   = ALIGNED ON RNWY*

15.2.3.006.00*

POSITION SPEED BRAKES SWITCH TO 'IN'

CHECKLIST   = SEQUENCE

SET   PILOTS SPD BRK CONTR #4 THROT

PILOTS SPD BRK CONTR #4 THROT = IN*
AND SPOILER INDICATORS   = NO FLAG

OBJECTIVE: AFTER LANDING CHECKS

CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS:

CONCURRENT TASKS:

INTERACTION TASKS: 1. OSO sets FLR radar function switch to standby.
                     2. OSO sets doppler radar power switch to off.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that the landing/taxi light control switch must be positioned down for taxi.

2. Recall that slats will always be used for takeoff and that full flaps will probably be used also. Therefore, the FLAP/SLAT control handle may be left in the full down position used for landing.

3. Recall that by setting the radar altimeter rotary mode control switch to OFF, power to both radar altimeters is off.

4. Recall that by moving the steer mode control switch to TAXI, the steering authority is increased from ± 30° of center to 75° left or right of center. However, if the slats are retracted, the authority is reduced to 15 degrees.

ANCILLARY OBJECTIVES:

1. Recall that if the slats are retracted and the steer mode control switch is in TAXI, the steering authority is reduced to 15 degrees.

OPERATOR: P/CP

TASK ELEMENTS: 15.3.1.1   15.3.1.4
                 15.3.1.2   15.3.1.6
                 15.3.1.3

15.3.1.001.00*

SET STEER MODE CONTROL SWITCH TO 'TAXI'

                    AIR-VEHICLE   ¬=ON TAXI STRIP*

    SET   STEERING MODE CONTROL SWITCH

                    STEERING MODE CONTROL SWITCH   = TAXI

15.3.1.002.00*

DEPRESS MIC SW ON THROTTLES TO CONTACT GROUND CNTRL FOR TAXI

                    A-V   = ON TAXIWAY*

    DEPRESS   PUSH-TO-TALK SWITCH-PILOT

                    PILOT UHF COMM PANEL   = TAXI INSTRUCTION

15.3.1.003.00*

POSITION LANDING LIGHT SWITCH TO 'TAXI-OFF' AS NECESSARY

                    CHECKLIST   = SEQUENCE*

    SET   LANDING/TAXI LIGHT CONTROL SW

                    LANDING/TAXI LIGHT CONTROL SW = TAXI
                 OR LANDING/TAXI LIGHT CONTROL SW = OFF

15.3.1.004.00*

POSITION FLAP HANDLE TO 'TO' SETTING

                    CHECKLIST   = SEQUENCE

    SET   FLAP-SLAT CONTROL HANDLE

                    FLAP-SLAT CONTROL HANDLE   = TBD*

15.3.1.006.00*

SET RADAR ALTIMETER ROTARY MODE CONTROL TO 'OFF'

                    CHECKLIST   = SEQUENCE

    SET   CHANNEL SELECTOR SWITCH

                    CHANNEL SELECTOR SWITCH   = OFF

OBJECTIVE: AFTER LANDING CHECKS   15.9

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Landing configuration

CONCURRENT TASKS: 1. P/CP perform checks concurrently.

INTERACTION TASKS: 1. Pilot contacts ground control, sets radar altimeter to
                        off and steer mode control to taxi position.
                     2. C/P sets landing light switch to off.
                     3. C/P sets flaps to take-off setting.

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

   1. Recall that when the FLR mode switch is set to STANDBY, all system
      filaments and protective time delays are energized.

ANCILLARY OBJECTIVES:

   1. Recall that with the FLR mode switch in STANDBY, the antenna is held in
      an azimuth limit, zero pitch and maximum up in tilt.

   2. Recall that the doppler radar power switch is the only hard wired power
      control on the auxiliary panel. Therefore, neither the left or right
      EMUX has control over the doppler radar power switch.

OPERATOR: OSO

TASK ELEMENTS: 15.3.1.5
                15.3.1.7

15.3.1.005.00*

POSITION FLR RADAR FUNCTION SWITCH TO 'STANDBY'

	CHECKLIST	= SEQUENCE
SET	MODE SWITCH-RADAR SET-2	
	MODE SWITCH-RADAR SET-2	= STBY

15.3.1.007.00*

POSITION DOPPLER RADAR POWER SWITCH TO 'OFF'

	CHECKLIST	= SEQUENCE
SET	DOPPLER CONTROL	
	DOPPLER CONTROL	= OFF

OBJECTIVE: TAXI AND PARK AIR VEHICLE   15.10

                    CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Landing configuration
                       2. Throttle-Idle
                       3. Nosewheel steering-Engaged
                       4. Flaps - T.O. setting
                       5. Steering mode control - taxi

CONCURRENT TASKS: 1. Maintain sufficient obstacle clearance
                      2. Communicate on UHF for ground taxi instructions

PERFORMANCE LIMITS: 1. Directional alignment - TBD (±ft) from taxiway centerline

ENABLING OBJECTIVES:

   1. Recall approximate power level required for taxi.

   2. Recall that wings may be swept aft to ensure obstruction clearance.

   3. Recall that with NWS switch in TAXI the nosewheel can be pivoted 75° each
      side of centerline. In TO/LDG position, angle is reduced to 30 degrees
      left or right of center.

ANCILLARY OBJECTIVES:

   1. Recall that when the slats are retracted, rudder pedal travel is mechanically
      limited and NWS is limited to 15 degrees at TAXI and 6 degrees with the
      switch at TO/LDG.

   2. Recall that the parking attendant may be unfamiliar with the ground
      turning capability of the B-1 and may not give proper signals. The B-1
      should be taxied at a very slow speed on the parking ramp to preclude
      an accident.

OPERATOR: P/CP

TASK ELEMENTS: 15.3.1.8
                  15.3.1.9
                  15.3.2.2
                  15.3.2.3
                  15.3.2.4
                  15.3.2.5

15.3.1.008.00*

<u>MANIPULATE RUDDER PEDALS TO TURN ONTO TAXI STRIP</u>

	STEERING MODE CONTROL SWITCH	= TAXI
	AND PIL STEER ENG-DISENG SWITCH	= ENGAGE
DEPRESS	PILOTS RUDDER PEDALS	
	TOE BRAKES	
	AIR-VEHICLE	= TAXIIED*

15.3.1.009.00*

<u>MODULATE THROTTLES AS REQUIRED TO TAXI</u>

	AIR-VEHICLE	¬=ON TAXI SPEED*
ADJUST	PRIMARY THROTTLE LEVERS--P1	
	AIR-VEHICLE	= ON TAXI SPEED*

15.3.2.002.00*

<u>MANIPULATE RUDDER PEDALS TO TURN INTO PARKING POSITION</u>

	FLASHBLINDNESS WINDOW-LEFT	= PARKING AREA*
DEPRESS	PILOTS RUDDER PEDALS	
	TOE BRAKES	

15.3.2.003.00*

<u>OBSERVE SIGNALS OF PARKING ATTENDANT</u>

	FLASHBLINDNESS WINDOW-LEFT	= PRKNG DIRECTIONS
OBSERVE	FLASHBLINDNESS WINDOW-LEFT	
	A-V	= PARKING POSITION

15.3.2.004.00*

<u>DEPRESS RUDDER PEDALS TO BRAKE TO STOP</u>

	AIR-VEHICLE	= PARKING POSITION
DEPRESS	PILOTS RUDDER PEDALS	
	TOE BRAKES	
	AIR-VEHICLE	= STOPPED

15.3.2.005.00*

<u>HOLD BRAKES DEPRESSED UNTIL GO SIGNALS WHEEL CHOCKS IN PLACE</u>

	AIR-VEHICLE	= STOPPED
DEPRESS	TOE BRAKES	
	AIR-VEHICLE	= CHOCKED*

OBJECTIVE: FLIGHT STATION SHUTDOWN

CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Taxi configuration

CONCURRENT TASKS:

INTERACTION TASKS!   1. OSO & DSO insert ejection seat safety pins.

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that ejection seat safety pins should be installed as soon
   as possible after landing to preclude accidental activation of the
   seat while equipment is being stowed/unstowed and crewmembers are
   moving around.

2. Recall that the center position of the landing/taxi light control
   switch turns off all three lights.

3. Recall what the standard hand signal is for wheels chocked.

4. Recall that by turning the flight director mode switch to OFF, the
   flight director computer/monitor is in a standby mode with no steering
   information displayed on the VSD or SADI.

5. Recall that the IFF master control select knob must be pulled outward
   to select the off position.

6. Recall that by turning pitot heat to OFF, each heater in the CADS pilot
   head, total temperature probe and angle of attack sensor is de-activated.

7. Recall that with the engine/inlet anti-icing switch in OFF, the anti-ice
   bleed air valves are closed, terminating or preventing the initiation of
   the anti-ice cycle.

8. Recall that by positioning the anti-collision switch to OFF, electrical
   power is removed from the tail and two wing mounted strobe lights.

9. Recall that by setting the position light select switch to OFF, all
   electrical power is removed from the position lights.

ENABLING OBJECTIVES: (continued)

10. Recall that when the UHF radios function switch is set to OFF, the radios receive/transmitter is off.

11. Recall that when the TACAN mode select switch is off, electrical power to the TACAN system is removed.

12. Recall that by setting the HF radio mode select switch to off, the radio receiver/transmitter is turned off.

13. Recall that by positioning the GSS rotary select switch to OFF, both primary and battery power are removed from the system.

14. Recall that with the EVS control select switch in RET, the IR pod is stowed.

ANCILLARY OBJECTIVES:

1. Recall that when the HF radio mode switch is OFF, neither the SSB, AME or FSK modes are available.

2. Recall that with the EVS control select switch in RET, IR control is with the OSO.

OPERATOR: P/CP

TASK ELEMENTS: 15.3.2.1   15.4.1.7
                  15.4.1.1   15.4.1.8
                  15.4.1.2   15.4.1.9
                  15.4.1.3   15.4.1.10
                  15.4.1.4   15.4.1.11
                  15.4.1.5   15.4.1.12
                  15.4.1.6   15.4.1.13
                                  15.4.1.14

15.3.2.001.00*

INSERT EJECTION HANDLE SAFETY PINS*

                    CHECKLIST   = SEQUENCE

INSERT   EJECTION PINS

                    EJECTION CONTROLS, FORWARD STA= SAFETIED
            AND ICS   =*PINS INSTALLED*

15.4.1.001.00*

POSITION TAXI LIGHT SWITCH TO 'OFF', IF NECESSARY

                    CHECKLIST   = SEQUENCE

SET   LANDING/TAXI LIGHT CONTROL SW

                    LANDING/TAXI LIGHT CONTROL SW = OFF

15.4.1.002.00*

CHECK THAT WHEELS ARE CHOCKED

                    CHECKLIST   = SEQUENCE

CHECK   WINDSHIELD - LEFT
                    SIDE WINDOW - LEFT

                    WINDSHIELD - LEFT   = CHOCKED SIGNAL*
            OR SIDE WINDOW - LEFT   = CHOCKED SIGNAL

15.4.1.003.00*

POSITION FLIGHT DIRECTOR MODE SWITCHES (2) TO 'OFF'

                    CHECKLIST   = SEQUENCE

SET   FLT DIR MODE SWITCH-PILOT
                    FLT DIR MODE SWITCH-COPILOT

                    FLT DIR MODE SWITCH-PILOT   = OFF
            AND FLT DIR MODE SWITCH-COPILOT   = OFF

15.4.1.004.00*

SET IFF MASTER CONTROL SELECT KNOB TO 'OFF'

                    CHECKLIST   = SEQUENCE

SET   MASTER CONTROL SELECT SWITCH

                    MASTER CONTROL SELECT SWITCH = OFF

15.4.1.005.00*

POSITION_PITOT_HEAT_SWITCH_TO_!OFF!

	CHECKLIST	= SEQUENCE
SET	PITOT HEAT CONTROL SWITCH	
	PITOT HEAT CONTROL SWITCH	= OFF

15.4.1.006.00*

POSITION_ENGINE-INLET_ANTI-ICING_SWITCH_TO_!OFF!

	CHECKLIST	= SEQUENCE
SET	ENGINE ANTI-ICE SWITCH	
	ENGINE ANTI-ICE SWITCH	= OFF

15.4.1.007.00*

POSITION_ANTI-COLLISION_LIGHT_TOGGLE_SWITCH_TO_!OFF!

	CHECKLIST	= SEQUENCE
SET	ANTI-COLLISION CONTROL SWITCH	
	ANTI-COLLISION CONTROL SWITCH	= OFF

15.4.1.008.00*

POSITION_FUSELAGE_LIGHT_SWITCH_TO_!OFF!

	CHECKLIST	= SEQUENCE
SET	POSITION LIGHT SWITCH	
	POSITION LIGHT SWITCH	= OFF

15.4.1.009.00*

SET_UHF_#1_FUNCTION_SELECT_SWITCH_TO_!OFF!

	CHECKLIST	= SEQUENCE
SET	FUNCTION SELECT SW-PILOT	
	FUNCTION SELECT SW-PILOT	= OFF

15.4.1.010.00*

SET UHF #2 FUNCTION SELECT SWITCH TO 'OFF'

	CHECKLIST	= SEQUENCE
SET	FUNCTION SELECT SW-COPILOT	
	FUNCTION SELECT SW-COPILOT	= OFF

15.4.1.011.00*

SET TACAN MODE SELECT SWITCH TO 'OFF'

	CHECKLIST	= SEQUENCE
SET	MODE SELECTOR SWITCH-TACAN	
	MODE SELECTOR SWITCH-TACAN	= OFF

15.4.1.012.00*

SET HF RADIO MODE SELECT SWITCH TO 'OFF'

	CHECKLIST	= SEQUENCE
SET	RADIO MODE SELECT SWITCH	
	RADIO MODE SELECT SWITCH	= OFF

15.4.1.013.00*

POSITION GSS #1 ROTARY SELECT SWITCH TO 'OFF'

	CHECKLIST	= SEQUENCE
SET	ROTARY SELECTOR SWITCH	
	ROTARY SELECTOR SWITCH	= OFF

15.4.1.014.00*

POSITION EVS (IR) CONTROL SELECT SWITCHES TO 'RETRACT'*

	CHECKLIST	= SEQUENCE
SET	IR POD CONTROL	
	IR POD CONTROL	= RET

CRITICALITY: 3   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Taxi configuration

CONCURRENT TASKS:

INTERACTION TASKS: 1. P,CP and DSO insert ejection seat safety pins
                     2. Performed currently with flight station shutdown

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that ejection seat safety pins should be installed as soon as
   possible after landing to preclude the accidental actuation of the seat
   while equipment is being stowed/unstowed.

2. Recall that by setting the FLR photo toggle switch to OFF, the automatic
   capability of the camera is inoperative.

3. Recall that with the FLR function switch in OFF, the entire system is
   deenergized.

4. Recall that with the EVS video mode set to OFF, all electrical power is
   removed from the MFD.

5. Recall that with the FLIR mode switch in OFF, all power is removed from
   the FLIR.

6. Recall that in the off position, the BOMB TIMER is in a positive detent
   and the TIMER unit is completely deactivated.

7. Recall that the Nuclear Rack Unlock/Safe switch in the SAFE position
   insures that the racks remain locked.

8. Recall that the Conventional ARM/SAFE switch in SAFE disables the arming
   of conventional weapons.

9. Recall that with the FWD/REV switch in the neutral position, the OSO
   cannot look forward or backward on weapon delivery programs.

10. Recall that with the store power switch selection to OFF, power cannot
    be applied to nuclear weapons.

11. Recall that with the jettison switches set in NORM, neither a selected weapon or all weapons can be jettisoned.

12. Recall that with all SLUs set in the disable position, no power is provided to the ACU which controls the operation of the SLUs.

13. Recall that with INS 1 in DSBL prevents the ACU to turn on INS 1.

14. Recall that with INS 2 in DSBL prevents the ACU to turn on INS 2.

15. Recall that with the GN/DSBL switch in DSBL prevents commands to turn on the General Navigation ACU.

16. Recall that with the WD/DSBL switch in DSBL prevents commands to turn on the Weapons Delivery ACU.

17. Recall that the intensity of the integral instrument panel lighting should be turned full counterclockwise.

18. Recall that the intensity for the alphanumeric ANO displays on the consoles and instrument panels should be turned full counterclockwise.

19. Recall that with the spot light turned off, no light is provided for the chartboard.

20. Recall that the intensity control for the flood lighting should be turned full counterclockwise.

ANCILLARY OBJECTIVES:

1. Recall that with the EVS video mode set to OFF, power to the FLIR is not available.

2. Recall that the Nuclear Rack Unlock/Safe switch provides one part of the two man requirements to enable unlocking of the nuclear weapon racks.

OPERATOR: OSO

TASK ELEMENTS: 15.3.2.1   15.4.2.7
               15.4.2.1   15.4.2.8
               15.4.2.2   15.4.2.9
               15.4.2.3   15.4.2.10
               15.4.2.5   15.4.2.11
               15.4.2.6

15.3.2.001.00*

<u>INSERT EJECTION HANDLE SAFETY PINS</u>*

  CHECKLIST   = SEQUENCE

INSERT   EJECTION PINS

  EJECTION CONTROLS; FORWARD STA= SAFETIED
  AND ICS   = PINS INSTALLED

15.4.2.001.00*

<u>POSITION ELB PHOTO TOGGLE SWITCH TO 'OFF'</u>*

  CHECKLIST   = SEQUENCE

SET   PHOTO CONTROL

  PHOTO CONTROL   = OFF

15.4.2.002.00*

<u>POSITION RADAR FUNCTION ROTARY SWITCH TO 'OFF'</u>

  CHECKLIST   = SEQUENCE

SET   MODE SWITCH-RADAR SET-2

  MODE SWITCH-RADAR SET-2   = OFF

15.4.2.003.00*

<u>POSITION EVS VIDEO SELECT SWITCH TO 'OFF'</u>

  CHECKLIST   = SEQUENCE

SET   VIDEO SELECT SWITCH

  VIDEO SELECT SWITCH   = OFF

15.4.2.005.00*

<u>POSITION FLIR MODE SELECT ROTARY SWITCH TO 'OFF'</u>

  CHECKLIST   = SEQUENCE

SET   MODE SELECT SWITCH-FLIR

  MODE SELECT SWITCH-FLIR   = OFF

15.4.2.006.00*

SET BOMB TIMER KNOB TO 'OFF'

	CHECKLIST	= SEQUENCE
SET	BOMB TIMER POWER SWITCH	
	BOMB TIMER POWER SWITCH	= OFF

15.4.2.007.0 *

CHECK THAT ALL SWITCHES ON SMS PANEL ARE 'OFF, NORM, OR SAFE*

	CHECKLIST	= SEQUENCE
CHECK	STORES MANAGEMENT PANEL	

15.4.2.007.01*

CHECK THAT ALL NUCLEAR ARMING SWITCHES ARE 'SAFE'

	CHECKLIST	= SEQUENCE
CHECK	NUCLEAR RACK CONTROL SWITCH	
	NUCLEAR PREARM ENABLE SWITCH	
	PA-SAFE SWITCH	
	NUCLEAR RACK CONTROL SWITCH	= SAFE
	AND PA-SAFE SWITCH	= SAFE

15.4.2.007.02*

CHECK CONV ARMING SW IN SAFE AND FWD-REV SW IN NORM

	CHECKLIST	= SEQUENCE
CHECK	SAFE-ARM SWITCH	
	FORWARD/REVERSE SWITCH	
	SAFE-ARM SWITCH	= SAFE
	AND FORWARD/REVERSE SWITCH	= N

15.4.2.007.03*

CHECK ST PWR SW IS IN OFF AND JETT SW IS IN NORM

	CHECKLIST	= SEQUENCE
CHECK	STORE POWER SWITCH	
	JETTISON SWITCHES	
	STORE POWER SWITCH	= OFF
	AND JETTISON SWITCHES	= NORM

15.4.2.008.00*

CHECK ALL STATION LOGIC UNIT SWITCHES TO 'DISABLE'

	CHECKLIST	= SEQUENCE
CHECK	STATION LOGIC UNIT SWITCHES	
	STATION LOGIC UNIT SWITCHES	= DSBL

15.4.2.009.00*

SET INS #1 & INS #2 SWITCHES ON AUX PANEL TO 'DISABLE'

	CHECKLIST	= SEQUENCE
SET	INS1 DSBL SWITCH	
	INS 2 DSBL SWITCH	
	INS1 DSBL SWITCH	= DSBL
AND	INS 2 DSBL SWITCH	= DSBL

15.4.2.010.00*

POSITION GEN NAV & WPNS DEL ACU SWITCHES TO 'DISABLE'

	CHECKLIST	= SEQUENCE
SET	GN-DSBL SWITCH	
	WD-DSBL SWITCH	
	GN-DSBL SWITCH	= DSBL
AND	WD-DSBL SWITCH	= DSBL

15.4.2.011.00*

SET CONSOLE LIGHTS TO 'OFF'

	CHECKLIST	= SEQUENCE
SET	INTGR-AND CONTROL	
	SPOT CONTROL	
	FLOOD CONTROL	
	INTGR-AND CONTROL	= OFF
AND	FLOOD CONTROL	= OFF

                         CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Taxi configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                      2. Switches in proper positions

ENABLING OBJECTIVES:

   1. Recall that with the CSD mode switches in NORM coupling is provided between
      the accessory drive gearbox and the constant speed drive.

   2. Recall that with the generator switches in ON, the generator is electrically
      connected to its respective bus.

   3. Recall that when the battery select switch is set to AUTO/ON, each battery
      is connected to its battery bus providing power for APU starting.

   4. Recall that with the left ECS SPLY switch set to ON, a bleed air valve on
      APU #1 is opened.

   5. Recall that by positioning the APU start switch to START, the switch is
      held in the start position until the exhaust temperature gage indicates
      that ignition start has taken place.
   6. Recall that the voltage and frequency indicated on the respective gages
      will correlate with the generator selection.

ANCILLARY OBJECTIVES:

   1. Recall that with the battery select switch in AUTO/ON, power is provided
      for fire warning, fire extinguishing and other systems requiring dc power
      prior to A/V engine starting.

   2. Recall that with the left ADS control on BOTH allows the #1 and #2 engines
      to be rotated by the APU when the appropriate ADG drive train is up to
      speed provided the engine start switch is in the start position.

<u>ANCILLARY OBJECTIVES</u>: (continued)

8. Recall that if the APU exhaust temperature gage indicates a high
   reading, some load must be removed to prevent a potential APU shutdown.

<u>OPERATOR</u>: P/CP

<u>TASK ELEMENTS</u>:   15.4.3.1   15.4.3.5
                       15.4.3.2   15.4.3.6
                       15.4.3.3   15.4.3.7
                       15.4.3.4   15.4.3.8

15.4.3.001.00*
      VERIFY CSD DECOUPLE SWS FOR GENS 1 & 2 ARE IN 'NORMAL' POSN

	CHECKLIST	= SEQUENCE
CHECK	#1 CONSTANT SPD DRIVE MODE SEL	
	#2 CONSTANT SPD DRIVE MODE SEL	
	#1 CONSTANT SPD DRIVE MODE SEL= NORM	
AND	#2 CONSTANT SPD DRIVE MODE SEL= NORM	

15.4.3.002.00*
      VERIFY NO 1 AND NO 2 GENERATOR SWITCHES ARE 'ON'

	CHECKLIST	= SEQUENCE
CHECK	#1 GENERATOR MODE SWITCH	
	#2 GENERATOR MODE SWITCH	
	#1 GENERATOR MODE SWITCH	= ON
AND	#2 GENERATOR MODE SWITCH	= ON

15.4.3.003.00*
      SET BATT LEVER-LOCK SWITCH ON ELEC PANEL TO 'AUTO-ON' POSN

	CHECKLIST	= SEQUENCE
SET	BATTERY SELECT SWITCH	
	BATTERY SELECT SWITCH	= AUTO-ON

15.4.3.004.00*
      VERIFY LEFT ADS ROTARY CONTROL ON APU PANEL IS IN 'BOTH'

	CHECKLIST	= SEQUENCE
CHECK	LEFT ADS COUPLE SWITCH	
	LEFT ADS COUPLE SWITCH	= BOTH

15.4.3.005.00*
      VERIFY ECS SPLY SWITCH FOR L APU ON APU PANEL IS 'ON'

	CHECKLIST	= SEQUENCE
CHECK	LEFT ECS SUPPLY SWITCH	
	LEFT ECS SUPPLY SWITCH	= ON

15.4.3.006.00*

MOMENTARILY PRESS LEFT APU SWITCH TO 'START' POSITION*

	FLASHBLINDNESS WINDOW-LEFT	= APU IS CLEAR*
DEPRESS	LEFT APU MODE SWITCH	
	LEFT APU MODE SWITCH	= START*
	AND LEFT RUN LIGHT	= 'L RUN'

15.4.3.007.00*

MOVE VOLTAGE-FREQ SW TO GEN NO 1 AND THEN NO 2 AND MONITOR*

	LEFT RUN LIGHT	= 'L RUN'
SET	VOLTAGE/FREQ SELECTOR SWITCH	
	VOLTAGE/FREQ SELECTOR SWITCH	
	VOLTAGE METER	= 230
	AND FREQUENCY METER	= 400

15.4.3.008.00*

MONITOR L APU EXH TEMPERATURE

	LEFT RUN LIGHT	= 'L RUN'
MONITOR-VISUAL	LEFT APU EXHAUST TEMP GAGE	
	LEFT APU EXHAUST TEMP GAGE	= TSD*

OBJECTIVE: PERFORM ENGINE SHUTDOWN   15.14

                    CRITICALITY: 2   DIFFICULTY: 1

INITIAL CONDITIONS: 1. Taxi configuration

CONCURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS: 1. Proper sequence
                     2. Switches in proper positions

ENABLING OBJECTIVES:

1. Recall that the quantity of oil remaining in the engine oil reservoirs
   is displayed in percent of reservoir capacity.

2. Recall that the gross fuel quantities remaining on the individual fuel
   quantity tapes should add up to the total fuel quantity displayed by
   the total fuel quantity indicator.

3. Recall that when the c g mode selector is set to the value to be used
   for take-off, the horizontal bar shaped pointer on the TGT tape indicates
   the desired CG location.

4. Recall that the engine start/run switches are lever-lock toggle switches
   requiring the handle be pulled out, releasing the lock, in order to re-
   position the switch into the off position.

ANCILLARY OBJECTIVES:

1. Recall that the target pointer should be located between the pointer that
   indicates the forward CG limit and the aft CG limit.

2. Recall that selecting the engine start/run switch to OFF will drive the
   engine power lever to OFF, independently of flight station throttle
   control lever position.

OPERATOR: P/CP

TASK ELEMENTS: 15.4.4.1   15.4.4.3
                15.4.4.2   15.4.4.4

15.4.4.001.00*

<u>CHECK AND RECORD ENGINE OIL QUANTITY</u>

        CHECKLIST   = SEQUENCE

CHECK   OIL QUANTITY INDICATOR

        OIL QUANTITY INDICATOR   = TBD*
        AND FLIGHT LOG   = RECORDED

15.4.4.002.00*

<u>CHECK AND RECORD TOTAL FUEL QUANTITY</u>

        CHECKLIST   = SEQUENCE

CHECK   TOTAL FUEL QUANTITY INDICATOR

        TOTAL FUEL QUANTITY INDICATOR = TBD*
        AND FLIGHT LOG   = RECORDED

15.4.4.003.00*

<u>SET MODE PERCENT MAC SWITCH TO TBD VALUE FOR TAKE-OFF</u>

        CHECKLIST   = SEQUENCE

SET   SET MODE % MAC SELECTOR SW

        SET MODE % MAC SELECTOR SW   = TBD*

15.4.4.004.00*

<u>POSITION ENGINE START-RUN SWITCHES TO 'OFF'</u>

        CHECKLIST   = SEQUENCE

SET   ENGINE START SWITCH

        ENGINE START SWITCH   = OFF

OBJECTIVE: PRE-EXIT PROCEDURES   15.15

                    CRITICALITY: 1   DIFFICULTY: 1

!TIAL CONDITIONS: 1. Takeoff configuration

\CURRENT TASKS:

INTERACTION TASKS:

PERFORMANCE LIMITS:

ENABLING OBJECTIVES:

1. Recall that a door holdback latch retains the door in the open position.

2. Recall that manual operation of the entry ladder can be accomplished
   through use of a flexible drive shaft which drives the actuator.

ANCILLARY OBJECTIVES:

OPERATOR: OSO

TASK ELEMENTS: 15.4.5.1
                 15.4.5.2

15.4.5.001.00*

<u>ACTUATE CREW MODULE ENTRY DOOR HANDLE TO 'OPEN' & LATCHED</u>

	A-V	= MANNED*
SET	OPEN-CLOSE DOOR HANDLE	
	OPEN-CLOSE DOOR HANDLE	= OPEN*

15.4.5.002.00*

<u>POSITION ENTRY LADDER CONTROL SWITCH TO 'DN'</u>

	A-V	= MANNED*
	AND OPEN-CLOSE DOOR HANDLE	= OPEN
SET	ENTRY LADDER CONTROL SWITCH	
	ENTRY LADDER CONTROL SWITCH	= DN*