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DEVELOPMENT AND APPLICATION OF A TASK TAXONOMY FOR TACTICAL FLY--ETC(U)

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6 DEVELOPMENT AND APPLICATION OF A TASK
TAXONOMY FOR TACTICAL FLYING

Volume I.

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This technical report has been reviewed and is approved for publication.

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SUMMARY

This is Volume I of a three volume report which describes the development and application of a taxonomy of tactical flying tasks. Volume I details the procedures used to develop a surface task analysis of selected tactical maneuvers. This technique proceeded from a behavioral stimulus-organism-response paradigm in describing flying tasks in terms of the sequential pilot-aircraft relationships as task elements. The resulting data from the surface analysis process became the data base from which the task taxonomy was generated.

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PREFACE

This report represents a portion of the research program of Project 1123, United States Air Force Flying Training Division, Mr. James F. Smith, Project Scientist; Task 112302, Instructional Innovations in the United States Air Force Flying Training, Mr. Robert R. Woodruff, Task Scientist.

Credit for the initial development of this study as a contract effort belongs to Capt Jack Thorpe who is now with the Air Force Office of Scientific Research, Bolling AFB. His work in writing the statement of work and guiding the formative stages of the contract was fundamental to the success of the final product.

Dr. Edward E. Eddowes, Technical Advisor, Air Force Human Resources Laboratory, Flying Training Division, Williams Air Force Base, Arizona, provided much guidance and insight throughout this effort. His contributions were particularly valuable because of his close association with Mr. Meyer in producing a Behavioral taxonomy of undergraduate pilot training tasks and skills, a research effort upon which the present study was based.

The authors express appreciation to Lt Col Tom Rush, Chief of the 4444th OS, Luke Air Force Base, Arizona, and to Maj Kirk Ransom and Maj Dick Phillips, TAC/DOOS, for their cooperation and support in the contract effort.

An essential element for this study was obtaining interview data from aircrew personnel at the 334th and 336th OS, Seymour Johnson Air Force Base, North Carolina. The focal point for coordinating these interviews was Capt Larrie Harlan, to whom the authors are grateful.

Capt Bill Schnittger, Chief of the F-4 Instructional Systems Development Team, Luke Air Force Base, Arizona, acted as principal liaison between the Contractor/Contract Monitor and the Tactical Air Command personnel involved in this project. The authors appreciate his continuing cooperation and contributions throughout the study, without which the contract could not have been successfully completed.

Valuable information and suggestions for the project were contributed during various meetings with the Contractor by Maj J. D. Brown, Capt Dave Yates, Maj Al Lavoy, Maj Bill Mack, Capt Jim Icenhour, and Mr. Don Alford of the 4444th OS, Luke Air Force Base, Arizona, and by Lt Col Dick Lee, TAC/TAWC, Eglin Air Force Base, Florida.

INTRODUCTION

In 1974 the Flying Training Division of the Human Resources Laboratory supported a study to develop a Behavioral taxonomy of undergraduate pilot training tasks and skills (Meyer, Laveson, Weissman & Eddowes, 1974). The objective of the study was to develop a uniquely detailed method of classifying the fundamental flying abilities which underlie the UPT program. By focusing on the pilot's aircraft control behavior, rather than on the training maneuvers themselves, the study produced an efficient and economical data system from which improved flying training concepts and methods could be derived.

In the present study, the taxonomic foundations developed for the UPT have been extended to the tactical flying task domain. The objective of this effort was to produce a task classification system for tactical flying which would go beyond the bounds of a descriptive task analysis as an analytical tool. Using this system, training developers could determine and substantiate the content of training programs. They also would be able to analyze various training problems and develop alternative solutions. The approach throughout the present study was to document each stage of the development and application of the task taxonomy so that operational personnel would have a working set of procedures from which to proceed. Accordingly, the information presented in this technical report is organized for the operationally oriented user.

The report is presented in three separate volumes. Volume I documents the development of a surface task analysis of sixteen representative tactical tasks and presents instructions to the user on how to generate such a surface analysis. Volume II explains the development and use of a system of classification rules and describes how the rules were applied to generate the taxonomic system in a data matrix form; the second section of Volume II contains instructions for classifying data and developing the taxonomic structure. Volume III of the report presents a series of applications of the taxonomic system as an analytical tool and illustrates how the taxonomy can be applied to a range of training problems and questions. The examples used were taken from an operational training organization.

Using the UPT taxonomy (Meyer, et al., 1974) as a point of departure, the focus of Volume I was on the analysis of tactical flying tasks and the development of an analysis format compatible with classification system requirements. A technique called surface task analysis was developed. Since it constituted the raw data for the taxonomy, great care accompanied the development of the surface task analysis. The accuracy of raw data in the surface analysis would affect the integrity of the entire taxonomy system. Rules were carefully structured for use in performing the surface analysis on specific air-to-air and air-to-ground flying tasks. Since it was beyond the scope of the study to address the entire task domain of tactical flying for all tactical aircraft, representative tasks and aircraft were selected. A sample of sixteen tactical maneuvers was selected as representative of tactical flying: seven air-to-ground maneuvers and nine air-to-air. These representative tasks became the informational source for the surface analysis which provided a critical input to the establishment of a real-world oriented data base.

In addition to the representative maneuvers, the F-4E aircraft was selected as a representative tactical aircraft since it has both air-to-air and air-to-ground capabilities, and a wide base of pilot experience exists in the F-4E. Thus, the task analysis for the present effort was based on pilot performance in the F-4E.

Volume I is divided in two independent sections. The first section documents the development of surface task analysis rules and format. The second describes the application of this analysis technique in a step-by-step manual. The manual has been prepared so that flying personnel could perform a successful surface task analysis without prior analysis experience.

BACKGROUND

The surface analysis was defined as a sequence of cues, mental actions, and motor actions performed in close temporal proximity and directed toward the completion of a specific task. The end product of the analysis was a complete description of a flying task or maneuver, sequence by sequence. The cues were the inputs which a pilot received from his flying environment to perform a basic task sequence. These cues were processed by the pilot, by means of a specific mental action. Finally, outputs were the result of the mental action in the form of motor actions, typically movements of the aircraft flight controls. Of the three elements in this sequence, the mental action was the most difficult to describe; however, appropriate mental action categories were developed based on the cues and motor actions of each sequence. The Pilot-Aircraft Relationships shown in Figure 1 describe the Stimulus-Organism-Response (SOR) analysis model rationale used by psychologists (Woodworth & Schlosberg, 1954). The cue, mental action, motor action sequence adapted for this study utilized the SOR concept; however, the terminology was specifically tuned to the flying vernacular and the needs of the flying training researchers.

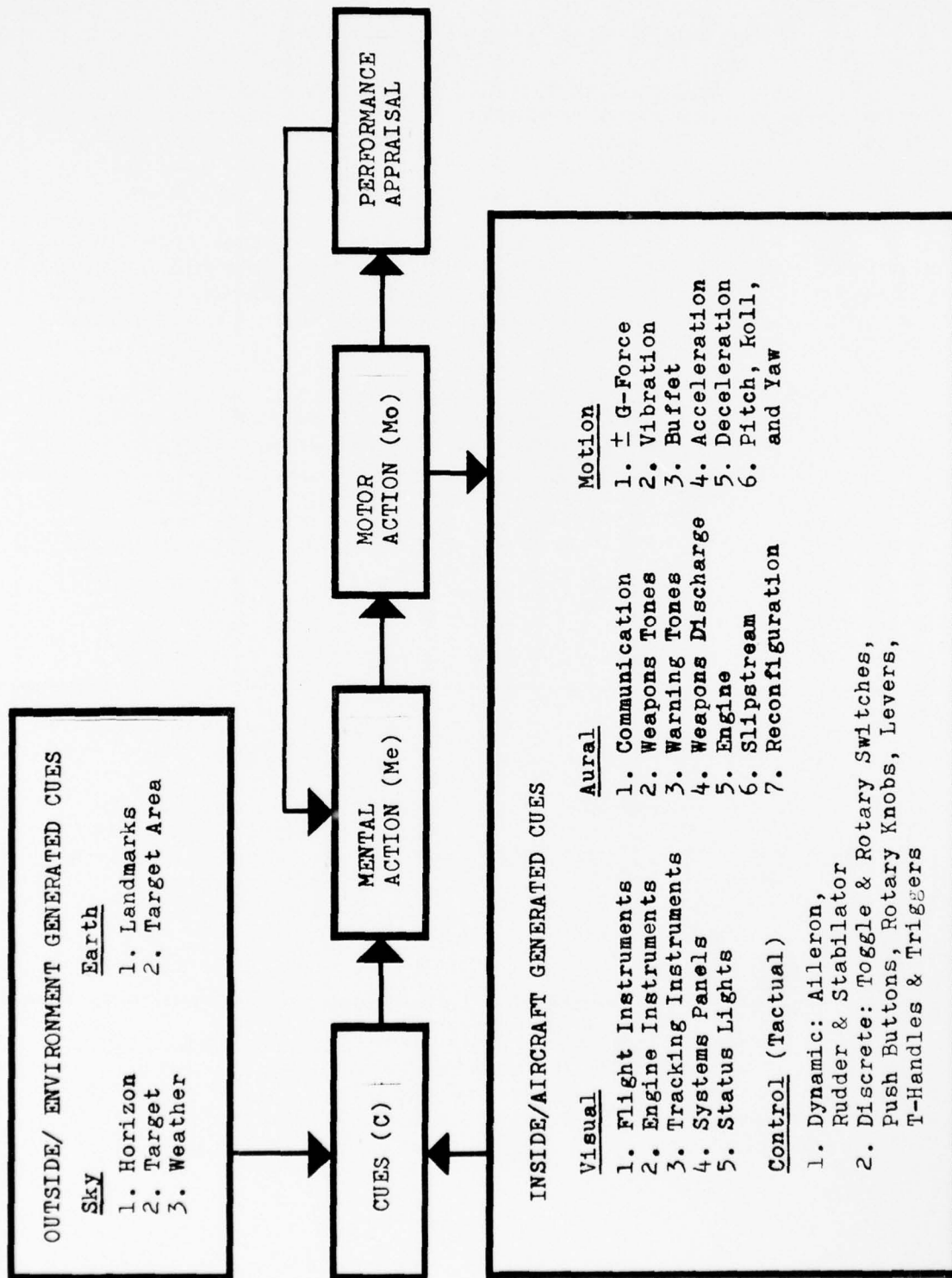


Figure 1. Pilot-aircraft relationships.

SURFACE TASK ANALYSIS ELEMENTS

The cues (C), mental action (Me), motor action (Mo), or C-Me-Mo sequences as primary behavioral descriptors constituted the foundation of the surface task analysis. It will be necessary, therefore, to understand how the categories within each element sequence were defined.

Cues - Cues were defined as all the inputs from the aircraft and the outside world which could be used by the pilot to properly perform a particular flying task. These cues were divided in four basic categories: visual, aural, control, and motion cues.

Visual Cues - The visual cues (everything the pilot sees) were divided into outside or environment generated cues; and inside, or aircraft generated cues. Typical outside visual cues would be the horizon or cloud formations. Inside cues would be information obtained from flight instruments or a radar display. A list of visual cues developed for the surface task analysis is shown in Table 1.

Table 1. Visual Cues List

Outside/Environment Generated Cues		Inside/Aircraft Generated Cues
Sky	Earth	1. Flight Instruments
1. Horizon	1. Landmarks	2. Engine Instruments
(pitch & bank)	2. Target Area	3. Tracking Instruments
2. Target or		4. Status Lights
Leading Aircraft		5. System Panels
3. Weather		

Aural Cues - The aural cues were divided into eight specific categories. The most basic aural cues were engine and slipstream background sounds. Other examples of aural cues included warning tones and standard UHF or VHF communications. The eight categories are shown in Table 2.

Table 2. Aural Cues List

1. Communication
2. Weapons Tones
3. Warning Tones
4. Weapons Discharge
5. Engine
6. Slipstream
7. Reconfiguration
8. Hits

Control Cues - The control cues were separated into the dynamic tactual (aileron, stabilator, rudder, and throttle) pressures of the flight controls exerted on the arms and legs, and the more discrete tactual pressures of such things as switches and knobs involved in the operation of all other system control functions. The cues selected for use in the surface task analysis are shown in Table 3.

Table 3. Control Cues List

Dynamic Tactual	Discrete Tactual
Aileron	Toggle and Rotary Switches
Stabilator	Push Buttons
Rudder	Rotary Knobs
Throttle	Levers
	T-Handles
	Triggers

Motion Cues - The motion cues were noted as stimuli which could be sensed by the body receptors as a result of aircraft movement. Some of the typical motion cues sensed were vibration, pitching movement, and positive or negative G-force. The motion cues determined for use in the surface task analysis are shown in Table 4.

Table 4. Motion Cues List

1. \pm G-Force
2. Vibration
3. Buffet
4. Acceleration
5. Deceleration
6. Pitch, Roll, and Yaw

Use of the Cues Categories - Rules and procedures were developed for the specific application of the cues categories in the performance of a surface task analysis.

Figure 2 shows a sample format of the cues categories as they would appear in a surface analysis. Reference to this format will assist in understanding the rules or procedures pertaining to each cues category.

EL. SEQ.	1 CUES
A.	CONTINUES STRAIGHT AND LEVEL AT CRUISE POWER <u>Visual</u> -Pitch att: level Bank att: level <u>Aural</u> -Normal aircraft sound <u>Control</u> -Neutral aileron, stabilator & rudder pressure <u>Motion</u> -Normal G

Figure 2. Sample format cues categories.

Visual - Referring to Table 1, note that the outside pitch and bank attitude cues are listed first and refer to the aircraft in relation to the horizon under Visual Flight Rules (VFR) conditions. Other potential outside visual cues are: target or leading aircraft, weather, landmarks, or target area. A double space was used to separate horizon cues from all other visual cues. Inside cues were also listed in the order suggested in Table 1, with flight instruments first. When an Instrument Flight Rules (IFR) flying analysis was performed, pitch and bank attitudes were listed above all other flight instrument cues. Visual cues are listed below:

Pitch: Level, Climb, Descent, Constant, Constant Variable*, and Increasing/Decreasing/Constant Climb or Descent

Bank: Level, Rolling, Constant or Constant Variable*

Target, Weather, Initial Point (IP), Landmarks, Flight Instruments, Engine Instruments, Tracking Instruments (sight picture, radar presentation), Status Lights (warning, ready, lock-on, etc.), Systems Panels (navigation communication, armament, etc.)

*This describes a close tracking situation.

Aural - The two most basic aural cues were engine and slipstream background sounds. For analysis purposes, these were considered "normal" aircraft sounds when they were constant. Any variation from constant was considered a change in aircraft sound. For example, the reduction of power would be noted as a change in aircraft sound. All other aural cues should be noted as they occur below the basic aircraft sounds. Typical aural cues or sounds are listed below:

Engine, Slipstream, Reconfiguration, Communication, Weapons Tones, Warning Tones, Weapons Discharge, and Hits

Control - In the surface task analysis, the term "stabilator" refers to the pitch control of the aircraft. Reference to the rudder included either manual input or an aileron/rudder interconnect system. The term "neutral pressure" was used to describe a control condition if the aircraft was trimmed. Typical control cues are derived from those listed below:

Aileron, Stabilator, Rudder, Throttle, Toggle and Rotary Switches, Push Buttons, Knobs, Levers, T-Handles, and Triggers

Motion - Motion cues made up the last cue category. The motion cues are stimuli which can be sensed by the body. Physical pressures, such as: positive or negative G-forces, acceleration, vibration, pitching, and yawing, were identified. In the surface analysis, 1 G flight was described as "normal G." Motion cues used in the analysis were described as follows:

Normal G, Unloaded G, Positive G Onset, Negative G Onset, Constant Positive G, Constant Negative G, Increasing Positive G, Increasing Negative G, Decreasing Positive G, Decreasing Negative G, Vibration, Buffeting, Pitch and Roll (Increasing/Decreasing/Stabilized/or Constant Variable*), Yaw, Acceleration, or Deceleration

*This describes a close tracking situation.

Mental Actions - As perceived by the pilot, cues resulted in various types of cognitive processes which were termed mental actions. This was pragmatic rather than theoretical, since mental processing for purposes of a behavioral taxonomy was regarded as an input/output system rather than a psychological construct. The mental action category involved four separate mental processes which were basic to the performance of most hand, foot, and eye tasks. Discerns, sustains, anticipates, and determines were selected as behavioral verbs to describe the mental

actions for this analysis. Each behavioral verb is listed below with its respective cognitive description. These descriptions are specifically oriented to flying situations as they pertain to the surface task analysis.

Use of the Mental Action Categories

<u>Behavior</u>	<u>Information Processing</u>	<u>Cognitive Description</u>
Discerns	Specific Cue Processing (Short Term Memory Process/ Storage)	<u>This behavior occurs with the perception and recognition of a specific cue.</u> This process utilizes short term memory storage. The identification of a desired airspeed, the observation of a specific point at which a task sequence is to begin, or the comprehension of a verbal communication are examples of the activities which require that cues perceived be remembered only long enough to recognize the correlation with an actual situation and a desired state.
Sustains	Continuous Iterative Processing (Short Term Memory Process)	<u>This behavior occurs as cyclic short term memory processing that maintains a task segment in which cue parameters remain constant.</u> It is the mental activity required to control an aircraft during a turn, after the roll in, and before the roll out. Similar mental activity may occur during climbs, descents, and cruise flight.
Anticipates	Memory Recall Processing (Long Term Memory Process/ Storage)	<u>This behavior occurs prior to a particular portion of a task and triggers the decision process for a number of subsequent task sequences.</u> It is the precursor of subsequent mental actions and involves the recalling of learned facts

Behavior	Information Processing	Cognitive Description
		and routines required for the planning of tasks. Anticipation involves long term memory storage of procedures or facts about the performance of the task.
Determines	Multi-Cue Processing (Short Term & Long Term Memory Process)	<u>This behavior occurs in the basic decision making and problem solving processes and always involves multiple cues and evaluations. This is the most elaborate and complex mental activity. Determination also identifies the decision making and problem solving processes which ascertain the extent a motor action should be done or has been done.</u>

Mental Action Combinations - Not all mental actions could be clearly defined, even in the analysis of simple tasks. This was all the more true when attempting to describe the complex processes involved in basic fighter maneuvers. For more complex functions, rules for the mental action category were expanded to include a time sharing capability. This allowed the mental action to accommodate dual mental processing in a single skill sequence, thereby creating a real-world situation where the pilot's cognitive apparatus/structure appears to be successfully processing more than one type of mental function at the same time. The following mental action combinations were utilized in the surface task analyses.

1. Sustains (Continuous Iterative Processing) was used with Discerns (Specific Cue Processing) when the motor action resulting from specific cue processing did not require the need for new control outputs. Example: Communication was discerned and comprehended while the aircraft flight path remained unchanged.
2. Anticipates (Memory Recall Processing) was always used with Sustains since anticipation involved only the planning of subsequent task sequences.
3. Sustains was also used with Determines (Multi-Cue Processing) when the outcome of the determination would not result in an aircraft control output, e.g., the transmission of communication or system setup while the aircraft flight path remained unchanged. Figure 3 presents the surface analysis mental action category with a time shared combination.

2 MENTAL ACTION

Anticipates roll
in to turn

Sustains level
flight

Figure 3. Mental action combinations.

Motor Actions - The motor action category described what the pilot did with the aircraft flight controls or subsystem controls based on the preceding cues and mental actions in a task element sequence. It was necessary, therefore, to select proper action verbs which would adequately describe the resulting motor activity. This category was expanded to encompass the actual flying and system functions involved in tactical flying tasks. The following are the motor action verbs and descriptions adopted for the surface task analysis.

Use of the Motor Action Category

<u>Action Verbs</u>	<u>Description</u>
Coordinates	The movement of two or more controls simultaneously in their proper relationship to obtain a desired control effect.
Moves	The displacement of a control from a previous position.
Adjusts	The incremental regulation of a specific control to obtain a desired effect.
Maintains	The continuation of a controlling pressure on an aircraft control.

Action Verbs	Description
Increases	The augmentation of a controlling pressure on an aircraft control.
Relaxes	The reduction or easing of a controlling pressure on an aircraft control.
Activates	The discrete engagement of a specific toggle switch, push button, knob, rotary switch, lever, T-handle, or trigger.
Communicates	The motor action involved in either initiating or acknowledging radio transmissions (RT).
Checks	The act of turning the head or head and body in order to inspect the position of a target, or target area.
Example: Checks six (6 o'clock or aft position of the aircraft) for target or possible target.	
Example: Checks 360 degrees (or as much azimuth and elevation as possible around the aircraft) for target or possible target.	

Figure 4 is a typical example of how the motor action appears in the surface analysis.

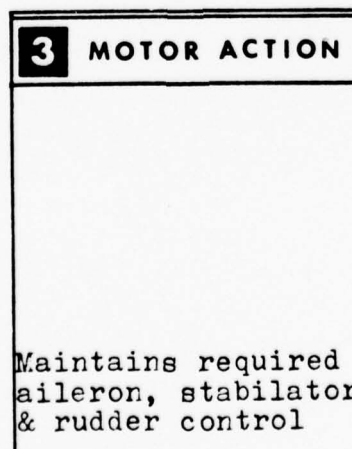


Figure 4. Motor action example.

It should be noted that for this surface task analysis, the pilot was considered to be perfect. This rule was adopted in order to eliminate the need for developing a drawn out list of multiple contingency activities.

RATIONALE FOR SURFACE TASK ANALYSIS SEQUENCES

During the development of the surface analysis, it became evident that a logical framework would be required upon which to base the sequencing of task activities. It was noted that groups of related task element sequences were preceded by an anticipatory mental process. This rationale was expanded into a procedure which could be formalized in order to achieve a consistency of expression within the surface analysis. It was determined that a complete maneuver could be thought of as a combination of a number of task segments. Each segment or element sequence had the common denominator of being anticipated or planned and followed by sequences to the next anticipation point. This suggests a chaining effect in which the element sequences comprising a maneuver can be labeled and shown in temporal proximity as in Figure 5.

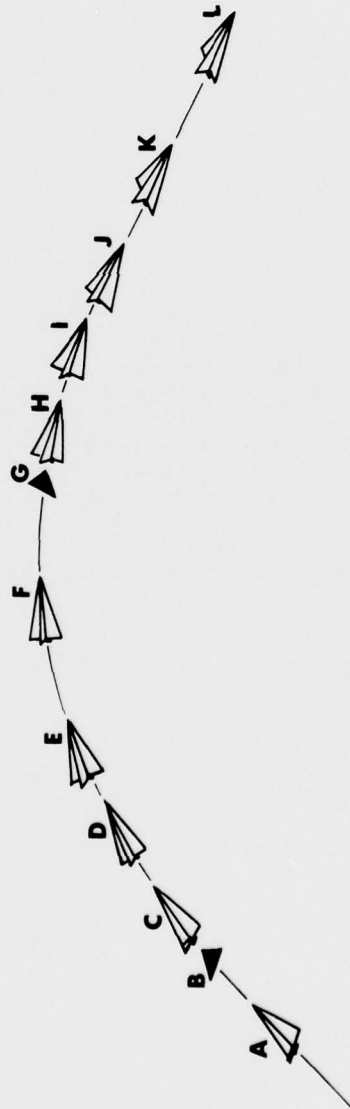
The 90 degree level turn shown in Figure 5 is a relatively simple task having two anticipation sequences within its framework. Using this turn as the example, it can be noted that Prepares, Starts, Continues, Stops, and Establishes have been used to describe the major milestones of action for the transitions from straight and level flight to the establishment of the proper bank (turn rate of the aircraft). The turn rate, once established, is sustained or held until roll out is planned. The transition segment to straight and level flight is described by the same milestones (Prepares, Starts, Continues, Stops, and Establishes).

Listed below are basic sequence names with the appropriate mental actions developed for the basic 90 degree level turn.

Basic Sequence Name	Mental Action(s)
ContinuesDiscerns/Sustains
PreparesAnticipates/Sustains
StartsDetermines
ContinuesDetermines
StopsDetermines
EstablishesSustains

As the analysis development continued, it was found that this basic sequence format could be utilized, though often modified, even in the analysis of complex air-to-air maneuvers; thus making the analysis more predictable and fulfilling the need for a measure of consistency required for a useful taxonomic classification.

SITUATION AT "A" - Aircraft straight and level at
cruise power



- | | |
|---------------------------|-----------------------------|
| A. Continues Level Flight | G. Prepares Roll Out |
| B. Prepares Turn | H. Starts Roll Out |
| C. Starts Roll In | I. Continues Roll Out |
| D. Continues Roll | J. Stops Roll Out |
| E. Stops Roll In | K. Establishes Level Flight |
| F. Establishes Level Turn | L. Continues Level Flight |

Figure 5. Basic 90 degree level turn sequences.

SURFACE TASK ANALYSIS FORMAT

The task analysis format was developed to accommodate the cue, mental action, and motor action categories. Figure 6 shows a surface task analysis of the 90 degree level turn maneuver discussed in the Rationale For Surface Task Analysis Sequences. The analysis format shows that it has been arranged into three distinct vertical columns labeled 1. CUES, 2. MENTAL ACTION, and 3. MOTOR ACTION. The task identification block is situated above the three columns. It contains essential information regarding the task such as describing the aircraft "state" at the time the task sequence analysis is to commence. The task block identifies the task, while the task goal describes the required objective of the maneuver. The element sequences (EL. SEQ.) are listed alphabetically (A, B, C, D, etc.) and identify or address each sequence within the total task. At the beginning of each element sequence is the basic sequence name, such as CONTINUES, PREPARES, and STARTS, which describes the major milestones within the transitional task segment being analyzed.

SITUATION Aircraft straight and level at cruise power and trimmed.

TASK NO. 01 **TASK** 90° level VFR turn **AIRCRAFT** General

Roll in 45° - 60° bank and roll

TASK GOAL out to perform a 90° level turn. **DATE** 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
A.	<p>CONTINUES STRAIGHT AND LEVEL</p> <p><u>Visual</u>-Pitch att: level Bank att: level Landmarks <u>Aural</u>-Normal aircraft sound <u>Control</u>-Neutral aileron, stabilator & rudder pressure <u>Motion</u>-Normal G</p>	<p>FLIGHT</p> <p>Discerns start point for turn</p> <p>Sustains level flight</p>	<p>Maintains required aileron, stabilator and rudder control</p>
B.	<p>PREPARES FOR LEVEL TURN</p> <p><u>Visual</u>-Pitch att: level Bank att: level Landmarks <u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron, stabilator and rudder pressure <u>Motion</u>-Normal G</p>	<p>Anticipates roll in to turn</p> <p>Sustains level flight</p>	<p>Maintains required aileron, stabilator and rudder control</p>
C.	<p>STARTS ROLL</p> <p><u>Visual</u>-Pitch att: level Bank att: level Landmarks <u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron, stabilator and rudder pressure <u>Motion</u>-Normal G</p>	<p>Determines position to begin roll in</p>	<p>Coordinates aileron & rudder with stabilator pressure</p>

Figure 6. 90 degree level VFR turn. (Pages 22-25)

SITUATION Aircraft straight and level at cruise power and trimmed.

TASK NO. 01 **TASK** 90° level VFR turn **AIRCRAFT** General

TASK GOAL Roll in 45° - 60° bank and roll out to perform a 90° level turn. **DATE** 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
D.	<p>CONTINUES ROLL</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	<p>Determines satisfactory roll rate & need for power</p>	<p>Maintains coordinated aileron and rudder pressure, increased stabilator pressure, adjusts throttle</p>
E.	<p>STOPS ROLL</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Landmarks</p> <p>Flt.Instr:ADI,Alt,A/S</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure, throttle advance</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	<p>Determines proper bank attitude achieved</p>	<p>Coordinates aileron and rudder with stabilator movement</p>
F.	<p>ESTABLISHES LEVEL TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder, increased stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch and roll stabilized</p>	<p>Sustains level turn</p>	<p>Maintains required aileron, stabilator & rudder pressure</p>

SITUATION Aircraft straight and level at cruise power and trimmed.

TASK NO. 01 **TASK** 90° level VFR turn **AIRCRAFT** General

Roll in 45° - 60° bank and roll

TASK GOAL out to perform a 90° level turn. **DATE** 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
G.	<p>PREPARES FOR ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Anticipates roll out to level flight</p> <p>Sustains turn</p>	<p>Maintains required aileron, stabilator & rudder control</p>
H.	<p>STARTS ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Determines position to roll out to level flight</p>	<p>Coordinates aileron & rudder and relaxes stabilator pressure</p>
I.	<p>CONTINUES ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll Landmarks</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Decreasing positive G, pitch decreasing, rolling</p>	<p>Determines satisfactory roll rate need to decrease power</p>	<p>Maintains coordinated aileron & rudder pressure, reduced stabilator pressure, adjusts throttle</p>

SITUATION Aircraft straight and level at cruise power and trimmed.

TASK NO. 01 **TASK** 90° level VFR turn **AIRCRAFT** General

TASK GOAL Roll in 45° - 60° bank and roll out to perform a 90° level turn. **DATE** 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
J.	<p>STOPS ROLL</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Landmarks</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, reduced stabilator pressure, throttle decrease</p> <p><u>Motion</u>-Decreasing positive G, pitch decreasing, rolling</p>	<p>Determines level attitude achieved</p>	<p>Moves aileron & stabilator, relaxes rudder pressure</p>
K.	<p>ESTABLISHES LEVEL FLIGHT</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Sustains level flight</p>	<p>Maintains required aileron, stabilator & rudder control</p>

TACTICAL MANEUVER TASK SELECTION

Of major interest and concern in this research effort was the selection of representative air-to-air and air-to-ground tactical flying tasks to be utilized in the taxonomic data base. However, before the candidate list could be developed, it was necessary to select an aircraft which had both acceptable air-to-air and air-to-ground capabilities. Once the aircraft was selected, an appropriate list could be developed.

After consideration by the contractor, with the valuable assistance from members of the Luke AFB Instructional Systems Development (ISD) team, the McDonnell Douglas F-4E was chosen as the subject aircraft for this study. The F-4E has good air-to-air and air-to-ground capabilities in addition to a considerable base of pilot experience. With this agreement, a process of selecting the representative flying tasks was begun.

The first step was to establish a set of criteria to facilitate selection. The following criteria were agreed upon by the contractor and the ISD team.

1. An equal number of air-to-air and air-to-ground tasks should be considered.
2. The tasks should address as many flying problem areas as possible.
3. The tasks should be flying oriented instead of system oriented and characterize the delivery of as many different types of weapons as possible.
4. The tasks should be of sufficient length and complexity to develop an analysis system which later could be used to analyze all air combat maneuvering (ACM) tasks.

With the selection criteria established, a computerized list of candidate F-4 flying tasks was provided by the USAF upon which to apply these criteria. Table 5 shows the representative tactical flying tasks selected by the contractor and approved by the Luke AFB ISD team. The list of sixteen representative tactical flying maneuvers fulfilled all of the stated criteria.

Table 5. Representative Tactical Flying Maneuvers

Air-to-Air Intercept

- Task 1. Single Turn Commit
- Task 2. Reattack with Convert to Stern

Conventional Air-to-Ground Delivery

- Task 1. High Angle Dive Bomb (Day)
- Task 2. Low Angle Dive Bomb (Day)
- Task 3. Dive Toss - High (Day)
- Task 4. Low Angle Strafe (Day)
- Task 5. Low Angle Rocket (Day)

Nuclear Air-to-Ground Delivery

- Task 1. Low Angle Drogue Delivery (LADD)

Air-to-Air DART

- Task 1. DART (Racetrack Pattern)

Tactical Air-to-Ground Delivery

- Task 1. Pop-Up Delivery

Air-to-Air ACM (one on one)

- Task 1. High Yo-Yo
- Task 2. Counter High Yo-Yo
- Task 3. Reversal
- Task 4. Counter Reversal
- Task 5. Low Yo-Yo
- Task 6. Counter Low Yo-Yo

FIELD STUDY OF THE REPRESENTATIVE FLYING TASKS

A field study was undertaken to obtain as much real-world input as possible about each of the selected representative flying tasks. This was accomplished by recording interviews with operational F-4 crewmen and graphically delineating each task at the 334th and 336th squadrons, Seymour Johnson AFB, North Carolina.

Interview Procedures - It was important that the interviews be carefully structured so that the depth of detail would be consistent and accurate. It should be pointed out that accuracy of the surface analysis, and thus the entire taxonomic data, depended upon getting as much detailed information as possible from the field study. In order to do this, the interviewer who was also a pilot became familiar with each maneuver to be discussed by becoming acquainted with available USAF manuals on basic fighter maneuvers. Prior study was also made of pertinent parts of the technical manuals for the F-4D and F-4E aircraft.

To insure that the same introductory information would be given to all aircrew personnel, a general introduction lasting about three minutes was tape recorded ahead of time by the interviewer. This introduction essentially set the stage for the interview process. A checklist was also prepared beforehand so that the interviews would proceed in an orderly fashion, and no pertinent data would be left out. The following is the checklist developed for this field study.

Pre-Taping Session

1. Play short taped introduction (3 minutes).
2. Select maneuver to be examined.
3. Obtain from the interviewee a graphic description of the maneuver, i.e., a picture of what it looks like performed in space.
4. Delineate specific key points (element sequences) on the picture for details such as altitude, airspeed, communication (including essential inputs from the second crew member), weapons selection, details on sight picture, and/or radar display presentation.
5. Review switch and knob system functions using a cockpit layout.
6. Question crew members so as to expand the description of the maneuver before taping.

Taping

1. Verbally identify the maneuver diagram as described in the pre-taping session.
2. Obtain background and experience about interviewee:
 - Time in squadron
 - F-4E experience
 - Total flying time
 - Combat experience (if any)

After the introductory recording, the representative task was talked through first by two pilots or by a pilot and a Weapons Systems Officer (WSO), as the task required. Much use was made of diagrams of the flight path of the task, and notes were written by the interviewer or participating aircrews on these diagrams. Figure 7 shows an example of one of these diagrams. It can be noted that significant points and positions were described on the diagram along with specific tasks which needed to be accomplished as part of the maneuver. Disagreement on technique sometimes arose between pilots or WSOs; however, these were resolved by the interviewer and participants. When the tactical approaches were fully discussed, "one good way" was agreed upon.

The initial discussion and diagrammatic detailing for each task lasted from 25 to 45 minutes. When this was completed, the recorder was turned on, and the task was discussed from notes on the diagram. Specific action points on the flight path were explained or expanded. The actual taped interviews lasted 10 to 15 minutes. These short concise recordings and accompanying diagrams proved to be an ideal format from which to prepare the required surface analysis data base.

Approximately 35 pilots and WSOs were interviewed during 1 week, using two working tactical squadrons. It was not always possible to interview two crew members at the same time, so an agreement technique was used whereby one or two pilots reviewed the maneuver diagram and listened to the tape of the other. In all cases when the starting situations and ending goals were carefully explained, the critiquing pilots agreed that the events detailed by their peers were at least "one good way" to accomplish the maneuver. This general agreement between several pilots was unique because it tended to blunt the often expressed idea that "you can ask fighter pilots the same question and get a different answer from every one of them." It was noted that if the situation was carefully explained and the original inputs were made by qualified pilots, their responses had a high level of agreement.

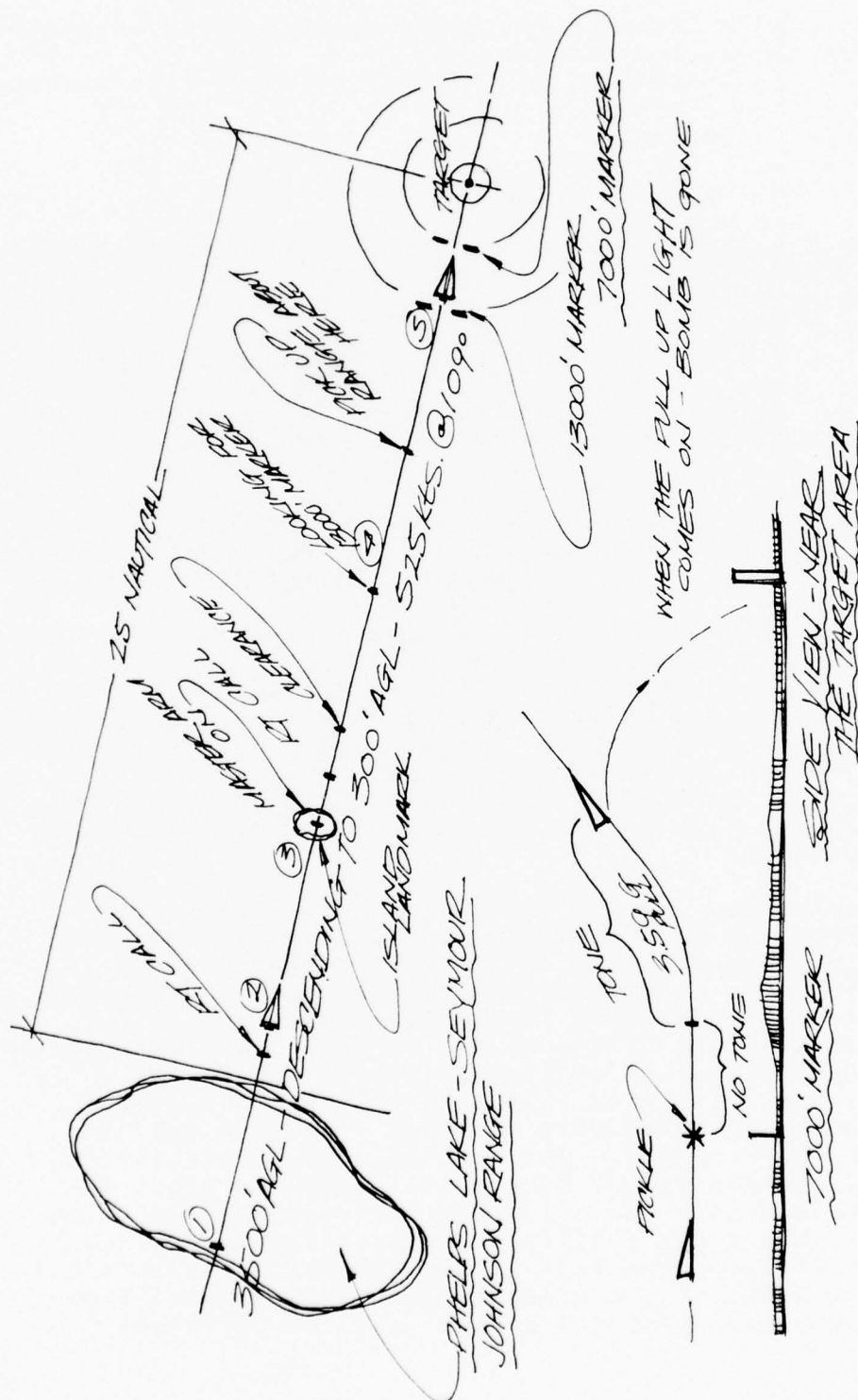


Figure 7. Nuclear low angle drogue delivery maneuver diagram.

The maneuver diagrams and taped interview data were used to generate an initial surface task analysis for each of the representative tasks. Researchers were careful to build their task element sequences around the key action points described by squadron pilots and weapons systems officers. By carefully describing the flying behavior, even in the initial phase, it was felt that verification of these analyses would be a less difficult matter.

Interview techniques were again used to verify the initial surface task analyses. Aircrews who had participated in the data collection phase of the field study were asked to comment and make corrections to the analyses. The task diagrams and taped interviews were reviewed and the surface analysis format and system were carefully explained to these air crewmen. The maneuver diagram, which was prepared for each representative task and showed the position and attitude of the aircraft for each task sequence, proved to be an important aid to flying personnel in grasping the analysis format and system.

These flying personnel made numerous corrections to each of the surface analyses. All of the initial analyses remained basically intact except for the Reattack maneuver, in which researchers had missed a number of important points. This task was completely revised at Seymour Johnson AFB with the help of the participating pilots and WSOs. This task was then rechecked until it was found to be satisfactory.

USERS MANUAL FOR THE PERFORMANCE OF SURFACE TASK ANALYSES

Up to this point, only the background and terminology used in the surface task analysis have been discussed. This section will present a sample exercise in a user oriented format that will provide step-by-step instructions in performing a surface analysis for those not familiar with analysis techniques. It is suggested that the analysis developer be a pilot and have a specific knowledge of the aircraft and aircraft systems being described in the analysis.

Format Fundamentals - Since the surface analysis was developed for use within a taxonomic or classification structure, it was important that the maneuvers to be analyzed begin at a relatively constant state of flying activity. All task maneuvers in this report, for example, are started with the aircraft in level flight or a constant rate turn. As part of this planning, a detailed scenario should be developed which identifies all of the following areas:

1. The kind or kinds of aircraft involved.
2. The type of maneuver and weapons delivery to be involved.
3. Whether it is to be a range or tactically oriented maneuver environment.
4. Consideration of the flight path or paths of the aircraft.
5. The starting situation of the aircraft and the specified task goal.

The information regarding these five points should be as factual as possible. It should be understood that even at best, a paper analysis is extremely limited in its dynamic capability. However, the more real-world the inputs, the closer the somewhat static paper description will resemble a real situation.

The first step in performing a surface task analysis is to prepare a diagram of the maneuver. The diagram should graphically describe the flight path of the aircraft as the maneuver is performed in space. Figure 7 shows the minimum level of detail for an initial maneuver diagram. This step will help organize the analysis element sequences. Action points should be intuitively added to indicate where the major task sequences will eventually be detailed in the written analysis. Figure 8 describes a Loop maneuver with the action points intuitively placed as A, B, C, etc. This Loop maneuver will be used as the example throughout the user format description.

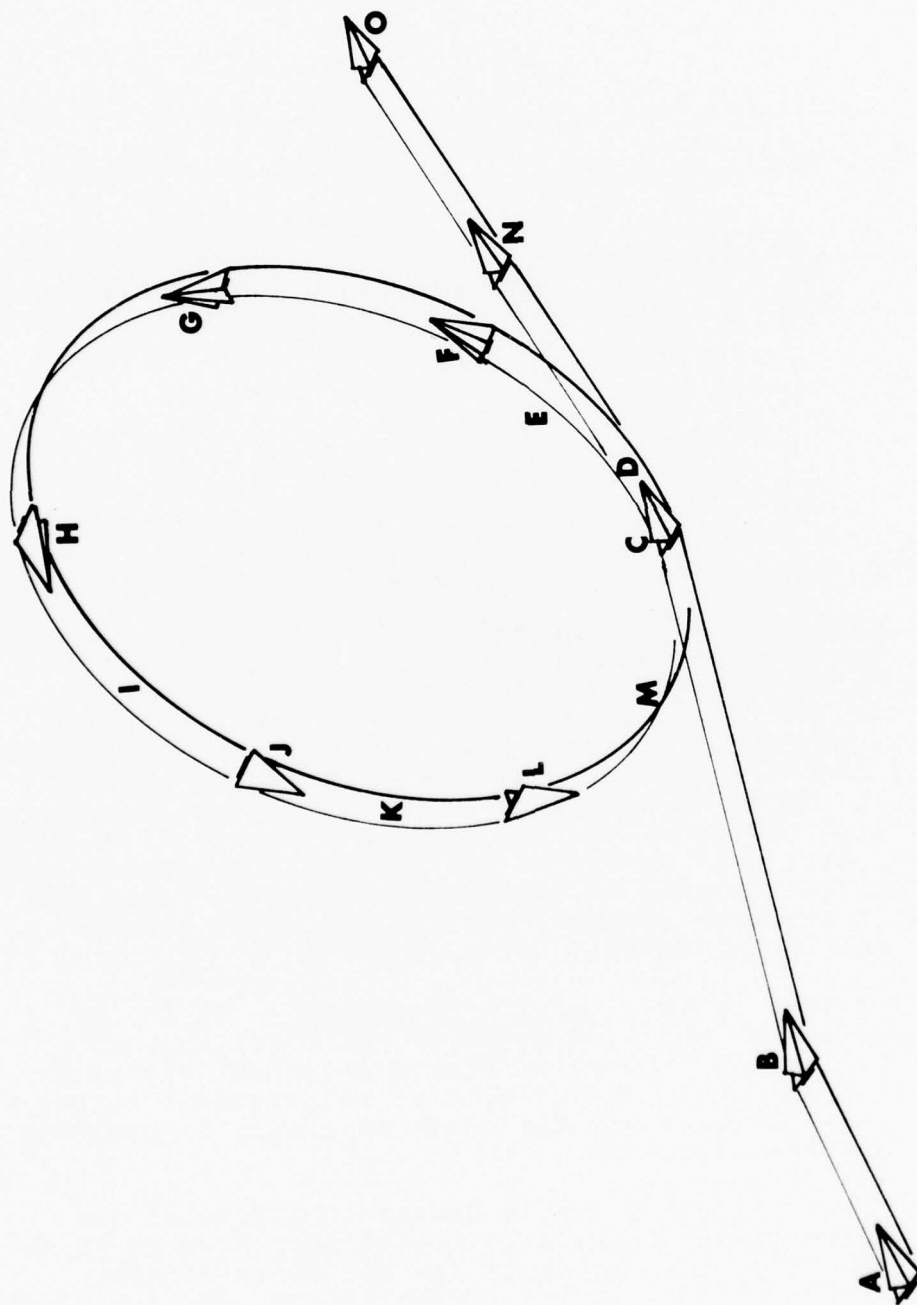


Figure 8. Loop maneuver diagram.

Completion of the Data Blocks - Before the analysis is started, the data blocks at the top of the format shown in Figure 9 should be completed.

SITUATION _____			
TASK NO. _____		TASK _____	
		AIRCRAFT _____	
TASK GOAL _____		DATE _____	
EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION

Figure 9. Surface task analysis data blocks.

The situation statement should briefly describe the state of the aircraft at the place or point where the analysis is to be started. It should include such items as attitude, position (as over a section line), straight and level, airspeed, systems setup, and any other pertinent data that describe the state of the aircraft. A number should be assigned to each task as well as a name describing what is to be performed and the type of aircraft to be used. Finally, a task goal should be defined which determines at what point the analysis is considered complete. When this information has been entered, work on the first element sequence can be initiated.

Performance of the Analysis Sequences - Figure 10 shows the start of the Loop maneuver and shows how each cues, mental action, and motor action sequence relates to the Loop diagram and also shows their relationship to one another. Listed below are the steps necessary to complete each element sequence.

1. First study the Sample Surface Analysis of the Loop in Figure 10 and compare it to the Loop diagram in Figure 8. Notice that action of the EL. SEQ. (Element Sequence) A - BEGINS PRE-ENTRY ACCELERATION, goes from left to right and from one Element Sequence to another as shown by the line overlay. Each 1-2-3 element sequence may be

SITUATION Aircraft positioned on section line, straight & level flight

TASK NO. 02 **TASK** Straight & level/transition thru a loop **AIRCRAFT** General

TASK GOAL To perform a 360° turn in the vertical plane **DATE** 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
A.	<p>BEGINS PRE-ENTRY ACCELERATION</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Landmark: sect. lines</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Discerns position to commence descent & increase throttle</p>	<p>Coordinates stabilator movement & throttle adjustment</p>
B.	<p>STARTS SHALLOW DIVE</p> <p><u>Visual</u>-Pitch att: descent Bank att: level</p> <p>Landmark: sect. lines</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased stabilator pressure, throttle advance</p> <p><u>Motion</u>-Negative G onset, acceleration, pitching down</p>	<p>Determines satisfactory descent attitude, need for trim</p>	<p>Maintains stabilator pressure & adjusts trim</p>
C.	<p>BEGINS RETURN TO LEVEL FLIGHT</p> <p><u>Visual</u>-Pitch att: descent Bank att: level</p> <p>Landmark: sect. lines</p> <p>Flt.Inst: cross-check</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Neutral stabilator pressure</p> <p><u>Motion</u>-Normal G, acceleration</p>	<p>Determines proper airspeed at return to straight and level flight</p>	<p>Moves stabilator</p>

Figure 10. Sample surface analysis.

thought of as a single frame of a motion picture film. Taken separately, each "frame" or sequence is static; however, when taken as a flow of events, it becomes a dynamic part of the entire task.

2. Notice that the cues in sequence A show a stable aircraft in level flight. A mental process begins the action and a resulting motor action carries out the aircraft control. Because of the pilot's motor or control action, a new set of cues has resulted for the various visual, aural, control, and motion cue categories. Consequently, new mental actions are required to process these cues, and a new motor action is the result. This rhythmic flow line is constant throughout all flight tasks and is the essential key to the thought process you must develop to successfully complete a surface analysis.

3. Review again the flight diagram, the analysis sequences, and the rules and instructions in the first section until they are completely understood.

4. Element sequences A, B, and C will now be discussed in detail so that you can understand the rationale for each category entry. A complete understanding of the cues, mental action, and motor action categories will facilitate the generation of the surface analyses. Each element sequence has been given a descriptive title. "BEGINS PRE-ENTRY ACCELERATION" describes the performance characteristics of the sequence. See Figure 11.

EL. SEQ.	1 CUES
A.	BEGINS PRE-ENTRY ACCELERATION <u>Visual</u> -Pitch att: level Bank att: level Landmark:section line <u>Aural</u> -Normal aircraft sound <u>Control</u> -Neutral pressure <u>Motion</u> -Normal G

Figure 11. Sample cues category.

Visual - The aircraft enters the Loop from level cruise flight; consequently, pitch and bank attitudes are straight and level. A long straight outside reference is used for best performance of this task. This cue is called out as a section line.

Aural - The aircraft enters the task from a constant or steady-state; therefore, audible cues are normal aircraft sounds.

Control - The aircraft is trimmed for cruise; therefore, all control forces are considered as neutral pressure.

Motion - Since motion cues refer to gravity or centrifugal forces on the body, and the flight prior to task entry is straight and level, normal G (+1 G) is listed.

With the completion of the cues category, the analysis can progress to the mental action category. This category is, at best, only an approximation of the actual mental processes which take place during a flying task. Hence, mental actions are derived from cues inputs and performance requirements needed to put the aircraft in the proper flight path for a specific task. Figure 12 shows that the pilot discerns the position to start his descent in order to increase airspeed and actually begin the maneuver. Discerns was selected as the mental process because the cognitive description associates it with the perception of a specific cue. Increased throttle is associated with the quickest way of increasing airspeed.

2 MENTAL ACTION
Discerns position to commence descent & increase throttle

Figure 12. Sample mental action category.

The chain of events, thus far, shows the cues conveying the aircraft state to the pilot. The mental action has been a response to the state or position of the aircraft in space relative to the maneuver to be performed. The next link is the motor action produced by the preceding cues and mental actions.

Figure 13 describes the initial step in changing the attitude of the aircraft at the start of the descent. This step is the movement of the flight controls to change the pitch of the aircraft and increase the throttle. These two motor actions are the result of the two previous actions, i. e., cues and mental action.

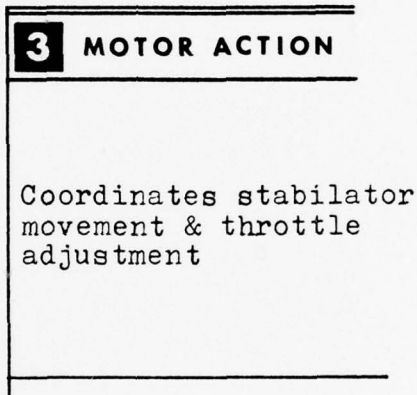


Figure 13. Sample motor action category.

This completes element sequence A. It is important to note that the motor action description has been kept brief in order to reduce the number of small motor actions that are normally performed when executing even the smallest part or segment of a maneuver. Therefore, for analysis purposes the pilot performance is always considered "perfect."

The analysis now flows to the next chain of events or element sequence which is a product of the preceding sequence.

Figure 14 describes the performance characteristics of element sequence B, "STARTS SHALLOW DIVE." This is the result of stabilator movement and throttle increase in the motor action category in sequence A. With this action having taken place, there is also a corresponding change in the cues.

EL. SEQ.	1 CUES
B.	<p>STARTS SHALLOW DIVE</p> <p><u>Visual</u>-Pitch att: descent Bank att: level</p> <p>Landmark:section line</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased stabilator pressure</p> <p><u>Motion</u>-Negative G onset, acceleration, pitching down</p>

Figure 14. Sample cues category.

Visual - The pitch attitude in the visual cues changes from "level" to "descent." Since no turn has been initiated, the bank attitude is still "level," and the section line remains part of the visual cues since it is still used for reference.

Aural - The aural cue is described as "change in aircraft sound" because airspeed is beginning to increase and engine speed is increasing.

Control - The control cue also changes from "normal" to "increased stabilator pressure" because the pilot has pushed forward on the control stick.

Motion - The motion cue is described as "negative G onset, acceleration, and pitching down" because the forward control stick movement has caused these changes in the motion cues and the pilot is experiencing them through his body.

This change in cues has a corresponding effect on the mental action category in the "B" element sequence. Because of these cue changes, a determination or decision must be made whether the new cues condition indicates that the new element sequence (STARTS SHALLOW DIVE) has been achieved.

Figure 15 shows the mental action description, "Determines satisfactory descent attitude." This describes the action because there is multiple-cue processing involved. The reference "need for trim" is made because good trim techniques are considered important in the performance of a well executed maneuver.

2	MENTAL ACTION
	Determines satisfactory descent attitude & need for trim

Figure 15. Sample mental action category.

Figure 16 describes the pilot maintaining his control stick pressure because the trimming motor action has not yet taken place. Trimming action is described as "adjusts trim" because this action is considered as an incremental regulation of a specific control. The results of this trimming action will be described in the next element sequence control cues description.

3	MOTOR ACTION
	Maintains stabilator pressure & adjusts trim

Figure 16. Sample motor action category.

Before the next element sequence is analyzed, note that a systematic reference to the maneuver diagram assists in keeping a mental picture of what specifically is occurring. The purpose of the first two sequences was to achieve entry airspeed into a Loop maneuver. Since the aircraft is now in a shallow dive and accelerating, the next logical sequence is to begin to return to level flight and continue with the maneuver.

Element sequence C is titled, "BEGINS RETURN TO LEVEL FLIGHT." Note that this description follows the appearance of the performance characteristic shown in the Loop diagram, Figure 8.

EL. SEQ.	1 CUES
C.	BEGINS RETURN TO LEVEL FLIGHT <u>Visual</u> -Pitch att: descent Bank att: level Landmark:section line Flt.Instr:cross-check <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Neutral aileron, rudder & stabilator pressure <u>Motion</u> -Normal G,acceleration

Figure 17. Sample cues category.

Visual - The visual cues have not changed because the previous motor action maintained the control position and so did not affect the pitch or bank attitude of the aircraft. The section line cue remains because it is used as an outside world cue. A new cue, "Flight Instrument: Cross-check" appears because a certain airspeed is desired to enter the Loop.

Aural - The aural cue, "Change in aircraft sound," remains because the aircraft continues to increase airspeed.

Control - The control cue is now described as "neutral stabilator" because the motor action in the previous sequence trimmed off the excess control pressure.

Motion - The motion cue is described as "normal G" because the descent attitude has been established. "Acceleration" is noted because the aircraft is continuing to accelerate in its descent attitude.

The mental action category shown in Figure 18 describes the process as "Determines proper airspeed and need to return to straight and level flight." This mental action processes the return of most cues to a near constant condition and a cross-check of flight instruments ascertains correct performance requirements for a return to level flight.

2	MENTAL ACTION
Determines proper airspeed at return to straight and level flight	

Figure 18. Sample mental action category.

The action in Figure 19 describes the motor action associated with the preceding mental process - "Moves (pulls back) stabilator."

3	MOTOR ACTION
Moves stabilator	

Figure 19. Sample motor action category.

5. Now try to complete the Loop maneuver on your own. Review the Loop diagram and the Rationale for Surface Task Analysis Sequences in the first section. Then get started writing sequences. All the action points for this task have been completed. When you have completed the Loop, compare your sequences to the completed example beginning on page 44, Figure 20.

6. At this point, having done one analysis, you have made an important beginning. If you found it difficult, don't be discouraged. Remember that it took an expert researcher 10 hours to analyze the Loop used as the example. Additional time was also needed to refine and perfect the sequences.

7. Remembering all the details was one of the problems in applying the rules and instructions for the surface task analysis. This problem was resolved by compiling the most pertinent data in the format shown in Figure 21. Rules and instructions have been excerpted into clearly defined cues, mental action, and motor action categories.

It is obvious that these step-by-step instructions for the completion of the surface task analysis will not make the novice developer an instant expert. An experienced fighter pilot, but one naive in analysis techniques, was given these rules and instructions and asked to read them and perform the analysis as directed. However, he was able to do a remarkably good job on the first try with no additional coaching from researchers. The key, as he expressed it, was to read the material over carefully several times and then start writing sequences, leaving the refinements until later.

SITUATION Aircraft on section line, straight and level at cruise power.

TASK NO. Ct-1 TASK Straight and level/
transition thru a Loop AIRCRAFT T-37

TASK GOAL To perform a 360° turn in the vertical plane DATE April, 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
A.	BEGINS PRE-ENTRY ACCELERATION <u>Visual</u> -Pitch att: level Bank att: level Landmark:section lines <u>Aural</u> -Normal aircraft sound <u>Control</u> -Neutral pressure <u>Motion</u> -Normal G	Discerns position to commence descent and increase throttle	Coordinates elevator movement and throttle adjustment
B.	STARTS SHALLOW DIVE <u>Visual</u> -Pitch att: descent Bank att: level Landmark:section lines <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased elevator pressure and throttle advance <u>Motion</u> -Negative G onset, acceleration, pitching down	Determines satisf. descent attitude & need for trim	Maintains elevator pressure and adjusts trim
C.	BEGINS RETURN TO LEVEL FLIGHT <u>Visual</u> -Pitch att: descent Bank att: level Landmark:section lines Flt.Instr:cross-check <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Neutral elevator pressure <u>Motion</u> -Normal G, acceleration	Determines proper airspeed at return to straight & level flight	Moves elevator
D.	PREPARES PULL-UP <u>Visual</u> -Pitch att: level Bank att: level Landmark:section lines <u>Aural</u> -Normal aircraft sound <u>Control</u> -Increased elevator pressure <u>Motion</u> -Normal G	Anticipates constant back pressure to maintain constant nose movement Sustains flight	Maintains required aileron, elevator & rudder control
E.	STARTS PULL-UP <u>Visual</u> -Pitch att: level Bank att: level Outside ref: horizon Flt.Instr:cross-check <u>Aural</u> -Normal aircraft sound <u>Control</u> -aileron, elevator & rudder pressure <u>Motion</u> -Normal G	Determines position to begin smooth pull	Increases elevator pressure

Figure 20. Loop surface task analysis. (Pages 44-46)

SITUATION Aircraft on section line, straight and level at cruise power.

TASK NO. Ct-1 **TASK** Straight and level/
transition thru a Loop **AIRCRAFT** T-37

TASK GOAL To perform a 360° turn in the vertical plane **DATE** April, 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
F.	CONTINUES PULL-UP <u>Visual</u> -Pitch att: increasing Bank att: level Outside ref: horizon <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased elevator pressure <u>Motion</u> -Positive G onset, pitching up	Determines satisf. rate of nose movement & desired seat pressure	Maintains aileron position & increases elevator pressure
G.	CONTINUES PULL-UP TO VERTICAL <u>Visual</u> -Pitch att: increasing Bank att: level Outside ref: horizon <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Neutral aileron pressure, increased elevator pressure <u>Motion</u> -Constant positive G, pitching up	Determines nose reaching vertical	Relaxes elevator pressure
H.	CONTINUES OVER THE TOP (INVERTED) <u>Visual</u> -Pitch att: level Bank att: level Outside ref: horizon Flt.Instr:cross-check <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Decreased elevator pressure <u>Motion</u> -Decreased positive G, pitching	Determines satisf. rate of nose movement and seat pressure	Increases elevator pressure
I.	CONTINUES DOWN THE BACK SIDE (INVERTED) <u>Visual</u> -Pitch att: decreasing Bank att: level Outside ref: horizon <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased elevator pressure <u>Motion</u> -Increased positive G, pitching down	Discerns nose passing thru horizon	Relaxes elevator pressure (slightly)
J.	CONTINUES INTO DIVE (INVERTED) <u>Visual</u> -Pitch att: decreasing Bank att: level Outside ref: horizon <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Decreased elevator pressure <u>Motion</u> -Decreasing positive G, pitching down	Determines need for constant seat pressure	Increases elevator pressure

SITUATION Aircraft on section line, straight and level at cruise power.
Straight and level/
 TASK NO. Ct-1 TASK transition thru a Loop AIRCRAFT T-37

TASK GOAL To perform a 360° turn in the vertical plane DATE April, 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
K.	CONTINUES PULL-DOWN TO VERTICAL <u>Visual</u> -Pitch att: decreasing Bank att: level Landmark:section lines <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased elevator pressure <u>Motion</u> -Constant positive G, pitching down, acceleration	DETERMINES Determines satisf. nose position, rate of movement & seat pressure	Maintains coordinated elevator, aileron and rudder pressure
L.	STARTS PULLOUT OF DIVE <u>Visual</u> -Pitch att: decreasing Bank att: level Landmark:section lines Flt.Instr:cross-check <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Aileron, elevator & rudder pressure <u>Motion</u> -Constant positive G, pitching down, acceleration	DETERMINES Determines satisf. rate of attitude change	Maintains constant elevator pressure
M.	CONTINUES PULLOUT <u>Visual</u> -Pitch att: increasing Bank att: level Landmark:section lines <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Constant elevator pressure <u>Motion</u> -Constant positive G, pitching up, acceleration	DETERMINES Determines level flight approaching	Relaxes elevator pressure
N.	STOPS PULLOUT <u>Visual</u> -Pitch att: increasing Bank att: level Landmark:section lines <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Decreased elevator pressure <u>Motion</u> -Decreasing positive G, pitching up	DETERMINES Determines position to transition to straight and level	Coordinates aileron and rudder, adjusts elevator pressure
O.	ESTABLISHES LEVEL FLIGHT <u>Visual</u> -Pitch att: level Bank att: level Landmark:section lines <u>Aural</u> -Normal aircraft sound <u>Control</u> -Increased aileron, rudder & elevator pressure <u>Motion</u> -Normal G	DETERMINES Determines level flight achieved & need for trim	Activates trim & releases elevator pressure

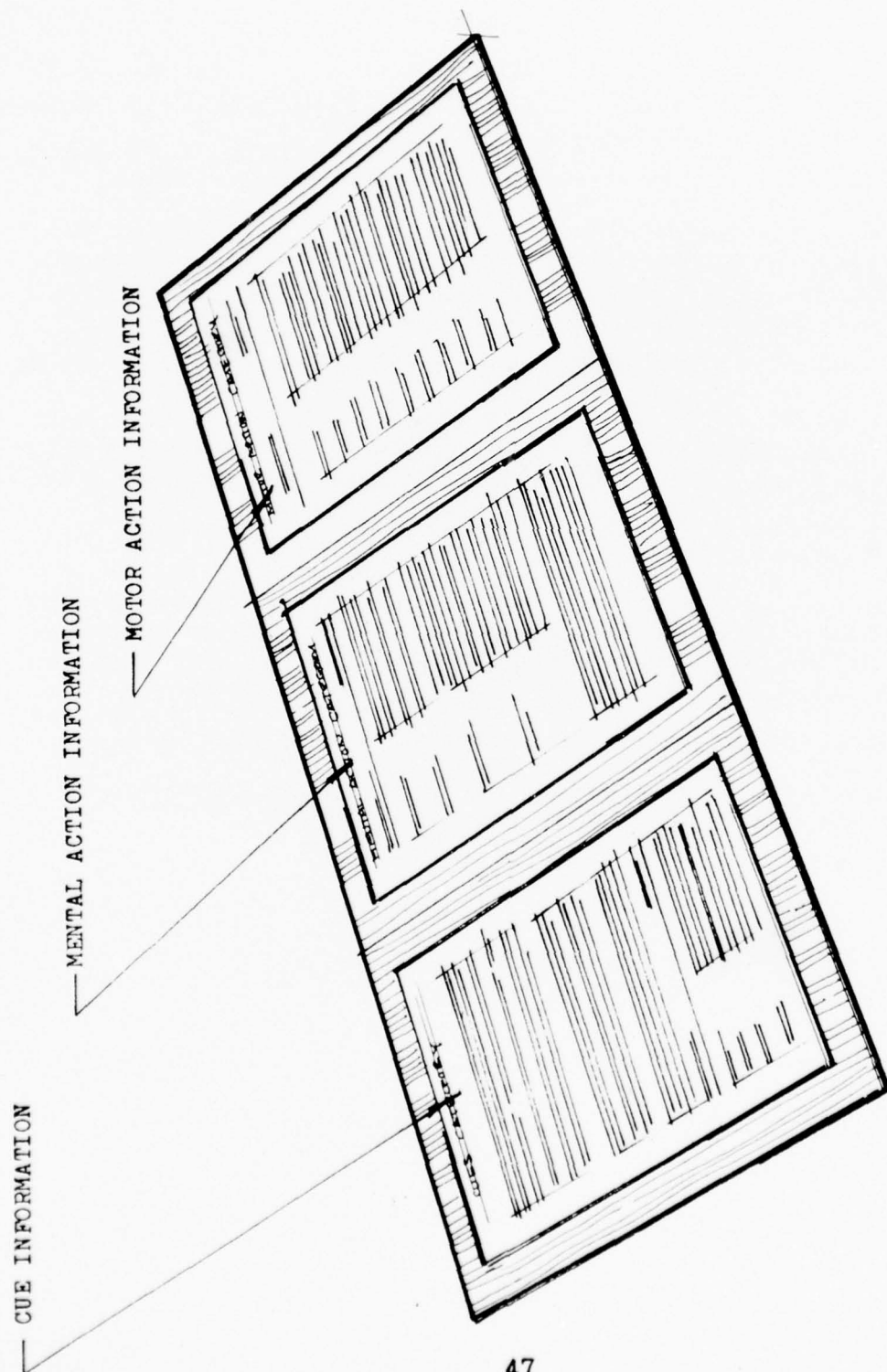


Figure 21. Excerpted rules and instructions format.

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- Meyer, R.P., Laveson, J.I., Weissman, N.S., & Eddowes, E.E. Behavioral taxonomy of undergraduate pilot training tasks and skills: guidelines and examples for taxonomy application in flying training research. AFHRL-TR-74-33(IV), AD-A008 897. Williams AFB, AZ: Flying Training Division, Air Force Human Resources Laboratory, December 1974.
- Woodworth, R.S., & Schlosberg, H. Experimental psychology. New York: Holt, Rinehart, and Winston, 1954.

GLOSSARY

Attitude - the position of the aircraft considering the inclination of its axis in relation to the horizon.

Aural - cues or stimuli which can be sensed through hearing.

Bank - to tip, or roll about the longitudinal axis of the aircraft. (Banks are incidental to all properly executed turns.)

Climb - a state of flight in which the aircraft is increasing in altitude.

Control - a device used by a pilot in operating an airplane.

Control Feedback - cues or stimuli which can be sensed by body limbs or extremities through the control devices of the aircraft. The control feedback input has been shortened to Control in the cues column of the surface analysis.

Coordinate - the movement or use of two or more controls in their proper relationship to obtain a desired effect.

Cue - environmental or system stimuli which excite the sensory systems of the human body.

Descend - a state of flight in which the aircraft is decreasing in altitude.

Effector Output - pilot motor action in terms of control exerted on the aircraft, (i.e., stabilator movement resulting from control stick movement to change aircraft pitch attitude).

Long Term Memory - information which was acquired prior to the performance of the skill.

Maneuver - any planned motion of the aircraft in the air or on the ground.

Maneuver Diagram - the sketch of a flying task which depicts the flight path of the aircraft, and shows specific action points along this path.

Mental Action - cognitive process initiated by perceived stimulus cues and preceding motor actions.

Motion - cues or stimuli which can be sensed by the body receptors as a result of aircraft movement.

Motor Action - those physical actions resulting in movement of aircraft controls.

Pickle Button - a pilots' expression of the push button used to release ordnance such as bombs or rockets.

Pinkie Switch - switch activated by the little finger which changes the armament mode on the F-4E.

Pitch - the angular displacement of the longitudinal axis of the aircraft with respect to the horizon.

Roll - displacement around the longitudinal axis of the aircraft.

Short Term Memory - information remembered which was obtained during the performance of a skill.

Straight and Level - a state of flight in which the aircraft is in a constant heading at a constant altitude with wings in the same plane as the horizon.

Surface Task Analysis - the investigative process which systematically lists the related task elements in sequence, which results in the accomplishment of a specific task when performed in order.

Tactual - pertaining to the sense of touch.

Task - a group of related work elements performed in close temporal proximity by one person and directed toward the accomplishment of a definable goal.

Task Element - the smallest part of the surface analysis which is expressed as a major input or action heading, i.e., Cues or Mental Actions or Motor Actions are task elements of the analysis.

Task Sequence - a complete set of interacting behavioral elements, (i.e., Cues, Mental Action, and Motor Action) found in the surface analysis.

Taxonomy - a manner of classifying, and the rules and principles concerned with classification of phenomena in such a way that a more useful relationship can be established among them.

Turn - to create a change of direction of flight by causing the aircraft to roll about its longitudinal axis.

Visual - cues or stimuli which can be sensed by the eye.

APPENDIX A
THE COMPLETED ANALYSES
OF THE SIXTEEN REPRESENTATIVE TASKS

THE COMPLETED ANALYSES OF THE SIXTEEN REPRESENTATIVE TASKS

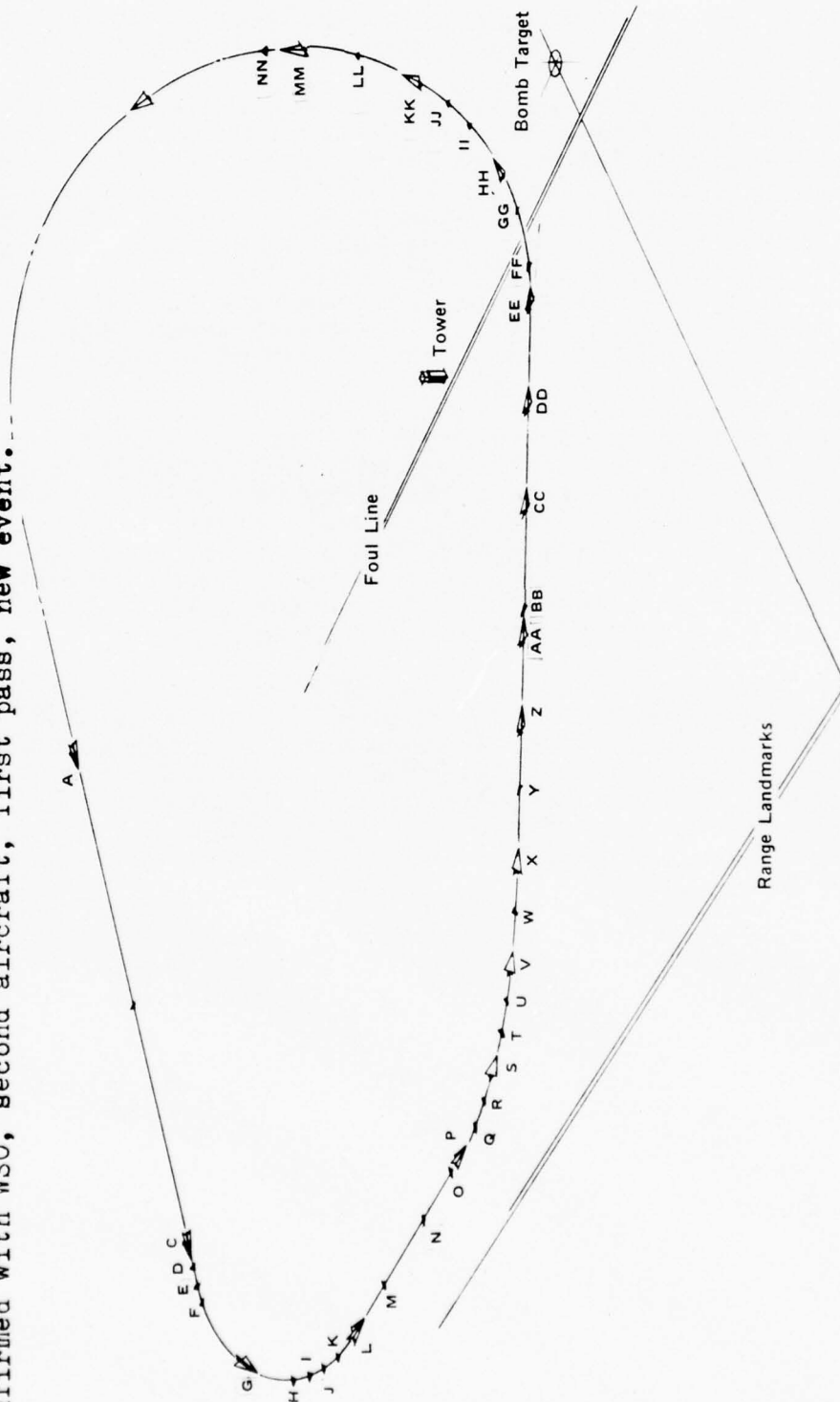
The analysis for these representative tasks formed the data base for the entire taxonomy classification. These representative tasks have been divided into air-to-air tasks and air-to-ground tasks. Each task has been coded for use in the taxonomy. As an example CR-1g is the alpha-numeric code for the High Angle Dive Bomb task. The letters "CR" designate it as a controlled range task. It is the first task in the air-to-ground group and the "g" identifies it as an air-to-ground task. Air-to-air tasks have a similar system with an "a" identifying it as an air-to-air task.

It should also be noted that each task has its own maneuver diagram to help even the experienced researcher visualize the task sequences with more dynamic realism. In the air-to-air tasks, the maneuver is done in relationship to adversary aircraft. In six of the nine air-to-air tasks, the adversary's task has also been analyzed. For example, the High Yo-Yo is analyzed against a Counter High Yo-Yo task on a sequence for sequence basis. This was done to add a measure of realism to the analyses.

Finally, it can be noted that a coded system is shown in the motor action part of each element sequence. This is the taxonomy classification coding system which was developed in Volume II of this study. It can thus be seen that the surface analysis occupies an important place in the development of a useful taxonomic system, not only as a data base but also as a cross referencing tool for future research.

HIGH ANGLE DIVE BOMB DELIVERY/Controlled Range

SITUATION - Established on downwind, straight and level, 13,000 feet AGL, 350 kts., weapons select switches set and confirmed with WSO, second aircraft, first pass, new event.



High angle dive bomb maneuver diagram.

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
SITUATION confirmed with WSO, second aircraft, first pass, new event.

Controlled
TASK NO. CR-1g **TASK** High Angle Dive Bomb Delivery/ Range **AIRCRAFT** F-4E

TASK GOAL Perform high dive bomb on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
A.	ESTABLISHED ON DOWNWIND LEG <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	TO TARGET Determines proper spacing with desired Alt. & A/S approaching Sustains level flight	CR-15 A 287 TASK NO. SKILL NO. 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VC MC (I) A QUANTITY DECISION PROC MOTOR OUTPUT 2-C CP 1/15 INPUT INDEX I/O INPUT OUTPUT INDEX 45 90 V-2 Maintains required aileron & stabilator control
B.	CONTINUES ON DOWNWIND LEG <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S Eng.Inst: check fuel <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Determines base leg roll in position to achieve required dive angle & 11,000' distance from target, need to stabilize airspeed	CR-15 B 247 TASK NO. SKILL NO. 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VC MC A QUANTITY DECISION PROC MOTOR OUTPUT 2-C CP 1/15 INPUT INDEX I/O INPUT OUTPUT INDEX 50 100 V-2 Adjusts throttle and maintains stabilator pressure
C.	PREPARES FOR TURN TO BASE LEG <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft <u>Aural</u> -Chg. in aircraft sound, communication (lead calls in on final) <u>Control</u> -Constant stabilator pressure, throttle decrease <u>Motion</u> -Normal G	Anticipates roll in to base leg turn, discerns leading aircraft's communication Sustains level flight	CR-15 C 332 TASK NO. SKILL NO. 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VA MC (I) A QUANTITY DECISION PROC MOTOR OUTPUT 3-C CP 1/15 INPUT INDEX I/O INPUT OUTPUT INDEX 45 70 V-2 Maintains required aileron & stabilator pressure
D.	STARTS ROLL IN TO BASE LEG TURN <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft <u>Aural</u> -Normal aircraft sound, communication - (lead aircraft being cleared in "hot" by range officer) <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Determines position to roll in to base leg, need to call position check with fuel remaining	CR-15 D 275 TASK NO. SKILL NO. 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VA MC R QUANTITY DECISION PROC MOTOR OUTPUT 3-C CP 1/15 INPUT INDEX I/O INPUT OUTPUT INDEX 40 200 V-5 Coordinates aileron, rudder & stabilator movement, activates mic. switch, communicates

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
SITUATION confirmed with WSO, second aircraft, first pass, new event.

Controlled
TASK NO. CR-1g **TASK** High Angle Dive Bomb Delivery/ Range **AIRCRAFT** F-4E

TASK GOAL Perform high dive bomb on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
E.	<p>CONTINUES ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound, communication</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	Determines roll rate satisfactory & need for power	<p>CR-1g E 280 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>INFO VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT SAI/st RU/th</td> </tr> <tr> <td>INPUT INDEX 75</td> <td>I/O INPUT 375</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder pressure, increased stabilator pressure, adjusts throttle</p>	1 C	2 Me	3 Mo	INFO VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT SAI/st RU/th	INPUT INDEX 75	I/O INPUT 375	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
INFO VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT SAI/st RU/th													
INPUT INDEX 75	I/O INPUT 375	OUTPUT INDEX V-5													
F.	<p>STOPS ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron, increased stabilator pressure, throttle advance</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	Determines proper bank attitude achieved	<p>CR-1g F 260 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>INFO VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT SAI/st RU/th</td> </tr> <tr> <td>INPUT INDEX 60</td> <td>I/O INPUT 300</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	INFO VA CM	INFO PROCESS MC	CONTINUITY A	QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT SAI/st RU/th	INPUT INDEX 60	I/O INPUT 300	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
INFO VA CM	INFO PROCESS MC	CONTINUITY A													
QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT SAI/st RU/th													
INPUT INDEX 60	I/O INPUT 300	OUTPUT INDEX V-5													
G.	<p>ESTABLISHES TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	Sustains level turn	<p>CR-1g G 372 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>INFO VA CM</td> <td>INFO PROCESS I</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT SAI/st RU/th</td> </tr> <tr> <td>INPUT INDEX AS</td> <td>I/O INPUT 90</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	INFO VA CM	INFO PROCESS I	CONTINUITY A	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT SAI/st RU/th	INPUT INDEX AS	I/O INPUT 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
INFO VA CM	INFO PROCESS I	CONTINUITY A													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT SAI/st RU/th													
INPUT INDEX AS	I/O INPUT 90	OUTPUT INDEX V-2													
H.	<p>PREPARES TO ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G constant pitch & roll</p>	<p>Anticipates roll out to base</p> <p>Sustains level turn</p>	<p>CR-1g H 332 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>INFO VA CM</td> <td>INFO PROCESS MR (I)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT SAI/st RU/th</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 100</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	INFO VA CM	INFO PROCESS MR (I)	CONTINUITY A	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT SAI/st RU/th	INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
INFO VA CM	INFO PROCESS MR (I)	CONTINUITY A													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT SAI/st RU/th													
INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2													

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
confirmed with WSO, second aircraft, first pass, new event.

SITUATION Controlled
TASK NO. CR-1g **TASK** High Angle Dive Bomb Delivery/ Range **AIRCRAFT** F-4E

TASK GOAL Perform high dive bomb on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
I.	<p>STARTS ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch & roll</p>	Determines position to roll out on base for spacing & to establish proper distance to target	<p>CR-1g I 275 TASK NO. SKILL NO. ROST NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>V CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>RA/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	V CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	RA/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																			
V CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	RA/SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
50	250	V-5																			
J.	<p>CONTINUES ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder, decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines satisfactory roll rate & need to reduce power	<p>CR-1g J 275 TASK NO. SKILL NO. ROST NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>V CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>RA/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder with stabilator movement, adjusts throttle</p>	1 C	2 Me	3 Mo	V CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	RA/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																			
V CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	RA/SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
55	275	V-5																			
K.	<p>STOPS ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure with decreased stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines wings level approaching	<p>CR-1g K 17 TASK NO. SKILL NO. ROST NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>V CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>RA/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>65</td> <td>130</td> <td>V-2</td> </tr> </table> <p>Moves aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	V CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	SP	RA/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	65	130	V-2
1 C	2 Me	3 Mo																			
V CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	SP	RA/SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
65	130	V-2																			
L.	<p>ESTABLISHES LEVEL FLIGHT ON BASE LEG</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch & roll stabilized</p>	Determines level flight established & need to adjust altitude & airspeed	<p>CR-1g L 272 TASK NO. SKILL NO. ROST NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>V CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </table> <p>Decreases stabilator pressure, and adjusts throttle</p>	1 C	2 Me	3 Mo	V CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																			
V CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
50	100	V-2																			

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
SITUATION confirmed with WSO, second aircraft, first pass, new event.

Controlled
TASK NO. CR-1g **TASK** High Angle Dive Bomb Delivery/ Range **AIRCRAFT** F-4E

TASK GOAL Perform high dive bomb on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
M.	CONTINUES BASE LEG <u>Visual</u> -Pitch att: decreasing Bank att: level Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased stabilator pressure, throttle reduction <u>Motion</u> -Pitching down	Determines proper altitude, airspeed, & spacing approaching	CR-1g M 256 TASK NO. SKILL NO. DIST NO. 1 C 2 Me 3 Mo INFO INFO PROCESS CONTINUITY VA MC A CM QUANTITY DECISION PROC MOTOR OUTPUT 4-C CP SC INPUT INDEX I/O INPUT OUTPUT INDEX 55 55 V-1 Increases stabilator pressure
N.	CONTINUES ON BASE LEG <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S <u>Aural</u> -Normal aircraft sound <u>Control</u> -Increased stabilator pressure <u>Motion</u> -Normal G, pitch stabilized	Determines proper altitude, airspeed, & track; and need for trim	CR-1g N 258 TASK NO. SKILL NO. DIST NO. 1 C 2 Me 3 Mo INFO INFO PROCESS CONTINUITY V MC A CM QUANTITY DECISION PROC MOTOR OUTPUT 3-C CP Tr SC INPUT INDEX I/O INPUT OUTPUT INDEX 45 90 V-2 Adjusts trim & relaxes stabilator pressure
O.	CONTINUES ON BASE LEG <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft <u>Aural</u> -Normal aircraft sound <u>Control</u> -Neutral aileron, stabilator & rudder pressure, trim switch function <u>Motion</u> -Normal G	Determines final roll in position approaching Sustains level flight	CR-1g O 287 TASK NO. SKILL NO. DIST NO. 1 C 2 Me 3 Mo INFO INFO PROCESS CONTINUITY VC MC (E) A QUANTITY DECISION PROC MOTOR OUTPUT 2-C CP Tr SC INPUT INDEX I/O INPUT OUTPUT INDEX 30 60 V-2 Maintains required aileron & stabilator control
P.	PREPARES TO TURN TO FINAL <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Anticipates roll in and dive on final Sustains level flight	CR-1g P 327 TASK NO. SKILL NO. DIST NO. 1 C 2 Me 3 Mo INFO INFO PROCESS CONTINUITY VC MC (E) A QUANTITY DECISION PROC MOTOR OUTPUT 2-C CP Tr SC INPUT INDEX I/O INPUT OUTPUT INDEX 35 70 V-2 Maintains required aileron & stabilator control

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
confirmed with WSO, second aircraft, first pass, new event.

SITUATION Controlled
TASK NO. CR-1g **TASK** High Angle Dive Bomb Delivery/ **Range** AIRCRAFT F-4E

TASK GOAL Perform high dive bomb on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
Q.	<p>STARTS ROLL IN TO FINAL TURN</p> <p><u>Visual</u>-Pitch att: level Bank att: level Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	Determines proper point to start roll in and need to call position to range officer	<p>CR-1g Q 30</p> <table border="1"> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> <tr> <td>KIND VA CM</td><td>INFO PROCESS MC</td><td>CONTINUITY R</td></tr> <tr> <td>QUANTITY 20</td><td>DECISION PROC SP</td><td>MOTOR OUTPUT SA/SC</td></tr> <tr> <td>INPUT INDEX 35</td><td>I/O INPUT 175</td><td>OUTPUT INDEX V-5</td></tr> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure, activates mic. button, communicates, moves throttle</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 20	DECISION PROC SP	MOTOR OUTPUT SA/SC	INPUT INDEX 35	I/O INPUT 175	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 20	DECISION PROC SP	MOTOR OUTPUT SA/SC													
INPUT INDEX 35	I/O INPUT 175	OUTPUT INDEX V-5													
R.	<p>CONTINUES ROLL IN TO TURN & DIVE</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll Target Range landmarks</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - (clearance from range officer to drop ordnance)</p> <p><u>Control</u>-Increased aileron & rudder pressure, constant stabilator pressure, throttle advance, mic. switch function</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	Determines satisfactory roll rate	<p>CR-1g R 279</p> <table border="1"> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> <tr> <td>KIND VA CM</td><td>INFO PROCESS MC</td><td>CONTINUITY R</td></tr> <tr> <td>QUANTITY 40</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT SA/SC</td></tr> <tr> <td>INPUT INDEX 70</td><td>I/O INPUT 280</td><td>OUTPUT INDEX V-4</td></tr> </table> <p>Maintains coordinated aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SA/SC	INPUT INDEX 70	I/O INPUT 280	OUTPUT INDEX V-4
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SA/SC													
INPUT INDEX 70	I/O INPUT 280	OUTPUT INDEX V-4													
S.	<p>STOPS ROLL IN TO TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Positive G, pitching up, rolling</p>	Determines proper bank angle achieved	<p>CR-1g S 260</p> <table border="1"> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> <tr> <td>KIND VA CM</td><td>INFO PROCESS MC</td><td>CONTINUITY A</td></tr> <tr> <td>QUANTITY 40</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT SA/SC</td></tr> <tr> <td>INPUT INDEX 50</td><td>I/O INPUT 250</td><td>OUTPUT INDEX V-5</td></tr> </table> <p>Coordinates aileron & rudder, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY A	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SA/SC	INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY A													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SA/SC													
INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5													

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
SITUATION confirmed with WSO, second aircraft, first pass, new event.

Controlled
TASK NO. CR-1g **TASK** High Angle Dive Bomb Delivery/ Range **AIRCRAFT** F-4E

TASK GOAL Perform high dive bomb on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
T.	STARTS DIVE AS HALFWAY POINT <u>Visual</u> -Pitch att: constant Bank att: constant Target Aural-Normal aircraft sound <u>Control</u> -Neutral aileron & rudder pressure, constant stabilator pressure <u>Motion</u> -Increased positive G, pitch & roll stabilized	IN TURN IS REACHED Determines halfway point in turn reached, need to let nose descend through horizon	CR-1g T 272 TASK NO. SKILL NO. SLOT NO. 1 C 2 Me 3 Mo V CM MC R QUANTITY DECISION PROC MOTOR OUTPUT 3-C CP 1/2 St INPUT INDEX I/O INPUT OUTPUT INDEX 35 70 V-2 Maintains required aileron & rudder pressure, relaxes stabilator pressure
U.	ESTABLISHES DIVING TURN <u>Visual</u> -Pitch att: decreasing Bank att: constant Target Flt.Inst: Alt, A/S Aural-Chg. in aircraft sound <u>Control</u> -Constant aileron & rudder pressure, decreased stabilator pressure <u>Motion</u> -Decreased positive G, pitching down, roll stabilized	Sustains diving turn	CR-1g U 397 TASK NO. SKILL NO. SLOT NO. 1 C 2 Me 3 Mo VA CM I R QUANTITY DECISION PROC MOTOR OUTPUT 4-C CP 1/2 St INPUT INDEX I/O INPUT OUTPUT INDEX 60 120 V-2 Maintains required aileron & stabilator control
V.	CONTINUES DIVING TURN <u>Visual</u> -Pitch att: decreasing Bank att: constant Target Flt.Inst: Alt, A/S Aural-Chg. in aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Positive G, pitching down, roll stabilized	Determines altitude/airspeed schedule is as required Sustains diving turn	CR-1g V 77 TASK NO. SKILL NO. SLOT NO. 1 C 2 Me 3 Mo VC AM MC (I) R QUANTITY DECISION PROC MOTOR OUTPUT 4-C SP 1/2 St INPUT INDEX I/O INPUT OUTPUT INDEX 55 110 V-2 Maintains required aileron & stabilator control
W.	PREPARES TO ROLL OUT INTO FINAL <u>Visual</u> -Pitch att: decreasing Bank att: constant Target Sight Aural-Chg. in aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Positive G, pitching down, roll stabilized	Anticipates rolling out of turn into wings level flight with dive angle achieved (pipper 500-700' short of target with required offset) Sustains diving turn	CR-1g W 337 TASK NO. SKILL NO. SLOT NO. 1 C 2 Me 3 Mo VA CM MC (I) A QUANTITY DECISION PROC MOTOR OUTPUT 4-C CP 1/2 St INPUT INDEX I/O INPUT OUTPUT INDEX 50 100 V-2 Maintains required aileron & stabilator control

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
confirmed with WSO, second aircraft, first pass, new event.

SITUATION Controlled
TASK NO. CR-1g **TASK** High Angle Dive Bomb Delivery/ Range **AIRCRAFT** F-4E
TASK GOAL Perform high dive bomb on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
X.	<p><u>STARTS ROLL OUT</u> <u>Visual</u>-Pitch att: dive Bank att: constant Target Sight <u>Aural</u>-Chg. in aircraft sound, communication - WSO *(calls out Alt, A/S & dive angle) <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Positive G, pitching down, roll stabilized</p>	Determines position to start roll out to align aircraft on target	<p>CR-1g X 224 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>SAI SC RC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>220</td> <td>V-4</td> </tr> </table> <p>Coordinates aileron, rudder & stabilator</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	SAI SC RC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	220	V-4
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
A-C	CP	SAI SC RC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
55	220	V-4																			
Y.	<p><u>CONTINUES ROLL OUT</u> <u>Visual</u>-Pitch att: dive Bank att: rolling Target Sight <u>Aural</u>-Chg. in aircraft sound *communication - WSO <u>Control</u>-Increased aileron & rudder, constant stabilator pressure <u>Motion</u>-Decreasing positive G, constant pitch rolling</p>	Determines proper roll out rate, dive angle, and align- ment with target	<p>CR-1g Y 280 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>SAI SC RC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>300</td> <td>V-5</td> </tr> </table> <p>Maintains coordinated aileron, rudder & stabilator pressure; moves throttle (to idle)</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	SAI SC RC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	60	300	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
A-C	CP	SAI SC RC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
60	300	V-5																			
Z.	<p><u>STOPS ROLL OUT, MAINTAINS DIVE</u> <u>Visual</u>-Pitch att: decreasing Bank att: rolling Target Sight Range landmarks <u>Aural</u>-Chg. in aircraft sound, *communication - WSO <u>Control</u>-Constant aileron, rudder & stabilator pressure, throttle decrease <u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines wings level approaching	<p>CR-1g Z 257 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>SAI SC RC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>70</td> <td>140</td> <td>V-2</td> </tr> </table> <p>Moves aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	SAI SC RC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	70	140	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
A-C	CP	SAI SC RC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
70	140	V-2																			

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
confirmed with WSO, second aircraft, first pass, new event.

SITUATION Controlled
TASK NO. CR-1g TASK High Angle Dive Bomb Delivery/ Range AIRCRAFT F-4E

TASK GOAL Perform high dive bomb on prescribed target DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
AA.	<p>ESTABLISHES FINAL APPROACH, <u>Visual</u>-Pitch att: descent Bank att: level</p> <p>target Sight Flt.Inst: Alt, A/S <u>Aural</u>-Chg. in aircraft sound, *communication - WSO <u>Control</u>-Neutral aileron & rudder, reduced stabilator pressure <u>Motion</u>-Normal G, pitch & roll stabilized</p>	<p>45° DIVE ANGLE</p> <p>Determines proper dive angle & air- speed approaching, need to adjust trim</p>	<p>CR-1g AA 257 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA C</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>TR SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </table> <p>Adjusts trim & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA C	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	AC	CP	TR SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																			
VA C	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
AC	CP	TR SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
55	110	V-2																			
BB.	<p>PREPARES FINAL DIVE APPROACH <u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target Sight/pipper <u>Aural</u>-Chg. in aircraft sound, *communication - WSO <u>Control</u>-Neutral stabilator pressure, trim switch function <u>Motion</u>-Normal G</p>	<p>AND DELIVERY</p> <p>Anticipates delivery & pull up</p> <p>Sustains dive</p>	<p>CR-1g BB 332 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA C</td> <td>MR (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA C	MR (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VA C	MR (E)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	AI SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
35	70	V-2																			
CC.	<p>STARTS FINAL SEGMENT OF DIVE <u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target Sight/pipper <u>Aural</u>-Chg. in aircraft sound, *communication - WSO <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Normal G</p>	<p>Determines rate of altitude decrease & pipper tracking up to target</p>	<p>CR-1g CC 252 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA C</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA C	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																			
VA C	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	AI SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
40	80	V-2																			
DD.	<p>CONTINUES FINAL APPROACH <u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target Sight/pipper <u>Aural</u>-Chg. in aircraft sound, *communication - WSO <u>Control</u>-Aileron, rudder & stabilator pressure <u>Motion</u>-Normal G</p>	<p>Determines satis- factory sight picture approaching</p>	<p>CR-1g DD 252 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA C</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA C	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VA C	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	AI SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
45	90	V-2																			

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
SITUATION confirmed with WSO, second aircraft, first pass, new event.

Controlled
TASK NO. CR-1g **TASK** High Angle Dive Bomb Delivery/ **Range** AIRCRAFT F-4E

TASK GOAL Perform high dive bomb on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
EE.	<u>RELEASES WEAPON</u> <u>Visual</u> -Pitch att: constant Bank att: level Target Sight/pipper <u>Aural</u> -Chg. in aircraft sound *communication - WSO <u>Control</u> -Aileron, rudder & stabilator pressure <u>Motion</u> -Normal G	Determines proper sight picture for weapon release & need to release weapon	<u>CR-15 EE</u> 252 TASK NO. SKILL NO. SLOT NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA C</td><td>MC</td><td>A</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>3-C</td><td>CP</td><td>PA R St Ds</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>45</td><td>90</td><td>V-2</td></tr></table> Maintains minimum aileron, rudder & stabilator pressure; activates bomb release	1 C	2 Me	3 Mo	VA C	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	PA R St Ds	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VA C	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	PA R St Ds																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
45	90	V-2																			
FF.	<u>STARTS RECOVERY FROM DIVE</u> <u>Visual</u> -Pitch att: constant Bank att: level Target Sight/pipper <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Aileron, rudder & stabilator pressure; weapon release switch <u>Motion</u> -Normal G	Determines need to effect smooth recovery (4G's within 2 seconds)	<u>CR-15 FF</u> 31 TASK NO. SKILL NO. SLOT NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA C</td><td>MC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>3-C</td><td>SP</td><td>St</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>45</td><td>45</td><td>V-1</td></tr></table> Moves stabilator	1 C	2 Me	3 Mo	VA C	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	SP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	45	V-1
1 C	2 Me	3 Mo																			
VA C	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	SP	St																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
45	45	V-1																			
GG.	<u>BEGINS 4G PULL OUT</u> <u>Visual</u> -Pitch att: increasing Bank att: level <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased stabilator pressure, constant aileron & rudder pressure <u>Motion</u> -Positive G onset	Determines satisfactory pitch movement & need to increase power to full mil. as nose comes through horizon	<u>CR-15 GG</u> 277 TASK NO. SKILL NO. SLOT NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA CM</td><td>MC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-C</td><td>CP</td><td>St Th</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>35</td><td>70</td><td>V-2</td></tr></table> Maintains stabilator pressure & moves throttle (to mil.)	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	St Th	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	St Th																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
35	70	V-2																			
HH.	<u>ESTABLISHES 4G PULL OUT SCHEDULE</u> <u>Visual</u> -Pitch att: increasing Bank att: level Leading aircraft <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Constant stabilator pressure, throttle advance <u>Motion</u> -Constant positive G, pitching up, acceleration	Determines 4G schedule approaching & need to establish constant schedule	<u>CR-15 HH</u> 36 TASK NO. SKILL NO. SLOT NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA CM</td><td>MC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-C</td><td>SP</td><td>St</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>45</td><td>45</td><td>V-1</td></tr></table> Maintains stabilator pressure	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	SP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	45	V-1
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	SP	St																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
45	45	V-1																			

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
confirmed with WSO, second aircraft, first pass, new event.

SITUATION _____ Controlled
TASK NO. CR-1g **TASK** High Angle Dive Bomb Delivery/ Range **AIRCRAFT** F-4E
TASK GOAL Perform high dive bomb on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
II.	<p>STOPS PULL UP TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching up</p>	Determines proper pitch achieved & need for trim	<p>CR-1g II 17</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC AM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>St Tr</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </tbody> </table> <p>Relaxes stabilator pressure, activates trim switch</p>	1 C	2 Me	3 Mo	VC AM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	SP	St Tr	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																			
VC AM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	SP	St Tr																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
40	80	V-2																			
JJ.	<p>PREPARES TO TRANSITION TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: climb Bank att: level</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Decreased stabilator pressure, trim switch function</p> <p><u>Motion</u>-Decreased positive G</p>	<p>Anticipates initiating climbing turn to downwind when nose passes 20° above horizon</p> <p>Sustains climb</p>	<p>CR-1g JJ 332</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC N</td> <td>MR D</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC N	MR D	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VC N	MR D	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	AI St																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
45	90	V-2																			
KK.	<p>STARTS ROLL IN TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: climb Bank att: level</p> <p>Range landmarks Leading aircraft</p> <p>Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal positive G</p>	Determines nose passing through 20° & need to initiate turn to downwind	<p>CR-1g KK 270</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>AI St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>200</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	AI St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	200	V-5
1 C	2 Me	3 Mo																			
VC	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
2-C	CP	AI St																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
40	200	V-5																			
LL.	<p>CONTINUES ROLL IN TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	Determines desired pitch attitude & satisfactory roll rate/turn for proper spacing	<p>CR-1g LL 255</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure, increases stabilator pressure</p>	1 C	2 Me	3 Mo	VC M	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																			
VC M	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	AI St																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
50	250	V-5																			

Aircraft established on downwind, straight and level,
13,000' AGL, 350 knots, weapons select switches set and
confirmed with WSO, second aircraft, first pass, new event.

SITUATION Controlled

TASK NO. CR-1g TASK High Angle Dive Bomb Delivery/ Range AIRCRAFT F-4E

TASK GOAL Perform high dive bomb on prescribed target DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
MM.	STOPS ROLL IN TO CLIMBING TURN <u>Visual</u> -Pitch att: constant Bank att: roll Range landmarks Leading aircraft <u>Aural</u> -Normal aircraft sound <u>Control</u> -Constant aileron, rudder & stabilator pressure <u>Motion</u> -Increased positive G, constant pitch, rolling	Determines proper pitch attitude & bank angle achieved	CR-1g MM 255 TASK NO. SKILL NO. SIGHT NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND</td><td>INFO PROCESS</td><td>CONTINUITY</td></tr><tr><td>VC</td><td>MC</td><td>A</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>3-0</td><td>CP</td><td>FAI/St</td></tr><tr><td>INPUT INDEX</td><td>1/0 INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>50</td><td>250</td><td>V-5</td></tr></table> Coordinates aileron & rudder movement, maintains stabilator pressure	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VC	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	FAI/St	INPUT INDEX	1/0 INPUT	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																						
KIND	INFO PROCESS	CONTINUITY																						
VC	MC	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
3-0	CP	FAI/St																						
INPUT INDEX	1/0 INPUT	OUTPUT INDEX																						
50	250	V-5																						
NN.	ESTABLISHES CLIMBING TURN <u>Visual</u> -Pitch att: constant Bank att: constant Range landmarks Leading aircraft Flt.Inst: Alt, A/S <u>Aural</u> -Normal aircraft sound, communication - WSO (calls bomb plot) <u>Control</u> -Neutral aileron & rudder pressure, constant stabilator pressure <u>Motion</u> -Constant positive G, constant pitch roll stabilized	Determines need for trim	CR-15 NN 17 TASK NO. SKILL NO. SIGHT NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND</td><td>INFO PROCESS</td><td>CONTINUITY</td></tr><tr><td>VA</td><td>MC</td><td>A</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-0</td><td>SP</td><td>Tr</td></tr><tr><td>INPUT INDEX</td><td>1/0 INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>55</td><td>110</td><td>V-2</td></tr></table> Adjusts trim, maintains stabilator pressure	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	SP	Tr	INPUT INDEX	1/0 INPUT	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																						
KIND	INFO PROCESS	CONTINUITY																						
VA	MC	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-0	SP	Tr																						
INPUT INDEX	1/0 INPUT	OUTPUT INDEX																						
55	110	V-2																						

HIGH DIVE TOSS - 45° DIVE BOMB DELIVERY/Controlled Range

SITUATION - Established on downwind, straight and level, 12,000 feet AGL, 325 kts., weapons select switches set and confirmed with WSO, second aircraft, first pass, new event.



High dive toss maneuver diagram.

SITUATION Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
& confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2E TASK 45° High Dive Toss/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform Dive Toss on prescribed target DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
A.	ESTABLISHED ON DOWNWIND TO TARGET <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Determines proper spacing from lead & distance from target Sustains level flight	CR-25 A 287 TASK NO. SKILL NO. <table border="1"><thead><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr></thead><tbody><tr><td>KIND VC</td><td>INFO PROCESS MC (I)</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 2-C</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT A/St</td></tr><tr><td>INPUT INDEX 35</td><td>I/O INPUT 70</td><td>OUTPUT INDEX V-2</td></tr></tbody></table> Maintains required aileron & stabilator control	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MC (I)	CONTINUITY A	QUANTITY 2-C	DECISION PROC CP	MOTOR OUTPUT A/St	INPUT INDEX 35	I/O INPUT 70	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MC (I)	CONTINUITY A													
QUANTITY 2-C	DECISION PROC CP	MOTOR OUTPUT A/St													
INPUT INDEX 35	I/O INPUT 70	OUTPUT INDEX V-2													
B.	CONTINUES DOWNWIND <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft Flt.Inst: A/S, Alt. <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Determines base roll in position Sustains level flight	CR-25 B 287 TASK NO. SKILL NO. <table border="1"><thead><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr></thead><tbody><tr><td>KIND VC</td><td>INFO PROCESS MC (I)</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 2-C</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT A/St</td></tr><tr><td>INPUT INDEX 45</td><td>I/O INPUT 90</td><td>OUTPUT INDEX V-2</td></tr></tbody></table> Maintains required aileron & stabilator control	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MC (I)	CONTINUITY A	QUANTITY 2-C	DECISION PROC CP	MOTOR OUTPUT A/St	INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MC (I)	CONTINUITY A													
QUANTITY 2-C	DECISION PROC CP	MOTOR OUTPUT A/St													
INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2													
C.	PREPARES TURN TO BASE <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Anticipates roll in to base leg Sustains level flight	CR-25 C 327 TASK NO. SKILL NO. <table border="1"><thead><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr></thead><tbody><tr><td>KIND VC</td><td>INFO PROCESS MC (I)</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 2-C</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT A/St</td></tr><tr><td>INPUT INDEX 35</td><td>I/O INPUT 70</td><td>OUTPUT INDEX V-2</td></tr></tbody></table> Maintains required aileron & stabilator control	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MC (I)	CONTINUITY A	QUANTITY 2-C	DECISION PROC CP	MOTOR OUTPUT A/St	INPUT INDEX 35	I/O INPUT 70	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MC (I)	CONTINUITY A													
QUANTITY 2-C	DECISION PROC CP	MOTOR OUTPUT A/St													
INPUT INDEX 35	I/O INPUT 70	OUTPUT INDEX V-2													
D.	STARTS ROLL IN TO BASE <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Determines position to roll in to base & maintain proper spacing	CR-25 D 270 TASK NO. SKILL NO. <table border="1"><thead><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr></thead><tbody><tr><td>KIND VC</td><td>INFO PROCESS MC</td><td>CONTINUITY R</td></tr><tr><td>QUANTITY 2-C</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT A/St</td></tr><tr><td>INPUT INDEX 35</td><td>I/O INPUT 175</td><td>OUTPUT INDEX V-5</td></tr></tbody></table> Coordinates aileron & rudder movement with stabilator pressure	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MC	CONTINUITY R	QUANTITY 2-C	DECISION PROC CP	MOTOR OUTPUT A/St	INPUT INDEX 35	I/O INPUT 175	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MC	CONTINUITY R													
QUANTITY 2-C	DECISION PROC CP	MOTOR OUTPUT A/St													
INPUT INDEX 35	I/O INPUT 175	OUTPUT INDEX V-5													

Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
SITUATION & confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2g **TASK** 45° High Dive Toss/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Dive Toss on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
E.	<p>CONTINUES ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - (Lead cleared "in" by range officer)</p> <p><u>Control</u>-Increased aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	<p>Determines satisfactory roll rate & need for power</p>	<p>CR-2g E 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>{A1/ST R/Th</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>65</td> <td>325</td> <td>V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder pressure, increases stabilator pressure, adjusts throttle</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	AC	CP	{A1/ST R/Th	INPUT INDEX	I/O INPUT	OUTPUT INDEX	65	325	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
AC	CP	{A1/ST R/Th																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
65	325	V-5																			
F.	<p>STOPS ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder, increased stabilator pressure, throttle advance</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	<p>Determines proper bank attitude approaching</p>	<p>CR-2g F 260</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>{A1/ST R/Th</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>65</td> <td>325</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	AC	CP	{A1/ST R/Th	INPUT INDEX	I/O INPUT	OUTPUT INDEX	65	325	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
AC	CP	{A1/ST R/Th																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
65	325	V-5																			
G.	<p>ESTABLISHES TURN TO BASE</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	<p>Determines need to communicate (position & fuel) to range officer</p> <p>Sustains level flight</p>	<p>CR-2g G 292</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC M</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>30</td> <td>CP</td> <td>{A1/ST R/Th</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control, activates mic. button, communicates</p>	1 C	2 Me	3 Mo	VC M	MC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	30	CP	{A1/ST R/Th	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VC M	MC (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
30	CP	{A1/ST R/Th																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
45	90	V-2																			
H.	<p>PREPARES ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound, communication</p> <p><u>Control</u>-Aileron & stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Anticipates roll out to base</p> <p>Sustains turn</p>	<p>CR-2g H 337</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>{A1/ST R/Th</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	AC	CP	{A1/ST R/Th	INPUT INDEX	I/O INPUT	OUTPUT INDEX	60	120	V-2
1 C	2 Me	3 Mo																			
VA CM	MR (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
AC	CP	{A1/ST R/Th																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
60	120	V-2																			

Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
SITUATION & confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2g **TASK** 45° High Dive Toss/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Dive Toss on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
I.	<p><u>STARTS ROLL OUT</u> <u>Visual</u>-Pitch att: constant Bank att: constant Target Range landmarks Leading aircraft <u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Constant positive G, pitch & roll constant</p>	Determines position to roll out to base for spacing & distance from target	<p>CR-2g I 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VC M</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT SA/SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 250</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder with stabilator movement</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT SA/SC	INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT SA/SC													
INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5													
J.	<p><u>CONTINUES ROLL OUT</u> <u>Visual</u>-Pitch att: decreasing Bank att: rolling Target Range landmarks Leading aircraft <u>Aural</u>-Normal aircraft sound <u>Control</u>-Increased aileron, stabilator & rudder pressure <u>Motion</u>-Decreasing positive G, pitch decreasing, rolling</p>	Determines satisfactory roll rate & need to reduce power	<p>CR-2g J 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VC M</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT SA/SC</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INPUT 275</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure, relaxes stabilator pressure, adjusts throttle</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT SA/SC	INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT SA/SC													
INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5													
K.	<p><u>STOPS ROLL</u> <u>Visual</u>-Pitch att: decreasing Bank att: rolling Target Range landmarks Leading aircraft <u>Aural</u>-Chg. in aircraft sound <u>Control</u>-Constant aileron & rudder pressure, decreased stabilator pressure, throttle reduction <u>Motion</u>-Decreasing positive G, pitch decreasing, rolling</p>	Determines wings level approaching	<p>CR-2g K 17</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT 1/2</td> </tr> <tr> <td>INPUT INDEX 65</td> <td>I/O INPUT 130</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Moves aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY A	QUANTITY 4-C	DECISION PROC SP	MOTOR OUTPUT 1/2	INPUT INDEX 65	I/O INPUT 130	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY A													
QUANTITY 4-C	DECISION PROC SP	MOTOR OUTPUT 1/2													
INPUT INDEX 65	I/O INPUT 130	OUTPUT INDEX V-2													
L.	<p><u>ESTABLISHES LEVEL FLIGHT ON BASE</u> <u>Visual</u>-Pitch att: level Bank att: level Target Range landmarks Leading aircraft <u>Aural</u>-Normal aircraft sound <u>Control</u>-Neutral aileron & rudder, decreased stabilator pressure <u>Motion</u>-Normal G, pitch & roll stabilized</p>	Determines need to adjust altitude & airspeed for proper spacing	<p>CR-2g L 272</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VC M</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT SC</td> </tr> <tr> <td>INPUT INDEX 40</td> <td>I/O INPUT 80</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Decreases stabilator pressure and adjusts throttle</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT SC	INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT SC													
INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2													

Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
SITUATION & confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2g **TASK** 45° High Dive Toss/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Dive Toss on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
M.	<p>CONTINUES BASE LEG</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: level</p> <p>Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Normal G, pitching down</p>	Determines proper altitude, airspeed & spacing approaching	<p>CR-2g M 256 TASK NO. SKILL NO. SLOT NO.</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VA CM</td><td>INFO PROCESS MC</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY A-C</td><td>DECISION PROC. CP</td><td>MOTOR OUTPUT St</td></tr><tr><td>INPUT INDEX 55</td><td>I/O INPUT 55</td><td>OUTPUT INDEX V-1</td></tr></table> <p>Increases stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY A	QUANTITY A-C	DECISION PROC. CP	MOTOR OUTPUT St	INPUT INDEX 55	I/O INPUT 55	OUTPUT INDEX V-1
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY A													
QUANTITY A-C	DECISION PROC. CP	MOTOR OUTPUT St													
INPUT INDEX 55	I/O INPUT 55	OUTPUT INDEX V-1													
N.	<p>CONTINUES ON BASE</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch stabilized</p>	Determines proper altitude, airspeed, & track; need for trim	<p>CR-2g N 252 TASK NO. SKILL NO. SLOT NO.</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VC M</td><td>INFO PROCESS MC</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 3-C</td><td>DECISION PROC. CP</td><td>MOTOR OUTPUT Tr St</td></tr><tr><td>INPUT INDEX 45</td><td>I/O INPUT 90</td><td>OUTPUT INDEX V-2</td></tr></table> <p>Adjusts trim & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY A	QUANTITY 3-C	DECISION PROC. CP	MOTOR OUTPUT Tr St	INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY A													
QUANTITY 3-C	DECISION PROC. CP	MOTOR OUTPUT Tr St													
INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2													
O.	<p>PREPARES TURN TO FINAL</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral stabilator pressure, trim switch function</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates roll in and dive</p> <p>Sustains level flight</p>	<p>CR-2g O 327 TASK NO. SKILL NO. SLOT NO.</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VC</td><td>INFO PROCESS MR (E)</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 2-C</td><td>DECISION PROC. CP</td><td>MOTOR OUTPUT AI St</td></tr><tr><td>INPUT INDEX 25</td><td>I/O INPUT 50</td><td>OUTPUT INDEX V-2</td></tr></table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MR (E)	CONTINUITY A	QUANTITY 2-C	DECISION PROC. CP	MOTOR OUTPUT AI St	INPUT INDEX 25	I/O INPUT 50	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MR (E)	CONTINUITY A													
QUANTITY 2-C	DECISION PROC. CP	MOTOR OUTPUT AI St													
INPUT INDEX 25	I/O INPUT 50	OUTPUT INDEX V-2													
P.	<p>STARTS ROLL IN AND DIVE</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator control</p> <p><u>Motion</u>-Normal G</p>	Determines position to roll in to final & need for power, need to communicate position to range officer	<p>CR-2g P 270 TASK NO. SKILL NO. SLOT NO.</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VC</td><td>INFO PROCESS MC</td><td>CONTINUITY R</td></tr><tr><td>QUANTITY 2-C</td><td>DECISION PROC. CP</td><td>MOTOR OUTPUT SA/ST (20/25 CM)</td></tr><tr><td>INPUT INDEX 30</td><td>I/O INPUT 150</td><td>OUTPUT INDEX V-5</td></tr></table> <p>Activates mic. button & communicates, coordinates aileron & rudder movement, maintains stabilator pressure, moves throttle (to full mil.)</p>	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MC	CONTINUITY R	QUANTITY 2-C	DECISION PROC. CP	MOTOR OUTPUT SA/ST (20/25 CM)	INPUT INDEX 30	I/O INPUT 150	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MC	CONTINUITY R													
QUANTITY 2-C	DECISION PROC. CP	MOTOR OUTPUT SA/ST (20/25 CM)													
INPUT INDEX 30	I/O INPUT 150	OUTPUT INDEX V-5													

SITUATION Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
& confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2g TASK 45° High Dive Toss/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform Dive Toss on prescribed target DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
Q.	<p>CONTINUES ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target Range landmark</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Increased aileron, stabilator & rudder pressure, throttle increase, mic. button function</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	Determines satisfactory pitch & roll rate	<p>CR-25 Q 279</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC. CP</td> <td>MOTOR OUTPUT AI R</td> </tr> <tr> <td>INPUT INDEX 70</td> <td>I/O INPUT 280</td> <td>OUTPUT INDEX V-4</td> </tr> </tbody> </table> <p>Maintains coordinated aileron, stabilator & rudder pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-0	DECISION PROC. CP	MOTOR OUTPUT AI R	INPUT INDEX 70	I/O INPUT 280	OUTPUT INDEX V-4
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-0	DECISION PROC. CP	MOTOR OUTPUT AI R													
INPUT INDEX 70	I/O INPUT 280	OUTPUT INDEX V-4													
R.	<p>CONTINUES ROLL & BEGINS FULL</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - aircraft cleared in hot by range officer</p> <p><u>Control</u>-Constant aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Constant positive G, pitching up, rolling</p>	DOWN Determines satisfactory pitch & roll attitude approaching	<p>CR-25 R 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC. CP</td> <td>MOTOR OUTPUT AI R/Sc</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INPUT 275</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure with stabilator movement</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-0	DECISION PROC. CP	MOTOR OUTPUT AI R/Sc	INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-0	DECISION PROC. CP	MOTOR OUTPUT AI R/Sc													
INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5													
S.	<p>STOPS ROLL AND CONTINUES FULL</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder, increased stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching down, rolling</p>	Determines proper roll attitude achieved & desired pitch movement	<p>CR-25 S 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC. CP</td> <td>MOTOR OUTPUT AI R/Sc</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 250</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement, continues stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-0	DECISION PROC. CP	MOTOR OUTPUT AI R/Sc	INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-0	DECISION PROC. CP	MOTOR OUTPUT AI R/Sc													
INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5													
T.	<p>ESTABLISHES DIVING TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: stabilized</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Neutral aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Increasing positive G, pitching down, roll stabilized</p>	Sustains descending turn	<p>CR-25 T 372</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA M</td> <td>INFO PROCESS I</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC. CP</td> <td>MOTOR OUTPUT AI Sc</td> </tr> <tr> <td>INPUT INDEX 35</td> <td>I/O INPUT 70</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND VA M	INFO PROCESS I	CONTINUITY A	QUANTITY 3-0	DECISION PROC. CP	MOTOR OUTPUT AI Sc	INPUT INDEX 35	I/O INPUT 70	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA M	INFO PROCESS I	CONTINUITY A													
QUANTITY 3-0	DECISION PROC. CP	MOTOR OUTPUT AI Sc													
INPUT INDEX 35	I/O INPUT 70	OUTPUT INDEX V-2													

SITUATION Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
& confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2g TASK 45° High Dive Toss/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform Dive Toss on prescribed target DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
U.	PREPARES ROLL OUT AND DIVE TO FINAL <u>Visual</u> -Pitch att: constant Bank att: constant Target/canopy <u>Aural</u> -Chg. in aircraft sound communication <u>Control</u> -Aileron, stabilator & rudder pressure <u>Motion</u> -Positive G, pitch & roll constant	Anticipates roll out to final dive Sustains descending turn	CR-2g U 537 TASK NO. SKILL NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA MR A CM (I) QUANTITY DECISION PROC MOTOR OUTPUT 4-C CP A/Sc INPUT INDEX I/O INPUT OUTPUT INDEX 55 110 V-2 Maintains required aileron & stabilator control
V.	STARTS ROLL OUT, MAINTAINS DIVE <u>Visual</u> -Pitch att: constant Bank att: roll Target/sight <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Positive G, pitch & roll constant	Determines proper position to roll out to final with satisfactory dive angle	CR-2g V 280 TASK NO. SKILL NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA MC R CM QUANTITY DECISION PROC MOTOR OUTPUT 4-C CP A/Sc INPUT INDEX I/O INPUT OUTPUT INDEX 45 225 V-5 Coordinates aileron & rudder, maintains stabilator pressure
W.	CONTINUES ROLL OUT, MAINTAINS DIVE <u>Visual</u> -Pitch att: constant Bank att: roll Target/sight <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased aileron & rudder, constant stabilator pressure <u>Motion</u> -Positive G, pitch constant, rolling	Determines satisfactory roll out rate	CR-2g W 280 TASK NO. SKILL NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA MC R CM QUANTITY DECISION PROC MOTOR OUTPUT 4-C CP A/Sc INPUT INDEX I/O INPUT OUTPUT INDEX 50 250 V-5 Maintains coordinated aileron & rudder pressure, constant stabilator pressure, moves throttle
X.	STOPS ROLL, MAINTAINS DIVE <u>Visual</u> -Pitch att: constant Bank att: roll Target/sight <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Constant aileron & rudder, constant stabilator pressure, throttle reduced <u>Motion</u> -Decreasing positive G, pitch constant, rolling	Determines wings level achieved & need to communicate - WSO (that radar is locked on)	CR-2g X 17 TASK NO. SKILL NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA MC A CM QUANTITY DECISION PROC MOTOR OUTPUT 4-C SP A/Sc INPUT INDEX I/O INPUT OUTPUT INDEX 55 110 V-2 Moves aileron & rudder, maintains stabilator pressure, communicates - WSO

Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
SITUATION & confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2g **TASK** 45° High Dive Toss/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Dive Toss on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
Y.	<p>ESTABLISHES FINAL APPROACH TO TARGET</p> <p><u>Visual</u>-Pitch att: descent (constant) Bank att: level Target/sight Flt.Inst: ADI, Alt & A/S</p> <p><u>Aural</u>-Chg. in aircraft sound communication - WSO (calls "cleared to pickle")</p> <p><u>Control</u>-Neutral aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch & roll stabilized</p>	<p>Determines proper dive angle, need to decrease power, & adjust trim</p>	<p>CR-2g Y 257</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-0</td> <td>CP</td> <td>1/4 Tr SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </tbody> </table> <p>Moves throttle, adjusts trim & maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	CP	1/4 Tr SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-0	CP	1/4 Tr SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
55	110	V-2																			
Z.	<p>PREPARES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att: constant Bank att: level Target/sight</p> <p><u>Aural</u>-Chg. in aircraft sound communication - WSO *(calls A/S & Alt.)</p> <p><u>Control</u>-Constant stabilator pressure, throttle decrease, trim switch</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates delivery</p> <p>Sustains level dive</p>	<p>CR-2g Z 532</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA C</td> <td>MR (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>1/4 Tr SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VA C	MR (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	1/4 Tr SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																			
VA C	MR (E)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-0	CP	1/4 Tr SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
40	80	V-2																			
AA.	<p>STARTS FINAL APPROACH TO TARGET</p> <p><u>Visual</u>-Pitch att: constant Bank att: level Target/pipper Flt.Inst: A/S, Alt.</p> <p><u>Aural</u>-Chg. in aircraft sound *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Sustains level dive</p>	<p>CR-2g AA 132</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA C</td> <td>I</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-0</td> <td>SP</td> <td>1/4 Tr SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VA C	I	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	SP	1/4 Tr SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VA C	I	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-0	SP	1/4 Tr SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
45	90	V-2																			
BB.	<p>CONTINUES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att: constant Bank att: level Target/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines analog bar/sight relationship & need to place pipper on the target & need for trim</p>	<p>CR-2g BB 252</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA C</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>1/4 Tr SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </tbody> </table> <p>Adjusts trim; maintains required aileron, stabilator & rudder pressure</p>	1 C	2 Me	3 Mo	VA C	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	1/4 Tr SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																			
VA C	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-0	CP	1/4 Tr SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
40	80	V-2																			

Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
SITUATION & confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2g **TASK** 45° High Dive Toss/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Dive Toss on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
CC.	<p>CONTINUES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound *communication - WSO</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure; trim switch function</p> <p><u>Motion</u>-Normal G</p>	Determines need to maintain pipper on target	<p>CR-2g CC 12</p> <p>TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VA C</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT A/L St</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 100</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Maintains aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA C	INFO PROCESS MC	CONTINUITY A	QUANTITY 3-C	DECISION PROC SP	MOTOR OUTPUT A/L St	INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA C	INFO PROCESS MC	CONTINUITY A													
QUANTITY 3-C	DECISION PROC SP	MOTOR OUTPUT A/L St													
INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2													
DD.	<p>HOLDS PIPPER ON TARGET</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target/pipper</p> <p>Flt.Inst: A/S, Alt.</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Normal G</p>	Determines satisfactory sight picture & airspeed	<p>CR-2g DD 252</p> <p>TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VA C</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/L St</td> </tr> <tr> <td>INPUT INDEX 45</td> <td>I/O INPUT 90</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Maintains aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA C	INFO PROCESS MC	CONTINUITY A	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT A/L St	INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA C	INFO PROCESS MC	CONTINUITY A													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT A/L St													
INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2													
EE.	<p>PREPARES ORDNANCE DELIVERY &</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO (calls 8500' ready pickle)</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Normal G</p>	<p>PULL UP</p> <p>Anticipates 2G pull & bomb release</p> <p>Sustains level dive</p>	<p>CR-2g EE 332</p> <p>TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VA C</td> <td>INFO PROCESS MR (I)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/L St</td> </tr> <tr> <td>INPUT INDEX 40</td> <td>I/O INPUT 80</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Maintains required aileron, rudder & stabilator control</p>	1 C	2 Me	3 Mo	KIND VA C	INFO PROCESS MR (I)	CONTINUITY A	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT A/L St	INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA C	INFO PROCESS MR (I)	CONTINUITY A													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT A/L St													
INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2													
FF.	<p>STARTS ORDNANCE DELIVERY</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Normal G</p>	Determines proper sight picture & slant range, need to activate pickle button & begin 2G pull	<p>CR-2g FF 272</p> <p>TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VA C</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/L St</td> </tr> <tr> <td>INPUT INDEX 40</td> <td>I/O INPUT 80</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Activates pickle button & moves stabilator</p>	1 C	2 Me	3 Mo	KIND VA C	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT A/L St	INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA C	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT A/L St													
INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2													

SITUATION Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
& confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2g **TASK** 45° High Dive Toss/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Dive Toss on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
GG.	<p>CONTINUES ORDNANCE DELIVERY</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Target/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound, weapons tone</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure, bomb button function</p> <p><u>Motion</u>-Positive G onset, pitching up</p>	Determines proper G schedule (2G's) & ground track	<p>CR-2g HH 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4C</td> <td>CP</td> <td>1/2 SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </table> <p>Maintains pickle button & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4C	CP	1/2 SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4C	CP	1/2 SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	110	V-2																			
HH.	<p>STOPS ORDNANCE DELIVERY AND CONTINUES PULL UP</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Target/pipper</p> <p>Pull-up lite</p> <p><u>Aural</u>-Chg. in aircraft sound, weapons tone stops</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure; bomb button function</p> <p><u>Motion</u>-Constant G, pitching up</p>	Determines weapon release & need to increase G's (pull up)	<p>CR-2g HH 37</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4C</td> <td>SP</td> <td>1/2 SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </table> <p>Deactivates bomb button & moves stabilator</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4C	SP	1/2 SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	60	120	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4C	SP	1/2 SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
60	120	V-2																			
II.	<p>CONTINUES OFF TARGET PULL UP</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, increased stabilator pressure, bomb button function</p> <p><u>Motion</u>-Increasing positive G, pitching up</p>	Determines proper rate of pitch movement & G schedule	<p>CR-2g FI 276</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4C</td> <td>CP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>40</td> <td>V-1</td> </tr> </table> <p>Maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4C	CP	SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	40	V-1
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4C	CP	SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
40	40	V-1																			
JJ.	<p>STOPS OFF TARGET PULL UP</p> <p><u>Visual</u>-Pitch att: climb Bank att: level</p> <p>Range landmarks</p> <p>Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant stabilator pressure</p> <p><u>Motion</u>-Constant G, pitching up</p>	Determines proper pitch attitude achieved & need for power	<p>CR-2g JT 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4C</td> <td>CP</td> <td>1/2 SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </table> <p>Moves throttle & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4C	CP	1/2 SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4C	CP	1/2 SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
40	80	V-2																			

Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
SITUATION & confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2g **TASK** 45° High Dive Toss/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Dive Toss on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
KK.	PREPARES TRANSITION TO CLIMBING TURN Visual-Pitch att: climb (constant) Bank att: level Range landmarks Leading aircraft Aural-Normal aircraft sound Control-Decreased stabilator pressure, throttle advance Motion-Decreasing positive G, pitching up	Anticipates climbing turn Sustains level climb	CR-2g KK 332 TASK NO. SKILL NO. SGT NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VC MC A M (E) QUANTITY DECISION PROC MOTOR OUTPUT 3-0 CP /AI INPUT INDEX I/O INPUT OUTPUT INDEX 40 80 V-2 Maintains required aileron & stabilator control
LL.	STARTS ROLL IN TO CLIMBING TURN Visual-Pitch att: climb (constant) Bank att: level Range landmarks Leading aircraft Flt.Inst: Alt, A/S Aural-Normal aircraft sound Control-Aileron & stabilator pressure Motion-Constant positive G, pitch stabilized	Determines desired pitch attitude & position to begin roll, need for trim	CR-2g LL 275 TASK NO. SKILL NO. SGT NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VC MC R M QUANTITY DECISION PROC MOTOR OUTPUT 3-0 CP {AI/R INPUT INDEX I/O INPUT OUTPUT INDEX 50 250 V-5 Coordinates aileron & rudder movement, adjusts trim, & relaxes stabilator pressure
MM.	CONTINUES ROLL IN CLIMBING TURN Visual-Pitch att: constant Bank att: rolling Range landmarks Leading aircraft Aural-Normal aircraft sound Control-Increased aileron & rudder, decreased stabilator pressure, trim switch function Motion-Constant positive G, pitch constant, rolling	Determines proper pitch attitude & satisfactory roll rate/turn for proper spacing	CR-2g MM 275 TASK NO. SKILL NO. SGT NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VC MC R M QUANTITY DECISION PROC MOTOR OUTPUT 3-0 CP {AI/R INPUT INDEX I/O INPUT OUTPUT INDEX 55 275 V-5 Maintains coordinated aileron & rudder pressure, maintains stabilator pressure

Established on downwind, straight and level,
12,000 feet AGL, 325 knots, weapons select switches set
SITUATION & confirmed with WSO, second aircraft, first pass, new event.

TASK NO. CR-2g **TASK** 45° High Dive Toss/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Dive Toss on prescribed target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
NN.	<p>STOPS ROLL IN CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: climb (constant) Bank att: rolling</p> <p>Range landmarks Leading aircraft Flt.Inst: cross-check</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch constant, rolling</p>	<p>Determines desired pitch attitude & proper bank angle approaching</p>	<p>CR-2g NN 255 TASK NO. SKILL NO. SLEW NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND</td> <td>INT. PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VC M</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>SAI/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	KIND	INT. PROCESS	CONTINUITY	VC M	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	SAI/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																						
KIND	INT. PROCESS	CONTINUITY																						
VC M	MC	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
3-0	CP	SAI/SC																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
55	275	V-5																						
OO.	<p>ESTABLISHES CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound, communication - range officer (calls bomb plot)</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch constant, roll stabilized</p>	<p>Determines need for trim</p>	<p>CR-2g OO 17 TASK NO. SKILL NO. SLEW NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND</td> <td>INT. PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-0</td> <td>SP</td> <td>TR SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Adjusts trim & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	KIND	INT. PROCESS	CONTINUITY	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	SP	TR SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																						
KIND	INT. PROCESS	CONTINUITY																						
VA CM	MC	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-0	SP	TR SC																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
45	90	V-2																						

ANGLE OFF POP-UP DELIVERY

(Low Angle Bomb, Controlled Range)

SITUATION - Established on downwind, straight and level, 2,000 feet AGL, 450 kts., all switches set and confirmed with WSO.



Pop-Up maneuver diagram.

Established on downwind, straight and level, 2,000 feet AGL,
SITUATION 450 knots, all switches set and confirmed with WSO.

Controlled
TASK NO. CR-3g TASK Pop-Up Low Angle Bomb Delivery/Range AIRCRAFT F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
A.	ESTABLISHED ON DOWNWIND TO TARGET <u>Visual</u> -Pitch att: level Bank att: level Target IP Flt.Inst: Alt, A/S <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron, rudder & stabilator pressure <u>Motion</u> -Normal G	Determines proper alt. & airspeed approaching Sustains level flight	CR3g A 47 TASK NO. SKILL NO. SLOT NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VC MC (E) A QUANTITY DECISION PROC MOTOR OUTPUT 2-C SP /Ai INPUT INDEX I/O INPUT OUTPUT INDEX 45 90 V-2 Maintains required aileron & stabilator control
B.	CONTINUES DOWNWIND <u>Visual</u> -Pitch att: level Bank att: level IP Eng.Inst: check fuel <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Determines base roll in position & need to stabilize airspeed	CR3g B 247 TASK NO. SKILL NO. SLOT NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VC MC A QUANTITY DECISION PROC MOTOR OUTPUT 2-C CP /Th INPUT INDEX I/O INPUT OUTPUT INDEX 30 60 V-2 Adjusts throttle, maintains stabilator pressure
C.	PREPARES DESCENDING BASE TURN <u>Visual</u> -Pitch att: level Bank att: level IP <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Constant stabilator pressure, throttle decrease <u>Motion</u> -Normal G	Anticipates roll in to base Sustains level flight	CR3g C 332 TASK NO. SKILL NO. SLOT NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA M2 (E) A QUANTITY DECISION PROC MOTOR OUTPUT 3-C CP /Ai INPUT INDEX I/O INPUT OUTPUT INDEX 30 60 V-2 Maintains required aileron & stabilator control
D.	STARTS ROLL IN TO DESCENDING <u>Visual</u> -Pitch att: level Bank att: level IP <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	BASE TURN Determines position to roll into descending base turn & communicate position and fuel to range officer	CR3g D 270 TASK NO. SKILL NO. SLOT NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VC MC R QUANTITY DECISION PROC MOTOR OUTPUT 2-C CP /Ai INPUT INDEX I/O INPUT OUTPUT INDEX 25 125 V-5 Activates mic. switch, communicates, coordinates aileron & rudder pressure, relaxes stabilator pressure

SITUATION Established on downwind, straight and level, 2,000 feet AGL,
450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3g TASK Pop-Up Low Angle Bomb Delivery/Range Controlled AIRCRAFT F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
E.	<p>CONTINUES ROLL IN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>IP</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder pressure, reduced stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Positive G onset, pitching down, rolling</p>	Determines satisfactory roll rate & need for power	<p>CR-3g F 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>121/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure, decreased stabilator pressure, adjusts power</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	121/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
A-C	CP	121/SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
55	275	V-5																			
F.	<p>STOPS ROLL IN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>IP</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron, reduced stabilator pressure, throttle advance</p> <p><u>Motion</u>-Positive G, pitching down, rolling</p>	Determines proper pitch & bank attitude achieved	<p>CR-3g F 260</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>121/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>250</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	121/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	60	250	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
A-C	CP	121/SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
60	250	V-5																			
G.	<p>ESTABLISHES DESCENDING TURN</p> <p><u>Visual</u>-Pitch att: constant (descent) Bank att: constant</p> <p>IP</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	Sustains descending turn	<p>CR-3g G 132</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>I</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>SP</td> <td>121/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VC M	I	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	SP	121/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VC M	I	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	SP	121/SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
35	70	V-2																			
H.	<p>PREPARES FOR ROLL OUT OF DESCENDING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>IP</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Anticipates roll out to base</p> <p>Sustains descending turn</p>	<p>CR-3g H 332</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>121/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VC M	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	121/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																			
VC M	MR (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	121/SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
40	80	V-2																			

SITUATION Established on downwind, straight and level, 2,000 feet AGL,
450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3g TASK Pop-Up Low Angle Bomb Delivery/Range AIRCRAFT F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
I.	STARTS ROLL OUT TO LEVEL BASE <u>Visual</u> -Pitch att: constant Bank att: constant IP <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Constant positive G, pitch & roll constant	Determines base roll out position in relation to IP	CR-3g F 275 TASK NO. SKILL NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VC M</td><td>INFO PROCESS MC</td><td>CONTINUITY R</td></tr><tr><td>QUANTITY 3-C</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT 20/sec</td></tr><tr><td>INPUT INDEX 40</td><td>I/O INPUT 200</td><td>OUTPUT INDEX V-5</td></tr></table> Coordinates aileron & rudder pressure, moves stabilator	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT 20/sec	INPUT INDEX 40	I/O INPUT 200	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT 20/sec													
INPUT INDEX 40	I/O INPUT 200	OUTPUT INDEX V-5													
J.	CONTINUES ROLL OUT <u>Visual</u> -Pitch att: increasing Bank att: roll IP <u>Aural</u> -Normal aircraft sound <u>Control</u> -Increased aileron, rudder & stabilator pressure <u>Motion</u> -Decreased positive G, pitching up, rolling	Determines satisfactory roll rate	CR-3g J 275 TASK NO. SKILL NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VC M</td><td>INFO PROCESS MC</td><td>CONTINUITY R</td></tr><tr><td>QUANTITY 3-C</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT 20/sec</td></tr><tr><td>INPUT INDEX 45</td><td>I/O INPUT 225</td><td>OUTPUT INDEX V-5</td></tr></table> Maintains coordinated aileron & rudder with stabilator movement	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT 20/sec	INPUT INDEX 45	I/O INPUT 225	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT 20/sec													
INPUT INDEX 45	I/O INPUT 225	OUTPUT INDEX V-5													
K.	STOPS ROLL <u>Visual</u> -Pitch att: increasing Bank att: roll IP <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Constant aileron & rudder pressure, increased stabilator pressure <u>Motion</u> -Decreased positive G, pitching up, rolling	Determines wings level & proper altitude approaching	CR-3g K 257 TASK NO. SKILL NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VA CM</td><td>INFO PROCESS MC</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 4-C</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT 10/sec</td></tr><tr><td>INPUT INDEX 50</td><td>I/O INPUT 100</td><td>OUTPUT INDEX V-2</td></tr></table> Moves aileron & rudder, relaxes stabilator pressure	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY A	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT 10/sec	INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY A													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT 10/sec													
INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2													
L.	ESTABLISHES ON BASE LEG TO IP, LEVEL @ 100 FEET AGL, 550 KNOTS <u>Visual</u> -Pitch att: level Bank att: level Range landmarks (Nav. to IP) <u>Aural</u> -Normal aircraft sound <u>Control</u> -Increased aileron & rudder pressure, decreased stabilator pressure <u>Motion</u> -Normal G, pitch & roll stabilized	Determines proper altitude & airspeed and need for trim	CR-3g L 252 TASK NO. SKILL NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VC M</td><td>INFO PROCESS MC</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 3-C</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT 10/sec</td></tr><tr><td>INPUT INDEX 40</td><td>I/O INPUT 80</td><td>OUTPUT INDEX V-2</td></tr></table> Adjusts trim, relaxes stabilator pressure	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY A	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT 10/sec	INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY A													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT 10/sec													
INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2													

SITUATION Established on downwind, straight and level, 2,000 feet AGL,
450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3g TASK Pop-Up Low Angle Bomb Delivery/Range Controlled
AIRCRAFT F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept, 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
M.	<p>CONTINUES ON BASE LEG</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Range landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Decreased stabilator pressure, trim switch function</p> <p><u>Motion</u>-Normal G</p>	<p>Determines IP roll in position</p> <p>Sustains level flight</p>	<p>CR-3g M 287</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>1A' / 5c</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>25</td> <td>50</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	1A' / 5c	INPUT INDEX	I/O INPUT	OUTPUT INDEX	25	50	V-2
1 C	2 Me	3 Mo																			
VC	MC (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
2-C	CP	1A' / 5c																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
25	50	V-2																			
N.	<p>PREPARES FOR TURN AT IP</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Range landmark (IP)</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates roll into IP final approach</p> <p>Sustains level flight</p>	<p>CR-3g N 327</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>1A' / 5c</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>25</td> <td>50</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	1A' / 5c	INPUT INDEX	I/O INPUT	OUTPUT INDEX	25	50	V-2
1 C	2 Me	3 Mo																			
VC	MR (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
2-C	CP	1A' / 5c																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
25	50	V-2																			
O.	<p>STARTS ROLL IN AT IP</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Range landmark (IP)</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines position to roll into IP final approach heading</p>	<p>CR-3g O 269</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>1A' / 2c</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>25</td> <td>100</td> <td>V-4</td> </tr> </tbody> </table> <p>Coordinates aileron, rudder & stabilator movement</p>	1 C	2 Me	3 Mo	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	1A' / 2c	INPUT INDEX	I/O INPUT	OUTPUT INDEX	25	100	V-4
1 C	2 Me	3 Mo																			
VC	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
2-C	CP	1A' / 2c																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
25	100	V-4																			
P.	<p>CONTINUES ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Range landmark (IP)</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	<p>Determines satisfactory roll rate & need for power</p>	<p>CR-3g P 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>1A' / 2c / 1A' / 5c</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>225</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure, increased stabilator pressure, adjusts throttle</p>	1 C	2 Me	3 Mo	VC M	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	1A' / 2c / 1A' / 5c	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	225	V-5
1 C	2 Me	3 Mo																			
VC M	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	1A' / 2c / 1A' / 5c																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
45	225	V-5																			

Established on downwind, straight and level, 2,000 feet AGL,
SITUATION 450 knots, all switches set and confirmed with WSO.

Controlled
TASK NO. CR-3g **TASK** Pop-Up Low Angle Bomb Delivery/Range **AIRCRAFT** F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
Q.	<p>STOPS ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Range landmark IP</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure, throttle advance</p> <p><u>Motion</u>-Increasing positive G, pitching, rolling</p>	Determines proper bank attitude achieved	<p>CR-3g Q 20</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA C/M</td> <td>INFO PROCESS NC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT 121/SC</td> </tr> <tr> <td>INPUT INDEX 60</td> <td>I/O INPUT 300</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA C/M	INFO PROCESS NC	CONTINUITY A	QUANTITY 40	DECISION PROC SP	MOTOR OUTPUT 121/SC	INPUT INDEX 60	I/O INPUT 300	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA C/M	INFO PROCESS NC	CONTINUITY A													
QUANTITY 40	DECISION PROC SP	MOTOR OUTPUT 121/SC													
INPUT INDEX 60	I/O INPUT 300	OUTPUT INDEX V-5													
R.	<p>ESTABLISHES TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Range landmark IP</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	Sustains level turn	<p>CR-3g R 372</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VC M</td> <td>INFO PROCESS I</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 30</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT 121/SC</td> </tr> <tr> <td>INPUT INDEX 40</td> <td>I/O INPUT 80</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS I	CONTINUITY A	QUANTITY 30	DECISION PROC CP	MOTOR OUTPUT 121/SC	INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS I	CONTINUITY A													
QUANTITY 30	DECISION PROC CP	MOTOR OUTPUT 121/SC													
INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2													
S.	<p>PREPARES FOR ROLL OUT ON REFERENCE HEADING</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Range landmark IP</p> <p>Flt.Inst: HSI</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls out heading)</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>anticipates roll out on reference heading</p> <p>Sustains level turn</p>	<p>CR-3g S 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA M</td> <td>INFO PROCESS MR (I)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT 121/SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 100</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA M	INFO PROCESS MR (I)	CONTINUITY A	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT 121/SC	INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA M	INFO PROCESS MR (I)	CONTINUITY A													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT 121/SC													
INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2													
T.	<p>STARTS ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Range landmark IP</p> <p>Flt.Inst: HSI</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls "roll out")</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	Discerns referenced roll out heading	<p>CR-3g T 200</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA C/M</td> <td>INFO PROCESS SC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT 121/SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 250</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA C/M	INFO PROCESS SC	CONTINUITY R	QUANTITY 40	DECISION PROC SP	MOTOR OUTPUT 121/SC	INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA C/M	INFO PROCESS SC	CONTINUITY R													
QUANTITY 40	DECISION PROC SP	MOTOR OUTPUT 121/SC													
INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5													

SITUATION Established on downwind, straight and level, 2,000 feet AGL, 450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3g TASK Pop-Up Low Angle Bomb Delivery/Range Controlled AIRCRAFT F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
U.	<p>CONTINUES ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p><u>Aural</u>-Normal aircraft sound, communication-WSO (heading on roll out)</p> <p><u>Control</u>-Increased aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines satisfactory roll rate	<p>CR-3g 4 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT 1/2 SC</td> </tr> <tr> <td>INPUT INDEX 45</td> <td>I/O INPUT 225</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder with relaxed stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT 1/2 SC	INPUT INDEX 45	I/O INPUT 225	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT 1/2 SC													
INPUT INDEX 45	I/O INPUT 225	OUTPUT INDEX V-5													
V.	<p>STOPS ROLL</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Ground terrain</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO *(calls time countdown)</p> <p><u>Control</u>-Constant aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines reference heading & wings level flight approaching	<p>CR-3g V 172</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT 1/2 SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 100</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Moves aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY 4-0	DECISION PROC SP	MOTOR OUTPUT 1/2 SC	INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	A													
QUANTITY 4-0	DECISION PROC SP	MOTOR OUTPUT 1/2 SC													
INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2													
W.	<p>ESTABLISHES LEVEL FLIGHT ON REFERENCE HEADING</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Ground terrain</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Neutral aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch & roll stabilized</p>	Determines need to adjust altitude & heading, need to increase airspeed	<p>CR-3g W 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT 1/2 SC</td> </tr> <tr> <td>INPUT INDEX 35</td> <td>I/O INPUT 175</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron, rudder & stabilator; moves throttle (to AB range)</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT 1/2 SC	INPUT INDEX 35	I/O INPUT 175	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT 1/2 SC													
INPUT INDEX 35	I/O INPUT 175	OUTPUT INDEX V-5													
X.	<p>CONTINUES ON REFERENCE HEADING</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: level</p> <p>Ground terrain</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure, throttle advance</p> <p><u>Motion</u>-Normal G, acceleration</p>	Determines proper altitude & reference heading, need for trim	<p>CR-3g X 257</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT 1/2 SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 100</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains aileron, rudder & stabilator pressure, adjusts trim (increased control sensitivity in pitch)</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT 1/2 SC	INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	A													
QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT 1/2 SC													
INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2													

SITUATION Established on downwind, straight and level, 2,000 feet AGL, 450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3g **TASK** Pop-Up Low Angle Bomb Delivery/Range **AIRCRAFT** F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
Y.	<p>CONTINUES ON REFERENCE HEADING</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Ground Terrain Flt.Inst: HSI</p> <p><u>Aural</u>-Chg. in aircraft sound communication - WSO (calls "ready")</p> <p><u>Control</u>-Aileron & stabilator pressure, trim switch function</p> <p><u>Motion</u>-Normal G, buffeting</p>	<p>Sustains level flight & maintains reference heading</p> <p>Discerns communi- cation</p>	<p>CR-3g Y 217</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS SC (E)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT /A/ St</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 100</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS SC (E)	CONTINUITY A	QUANTITY 4-C	DECISION PROC SP	MOTOR OUTPUT /A/ St	INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS SC (E)	CONTINUITY A													
QUANTITY 4-C	DECISION PROC SP	MOTOR OUTPUT /A/ St													
INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2													
Z.	<p>PREPARES FOR POP-UP</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Ground terrain Pop-up point</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G, buffeting</p>	<p>Anticipates "pull" call and pop-up</p> <p>Sustains level flight</p>	<p>CR-3g Z 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS ME(I)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT /A/ St</td> </tr> <tr> <td>INPUT INDEX 40</td> <td>I/O INPUT 80</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS ME(I)	CONTINUITY A	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT /A/ St	INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS ME(I)	CONTINUITY A													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT /A/ St													
INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2													
AA.	<p>STARTS POP-UP AT WSO'S "PULL" CALL</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Ground terrain Pop-Up point</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls "pull")</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G, buffeting</p>	<p>Determines need to start pop-up pull & communicate (calls "up" to range officer)</p>	<p>CR-3g AA 276</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT /A/ St</td> </tr> <tr> <td>INPUT INDEX 40</td> <td>I/O INPUT 80</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Activates mic. button, communicates, moves stabilator</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT /A/ St	INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT /A/ St													
INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2													
BB.	<p>CONTINUES POP-UP</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Flt.Inst: G meter, ADI</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Increased stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Positive G onset, pitching up</p>	<p>Determines satis- factory rate of nose movement (G schedule, 2-3 G's)</p>	<p>CR-3g BB 276</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT St</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 50</td> <td>OUTPUT INDEX V-1</td> </tr> </tbody> </table> <p>Maintains required stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT St	INPUT INDEX 50	I/O INPUT 50	OUTPUT INDEX V-1
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT St													
INPUT INDEX 50	I/O INPUT 50	OUTPUT INDEX V-1													

SITUATION Established on downwind, straight and level, 2,000 feet AGL, 450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3g TASK Pop-Up Low Angle Bomb Delivery/Range Controlled AIRCRAFT F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
CC.	<p>STOPS PULL UP</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Flt.Inst: ADI</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitching up</p>	Determines proper pitch attitude achieved	<p>CR-35 CC 116</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PRICE</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>SP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>35</td> <td>V-1</td> </tr> </tbody> </table> <p>Relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	CM			QUANTITY	DECISION PRICE	MOTOR OUTPUT	A-C	SP	SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	35	V-1
1 C	2 Me	3 Mo																						
VA	MC	A																						
CM																								
QUANTITY	DECISION PRICE	MOTOR OUTPUT																						
A-C	SP	SC																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
35	35	V-1																						
DD.	<p>ESTABLISHES LEVEL CLIMB 20°</p> <p><u>Visual</u>-Pitch att: constant (climb) Bank att: level</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitch stabilized</p>	<p>Sustains level climb</p> <p>Discerns target</p>	<p>CR-35 DD 217</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>SC</td> <td>A</td> </tr> <tr> <td>CM</td> <td>(E)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PRICE</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>SP</td> <td>A/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA	SC	A	CM	(E)		QUANTITY	DECISION PRICE	MOTOR OUTPUT	A-C	SP	A/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																						
VA	SC	A																						
CM	(E)																							
QUANTITY	DECISION PRICE	MOTOR OUTPUT																						
A-C	SP	A/SC																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
45	90	V-2																						
EE.	<p>CONTINUES LEVEL CLIMB</p> <p><u>Visual</u>-Pitch att: constant (climb) Bank att: level</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch constant</p>	<p>Sustains level climb</p> <p>Discerns target</p>	<p>CR-35 EE 217</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>SC</td> <td>A</td> </tr> <tr> <td>CM</td> <td>(E)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PRICE</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>SP</td> <td>A/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA	SC	A	CM	(E)		QUANTITY	DECISION PRICE	MOTOR OUTPUT	A-C	SP	A/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																						
VA	SC	A																						
CM	(E)																							
QUANTITY	DECISION PRICE	MOTOR OUTPUT																						
A-C	SP	A/SC																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
35	70	V-2																						
FF.	<p>PREPARES FOR ROLL AND PULL TO TARGET</p> <p><u>Visual</u>-Pitch att: constant (climb) Bank att: level</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound communication - WSO (calls "ready" to roll)</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch constant</p>	<p>Anticipates roll & pull toward target</p> <p>Sustains level climb</p>	<p>CR-35 FF 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MR</td> <td>A</td> </tr> <tr> <td>CM</td> <td>(E)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PRICE</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>A/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MR	A	CM	(E)		QUANTITY	DECISION PRICE	MOTOR OUTPUT	A-C	CP	A/SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																						
VA	MR	A																						
CM	(E)																							
QUANTITY	DECISION PRICE	MOTOR OUTPUT																						
A-C	CP	A/SC																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
40	80	V-2																						

SITUATION Established on downwind, straight and level, 2,000 feet AGL, 450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3g **TASK** Pop -Up Low Angle Bomb Delivery/Range **CONTROLLED** **AIRCRAFT** F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
GG.	<p>STARTS ROLL TOWARD TARGET</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound communication - WSO (calls "roll")</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch constant</p>	Determines need to roll toward the target and call ("in") to range officer	<p>CR-3g GG 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>121/5</td> </tr> <tr> <td>45</td> <td>225</td> <td>V-5</td> </tr> </tbody> </table> <p>Activates mic. switch, communicates, coordinates aileron & rudder, increased stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	4-C	CP	121/5	45	225	V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
4-C	CP	121/5													
45	225	V-5													
HH.	<p>CONTINUES ROLL AND STARTS PULL TOWARD TARGET</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound communication - range officer replays ("cleared")</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Positive G onset, pitch constant, rolling</p>	Determines need to continue roll & begin pull toward target	<p>CR-3g HH 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>121/5</td> </tr> <tr> <td>60</td> <td>300</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder, moves stabilator</p>	1 C	2 Me	3 Mo	VA CM	MC	R	4-C	CP	121/5	60	300	V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
4-C	CP	121/5													
60	300	V-5													
II.	<p>CONTINUES ROLL & PULL TOWARD TARGET</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitching down, rolling</p>	Determines satisfactory roll rate & pitch movement (to keep from being too high at the apex MAP [Minimum Approach Parameters])	<p>CR-3g II 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>121/5</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains constant aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	4-C	CP	121/5	50	100	V-2
1 C	2 Me	3 Mo													
VA CM	MC	R													
4-C	CP	121/5													
50	100	V-2													
JJ.	<p>STOPS ROLL AND CONTINUES PULL</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target</p> <p>Range landmarks (MAP)</p> <p><u>Aural</u>-Chg. in aircraft sound communication - WSO (calls "Pull" - down to target)</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching down, rolling</p>	Determines proper bank attitude achieved & proper pitch movement	<p>CR-3g JJ 257</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>121/5</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </tbody> </table> <p>Moves aileron & rudder, maintains constant stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	4-C	CP	121/5	60	120	V-2
1 C	2 Me	3 Mo													
VA CM	MC	A													
4-C	CP	121/5													
60	120	V-2													

SITUATION Established on downwind, straight and level, 2,000 feet AGL, 450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3g TASK Pop-Up Low Angle Bomb Delivery/Range AIRCRAFT F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
KK.	ESTABLISHED AT APEX OF CLIMB <u>Visual</u> -Pitch att: constant (inverted) Bank att: constant Target Range landmarks <u>Aural</u> -Chg. in aircraft sound, communication - WSO *(countdown to pickle) <u>Control</u> -Increased aileron & rudder pressure, constant stabilator pressure <u>Motion</u> -Constant positive G	(INVERTED) ON MAP Determines satisfactory MAP & need to continue delivery	CR-3g KK 276 TASK NO. SKILL NO. STBY NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA CM MC R QUANTITY DECISION PROC MOTOR OUTPUT A-C CP St INPUT INDEX I/O INPUT OUTPUT INDEX 50 50 V-1 Increases stabilator pressure
LL.	STARTS ROLL OUT AND DIVE <u>Visual</u> -Pitch att: decreasing Bank att: constant Target/canopy <u>Aural</u> -Chg. in aircraft sound, communication - WSO *(countdown to pickle) <u>Control</u> -Increased stabilator pressure <u>Motion</u> -Constant positive G	Determines need to roll out to final with satisfactory dive angle	CR-3g LL 280 TASK NO. SKILL NO. STBY NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA CM MC R QUANTITY DECISION PROC MOTOR OUTPUT A-C CP 121/Sc INPUT INDEX I/O INPUT OUTPUT INDEX 35 175 V-5 Coordinates aileron & rudder movement, relaxes stabilator pressure
MM.	CONTINUES ROLL OUT AND DIVE <u>Visual</u> -Pitch att: decreasing Bank att: rolling Target/canopy <u>Aural</u> -Chg. in aircraft sound, communication - WSO *(countdown to pickle) <u>Control</u> -Increased aileron & rudder pressure, decreased stabilator pressure <u>Motion</u> -Decreasing positive G, pitching down, rolling	Determines satisfactory roll rate & dive angle	CR-3g MM 277 TASK NO. SKILL NO. STBY NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA CM MC R QUANTITY DECISION PROC MOTOR OUTPUT A-C CP 121/Sc INPUT INDEX I/O INPUT OUTPUT INDEX 55 110 V-2 Maintains required aileron & rudder pressure, maintains stabilator pressure
NN.	STOPS ROLL AND MAINTAINS DIVE <u>Visual</u> -Pitch att: decreasing Bank att: rolling Target/canopy <u>Aural</u> -Chg. in aircraft sound, communication - WSO *(countdown to pickle) <u>Control</u> -Constant aileron & rudder pressure, stabilator pressure <u>Motion</u> -Decreasing positive G, pitching down, rolling	Determines wings level & dive angle approaching	CR-3g NN 17 TASK NO. SKILL NO. STBY NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA CM MC A QUANTITY DECISION PROC MOTOR OUTPUT A-C SP 121/Sc INPUT INDEX I/O INPUT OUTPUT INDEX 55 110 V-2 Moves aileron & rudder, maintains stabilator pressure

SITUATION Established on downwind, straight and level, 2,000 feet AGL, 450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3g TASK Pop-Up Low Angle Bomb Delivery/Range AIRCRAFT F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
OO.	<p>ESTABLISHES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att: descent (constant)</p> <p>Bank att: level</p> <p>Target/canopy Sight</p> <p>Flt.Inst: cross-check</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO</p> <p>*calls air speed & dive angle)</p> <p><u>Control</u>-Neutral aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch & roll stabilized</p>	<p>Determines proper dive angle & need to reduce power, adjusts trim</p>	<p>CR3g OO 257</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>TH SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>ICD INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </tbody> </table> <p>Moves throttle, adjusts trim & maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	TH SC	INPUT INDEX	ICD INPUT	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
A-C	CP	TH SC																			
INPUT INDEX	ICD INPUT	OUTPUT INDEX																			
50	100	V-2																			
PP.	<p>PREPARES FINAL APPROACH AND</p> <p><u>Visual</u>-Pitch att: descent (constant)</p> <p>Bank att: level</p> <p>Target/sight</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO</p> <p>*communication - WSO</p> <p><u>Control</u>-Constant stabilator pressure, throttle reduced, trim switch function</p> <p><u>Motion</u>-Normal G</p>	<p>PULL UP</p> <p>Anticipates delivery & pull up</p> <p>Sustains level dive</p>	<p>CR3g PP 332</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA C</td> <td>MR (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>TH SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>ICD INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA C	MR (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	TH SC	INPUT INDEX	ICD INPUT	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																			
VA C	MR (E)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	TH SC																			
INPUT INDEX	ICD INPUT	OUTPUT INDEX																			
40	80	V-2																			
QQ.	<p>STARTS FINAL APPROACH TO TARGET</p> <p><u>Visual</u>-Pitch att: constant</p> <p>Bank att: level</p> <p>Target/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO</p> <p>*communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines need to refine sight/target relationship</p>	<p>CR3g QQ 252</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA C</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>TH SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>ICD INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA C	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	TH SC	INPUT INDEX	ICD INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VA C	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	TH SC																			
INPUT INDEX	ICD INPUT	OUTPUT INDEX																			
35	70	V-2																			
RR.	<p>CONTINUES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att: constant</p> <p>Bank att: level</p> <p>Target/pipper</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO</p> <p>*communication - WSO</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines proper airspeed, dive angle & sight picture approaching</p>	<p>CR3g RR 252</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA C</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>TH SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>ICD INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Moves throttle; adjusts aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA C	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	TH SC	INPUT INDEX	ICD INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VA C	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	TH SC																			
INPUT INDEX	ICD INPUT	OUTPUT INDEX																			
35	70	V-2																			

SITUATION Established on downwind, straight and level, 2,000 feet AGL, 450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3E TASK Pop-Up Low Angle Bomb Delivery/Range AIRCRAFT F-4E Controlled

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
SS.	RELEASES ORDNANCE <u>Visual</u> -Pitch att: constant Bank att: level Target/pipper <u>Aural</u> -Chg. in aircraft sound, communication - WSO (calls "pickle") <u>Control</u> -Aileron, rudder & stabilator pressure, throttle reduction <u>Motion</u> -Normal G	Determines proper sight picture & need to activate bomb release button Sustains dive	CR-39 SS 282 <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VA C</td><td>INFO PROCESS MC (I)</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 3-C</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT 1/2 SC A/EU</td></tr><tr><td>INPUT INDEX 45</td><td>I/O INPUT 90</td><td>OUTPUT INDEX V-2</td></tr></table> Activates pickle button maintains required aileron, rudder & stabilator control	1 C	2 Me	3 Mo	KIND VA C	INFO PROCESS MC (I)	CONTINUITY A	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT 1/2 SC A/EU	INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA C	INFO PROCESS MC (I)	CONTINUITY A													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT 1/2 SC A/EU													
INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2													
TT.	STARTS OFF TARGET PULL UP <u>Visual</u> -Pitch att: constant Bank att: level Target <u>Aural</u> -Normal aircraft sound, communication - WSO (calls "pull") <u>Control</u> -Aileron, rudder & stabilator pressure, pickle button function <u>Motion</u> -Normal G	Determines need to initiate smooth 4G pull	CR-39 TT 271 <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VA C</td><td>INFO PROCESS MC</td><td>CONTINUITY R</td></tr><tr><td>QUANTITY 3-C</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT SC</td></tr><tr><td>INPUT INDEX 40</td><td>I/O INPUT 40</td><td>OUTPUT INDEX V-1</td></tr></table> Moves stabilator	1 C	2 Me	3 Mo	KIND VA C	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT SC	INPUT INDEX 40	I/O INPUT 40	OUTPUT INDEX V-1
1 C	2 Me	3 Mo													
KIND VA C	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT SC													
INPUT INDEX 40	I/O INPUT 40	OUTPUT INDEX V-1													
UU.	CONTINUES PULL UP <u>Visual</u> -Pitch att: increasing Bank att: level Range landmarks Leading aircraft <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased stabilator pressure <u>Motion</u> -Positive G onset, pitching up	Determines satisfactory pitch movement rate & need for power	CR-39 UU 277 <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VA CM</td><td>INFO PROCESS MC</td><td>CONTINUITY R</td></tr><tr><td>QUANTITY 4-0</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT 1/2 SC TH</td></tr><tr><td>INPUT INDEX 40</td><td>I/O INPUT 80</td><td>OUTPUT INDEX V-2</td></tr></table> Maintains stabilator pressure & moves throttle	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT 1/2 SC TH	INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT 1/2 SC TH													
INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V-2													
VV.	STOPS PULL UP TO CLIMBING TURN <u>Visual</u> -Pitch att: increasing Bank att: level Range landmarks Leading aircraft <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Constant stabilator pressure, throttle advance <u>Motion</u> -Increased positive G, pitching up	Determines proper pitch attitude achieved	CR-39 VV 256 <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VA CM</td><td>INFO PROCESS MC</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 4-0</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT SC</td></tr><tr><td>INPUT INDEX 45</td><td>I/O INPUT 45</td><td>OUTPUT INDEX V-1</td></tr></table> Relaxes stabilator pressure	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY A	QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT SC	INPUT INDEX 45	I/O INPUT 45	OUTPUT INDEX V-1
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY A													
QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT SC													
INPUT INDEX 45	I/O INPUT 45	OUTPUT INDEX V-1													

SITUATION Established on downwind, straight and level, 2,000 feet AGL, 450 knots, all switches set and confirmed with WSO.

TASK NO. CR-3g TASK Pop-Up Low Angle Bomb Delivery/Range AIRCRAFT F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION															
WW.	<p>PREPARES TO TRANSITION TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: climb (constant) Bank att: level Range landmarks Leading aircraft <u>Aural</u>-Normal aircraft sound <u>Control</u>-Decreased stabilator pressure <u>Motion</u>-Decreasing positive G, pitching up</p>	<p>Anticipates climbing turn</p> <p>Sustains level climb</p>	<p>CR-3g WW 332</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MR</td> <td>A</td> </tr> <tr> <td>M</td> <td>(E)</td> <td>A</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>AI</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	MR	A	M	(E)	A	3-0	CP	AI	35	70	V-2
1 C	2 Me	3 Mo																
VC	MR	A																
M	(E)	A																
3-0	CP	AI																
35	70	V-2																
XX.	<p>STARTS ROLL IN TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: level Range landmarks Leading aircraft Flt.Inst: Alt, A/S <u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Constant positive G, pitch stabilized</p>	<p>Determines desired pitch attitude & position to begin turn</p>	<p>CR-3g XX 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>M</td> <td>MC</td> <td>R</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>AI</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	R	M	MC	R	3-0	CP	AI	50	250	V-5
1 C	2 Me	3 Mo																
VC	MC	R																
M	MC	R																
3-0	CP	AI																
50	250	V-5																
YY.	<p>CONTINUES ROLL TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling Range landmarks Leading aircraft <u>Aural</u>-Normal aircraft sound <u>Control</u>-Increased aileron & rudder pressure, constant stabilator pressure <u>Motion</u>-Constant positive G, pitch constant, rolling</p>	<p>Determines desired pitch attitude & satisfactory roll rate/turn for proper spacing</p>	<p>CR-3g YY 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>M</td> <td>MC</td> <td>R</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>AI</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure, increased stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	R	M	MC	R	3-0	CP	AI	50	250	V-5
1 C	2 Me	3 Mo																
VC	MC	R																
M	MC	R																
3-0	CP	AI																
50	250	V-5																
ZZ.	<p>STOPS ROLL IN CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling Range landmarks Flt.Inst: Alt, A/S <u>Aural</u>-Normal aircraft sound <u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure <u>Motion</u>-Pitch constant, rolling</p>	<p>Determines proper pitch attitude & bank angle achieved</p>	<p>CR-3g ZZ 15</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>M</td> <td>MC</td> <td>A</td> </tr> <tr> <td>3-0</td> <td>SP</td> <td>AI</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	A	M	MC	A	3-0	SP	AI	50	250	V-5
1 C	2 Me	3 Mo																
VC	MC	A																
M	MC	A																
3-0	SP	AI																
50	250	V-5																

SITUATION Established on downwind, straight and level, 2,000 feet AGL, 450 knots, all switches set and confirmed with WSO.

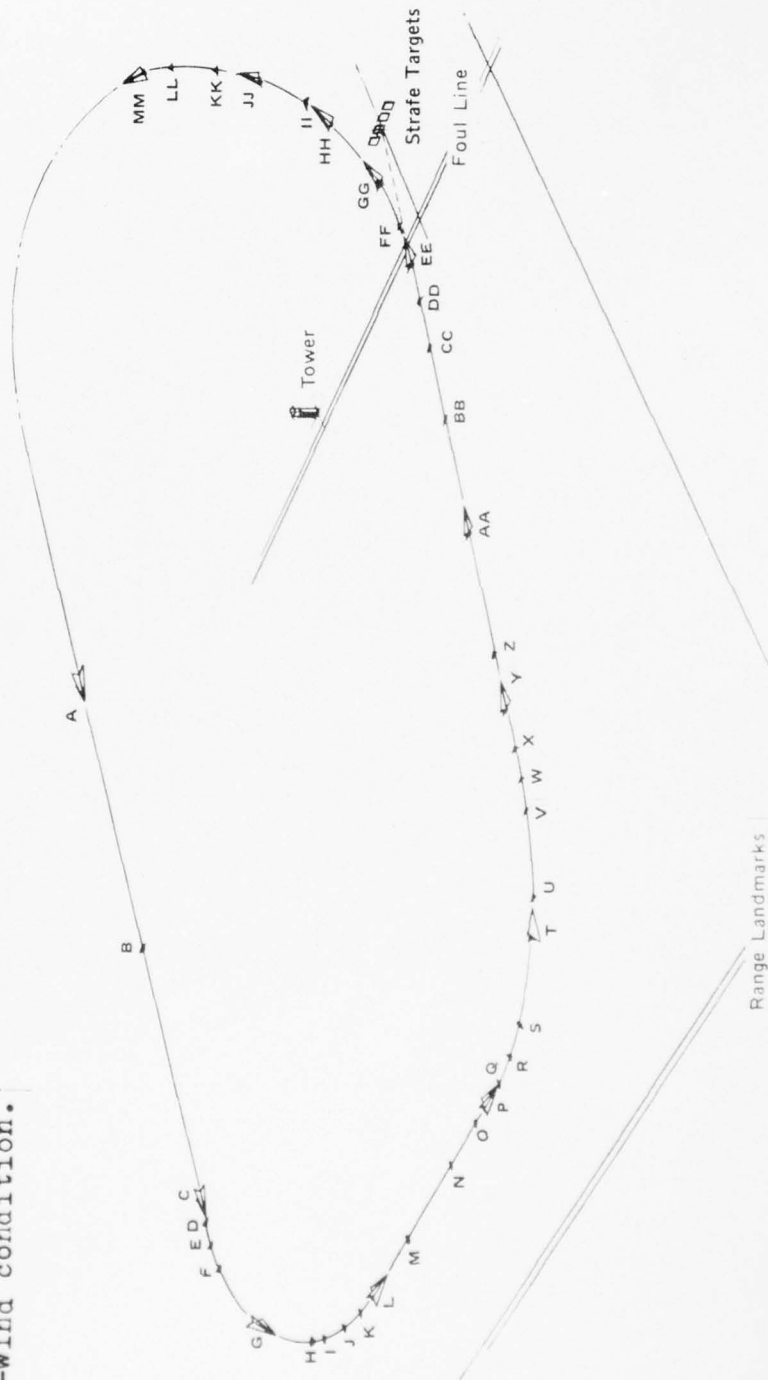
TASK NO. CR-3g TASK Pop-Up Low Angle Bomb Delivery/Range Controlled AIRCRAFT F-4E

TASK GOAL Perform Pop-Up Ordnance Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
AAA.	ESTABLISHES CLIMBING TURN <u>Visual</u> -Pitch att: constant Bank att: constant Range landmarks Leading aircraft <u>Aural</u> -Normal aircraft sound <u>Control</u> -Neutral aileron & rudder pressure, constant stabilator pressure <u>Motion</u> -Constant positive G, pitch constant, roll stabilized	Determines need for trim	<div>CR35 AAA 12</div> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VC M</td><td>MO</td><td>A</td></tr><tr><td>3-C</td><td>SP</td><td>TR St</td></tr><tr><td>40</td><td>80</td><td>V-2</td></tr></table> <div>Adjusts trim & relaxes stabilator pressure</div>	1 C	2 Me	3 Mo	VC M	MO	A	3-C	SP	TR St	40	80	V-2
1 C	2 Me	3 Mo													
VC M	MO	A													
3-C	SP	TR St													
40	80	V-2													

LOW ANGLE STRAFE DELIVERY/Controlled Range

SITUATION - Established on downwind, straight and level, 3,500 feet AGL, 350 kts., weapons select switches set and confirmed with WSO, second aircraft, first pass, new event, cross-wind condition.



Low angle strafe maneuver diagram.

AD-A061 387

DESIGN PLUS ST LOUIS MO

F/G 5/9

DEVELOPMENT AND APPLICATION OF A TASK TAXONOMY FOR TACTICAL FLY--ETC(U)

SEP 78 R P MEYER, J I LEVESON, G L PAPE

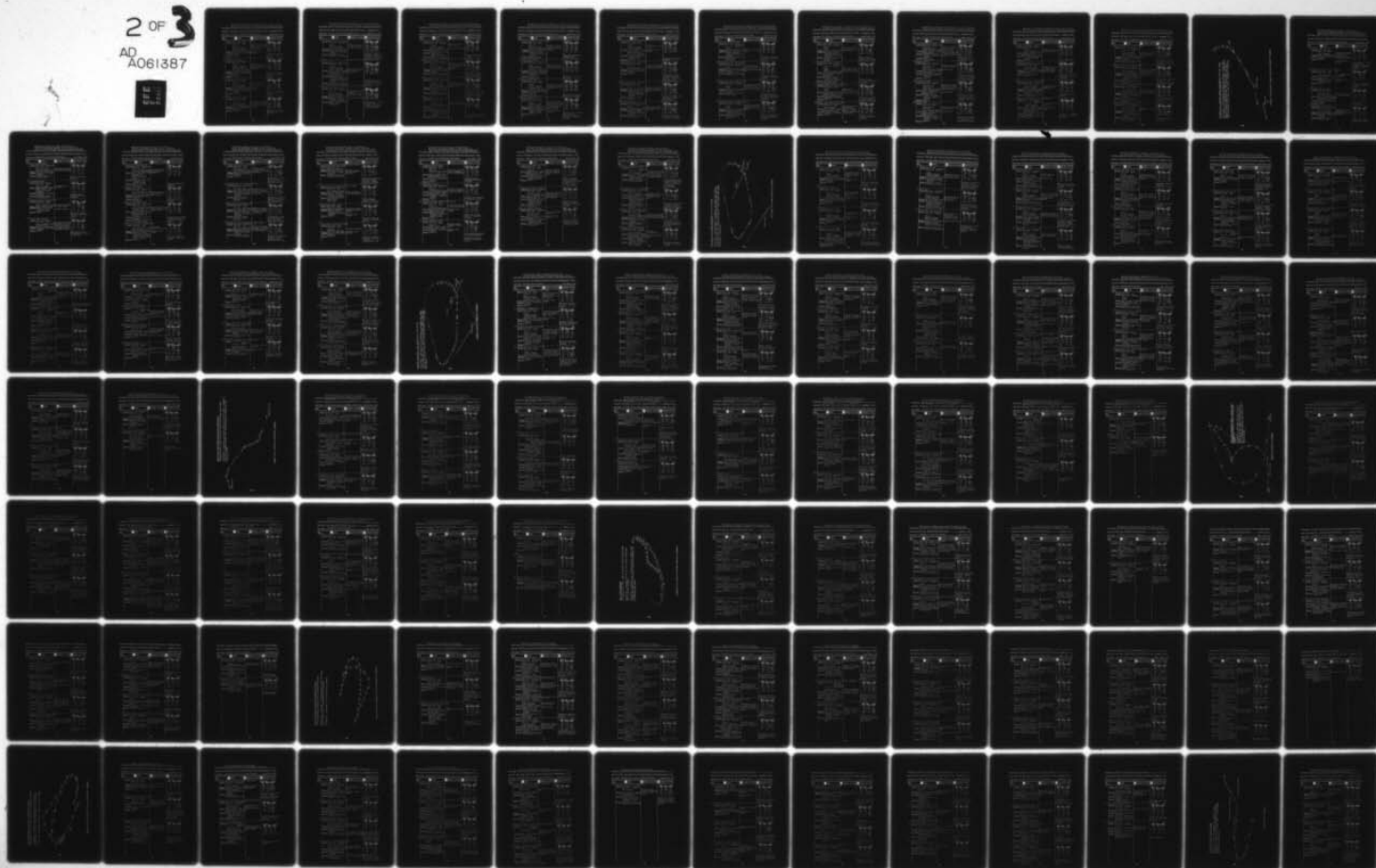
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2 OF 3
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SITUATION Established on downwind, straight and level, 3,500 feet AGL, 350 knots, weapons select switches set and confirmed with WSO, second aircraft, first pass, new event, cross-wind condition.

TASK NO. CR-4g **TASK** Low Angle Strafe/Controlled Range **AIRCRAFT** F-4E

TASK GOAL To fire on prescribed ground target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
A.	<p>ESTABLISHED ON DOWNWIND TO TARGET</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Normal G</p>	<p>Determines proper spacing with proper A/S & Alt. approaching</p> <p>Sustains level flight</p>	<p>CR-45-A 247</p> <table border="1"> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> <tr> <td>VC</td><td>MC</td><td>A</td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>20</td><td>CP</td><td>SC</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr> <tr> <td>45</td><td>90</td><td>V-2</td></tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	20	CP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VC	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
20	CP	SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
45	90	V-2																			
B.	<p>CONTINUES DOWNWIND</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S Eng.Inst: check fuel</p> <p><u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Normal G</p>	<p>Determines base roll in position & need to stabilize airspeed</p>	<p>CR-45-B 247</p> <table border="1"> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> <tr> <td>VC</td><td>MC</td><td>A</td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>20</td><td>CP</td><td>TH SC</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr> <tr> <td>50</td><td>100</td><td>V-2</td></tr> </table> <p>Adjusts throttle, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	20	CP	TH SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																			
VC	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
20	CP	TH SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	100	V-2																			
C.	<p>PREPARES FOR TURN TO BASE</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound <u>Control</u>-Constant stabilator pressure, throttle decrease <u>Motion</u>-Normal G</p>	<p>Anticipates roll in to base leg</p> <p>Sustains level flight</p>	<p>CR-45-C 327</p> <table border="1"> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> <tr> <td>VC</td><td>MR (I)</td><td>A</td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>20</td><td>CP</td><td>SC</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr> <tr> <td>35</td><td>70</td><td>V-2</td></tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	20	CP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VC	MR (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
20	CP	SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
35	70	V-2																			
D.	<p>STARTS ROLL IN TO BASE</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Normal G</p>	<p>Determines position to roll in to base & maintain proper spacing</p>	<p>CR-45-D 267</p> <table border="1"> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> <tr> <td>VC</td><td>MC</td><td>R</td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>20</td><td>CP</td><td>SC</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr> <tr> <td>35</td><td>140</td><td>V-4</td></tr> </table> <p>Coordinates aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	20	CP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	140	V-4
1 C	2 Me	3 Mo																			
VC	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
20	CP	SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
35	140	V-4																			

SITUATION Established on downwind, straight and level, 3,500 feet AGL, 350 knots, weapons select switches set and confirmed with WSO, second aircraft, first pass, new event, cross-wind condition.

TASK NO. CR-4g **TASK** Low Angle Strafe/Controlled Range **AIRCRAFT** F-4E

TASK GOAL To fire on prescribed ground target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																								
E.	<p>CONTINUES ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	Determines satisfactory roll rate & need for power	<p>CR-4g E 275</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>FLY NO.</th> </tr> <tr> <td>1 C</td> <td>2 Me</td> <td>3 Mo</td> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>SA/SC RU/TH</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder pressure, increased stabilator pressure, adjusts throttle</p>	TASK NO.	SKILL NO.	FLY NO.	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	SA/SC RU/TH	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	275	V-5
TASK NO.	SKILL NO.	FLY NO.																									
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
CM	MC	R																									
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
3-0	CP	SA/SC RU/TH																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
55	275	V-5																									
F.	<p>STOPS ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - (lead aircraft cleared by range officer)</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure, throttle advance</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	Determines proper bank attitude achieved	<p>CR-4g F 260</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>FLY NO.</th> </tr> <tr> <td>1 C</td> <td>2 Me</td> <td>3 Mo</td> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-0</td> <td>CP</td> <td>SA/SC RU/TH</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>70</td> <td>350</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	TASK NO.	SKILL NO.	FLY NO.	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	CP	SA/SC RU/TH	INPUT INDEX	I/O INDEX	OUTPUT INDEX	70	350	V-5
TASK NO.	SKILL NO.	FLY NO.																									
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
VA CM	MC	A																									
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
4-0	CP	SA/SC RU/TH																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
70	350	V-5																									
G.	<p>ESTABLISHES TURN TO BASE</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	<p>Determines need to communicate (position & fuel) to range officer</p> <p>Sustains level turn</p>	<p>CR-4g G 242</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>FLY NO.</th> </tr> <tr> <td>1 C</td> <td>2 Me</td> <td>3 Mo</td> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>V CM</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>SA/SC RU/CM</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Activates mic. button, communicates, maintains required aileron, stabilator & rudder control</p>	TASK NO.	SKILL NO.	FLY NO.	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	V CM	MC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	SA/SC RU/CM	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V-2
TASK NO.	SKILL NO.	FLY NO.																									
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
V CM	MC (I)	A																									
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
3-0	CP	SA/SC RU/CM																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
45	90	V-2																									

SITUATION Established on downwind, straight and level, 3,500 feet AGL, 350 knots, weapons select switches set and confirmed with WSO, second aircraft, first pass, new event, cross-wind condition.

TASK NO. CR-4g TASK Low Angle Strafe/Controlled Range AIRCRAFT F-4E

TASK GOAL To fire on prescribed ground target DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
H.	<p>PREPARES FOR ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound, communication</p> <p><u>Control</u>-Aileron & stabilator pressure, mic. button function</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Anticipates roll out to base</p> <p>Sustains level turn</p>	<p>CR-4g H 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MR (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>AI ST</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MR (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	AI ST	INPUT INDEX	I/O INDEX	OUTPUT INDEX	60	120	V-2
1 C	2 Me	3 Mo																			
VA CM	MR (E)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	AI ST																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
60	120	V-2																			
I.	<p>STARTS ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Determines position to roll out to base for spacing and distance from target</p>	<p>CR-4g I 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VC M	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																			
VC M	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	AI SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	250	V-5																			
J.	<p>CONTINUES ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	<p>Determines satisfactory roll rate & need to reduce power</p>	<p>CR-4g J 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder with stabilator movement, adjusts throttle</p>	1 C	2 Me	3 Mo	VC CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																			
VC CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	AI SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	275	V-5																			
K.	<p>STOPS ROLL</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound,</p> <p><u>Control</u>-Constant aileron & rudder pressure with decreased stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	<p>Determines wings level approaching</p>	<p>CR-4g K 17</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>AI SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>65</td> <td>130</td> <td>V-2</td> </tr> </tbody> </table> <p>Moves aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	SP	AI SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	65	130	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	SP	AI SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
65	130	V-2																			

Established on downwind, straight and level, 3,500 feet AGL, 350 knots, weapons select switches set and confirmed with WSO, second aircraft, first pass, new event, cross-wind condition.

SITUATION

TASK NO. CR-4g **TASK** Low Angle Strafe/Controlled Range **AIRCRAFT** F-4E

TASK GOAL To fire on prescribed ground target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
L.	ESTABLISHES LEVEL FLIGHT ON <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Flt.Inst: cross-check <u>Aural</u> -Normal aircraft sound <u>Control</u> -Neutral aileron & rudder pressure, decreased stabilator pressure <u>Motion</u> -Normal G, pitch & roll stabilized	BASE Determines level flight & need to adjust altitude & airspeed	<div> CR-4g L 32 TASK NO. SKILL NO. SLOT NO. </div> <table border="1"> <tr> <td>1 C</td><td>2 Me</td><td>3 Mo</td></tr> <tr> <td>VC</td><td>MC</td><td>R</td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>3-C</td><td>SP</td><td>St Th</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr> <tr> <td>40</td><td>80</td><td>V-2</td></tr> </table> Decreases stabilator pressure and adjusts throttle	1 C	2 Me	3 Mo	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	SP	St Th	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																			
VC	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	SP	St Th																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
40	80	V-2																			
M.	CONTINUES BASE LEG <u>Visual</u> -Pitch att: decreasing Bank att: level Target Range landmarks Leading aircraft Flt.Inst: A/S, Alt. <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased stabilator pressure, throttle reduction <u>Motion</u> -Normal G, pitching down	Determines proper alt., airspeed & spacing approaching	<div> CR-4g M 256 TASK NO. SKILL NO. SLOT NO. </div> <table border="1"> <tr> <td>1 C</td><td>2 Me</td><td>3 Mo</td></tr> <tr> <td>VA</td><td>MC</td><td>A</td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>A-C</td><td>CP</td><td>St</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr> <tr> <td>55</td><td>55</td><td>V-1</td></tr> </table> Decreases stabilator pressure	1 C	2 Me	3 Mo	VA	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	55	V-1
1 C	2 Me	3 Mo																			
VA	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
A-C	CP	St																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	55	V-1																			
N.	CONTINUES ON BASE <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft Flt.Inst: A/S, Alt. <u>Aural</u> -Normal aircraft sound <u>Control</u> -Decreased stabilator pressure <u>Motion</u> -Normal G, pitch stabilized	Determines proper airspeed, altitude & track; need for trim	<div> CR-4g N 254 TASK NO. SKILL NO. SLOT NO. </div> <table border="1"> <tr> <td>1 C</td><td>2 Me</td><td>3 Mo</td></tr> <tr> <td>VM</td><td>MC</td><td>A</td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>3-C</td><td>CP</td><td>St Tr</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr> <tr> <td>45</td><td>90</td><td>V-2</td></tr> </table> Adjusts trim, relaxes stabilator pressure	1 C	2 Me	3 Mo	VM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	St Tr	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	St Tr																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
45	90	V-2																			
O.	CONTINUES ON BASE <u>Visual</u> -Pitch att: level Bank att: level Target Range landmarks Leading aircraft <u>Aural</u> -Normal aircraft sound <u>Control</u> -Neutral aileron, rudder & stabilator pressure, trim switch function <u>Motion</u> -Normal G	Determines final roll in position approaching & need to communicate (position-in) to range officer Sustains level flight	<div> CR-4g O 287 TASK NO. SKILL NO. SLOT NO. </div> <table border="1"> <tr> <td>1 C</td><td>2 Me</td><td>3 Mo</td></tr> <tr> <td>VC</td><td>MC (I)</td><td>A</td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>2-C</td><td>CP</td><td>AI D St Cm</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr> <tr> <td>30</td><td>60</td><td>V-2</td></tr> </table> Activates mic. button, communicates, maintains required aileron & stabilator control	1 C	2 Me	3 Mo	VC	MC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	AI D St Cm	INPUT INDEX	I/O INDEX	OUTPUT INDEX	30	60	V-2
1 C	2 Me	3 Mo																			
VC	MC (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
2-C	CP	AI D St Cm																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
30	60	V-2																			

SITUATION Established on downwind, straight and level, 3,500 feet AGL, 350 knots, weapons select switches set and confirmed with WSO, second aircraft, first pass, new event, cross-wind condition.

TASK NO. CR-4g **TASK** Low Angle Strafe/Controlled Range **AIRCRAFT** F-4E

TASK GOAL To fire on prescribed ground target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																								
P.	<p>PREPARES FOR TURN TO FINAL</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound, communication - aircraft cleared in hot by range officer</p> <p><u>Control</u>-Aileron & stabilator pressure, mic. button function</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates roll in & dive</p> <p>Sustains level flight</p>	<p>CR-4g P 332</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>INFO</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>MR</td> <td>A</td> </tr> <tr> <td>C</td> <td>(E)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>30</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Decreases stabilator pressure</p>	1 C	2 Me	3 Mo	INFO	INFO PROCESS	CONTINUITY	VA	MR	A	C	(E)		QUANTITY	DECISION PROC	MOTOR OUTPUT	30	CP	1/2	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																									
INFO	INFO PROCESS	CONTINUITY																									
VA	MR	A																									
C	(E)																										
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
30	CP	1/2																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
45	90	V-2																									
Q.	<p>STARTS ROLL IN TO FINAL TURN</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines position to roll in to final & need for power</p>	<p>CR-4g Q 270</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>INFO</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VO</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>20</td> <td>CP</td> <td>1/2 SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>30</td> <td>150</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure, moves throttle (to full mil.)</p>	1 C	2 Me	3 Mo	INFO	INFO PROCESS	CONTINUITY	VO	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	20	CP	1/2 SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	30	150	V-5			
1 C	2 Me	3 Mo																									
INFO	INFO PROCESS	CONTINUITY																									
VO	MC	R																									
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
20	CP	1/2 SC																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
30	150	V-5																									
R.	<p>CONTINUES ROLL IN AND DIVE</p> <p><u>Visual</u>-Pitch att: level Bank att: roll</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder pressure, constant stabilator pressure, throttle advance</p> <p><u>Motion</u>-Positive G onset, rolling</p>	<p>Determines satisfactory roll rate & need to establish dive</p>	<p>CR-4g R 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>INFO</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/2 SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder pressure, moves stabilator</p>	1 C	2 Me	3 Mo	INFO	INFO PROCESS	CONTINUITY	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1/2 SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																									
INFO	INFO PROCESS	CONTINUITY																									
VA	MC	R																									
CM																											
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
40	CP	1/2 SC																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
50	250	V-5																									
S.	<p>STOPS ROLL IN DIVE</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Positive G, pitching down, rolling</p>	<p>Determines proper roll & dive angle achieved</p>	<p>CR-4g S 260</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>INFO</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/2 SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	INFO	INFO PROCESS	CONTINUITY	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1/2 SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	60	250	V-5
1 C	2 Me	3 Mo																									
INFO	INFO PROCESS	CONTINUITY																									
VA	MC	A																									
CM																											
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
40	CP	1/2 SC																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
60	250	V-5																									

SITUATION Established on downwind, straight and level, 3,500 feet AGL, 350 knots, weapons select switches set and confirmed with WSO, second aircraft, first pass, new event, cross-wind condition.

TASK NO. CR-4g **TASK** Low Angle Strafe/Controlled Range **AIRCRAFT** F-4E

TASK GOAL To fire on prescribed ground target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
T.	<p>ESTABLISHES DIVING TURN</p> <p><u>Visual</u>-Pitch att: descent (constant)</p> <p>Bank att: constant</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	Sustains descending turn	<p>CR-45 F 481</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>I</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-0</td> <td>SP</td> <td>AI/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VA	I	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	SP	AI/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																						
VA	I	A																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-0	SP	AI/SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
40	80	V-2																						
U.	<p>PREPARES FOR ROLL OUT TO FINAL</p> <p><u>Visual</u>-Pitch att: constant</p> <p>Bank att: constant</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch & roll</p>	<p>Anticipates roll out & final dive</p> <p>Sustains descending turn</p>	<p>CR-45 U 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MR</td> <td>A</td> </tr> <tr> <td>CM</td> <td>(I)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-0</td> <td>CP</td> <td>AI/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA	MR	A	CM	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	CP	AI/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																						
VA	MR	A																						
CM	(I)																							
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-0	CP	AI/SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
45	90	V-2																						
V.	<p>STARTS ROLL OUT, MAINTAINS DIVE</p> <p><u>Visual</u>-Pitch att: constant</p> <p>Bank att: constant</p> <p>Target</p> <p>Sight</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Positive G, constant pitch & roll</p>	Determines position to roll out to final with satisfactory dive angle	<p>CR-45 V 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-0</td> <td>CP</td> <td>AI/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	CP	AI/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																						
VA	MC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-0	CP	AI/SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
50	250	V-5																						
W.	<p>CONTINUES ROLL OUT, MAINTAINS DIVE</p> <p><u>Visual</u>-Pitch att: constant</p> <p>Bank att: rolling</p> <p>Target</p> <p>Sight</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitch constant, rolling</p>	Determines proper roll out rate with satisfactory dive angle	<p>CR-45 W 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-0</td> <td>CP</td> <td>AI/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	CP	AI/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																						
VA	MC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-0	CP	AI/SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
55	275	V-5																						

Established on downwind, straight and level, 3,500 feet AGL,
350 knots, weapons select switches set and confirmed with WSO,
SITUATION second aircraft, first pass, new event, cross-wind condition.

TASK NO. CR-4g **TASK** Low Angle Strafe/Controlled Range **AIRCRAFT** F-4E

TASK GOAL To fire on prescribed ground target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
X.	<p>STOPS ROLL, MAINTAINS DIVE</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target Sight</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines wings level & dive angle approaching	<p>CR-4g X 257</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> </table> <p>Moves aileron & rudder, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1/2	55	110	V-2	INPUT INDEX	I/O INDEX	OUTPUT INDEX
1 C	2 Me	3 Mo																						
VA	MC	A																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	1/2																						
55	110	V-2																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
Y.	<p>ESTABLISHES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att: descent (constant) Bank att: level</p> <p>Target Sight Flt.Inst: ADI, A/S, Alt</p> <p><u>Aural</u>-Chg. in aircraft sound communication - lead off target</p> <p><u>Control</u>-Neutral aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch & roll stabilized</p>	Determines proper dive angle & alt., need to adjust trim	<p>CR-4g Y 257</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> </table> <p>Adjusts trim & maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1/2	60	120	V-2	INPUT INDEX	I/O INDEX	OUTPUT INDEX
1 C	2 Me	3 Mo																						
VA	MC	A																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	1/2																						
60	120	V-2																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
Z.	<p>PREPARES FINAL APPROACH AND PULL UP</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target Sight</p> <p><u>Aural</u>-Chg. in aircraft sound communication - WSO *(calls airspeed & alt)</p> <p><u>Control</u>-Constant stabilator, trim switch function</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates delivery & pull up</p> <p>Sustains level dive</p>	<p>CR-4g Z 337</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>MC (E)</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> </table> <p>Maintains required aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC (E)	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1/2	40	80	V-2	INPUT INDEX	I/O INDEX	OUTPUT INDEX
1 C	2 Me	3 Mo																						
VA	MC (E)	A																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	1/2																						
40	80	V-2																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
AA.	<p>STARTS FINAL APPROACH TO TARGET</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	Determines refine sight/target picture (brings pipper up to aim point & adjusts for cross-wind)	<p>CR-4g AA 272</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>30</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> </table> <p>Adjusts aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	30	CP	1/2	45	90	V-2	INPUT INDEX	I/O INDEX	OUTPUT INDEX
1 C	2 Me	3 Mo																						
VA	MC	R																						
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QUANTITY	DECISION PROC	MOTOR OUTPUT																						
30	CP	1/2																						
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INPUT INDEX	I/O INDEX	OUTPUT INDEX																						

SITUATION Established on downwind, straight and level, 3,500 feet AGL, 350 knots, weapons select switches set and confirmed with WSO, second aircraft, first pass, new event, cross-wind condition.

TASK NO. CR-4g **TASK** Low Angle Strafe/Controlled Range **AIRCRAFT** F-4E

TASK GOAL To fire on prescribed ground target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
BB.	<p>CONTINUES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: level</p> <p>Target/pipper Range landmark (tower)</p> <p><u>Aural</u>-Normal aircraft sound, *communication</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Normal G, pitching down</p>	<p>Determines satisfactory airspeed & sight picture, firing position approaching, & need to reduce power (to stabilize sight in F-4E)</p>	<p>CR-4g BB 257</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT TH SC</td> </tr> <tr> <td>INPUT INDEX 45</td> <td>I/O INDEX 90</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Moves throttle & adjusts stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY A	QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT TH SC	INPUT INDEX 45	I/O INDEX 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY A													
QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT TH SC													
INPUT INDEX 45	I/O INDEX 90	OUTPUT INDEX V-2													
CC.	<p>STARTS FIRING</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target/pipper Foul line Range landmark (tower)</p> <p><u>Aural</u>-Chg. in aircraft sound *communication</p> <p><u>Control</u>-Increased stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Normal G</p>	<p>Determines position to begin firing</p> <p>Sustains dive</p>	<p>CR-4g CC 292</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA C</td> <td>INFO PROCESS MC (I)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A SC R D S</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 100</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Activates trigger; maintains required aileron, stabilator & rudder control</p>	1 C	2 Me	3 Mo	KIND VA C	INFO PROCESS MC (I)	CONTINUITY A	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT A SC R D S	INPUT INDEX 50	I/O INDEX 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA C	INFO PROCESS MC (I)	CONTINUITY A													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT A SC R D S													
INPUT INDEX 50	I/O INDEX 100	OUTPUT INDEX V-2													
DD.	<p>CONTINUES FIRING</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target/pipper Foul line Range landmark (tower)</p> <p><u>Aural</u>-Normal aircraft sound, weapons discharge, *communication</p> <p><u>Control</u>-Minimum aileron, rudder & stabilator pressure, trigger function</p> <p><u>Motion</u>-Normal G</p>	<p>Determines continued proper sight/target picture for continued firing</p> <p>Sustains dive</p>	<p>CR-4g DD 292</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA C</td> <td>INFO PROCESS MC (I)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A SC R D S</td> </tr> <tr> <td>INPUT INDEX 60</td> <td>I/O INDEX 120</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains trigger activation; maintains required aileron, rudder & stabilator control</p>	1 C	2 Me	3 Mo	KIND VA C	INFO PROCESS MC (I)	CONTINUITY A	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT A SC R D S	INPUT INDEX 60	I/O INDEX 120	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA C	INFO PROCESS MC (I)	CONTINUITY A													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT A SC R D S													
INPUT INDEX 60	I/O INDEX 120	OUTPUT INDEX V-2													
EE.	<p>STOPS FIRING</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target/pipper Foul line Range landmark (tower)</p> <p><u>Aural</u>-Normal aircraft sound, weapons discharge, *communication</p> <p><u>Control</u>-Minimum aileron, rudder & stabilator pressure, trigger function</p> <p><u>Motion</u>-Normal G</p>	<p>Determines position to stop firing</p> <p>Sustains dive</p>	<p>CR-4g EE 292</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA C</td> <td>INFO PROCESS MC (I)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A SC R D S</td> </tr> <tr> <td>INPUT INDEX 60</td> <td>I/O INDEX 120</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, stabilator & rudder control; deactivates trigger</p>	1 C	2 Me	3 Mo	KIND VA C	INFO PROCESS MC (I)	CONTINUITY A	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT A SC R D S	INPUT INDEX 60	I/O INDEX 120	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA C	INFO PROCESS MC (I)	CONTINUITY A													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT A SC R D S													
INPUT INDEX 60	I/O INDEX 120	OUTPUT INDEX V-2													

Established on downwind, straight and level, 3,500 feet AGL,
350 knots, weapons select switches set and confirmed with WSO,
SITUATION second aircraft, first pass, new event, cross-wind condition.

TASK NO. CR-4g **TASK** Low Angle Strafe/Controlled Range **AIRCRAFT** F-4E

TASK GOAL To fire on prescribed ground target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
FF.	<p><u>STARTS OFF TARGET PULL UP</u> <u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target Range landmarks <u>Aural</u>-Normal aircraft sound, *communication <u>Control</u>-Aileron, stabilator & rudder pressure; trigger function <u>Motion</u>-Normal G</p>	Determines need to initiate pull up	<p>CR-4g FF 31</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>30</td> <td>SP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>45</td> <td>V-1</td> </tr> </tbody> </table> <p>Moves stabilator</p>	1 C	2 Me	3 Mo	VA	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	30	SP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	45	V-1			
1 C	2 Me	3 Mo																						
VA	MC	R																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
30	SP	SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
45	45	V-1																						
GG.	<p><u>CONTINUES PULL UP</u> <u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Range landmarks Leading aircraft <u>Aural</u>-Chg. in aircraft sound <u>Control</u>-Increased stabilator pressure <u>Motion</u>-Positive G onset, pitching up</p>	Determines satisfactory pitch movement rate & need for power	<p>CR-4g GG 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>30</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains stabilator pressure & moves throttle</p>	1 C	2 Me	3 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	30	V-2
1 C	2 Me	3 Mo																						
VA	MC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
40	30	V-2																						
HH.	<p><u>STOPS PULL UP TO CLIMBING TURN</u> <u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Range landmarks Leading aircraft <u>Aural</u>-Chg. in aircraft sound <u>Control</u>-Constant stabilator pressure, throttle advance <u>Motion</u>-Increased positive G, pitching up</p>	Determines proper pitch attitude achieved	<p>CR-4g HH 276</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>45</td> <td>V-1</td> </tr> </tbody> </table> <p>Relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	45	V-1
1 C	2 Me	3 Mo																						
VA	MC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
45	45	V-1																						
II.	<p><u>PREPARES TO TRANSITION TO CLIMBING TURN</u> <u>Visual</u>-Pitch att: climb (constant) Bank att: level</p> <p>Range landmarks Leading aircraft <u>Aural</u>-Normal aircraft sound, communication - range officers transmit strafe score <u>Control</u>-Decreased stabilator pressure <u>Motion</u>-Decreasing positive G, pitching up</p>	<p>Anticipates climbing turn</p> <p>Sustains level climb</p>	<p>CR-4g II 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MR</td> <td>A</td> </tr> <tr> <td>CM</td> <td>I</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>30</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA	MR	A	CM	I		QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	30	V-2
1 C	2 Me	3 Mo																						
VA	MR	A																						
CM	I																							
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
40	30	V-2																						

SITUATION Established on downwind, straight and level, 3,500 feet AGL, 350 knots, weapons select switches set and confirmed with WSO, second aircraft, first pass, new event, cross-wind condition.

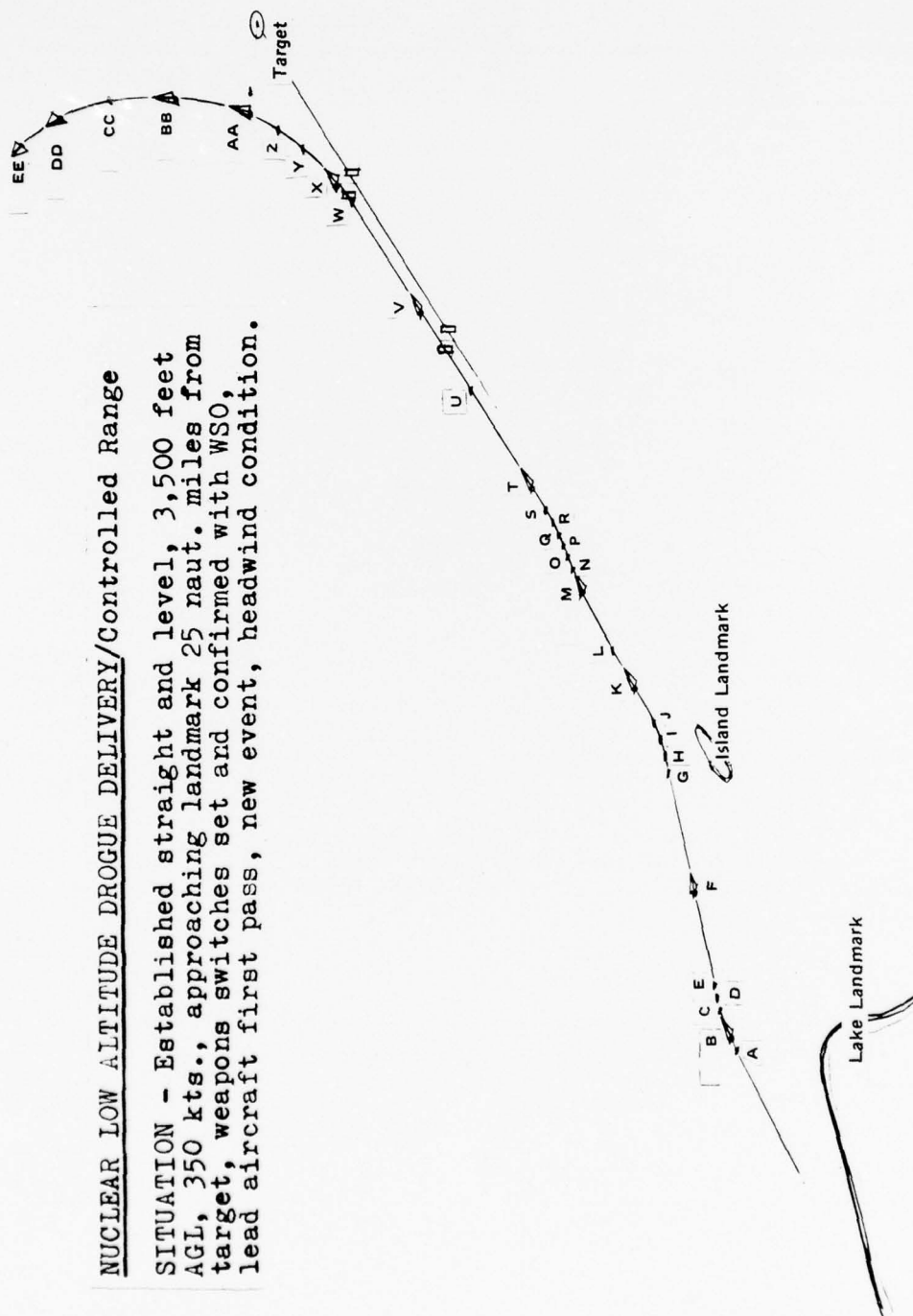
TASK NO. CR-4g **TASK** Low Angle Strafe/Controlled Range **AIRCRAFT** F-4E

TASK GOAL To fire on prescribed ground target **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
JJ.	<p>STARTS ROLL IN TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: climb (constant) Bank att: level</p> <p>Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitch stabilized</p>	Determines desired pitch attitude & position to begin roll	<p>42-45 JJ 275</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VC</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI/SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 250</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT AI/SC	INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT AI/SC													
INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5													
KK.	<p>CONTINUES ROLL TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch constant, rolling</p>	Determines desired pitch attitude & satisfactory roll rate/turn for proper spacing	<p>42-45 KK 275</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VC</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI/SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 250</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder pressures, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT AI/SC	INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT AI/SC													
INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5													
LL.	<p>STOPS ROLL IN CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling</p> <p>Range landmarks Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch constant, rolling</p>	Determines proper pitch attitude & bank angle achieved	<p>42-45 LL 275</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VC</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT AI/SC</td> </tr> <tr> <td>INPUT INDEX 40</td> <td>I/O INDEX 80</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MC	CONTINUITY A	QUANTITY 3-0	DECISION PROC SP	MOTOR OUTPUT AI/SC	INPUT INDEX 40	I/O INDEX 80	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MC	CONTINUITY A													
QUANTITY 3-0	DECISION PROC SP	MOTOR OUTPUT AI/SC													
INPUT INDEX 40	I/O INDEX 80	OUTPUT INDEX V-2													
MM.	<p>ESTABLISHES CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch constant, roll stabilized</p>	Determines need for trim	<p>42-45 MM 255</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VC</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI/SC</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INDEX 275</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Adjusts trim & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MC	CONTINUITY A	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT AI/SC	INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MC	CONTINUITY A													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT AI/SC													
INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V-5													

NUCLEAR LOW ALTITUDE DROGUE DELIVERY/Controlled Range

SITUATION - Established straight and level, 3,500 feet AGL, 350 kts., approaching landmark 25 naut. miles from target, weapons switches set and confirmed with WSO, lead aircraft first pass, new event, headwind condition.



Nuclear low altitude drogue delivery maneuver diagram.

Established straight and level, 3,500 feet AGL,
350 knots, approaching landmark 25 naut. miles from
target, weapons select switches set and confirmed with WSO,
lead aircraft, first pass, new event, head wind condition.

SITUATION

TASK NO. CR-56 **TASK** Nuclear Low Altitude Drogue Delivery **AIRCRAFT** F-4E

TASK GOAL Perform Visual LADD/Controlled Range **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
A.	DEPARTS LAKE LANDMARK <u>Visual</u> -Pitch att: level Bank att: level Range landmarks <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Discerns landmark position & need to communicate (position & event) to range officer Sustains level flight	CR-56 A 207 TASK NO. SKILL NO. STUD NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA</td><td>SC</td><td>A</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>20</td><td>SP</td><td>10 A SC</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>25</td><td>50</td><td>V-2</td></tr></table> Activates mic. button, communicates, maintains required aileron & stabilator pressure	1 C	2 Me	3 Mo	VA	SC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	20	SP	10 A SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	25	50	V-2
1 C	2 Me	3 Mo																			
VA	SC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
20	SP	10 A SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
25	50	V-2																			
B.	PREPARES DESCENT AT LAKE LANDMARK <u>Visual</u> -Pitch att: level Bank att: level Range landmarks <u>Aural</u> -Normal aircraft sound, communication <u>Control</u> -Aileron & stabilator pressure, mic. button function <u>Motion</u> -Normal G	Anticipates descent & increased airspeed Sustains level flight	CR-56 B 192 TASK NO. SKILL NO. STUD NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA</td><td>MR</td><td>A</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>30</td><td>SP</td><td>10 A SC</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>35</td><td>70</td><td>V-2</td></tr></table> Maintains required aileron & stabilator control	1 C	2 Me	3 Mo	VA	MR	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	30	SP	10 A SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VA	MR	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
30	SP	10 A SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
35	70	V-2																			
C.	STARTS PITCH DECREASE <u>Visual</u> -Pitch att: level Bank att: level Range landmarks Flt.Inst: A/S & Alt. <u>Aural</u> -Chg. in aircraft sound, communication -(cleared in by range officer) <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Discerns position to begin descent	CR-56 C 192 TASK NO. SKILL NO. STUD NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA</td><td>SC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>30</td><td>SP</td><td>10 A SC</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>45</td><td>90</td><td>V-2</td></tr></table> Moves stabilator & throttle	1 C	2 Me	3 Mo	VA	SC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	30	SP	10 A SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VA	SC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
30	SP	10 A SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
45	90	V-2																			
D.	CONTINUES PITCH DECREASE <u>Visual</u> -Pitch att: decreasing Bank att: level Range landmarks <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased stabilator pressure, throttle advance <u>Motion</u> -Negative G onset, pitching down	Determines satisfactory pitch movement and power adjustment	CR-56 D 276 TASK NO. SKILL NO. STUD NO. <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA</td><td>MC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>40</td><td>CP</td><td>SC</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>40</td><td>40</td><td>V-1</td></tr></table> Maintains constant stabilator pressure	1 C	2 Me	3 Mo	VA	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	40	V-1
1 C	2 Me	3 Mo																			
VA	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
40	40	V-1																			

Established straight and level, 3,500 feet AGL,
350 knots, approaching landmark 25 naut. miles from
target, weapons select switches set and confirmed with WSO,
SITUATION lead aircraft, first pass, new event, head wind condition.

TASK NO. CR-5g **TASK** Nuclear Low Altitude Droque Delivery **AIRCRAFT** F-4E

TASK GOAL Perform Visual LADD/Controlled Range **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
E.	<p>STOPS PITCH DECREASE <u>Visual</u>-Pitch att: decreasing Bank att: level Range landmarks Flt.Inst: cross-check <u>Aural</u>-Normal aircraft sound <u>Control</u>-Constant stabilator pressure <u>Motion</u>-Constant negative G, pitching down</p>	Determines descent attitude approaching	<p>CR-5g F 251 TASK NO. SKILL NO. STOT NO. 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VC MC A QUANTITY DECISION PROC MOTOR OUTPUT 30 CP St INPUT INDEX I/O INDEX OUTPUT INDEX 35 35 V-1</p> <p>Relaxes stabilator pressure</p>
F.	<p>CONTINUES DESCENT <u>Visual</u>-Pitch att: descent Bank att: level Range landmarks <u>Aural</u>-Normal aircraft sound, communication - WSO (range and bearing to target) <u>Control</u>-Decreased stabilator pressure <u>Motion</u>-Decreasing negative G, pitch stabilized</p>	Determines need for trim	<p>CR-5g F 17 TASK NO. SKILL NO. STOT NO. 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VA MC A QUANTITY DECISION PROC MOTOR OUTPUT A-C SP SE INPUT INDEX I/O INDEX OUTPUT INDEX 35 70 V-2</p> <p>Adjusts trim & relaxes stabilator pressure</p>
G.	<p>PREPARES RETURN TO LEVEL FLIGHT <u>Visual</u>-Pitch att: descent Bank att: level Range landmark(island) <u>Aural</u>-Normal aircraft sound <u>Control</u>-Neutral stabilator pressure, trim switch function <u>Motion</u>-Normal G</p>	<p>Anticipates return to level flight Sustains descent</p>	<p>CR-5g F 371 TASK NO. SKILL NO. STOT NO. 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VC MR (I) A QUANTITY DECISION PROC MOTOR OUTPUT 20 CP AI St INPUT INDEX I/O INDEX OUTPUT INDEX 20 40 V-2</p> <p>Maintains required aileron & stabilator control</p>
H.	<p>STARTS PITCH INCREASE <u>Visual</u>-Pitch att: descent Bank att: level Range landmark(island) Flt.Inst: Alt. <u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Normal G</p>	Determines altitude to return to level flight & position for communication (clearance to drop) to range officer	<p>CR-5g H 267 TASK NO. SKILL NO. STOT NO. 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VC MC R QUANTITY DECISION PROC MOTOR OUTPUT 20 CP St INPUT INDEX I/O INDEX OUTPUT INDEX 30 60 V-2</p> <p>Moves stabilator, activates mic. switch, communicates</p>

SITUATION Established straight and level, 3,500 feet AGL, 350 knots, approaching landmark 25 naut. miles from target, weapons select switches set and confirmed with WSO, lead aircraft, first pass, new event, head wind condition.

TASK NO. CR-58 **TASK** Nuclear Low Altitude Drogue Delivery **AIRCRAFT** F-4E

TASK GOAL Perform Visual LADD/Controlled Range **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
I.	<p>CONTINUES PITCH INCREASE</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Range landmark(island) Flt.Inst: cross-check</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - (clearance for the event) from range officer</p> <p><u>Control</u>-Increased stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Positive G onset, pitching up</p>	Determines satisfactory pitch movement	<p>CR-59 I 276</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>50</td> <td>V-1</td> </tr> </table> <p>Maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SE	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	50	V-1
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	SE																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	50	V-1																			
J.	<p>STOPS PITCH INCREASE</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Range landmark(island) Flt.Inst: A/S, Alt.</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant stabilator pressure</p> <p><u>Motion</u>-Positive G, pitching up</p>	Determines proper pitch attitude approaching	<p>CR-59 J 276</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>45</td> <td>V-1</td> </tr> </table> <p>Relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SE	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	45	V-1
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	SE																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
45	45	V-1																			
K.	<p>ESTABLISHES LEVEL FLIGHT</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Range landmark(island) Flt.Inst: A/S, Alt. Armament panel</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO (range and bearing to target)</p> <p><u>Control</u>-Decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitch stabilizing</p>	Determines need for trim & position for Master Arm on	<p>CR-59 K 257</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </table> <p>Adjusts trim & relaxes stabilator pressure, activates Master Arm switch</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SE	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	SE																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	110	V-2																			
L.	<p>PREPARES APPROACH TO TARGET AREA</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Sight/weapons lite: on Flt.Inst: HSI, A/S, Alt</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron, stabilator & rudder pressure, Master Arm switch function, trim switch function</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates approach to target</p> <p>Sustains level flight</p>	<p>CR-59 L 327</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC</td> <td>ME (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>20</td> <td>CP</td> <td>SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	ME (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	20	CP	SE	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																			
VC	ME (E)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
20	CP	SE																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
40	80	V-2																			

SITUATION Established straight and level, 3,500 feet AGL, 350 knots, approaching landmark 25 naut. miles from target, weapons select switches set and confirmed with WSO, lead aircraft, first pass, new event, head wind condition.

TASK NO. CR-5g TASK Nuclear Low Altitude Drogue Delivery AIRCRAFT F-4E

TASK GOAL Perform Visual LADD/Controlled Range DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																								
M.	STARTS ROLL IN TO DESCENDING <u>Visual</u> -Pitch att: level Bank att: level Sight/weapons lite Flt.Inst: HSI, A/S, Alt. <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	TURN Determines need for heading update, airspeed & altitude refinements	<div>CR-5g M 270</div> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>INFO PROCESS</td><td>INFO PROCESS</td><td>CONTINUITY</td></tr><tr><td>VC</td><td>MC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>2-C</td><td>CP</td><td>120/5</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>40</td><td>200</td><td>V-5</td></tr></table> Coordinates aileron & rudder with stabilator movement, adjusts throttle	1 C	2 Me	3 Mo	INFO PROCESS	INFO PROCESS	CONTINUITY	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	120/5	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	200	V-5			
1 C	2 Me	3 Mo																									
INFO PROCESS	INFO PROCESS	CONTINUITY																									
VC	MC	R																									
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
2-C	CP	120/5																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
40	200	V-5																									
N.	CONTINUES ROLL IN TO DESCENDING TURN <u>Visual</u> -Pitch att: decreasing Bank att: roll Flt.Inst: cross-check <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased aileron, stabilator & rudder pressure, throttle increase <u>Motion</u> -Negative G onset, pitching down, rolling	ING TURN Determines satisfactory heading, altitude & airspeed change rate	<div>CR-5g N 280</div> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>INFO PROCESS</td><td>INFO PROCESS</td><td>CONTINUITY</td></tr><tr><td>VA</td><td>MC</td><td>R</td></tr><tr><td>C/M</td><td></td><td></td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-C</td><td>CP</td><td>120/5</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>55</td><td>275</td><td>V-5</td></tr></table> Maintains coordinated aileron, rudder & stabilator pressure, adjusts throttle	1 C	2 Me	3 Mo	INFO PROCESS	INFO PROCESS	CONTINUITY	VA	MC	R	C/M			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	120/5	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																									
INFO PROCESS	INFO PROCESS	CONTINUITY																									
VA	MC	R																									
C/M																											
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
4-C	CP	120/5																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
55	275	V-5																									
O.	STOPS ROLL TO DESCENDING TURN <u>Visual</u> -Pitch att: descent Bank att: roll Flt.Inst: cross-check <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Constant aileron, rudder & stabilator pressure, throttle increase <u>Motion</u> -Positive G onset, pitch stabilized, rolling	Determines proper heading, altitude, & airspeed change approaching	<div>CR-5g O 285</div> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>INFO PROCESS</td><td>INFO PROCESS</td><td>CONTINUITY</td></tr><tr><td>VA</td><td>MC</td><td>R</td></tr><tr><td>C/M</td><td></td><td></td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-C</td><td>CP</td><td>120/5</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>55</td><td>275</td><td>V-5</td></tr></table> Coordinates aileron & rudder movements with increased stabilator pressure	1 C	2 Me	3 Mo	INFO PROCESS	INFO PROCESS	CONTINUITY	VA	MC	R	C/M			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	120/5	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																									
INFO PROCESS	INFO PROCESS	CONTINUITY																									
VA	MC	R																									
C/M																											
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
4-C	CP	120/5																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
55	275	V-5																									
P.	STARTS ROLL OUT AND RETURN TO <u>Visual</u> -Pitch att: increasing Bank att: roll Flt.Inst: cross-check <u>Aural</u> -Normal aircraft sound <u>Control</u> -Increased aileron, rudder & stabilator pressure <u>Motion</u> -Positive G, pitch increasing, rolling	LEVEL FLIGHT Determines desired heading, altitude & airspeed to return to level flight	<div>CR-5g P 275</div> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>INFO PROCESS</td><td>INFO PROCESS</td><td>CONTINUITY</td></tr><tr><td>VC</td><td>MC</td><td>R</td></tr><tr><td>M</td><td></td><td></td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>3-C</td><td>CP</td><td>120/5</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>45</td><td>225</td><td>V-5</td></tr></table> Coordinates (opposite) aileron & rudder movement with stabilator movement	1 C	2 Me	3 Mo	INFO PROCESS	INFO PROCESS	CONTINUITY	VC	MC	R	M			QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	120/5	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	225	V-5
1 C	2 Me	3 Mo																									
INFO PROCESS	INFO PROCESS	CONTINUITY																									
VC	MC	R																									
M																											
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
3-C	CP	120/5																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
45	225	V-5																									

SITUATION Established straight and level, 3,500 feet AGL,
350 knots, approaching landmark 25 naut. miles from
target, weapons select switches set and confirmed with WSO,
lead aircraft, first pass, new event, head wind condition.

TASK NO. CR-5g TASK Nuclear Low Altitude Drogue Delivery AIRCRAFT F-4E

TASK GOAL Perform Visual LADD/Controlled Range DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
Q.	<p>CONTINUES ROLL OUT AND RETURN TO LEVEL FLIGHT</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Increased positive G, pitching up, rolling</p>	<p>TO LEVEL FLIGHT</p> <p>Determines satisfactory pitch & roll rate</p>	<p>CR-5g Q 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>24/5</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>200</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure, relaxes stabilator pressure</p>	1 C	1 Me	1 Mo	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	24/5	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	200	V-5
1 C	1 Me	1 Mo																			
VC	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	24/5																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
40	200	V-5																			
R.	<p>STOPS ROLL OUT AND RETURN TO LEVEL FLIGHT</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Flt.Inst:ADI,Alt,A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder, decreased stabilator pressure</p> <p><u>Motion</u>-Decreased positive G, pitch & roll stabilized</p>	<p>LEVEL FLIGHT</p> <p>Determines wings level approaching</p>	<p>CR-5g R 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>SP</td> <td>24/5</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </tbody> </table> <p>Moves aileron, relaxes rudder & stabilator pressure</p>	1 C	1 Me	1 Mo	VC	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	SP	24/5	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	110	V-2
1 C	1 Me	1 Mo																			
VC	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	SP	24/5																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	110	V-2																			
S.	<p>ESTABLISHES LEVEL FLIGHT</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines need to search for 13,000' panels</p> <p>Sustains level flight</p>	<p>CR-5g S 287</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>24/5</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>15</td> <td>30</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	1 Me	1 Mo	VC	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	24/5	INPUT INDEX	I/O INDEX	OUTPUT INDEX	15	30	V-2
1 C	1 Me	1 Mo																			
VC	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
2-C	CP	24/5																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
15	30	V-2																			
T.	<p>STARTS FINAL APPROACH TO TARGET</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target IP</p> <p>Flt.Inst: A/S, Alt.</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Discerns target IP</p> <p>Sustains level flight</p>	<p>CR-5g T 287</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>SC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>SP</td> <td>24/5</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control, communicates - WSO</p>	1 C	1 Me	1 Mo	VC	SC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	SP	24/5	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	70	V-2
1 C	1 Me	1 Mo																			
VC	SC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
2-C	SP	24/5																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
35	70	V-2																			

SITUATION Established straight and level, 3,500 feet AGL, 350 knots, approaching landmark 25 naut. miles from target, weapons select switches set and confirmed with WSO, lead aircraft, first pass, new event, head wind condition.

TASK NO. CR-5g TASK Nuclear Low Altitude Droque Delivery AIRCRAFT F-4E

TASK GOAL Perform Visual LADD/Controlled Range DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
U.	<p>CONTINUES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target IP Flt.Inst: A/S, Radar, Alt.</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO *(calls airspeed & alt.)</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	Determines need for final airspeed & altitude refinement	<p>CR-5g U 322</p> <table><tr><th>1 C</th><th>2 Mo</th><th>3 Mo</th></tr><tr><td>VA C</td><td>MC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>3-C</td><td>CP</td><td>17th SC</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>40</td><td>80</td><td>V-2</td></tr></table> <p>Adjusts throttle, increases stabilator pressure</p>	1 C	2 Mo	3 Mo	VA C	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	17th SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	80	V-2
1 C	2 Mo	3 Mo																			
VA C	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	17th SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
40	80	V-2																			
V.	<p>CONTINUES APPROACH</p> <p><u>Visual</u>-Pitch att: decreased Bank att: level</p> <p>Target IP Flt.Inst: A/S, Rdr, Alt.</p> <p><u>Aural</u>-Chg. in aircraft sound *communication - WSO</p> <p><u>Control</u>-Increased stabilator pressure, throttle advance</p> <p><u>Motion</u>-Normal G</p>	Determines proper altitude & airspeed & need for trim	<p>CR-5g V 322</p> <table><tr><th>1 C</th><th>2 Mo</th><th>3 Mo</th></tr><tr><td>VA C</td><td>MR (I)</td><td>A</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>3-C</td><td>CP</td><td>17th SC</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>35</td><td>70</td><td>V-2</td></tr></table> <p>Adjusts trim & relaxes stabilator pressure</p>	1 C	2 Mo	3 Mo	VA C	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	17th SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	70	V-2
1 C	2 Mo	3 Mo																			
VA C	MR (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	17th SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
35	70	V-2																			
W.	<p>PREPARES ORDNANCE DELIVERY AND PULL UP</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target IP Flt.Inst: A/S, Rdr, Alt.</p> <p><u>Aural</u>-Normal aircraft sound *communication - WSO</p> <p><u>Control</u>-Neutral aileron, stabilator & rudder pressure, trim switch function</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates pull up & ordnance delivery</p> <p>Sustains level flight</p>	<p>CR-5g W 322</p> <table><tr><th>1 C</th><th>2 Mo</th><th>3 Mo</th></tr><tr><td>VA C</td><td>MC</td><td>A</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>3-C</td><td>CP</td><td>17th SC</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>45</td><td>90</td><td>V-2</td></tr></table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Mo	3 Mo	VA C	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	17th SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Mo	3 Mo																			
VA C	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	17th SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
45	90	V-2																			
X.	<p>STARTS ORDNANCE DELIVERY</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target IP</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Discerns target ordnance release point</p> <p>Sustains level flight</p>	<p>CR-5g X 322</p> <table><tr><th>1 C</th><th>2 Mo</th><th>3 Mo</th></tr><tr><td>VA C</td><td>SC (I)</td><td>A</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>3-C</td><td>SP</td><td>17th SC</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>30</td><td>60</td><td>V-2</td></tr></table> <p>Activates pickle button & maintains pressure</p> <p>Maintains required aileron & stabilator control</p>	1 C	2 Mo	3 Mo	VA C	SC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	SP	17th SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	30	60	V-2
1 C	2 Mo	3 Mo																			
VA C	SC (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	SP	17th SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
30	60	V-2																			

Established straight and level, 3,500 feet AGL,
350 knots, approaching landmark 25 naut. miles from
target, weapons select switches set and confirmed with WSO,
SITUATION lead aircraft, first pass, new event, head wind condition.

TASK NO. CR-5 **TASK** Nuclear Low Altitude Drogue Delivery **AIRCRAFT** F-4E

TASK GOAL Perform Visual LADD/Controlled Range **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
Y.	<p>CONTINUES ORDNANCE DELIVERY</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target IP</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO weapons tone: on</p> <p><u>Control</u>-Aileron & stabilator pressure, pickle button function</p> <p><u>Motion</u>-Normal G</p>	Discerns weapons tone and need to initiate smooth G pull	<p>CR-5 Y 195</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA C</td><td>SC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>30</td><td>SP</td><td>SC/Ds</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>40</td><td>200</td><td>15</td></tr></table> <p>Maintains pickle button pressure, coordinates stabilator movement with throttle movement (to full mil.)</p>	1 C	2 Me	3 Mo	VA C	SC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	30	SP	SC/Ds	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	200	15
1 C	2 Me	3 Mo																			
VA C	SC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
30	SP	SC/Ds																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
40	200	15																			
Z.	<p>CONTINUES ORDNANCE DELIVERY</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Flt.Inst: ADI *(pitch steering bar)</p> <p><u>Aural</u>-Chg. in aircraft sound weapons tone: on</p> <p><u>Control</u>-Increased stabilator pressure, throttle advance, pickle button function</p> <p><u>Motion</u>-Positive G onset, pitching up</p>	Determines weapons tone: on, and pitch steering bar satisfactory	<p>CR-5 Z 195</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA CN</td><td>MC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>40</td><td>CP</td><td>SC</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>50</td><td>100</td><td>12</td></tr></table> <p>Maintains pickle button pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA CN	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	100	12
1 C	2 Me	3 Mo																			
VA CN	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	100	12																			
AA.	<p>STOPS ORDNANCE DELIVERY</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Flt.Inst: *ADI Pull up lite</p> <p><u>Aural</u>-Chg. in aircraft sound weapons tone: on</p> <p><u>Control</u>-Constant stabilator pressure, pickle button function</p> <p><u>Motion</u>-Increased positive G, pitching up</p>	<p>Discerns weapons tone: off</p> <p>Sustains level climb</p>	<p>CR-5 AA 217</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA CN</td><td>SC (I)</td><td>A</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>40</td><td>SP</td><td>SC</td></tr><tr><td>INPUT INDEX</td><td>I/O INDEX</td><td>OUTPUT INDEX</td></tr><tr><td>50</td><td>100</td><td>12</td></tr></table> <p>Deactivates pickle button, maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CN	SC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	SP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	100	12
1 C	2 Me	3 Mo																			
VA CN	SC (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	SP	SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	100	12																			

SITUATION Established straight and level, 3,500 feet AGL, 350 knots, approaching landmark 25 naut. miles from target, weapons select switches set and confirmed with WSO, lead aircraft, first pass, new event, head wind condition.

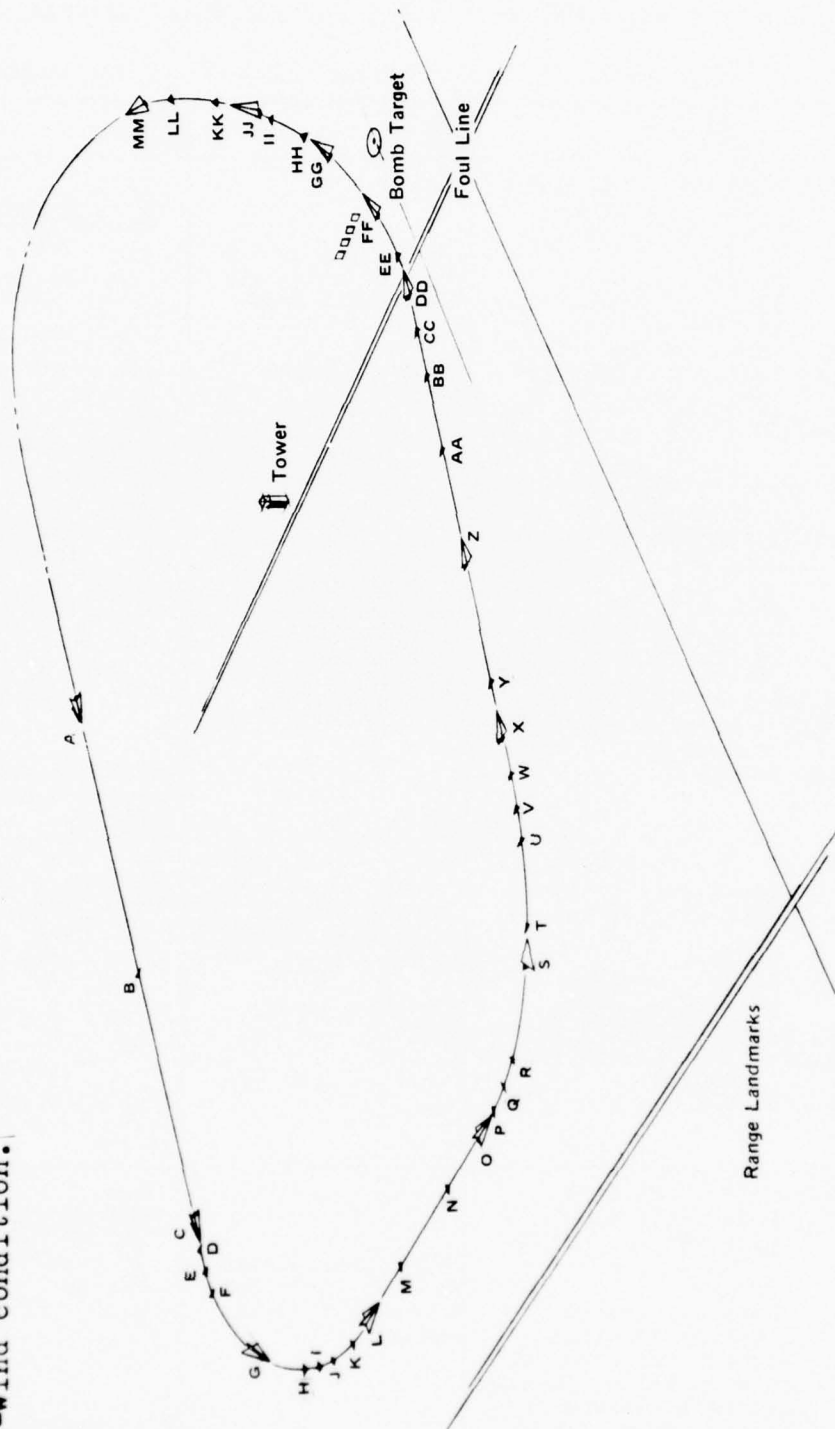
TASK NO. CR-5g TASK Nuclear Low Altitude Drogue Delivery AIRCRAFT F-4E

TASK GOAL Perform Visual LADD/Controlled Range DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
BB.	STARTS ROLL IN TO CLIMBING TURN <u>Visual</u> -Pitch att: climb (constant) Bank att: level Range landmarks <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Aileron & stabilator pressure, pickle button function <u>Motion</u> -Constant positive G, pitch stabilized	Determines position to begin roll in & call ("off wet", simulated escape) to range officer	CR-5g BB 280 1 C 2 Me 3 Mo VA CM MC R QUANTITY DECISION PROC MOTOR OUTPUT 4-C CP 25/5 INPUT INDEX I/O INDEX OUTPUT INDEX 45 225 V-5 Coordinates aileron & rudder movement with relaxed stabilator pressure, activates mic. switch, communicates
CC.	CONTINUES ROLL TO CLIMBING TURN <u>Visual</u> -Pitch att: decreasing Bank att: roll Range landmarks <u>Aural</u> -Chg. in aircraft sound, communication <u>Control</u> -Increased aileron & rudder pressure, reduced stabilator pressure, mic. switch function <u>Motion</u> -Decreasing positive G, pitch decreasing, rolling	Determines satisfactory pitch attitude & roll rate	CR-5g CC 280 1 C 2 Me 3 Mo VA CM MC R QUANTITY DECISION PROC MOTOR OUTPUT 4-C CP 25/5 INPUT INDEX I/O INDEX OUTPUT INDEX 60 300 V-5 Maintains coordinated aileron & rudder pressure, maintains stabilator pressure
DD.	STOPS ROLL TO CLIMBING TURN <u>Visual</u> -Pitch att: constant Bank att: roll Range landmarks Flt.Inst: cross-check <u>Aural</u> -Normal aircraft sound <u>Control</u> -Constant aileron, stabilator & rudder pressure <u>Motion</u> -Constant positive G, pitch stabilized, rolling	Determines desired pitch & proper bank attitude approaching	CR-5g DD 255 1 C 2 Me 3 Mo VA CM MC A QUANTITY DECISION PROC MOTOR OUTPUT 3-C CP 25/5 INPUT INDEX I/O INDEX OUTPUT INDEX 50 250 V-5 Coordinates aileron & rudder pressure, maintains stabilator pressure
EE.	ESTABLISHES CLIMBING TURN <u>Visual</u> -Pitch att: constant Bank att: constant Range landmarks <u>Aural</u> -Normal aircraft sound, communication - range officer (calls bomb plot) <u>Control</u> -Neutral aileron & rudder, constant stabilator pressure <u>Motion</u> -Constant positive G, pitch constant, roll stabilized	Discerns communication Sustains climbing turn	CR-5g EE 272 1 C 2 Me 3 Mo VA CM SC A QUANTITY DECISION PROC MOTOR OUTPUT 4-C SP 25/5 INPUT INDEX I/O INDEX OUTPUT INDEX 40 80 V-2 Maintains required aileron & stabilator control

LOW ANGLE DIVE BOMB DELIVERY/Controlled Range

SITUATION - Established on downwind, straight and level, 3,500 feet AGL, 400 kts., weapons select switches set and confirmed with "SO, second aircraft, first pass, new event, cross-wind condition."



Low angle dive bomb maneuver diagram.

SITUATION Aircraft established on downwind, level, 3500' AGL, 400 knots, weapons select switches set and confirmed, second aircraft, 1st pass, new event, cross wind condition.

TASK NO. CR-6 **TASK** Low Angle Dive Bomb/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Range, Low Angle Dive Bomb Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
A.	<p>ESTABLISHED ON DOWNWIND TO TARGET</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Normal G</p>	<p>Determines proper spacing from lead & distance from target</p> <p>Sustains level flight</p>	<p>CR-69 A 287</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PRICE</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>Ai SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	MC (I)	A	QUANTITY	DECISION PRICE	MOTOR OUTPUT	2-C	CP	Ai SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VC	MC (I)	A																			
QUANTITY	DECISION PRICE	MOTOR OUTPUT																			
2-C	CP	Ai SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
35	70	V-2																			
B.	<p>CONTINUES DOWNWIND</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft Flt.Inst: A/S, Alt</p> <p><u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Normal G</p>	<p>Determines base roll in position approaching</p> <p>Sustains level flight</p>	<p>CR-69 B 288</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PRICE</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>Ai SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	MC (I)	A	QUANTITY	DECISION PRICE	MOTOR OUTPUT	2-C	CP	Ai SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VC	MC (I)	A																			
QUANTITY	DECISION PRICE	MOTOR OUTPUT																			
2-C	CP	Ai SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
45	90	V-2																			
C.	<p>PREPARES TURN TO BASE</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Normal G</p>	<p>Anticipates roll in to base leg</p> <p>Sustains level flight</p>	<p>CR-69 C 327</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PRICE</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>Ai SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	MC (I)	A	QUANTITY	DECISION PRICE	MOTOR OUTPUT	2-C	CP	Ai SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VC	MC (I)	A																			
QUANTITY	DECISION PRICE	MOTOR OUTPUT																			
2-C	CP	Ai SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
35	70	V-2																			
D.	<p>STARTS ROLL IN TO BASE</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound, communication (leading aircraft cleared in hot by range officer) <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Normal G</p>	<p>Determines position to roll in to base & maintain proper spacing</p>	<p>CR-69 D 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PRICE</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>Ai SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>200</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement with stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	QUANTITY	DECISION PRICE	MOTOR OUTPUT	3-C	CP	Ai SC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	200	V-5
1 C	2 Me	3 Mo																			
VA	MC	R																			
QUANTITY	DECISION PRICE	MOTOR OUTPUT																			
3-C	CP	Ai SC																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
40	200	V-5																			

Aircraft established on downwind, level, 3500' AGL,
400 knots, weapons select switches set and confirmed,
SITUATION second aircraft, 1st pass, new event, cross wind condition.

TASK NO. CR-6g **TASK** Low Angle Dive Bomb/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Range, Low Angle Dive Bomb Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
E.	<p>CONTINUES ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	<p>Determines satis- factory roll rate & need for power</p>	<p>CR-6g E 280 TASK NO. SKILL NO. STOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT 120/st</td> </tr> <tr> <td>INPUT INDEX 60</td> <td>I/O INPUT 300</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder pressure, increases stabilator pressure, adjusts throttle</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT 120/st	INPUT INDEX 60	I/O INPUT 300	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT 120/st													
INPUT INDEX 60	I/O INPUT 300	OUTPUT INDEX V-5													
F.	<p>STOPS ROLL</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder, increased stabilator pressure, throttle advance</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	<p>Determines proper bank attitude approaching</p>	<p>CR-6g F 20 TASK NO. SKILL NO. STOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VC AM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT 120/st</td> </tr> <tr> <td>INPUT INDEX 65</td> <td>I/O INPUT 325</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VC AM	INFO PROCESS MC	CONTINUITY A	QUANTITY 40	DECISION PROC SP	MOTOR OUTPUT 120/st	INPUT INDEX 65	I/O INPUT 325	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC AM	INFO PROCESS MC	CONTINUITY A													
QUANTITY 40	DECISION PROC SP	MOTOR OUTPUT 120/st													
INPUT INDEX 65	I/O INPUT 325	OUTPUT INDEX V-5													
G.	<p>ESTABLISHED IN TURN TO BASE</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder, constant stabilator pressure,</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	<p>Determines need to communicate (position & fuel to range officer)</p> <p>Sustains level turn</p>	<p>CR-6g G 292 TASK NO. SKILL NO. STOT NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VC M</td> <td>INFO PROCESS MC (E)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 30</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT 120/st</td> </tr> <tr> <td>INPUT INDEX 45</td> <td>I/O INPUT 90</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Activates mic. button, communicates, maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC (E)	CONTINUITY A	QUANTITY 30	DECISION PROC CP	MOTOR OUTPUT 120/st	INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC (E)	CONTINUITY A													
QUANTITY 30	DECISION PROC CP	MOTOR OUTPUT 120/st													
INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2													

Aircraft established on downwind, level, 3500' AGL,
400 knots, weapons select switches set and confirmed,
SITUATION second aircraft, 1st pass, new event, cross wind condition.

TASK NO. CR-6 **TASK** Low Angle Dive Bomb/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Range, Low Angle Dive Bomb Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
H.	<p>PREPARES ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound, communication</p> <p><u>Control</u>-Aileron & stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Anticipates roll out to base</p> <p>Sustains turn</p>	<p>CR-65 H 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MR (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A1 SC</td> </tr> <tr> <td>INPUT INDEX 60</td> <td>I/O INPUT 120</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MR (E)	A	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A1 SC	INPUT INDEX 60	I/O INPUT 120	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MR (E)	A													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A1 SC													
INPUT INDEX 60	I/O INPUT 120	OUTPUT INDEX V-2													
I.	<p>STARTS ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Determines position to roll out to base for spacing and distance from target</p>	<p>CR-65 I 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A1 SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 250</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder with stabilator movement</p>	1 C	2 Me	3 Mo	VC M	MC	R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT A1 SC	INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VC M	MC	R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT A1 SC													
INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5													
J.	<p>CONTINUES ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Decreasing positive G, pitch decreasing, rolling</p>	<p>Determines satis- factory roll rate & need to reduce power</p>	<p>CR-65 J 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A1 SC</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INPUT 275</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure, relaxes stabilator pressure, adjusts power</p>	1 C	2 Me	3 Mo	VC M	MC	R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT A1 SC	INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VC M	MC	R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT A1 SC													
INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5													
K.	<p>STOPS ROLL</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, decreased stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Decreasing positive G, pitch decreasing, rolling</p>	<p>Determines wings level approaching</p>	<p>CR-65 K 17</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT A1 SC</td> </tr> <tr> <td>INPUT INDEX 65</td> <td>I/O INPUT 130</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Moves aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY 4-C	DECISION PROC SP	MOTOR OUTPUT A1 SC	INPUT INDEX 65	I/O INPUT 130	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	A													
QUANTITY 4-C	DECISION PROC SP	MOTOR OUTPUT A1 SC													
INPUT INDEX 65	I/O INPUT 130	OUTPUT INDEX V-2													

Aircraft established on downwind, level, 3500' AGL,
400 knots, weapons select switches set and confirmed,
SITUATION second aircraft, 1st pass, new event, cross wind condition.

TASK NO. CR-6g **TASK** Low Angle Dive Bomb/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Range, Low Angle Dive Bomb Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
L.	<p>ESTABLISHES LEVEL FLIGHT ON BASE LEG</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder, decreased stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch & roll stabilized</p>	<p>Determines need to adjust altitude & airspeed for proper spacing</p>	<p>CR-6g L 272</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>100</td> <td>V-2</td> </tr> </table> <p>Decreases stabilator pressure, & adjusts throttle</p>	1 C	2 Me	3 Mo	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	60	100	V-2
1 C	2 Me	3 Mo																			
VC	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-0	CP	St																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
60	100	V-2																			
M.	<p>CONTINUES BASE LEG</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: level</p> <p>Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Normal G, pitching down</p>	<p>Determines proper altitude, airspeed & spacing approaching</p>	<p>CR-6g M 256</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-0</td> <td>CP</td> <td>St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>65</td> <td>V-1</td> </tr> </table> <p>Increases stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	CP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	65	V-1
1 C	2 Me	3 Mo																			
VA	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-0	CP	St																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
55	65	V-1																			
N.	<p>CONTINUES ON BASE</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased stabilator pressure</p> <p><u>Motion</u>-Positive G, pitch stabilized</p>	<p>Determines proper altitude, airspeed, & track; need to trim & communicate (position in to range officer)</p>	<p>CR-6g N 252</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>St B</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </table> <p>Activates m.c. button, communicates, adjusts trim & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	St B	INPUT INDEX	I/O INPUT	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																			
VC	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-0	CP	St B																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
50	100	V-2																			
O.	<p>PREPARES TURN TO FINAL</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks</p> <p><u>Aural</u>-Normal aircraft sound, communication (clearance from range officer)</p> <p><u>Control</u>-Neutral stabilator pressure, mic. switch function, trim switch function</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates roll in and dive</p> <p>Sustains level flight</p>	<p>CR-6g O 327</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>V</td> <td>MR (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-0</td> <td>CP</td> <td>St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	V	MR (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-0	CP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
V	MR (E)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
2-0	CP	St																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
35	70	V-2																			

Aircraft established on downwind, level, 3500' AGL,
400 knots, weapons select switches set and confirmed,
SITUATION second aircraft, 1st pass, new event, cross wind condition.

TASK NO. CR-6g **TASK** Low Angle Dive Bomb/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Range, Low Angle Dive Bomb Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
P.	<p>STARTS ROLL IN AND DIVE</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator control</p> <p><u>Motion</u>-Normal G</p>	Determines position to roll in to final & need for power	<p>CR-6g P 270</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>STOT NO.</th> </tr> <tr> <td>1 C</td> <td>2 Me</td> <td>3 Mo</td> </tr> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>20</td> <td>CP</td> <td>SAI/st</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>30</td> <td>150</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure, moves throttle</p>	TASK NO.	SKILL NO.	STOT NO.	1 C	2 Me	3 Mo	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	20	CP	SAI/st	INPUT INDEX	I/O INPUT	OUTPUT INDEX	30	150	V-5
TASK NO.	SKILL NO.	STOT NO.																						
1 C	2 Me	3 Mo																						
VC	MC	R																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
20	CP	SAI/st																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
30	150	V-5																						
Q.	<p>CONTINUES ROLL IN AND DIVE</p> <p><u>Visual</u>-Pitch att: level Bank att: roll</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder pressure, constant stabilator pressure, throttle advance</p> <p><u>Motion</u>-Positive G onset, rolling</p>	Determines satisfactory roll rate & need to begin to establish dive	<p>CR-6g Q 280</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>STOT NO.</th> </tr> <tr> <td>1 C</td> <td>2 Me</td> <td>3 Mo</td> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SAI/st</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder pressure, relaxes stabilator pressure</p>	TASK NO.	SKILL NO.	STOT NO.	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SAI/st	INPUT INDEX	I/O INPUT	OUTPUT INDEX	50	250	V-5
TASK NO.	SKILL NO.	STOT NO.																						
1 C	2 Me	3 Mo																						
VA CM	MC	R																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	SAI/st																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
50	250	V-5																						
R.	<p>STOPS ROLL IN AND DIVE</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Positive G, pitching down, rolling</p>	Determines proper roll and dive attitude achieved	<p>CR-6g R 260</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>STOT NO.</th> </tr> <tr> <td>1 C</td> <td>2 Me</td> <td>3 Mo</td> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SAI/st</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	TASK NO.	SKILL NO.	STOT NO.	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SAI/st	INPUT INDEX	I/O INPUT	OUTPUT INDEX	50	250	V-5
TASK NO.	SKILL NO.	STOT NO.																						
1 C	2 Me	3 Mo																						
VA CM	MC	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	SAI/st																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
50	250	V-5																						
S.	<p>ESTABLISHES DIVING TURN</p> <p><u>Visual</u>-Pitch att: descent (constant) Bank att: constant</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Positive G, pitch & roll stabilized</p>	Sustains descending turn	<p>CR-6g S 137</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>STOT NO.</th> </tr> <tr> <td>1 C</td> <td>2 Me</td> <td>3 Mo</td> </tr> <tr> <td>VA CM</td> <td>I</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>SP</td> <td>SAI/st</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	TASK NO.	SKILL NO.	STOT NO.	1 C	2 Me	3 Mo	VA CM	I	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	SP	SAI/st	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2
TASK NO.	SKILL NO.	STOT NO.																						
1 C	2 Me	3 Mo																						
VA CM	I	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	SP	SAI/st																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
40	80	V-2																						

Aircraft established on downwind, level, 3500' AGL,
400 knots, weapons select switches set and confirmed,
SITUATION second aircraft, 1st pass, new event, cross wind condition.

TASK NO. CR-65 **TASK** Low Angle Dive Bomb/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Range, Low Angle Dive Bomb Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
T.	PREPARES ROLL OUT ON FINAL <u>Visual</u> -Pitch att: constant Bank att: constant Target Aural-Chg. in aircraft sound <u>Control</u> -Aileron, stabilator & rudder pressure <u>Motion</u> -Positive G, pitch & roll constant	Anticipates roll out to final dive Sustains descending turn	CR-65 T 337 TASK NO. SKILL NO. 1 C 2 Me 3 Mo INFO INFO PROCESS CONTINUITY VA CM MR A QUANTITY DECISION PROC MOTOR OUTPUT 40 CP /A/St INPUT INDEX I/O INPUT OUTPUT INDEX 50 100 V-2 Maintains required aileron & stabilator control
U.	STARTS ROLL OUT, MAINTAINS DIVE <u>Visual</u> -Pitch att: constant Bank att: constant Target Sight Aural-Chg. in aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Positive G, pitch & roll constant	Determines proper position to roll out to final with satisfactory dive angle	CR-65 U 280 TASK NO. SKILL NO. 1 C 2 Me 3 Mo INFO INFO PROCESS CONTINUITY VA CM MC R QUANTITY DECISION PROC MOTOR OUTPUT 40 CP /A/St INPUT INDEX I/O INPUT OUTPUT INDEX 50 250 V-5 Coordinates aileron & rudder, maintains stabilator pressure
V.	CONTINUES ROLL OUT, MAINTAINS DIVE <u>Visual</u> -Pitch att: constant Bank att: roll Target Sight Aural-Chg. in aircraft sound <u>Control</u> -Increased aileron & rudder, constant stabilator pressure <u>Motion</u> -Positive G, pitch constant, rolling	Determines satis- factory roll out rate & need to reduce power	CR-65 V 280 TASK NO. SKILL NO. 1 C 2 Me 3 Mo INFO INFO PROCESS CONTINUITY VA CM MC R QUANTITY DECISION PROC MOTOR OUTPUT 40 CP /A/St INPUT INDEX I/O INPUT OUTPUT INDEX 50 250 V-5 Maintains coordinated aileron & rudder pressure, constant stabilator pressure, moves throttle
W.	STOPS ROLL, MAINTAINS DIVE <u>Visual</u> -Pitch att: constant Bank att: roll Target Sight Aural-Chg. in aircraft sound <u>Control</u> -Constant aileron & rudder, constant stabilator pressure, throttle reduced <u>Motion</u> -Decreasing positive G, pitch constant, rolling	Determines wings level achieved	CR-65 W 257 TASK NO. SKILL NO. 1 C 2 Me 3 Mo INFO INFO PROCESS CONTINUITY VA CM MC A QUANTITY DECISION PROC MOTOR OUTPUT 40 CP /A/St INPUT INDEX I/O INPUT OUTPUT INDEX 50 120 V-2 Moves aileron & rudder, maintains stabilator pressure

Aircraft established on downwind, level, 3500' AGL,
400 knots, weapons select switches set and confirmed,
SITUATION second aircraft, 1st pass, new event, cross wind condition.

TASK NO. CR-6g **TASK** Low Angle Dive Bomb/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Range, Low Angle Dive Bomb Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
X.	ESTABLISHED ON FINAL APPROACH TO THE TARGET <u>Visual</u> -Pitch att: constant (nose low) Bank att: level Target Sight Flt.Inst: ADI, A/S, Alt <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased aileron & rudder, constant stabilator pressure <u>Motion</u> -Normal G, pitch & roll stabilized	Determines proper airspeed, altitude, & dive angle approaching; & need for trim	CR-6g X 257 TASK NO. ALT. NO. 1 C 2 Me 3 Mo VA MC A C M QUANTITY DECISION PROC MOTOR OUTPUT 40 CP 17 INPUT INDEX I/O INPUT OUTPUT INDEX 65 130 V-2 Adjusts trim, maintains stabilator pressure
Y.	PREPARES FINAL APPROACH AND PULL UP <u>Visual</u> -Pitch att: constant (descent) Bank att: level Target Sight <u>Aural</u> -Chg. in aircraft sound, communication - WSO *(dive angle, A/S, Alt) <u>Control</u> -Neutral aileron, rudder & stabilator pressure, trim switch function <u>Motion</u> -Normal G,	Anticipates delivery & pull up Sustains level dive	CR-6g Y 332 TASK NO. ALT. NO. 1 C 2 Me 3 Mo VA MR A C (E) QUANTITY DECISION PROC MOTOR OUTPUT 30 CP 17 INPUT INDEX I/O INPUT OUTPUT INDEX 35 70 V-2 Maintains required aileron and stabilator control
Z.	STARTS FINAL APPROACH TO TARGET <u>Visual</u> -Pitch att: descent Bank att: level Target/pipper Flt.Inst: A/S, Alt <u>Aural</u> -Chg. in aircraft sound, *communication - WSO <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G,	Determines need for crab delivery & to refine dive angle	CR-6g Z 372 TASK NO. ALT. NO. 1 C 2 Me 3 Mo VA MC R C QUANTITY DECISION PROC MOTOR OUTPUT 30 CP 17 INPUT INDEX I/O INPUT OUTPUT INDEX 45 90 V-2 Increases required rudder, stabilator & aileron pressure
AA.	CONTINUES FINAL APPROACH <u>Visual</u> -Pitch att: decreasing Bank att: level Target/pipper <u>Aural</u> -Chg. in aircraft sound *communication - WSO <u>Control</u> -Increased aileron, rudder & stabilator pressure <u>Motion</u> -Normal G,	Determines dive refinement & proper crab approaching	CR-6g AA 252 TASK NO. ALT. NO. 1 C 2 Me 3 Mo VA MC A C QUANTITY DECISION PROC MOTOR OUTPUT 30 CP 17 INPUT INDEX I/O INPUT OUTPUT INDEX 40 80 V-2 Relaxes required rudder, stabilator & aileron pressure

Aircraft established on downwind, level, 3500' AGL
 400 knots, weapons select switches set and confirmed,
SITUATION second aircraft, 1st pass, new event, cross wind condition.

TASK NO. CR-6g TASK Low Angle Dive Bomb/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform Range, Low Angle Dive Bomb Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																								
BB.	<p>CONTINUES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att:stabilizing Bank att: level</p> <p>Target/pipper Flt.Inst: ADI,Alt,A/S</p> <p><u>Aural</u>-Chg. in aircraft sound *communication - WSO</p> <p><u>Control</u>-Decreased aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Normal G, pitch constant</p>	Determines proper dive solution	<p>CR-6g BB 257 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <thead> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> </thead> <tbody> <tr> <td>VA</td><td>MC</td><td>A</td></tr> <tr> <td>CM</td><td></td><td></td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>4-C</td><td>CP</td><td>AI</td></tr> <tr> <td></td><td></td><td>BC</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr> <tr> <td>65</td><td>130</td><td>V-2</td></tr> </tbody> </table> <p>Maintains aileron, stabilator & rudder pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	AI			BC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	65	130	V-2
1 C	2 Me	3 Mo																									
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65	130	V-2																									
CC.	<p>CONTINUES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att: dive Bank att: level</p> <p>Target/pipper Aural-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron, rudder, & stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch constant</p>	<p>Determines proper tracking solution approaching</p> <p>Sustains level dive</p>	<p>CR-6g CC 297 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <thead> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> </thead> <tbody> <tr> <td>VA</td><td>MC</td><td>A</td></tr> <tr> <td>CM</td><td>(I)</td><td></td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>4-C</td><td>CP</td><td>AI</td></tr> <tr> <td></td><td></td><td>BC</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr> <tr> <td>45</td><td>90</td><td>V-2</td></tr> </tbody> </table> <p>Maintains required aileron, stabilator, & rudder pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	CM	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	AI			BC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
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45	90	V-2																									
DD.	<p>CONTINUES FINAL APPROACH</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target/pipper Aural-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron, stabilator, & rudder pressure</p> <p><u>Motion</u>-Normal G,</p>	<p>Determines proper tracking solution (pipper/target relation)</p> <p>Sustains level dive</p>	<p>CR-6g DD 297 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <thead> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> </thead> <tbody> <tr> <td>VA</td><td>MC</td><td>A</td></tr> <tr> <td>C</td><td>(I)</td><td></td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>3-C</td><td>CP</td><td>AI</td></tr> <tr> <td></td><td></td><td>BC</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr> <tr> <td>40</td><td>80</td><td>V-2</td></tr> </tbody> </table> <p>Maintains required aileron, stabilator & rudder pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	C	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI			BC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2
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INPUT INDEX	I/O INPUT	OUTPUT INDEX																									
40	80	V-2																									
EE.	<p>RELEASES ORDNANCE</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Target/pipper Aural-Normal aircraft sound, communication - WSO (calls pickle alt.)</p> <p><u>Control</u>-Minimum aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Normal G,</p>	<p>Determines pickle position</p> <p>Sustains level dive</p>	<p>CR-6g EE 297 TASK NO. SKILL NO. SLOT NO.</p> <table border="1"> <thead> <tr> <th>1 C</th><th>2 Me</th><th>3 Mo</th></tr> </thead> <tbody> <tr> <td>VA</td><td>MC</td><td>A</td></tr> <tr> <td>C</td><td>(I)</td><td></td></tr> <tr> <td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr> <tr> <td>3-C</td><td>CP</td><td>AI</td></tr> <tr> <td></td><td></td><td>BC</td></tr> <tr> <td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr> <tr> <td>40</td><td>80</td><td>V-2</td></tr> </tbody> </table> <p>Maintains aileron, stabilator & rudder pressure; activates pickle button</p>	1 C	2 Me	3 Mo	VA	MC	A	C	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI			BC	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2
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Aircraft established on downwind, level, 3500' AGL,
400 knots, weapons select switches set and confirmed,
SITUATION second aircraft, 1st pass, new event, cross wind condition.

TASK NO. CR-6g **TASK** Low Angle Dive Bomb/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Range, Low Angle Dive Bomb Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
FF.	STARTS OFF TARGET PULL UP <u>Visual</u> -Pitch att: constant Bank att: level Target <u>Aural</u> -Normal aircraft sound <u>Control</u> -Minimum aileron, stabilator & rudder pressure, pickle button function <u>Motion</u> -Normal G,	Determines need to initiate smooth G pull	CR-6g FF 32 TASK NO. SKILL NO. 32 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VC MC R QUANTITY DECISION PROG MOTOR OUTPUT 3C SP St INPUT INDEX I/O INPUT OUTPUT INDEX 35 70 V-2 Moves stabilator and rudder
GG.	CONTINUES PULL UP <u>Visual</u> -Pitch att: increasing Bank att: level Range landmarks Leading aircraft <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased stabilator & rudder pressure <u>Motion</u> -Positive G onset, pitching up	Determines satisfactory pitch movement rate & need for power	CR-6g GG 227 TASK NO. SKILL NO. 227 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VA MC R QUANTITY DECISION PROG MOTOR OUTPUT AC CP St INPUT INDEX I/O INPUT OUTPUT INDEX AS 90 V-2 Maintains stabilator pressure & throttle movement
HH.	STOPS PULL UP TO CLIMBING TURN <u>Visual</u> -Pitch att: increasing Bank att: level Range landmarks <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Constant stabilator pressure, throttle advance <u>Motion</u> -Increasing positive G, pitching up	Determines proper pitch attitude approaching	CR-6g HH 256 TASK NO. SKILL NO. 256 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VA MC A QUANTITY DECISION PROG MOTOR OUTPUT AC CP St INPUT INDEX I/O INPUT OUTPUT INDEX 40 40 V-1 Relaxes stabilator pressure
II.	PREPARES TRANSITION TO CLIMBING TURN <u>Visual</u> -Pitch att: climb (constant) Bank att: level Range landmarks Leading aircraft <u>Aural</u> -Normal aircraft sound <u>Control</u> -Decreased stabilator pressure <u>Motion</u> -Decreasing positive G, pitch stabilized	Anticipates climbing turn Sustains level climb	CR-6g II 92 TASK NO. SKILL NO. 92 1 C 2 Me 3 Mo INFO PROCESS CONTINUITY VC MC A QUANTITY DECISION PROG MOTOR OUTPUT 3C SP St INPUT INDEX I/O INPUT OUTPUT INDEX 35 70 V-2 Maintains required aileron, stabilator & rudder control

Aircraft established on downwind, level, 3500' AGL,
400 knots, weapons select switches set and confirmed,
SITUATION second aircraft, 1st pass, new event, cross wind condition.

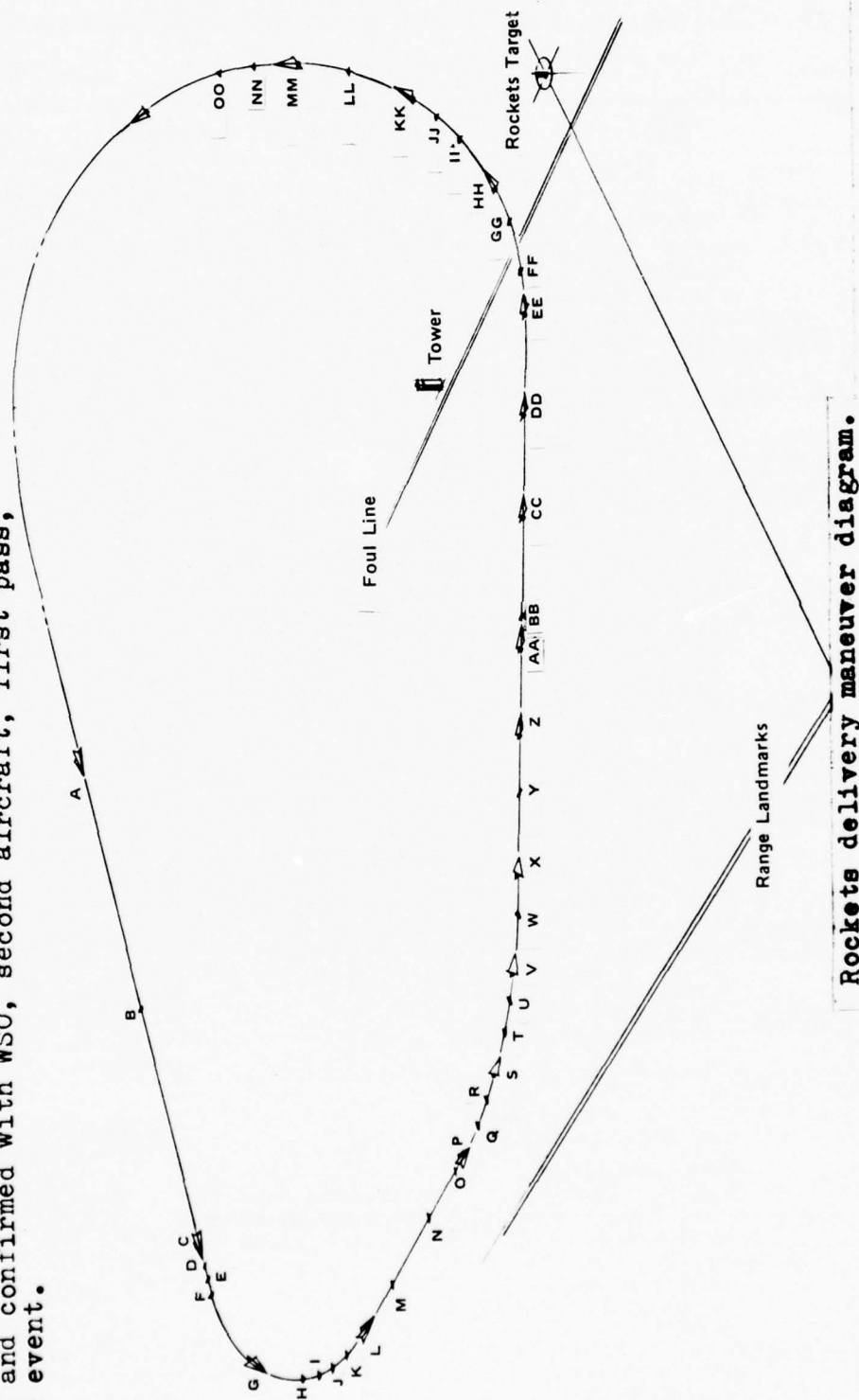
TASK NO. CR-6g **TASK** Low Angle Dive Bomb/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Range, Low Angle Dive Bomb Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION															
JJ.	<p>STARTS ROLL IN TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitch constant</p>	<p>Determines desired pitch attitude & position to begin roll, need for trim</p>	<p>CR-6g JJ 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>M</td> <td></td> <td></td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>SA/Tr</td> </tr> <tr> <td>40</td> <td>200</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement, adjusts trim & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	R	M			3-C	CP	SA/Tr	40	200	V-5
1 C	2 Me	3 Mo																
VC	MC	R																
M																		
3-C	CP	SA/Tr																
40	200	V-5																
KK.	<p>CONTINUES ROLL IN CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder, decreased stabilator pressure, trim function</p> <p><u>Motion</u>-Constant positive G, pitch constant, rolling</p>	<p>Determines proper pitch attitude & satisfactory roll rate/turn for proper spacing</p>	<p>CR-6g KK 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>M</td> <td></td> <td></td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>SA/Tr</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	R	M			3-C	CP	SA/Tr	55	275	V-5
1 C	2 Me	3 Mo																
VC	MC	R																
M																		
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LL.	<p>STOPS ROLL IN CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling</p> <p>Range landmarks Leading aircraft Flt.Inst: cross-check</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch constant, rolling</p>	<p>Determines desired pitch attitude & proper bank angle approaching</p>	<p>CR-6g LL 15</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>M</td> <td></td> <td></td> </tr> <tr> <td>3-C</td> <td>SP</td> <td>SA/Tr</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	A	M			3-C	SP	SA/Tr	55	275	V-5
1 C	2 Me	3 Mo																
VC	MC	A																
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MM.	<p>ESTABLISHES CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch constant, roll stabilized</p>	<p>Determines need for trim, communication- WSO (bomb plot)</p>	<p>CR-6g MM 17</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>SA/Tr</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </tbody> </table> <p>Adjusts trim & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	CM			4-C	SP	SA/Tr	45	90	V-2
1 C	2 Me	3 Mo																
VA	MC	A																
CM																		
4-C	SP	SA/Tr																
45	90	V-2																

ROCKETS DELIVERY - 30° DIVE/Controlled Range

SITUATION - Established on downwind, straight and level, 7,000 feet AGL, 300 - 350 kts., weapons select switches set and confirmed with WSO, second aircraft, first pass, new event.



Rockets delivery maneuver diagram.

Aircraft established on downwind at 7000' AGL,
300-350 knots, weapons select switches set and confirmed
SITUATION with WSO, second aircraft in flight, first pass, new event.

TASK NO. CR-7g **TASK** 30° Rockets Delivery/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Rocket Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																								
A.	<p>ESTABLISHED ON DOWNWIND LEG TO TARGET</p> <p><u>Visual</u>-Pitch att: level Bank att: level Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines proper spacing with desired Alt. & A/S approaching</p> <p>Sustains level flight</p>	<p>CR-7g A 287</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>SLOT NO.</th> </tr> <tr> <td>1 C</td> <td>2 Mo</td> <td>3 Mo</td> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VC</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2 C</td> <td>CP</td> <td>Ai Sc</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>1.2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	TASK NO.	SKILL NO.	SLOT NO.	1 C	2 Mo	3 Mo	KIND	INFO PROCESS	CONTINUITY	VC	MC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	2 C	CP	Ai Sc	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	1.2
TASK NO.	SKILL NO.	SLOT NO.																									
1 C	2 Mo	3 Mo																									
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QUANTITY	DECISION PROC	MOTOR OUTPUT																									
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INPUT INDEX	I/O INPUT	OUTPUT INDEX																									
45	90	1.2																									
B.	<p>CONTINUES ON DOWNWIND LEG</p> <p><u>Visual</u>-Pitch att: level Bank att: level Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines base leg roll in position & need for proper Alt. & A/S</p> <p>Sustains level flight</p>	<p>CR-7g B 287</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>SLOT NO.</th> </tr> <tr> <td>1 C</td> <td>2 Mo</td> <td>3 Mo</td> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>V C</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>Ai Sc</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>1.2</td> </tr> </table> <p>Adjusts throttle, maintains aileron and stabilator control</p>	TASK NO.	SKILL NO.	SLOT NO.	1 C	2 Mo	3 Mo	KIND	INFO PROCESS	CONTINUITY	V C	MC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	Ai Sc	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	1.2
TASK NO.	SKILL NO.	SLOT NO.																									
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45	90	1.2																									
C.	<p>PREPARES FOR TURN TO BASE LEG</p> <p><u>Visual</u>-Pitch att: level Bank att: level Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound, communication - (lead calling in on final)</p> <p><u>Control</u>-Constant stabilator pressure, increased throttle pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates roll in to base leg turn, discerns leading aircraft communication</p> <p>Sustains level flight</p>	<p>CR-7g C 332</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>SLOT NO.</th> </tr> <tr> <td>1 C</td> <td>2 Mo</td> <td>3 Mo</td> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA C</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>Ai Sc</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>1.2</td> </tr> </table> <p>Maintains required aileron & stabilator pressure</p>	TASK NO.	SKILL NO.	SLOT NO.	1 C	2 Mo	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA C	MC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	Ai Sc	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	1.2
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D.	<p>STARTS ROLL IN TO BASE LEG TURN</p> <p><u>Visual</u>-Pitch att: level Bank att: level Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines position to start turn to base leg & need to make position check to range officer</p>	<p>CR-7g D 270</p> <table border="1"> <tr> <th>TASK NO.</th> <th>SKILL NO.</th> <th>SLOT NO.</th> </tr> <tr> <td>1 C</td> <td>2 Mo</td> <td>3 Mo</td> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>Ai Sc / Lm</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>175</td> <td>1.5</td> </tr> </table> <p>Coordinates aileron, rudder & stabilator movement; activates mic. switch & communicates</p>	TASK NO.	SKILL NO.	SLOT NO.	1 C	2 Mo	3 Mo	KIND	INFO PROCESS	CONTINUITY	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	Ai Sc / Lm	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	175	1.5
TASK NO.	SKILL NO.	SLOT NO.																									
1 C	2 Mo	3 Mo																									
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Aircraft established on downwind at 7000' AGL,
300-350 knots, weapons select switches set and confirmed
with WSO, second aircraft in flight, first pass, new event.

SITUATION

TASK NO. CR-7g **TASK** 30° Rockets Delivery/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Rocket Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
E.	<p>CONTINUES ROLL IN TO BASE LEG</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound, communication</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	<p>TURN</p> <p>Determines roll rate satisfactory & need for power</p>	<p>CR-7g E 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>SA/st RU/TH</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>65</td> <td>325</td> <td>V5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure, increased stabilator pressure, adjusts throttle</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	SA/st RU/TH	INPUT INDEX	I/O INPUT	OUTPUT INDEX	65	325	V5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	SA/st RU/TH																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
65	325	V5																			
F.	<p>STOPS ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron, increased stabilator pressure, throttle advance</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	<p>Determines proper bank attitude achieved to provide proper distance (target to base leg)</p>	<p>CR-7g F 260</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>SA/st RU/TH</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>300</td> <td>V5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	SA/st RU/TH	INPUT INDEX	I/O INPUT	OUTPUT INDEX	60	300	V5
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	SA/st RU/TH																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
60	300	V5																			
G.	<p>ESTABLISHES TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	<p>Sustains level turn</p>	<p>CR-7g G 372</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>I</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>Ai st</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC M	I	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	Ai st	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V2
1 C	2 Me	3 Mo																			
VC M	I	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	Ai st																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
45	90	V2																			
H.	<p>PREPARES TO ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator control</p> <p><u>Motion</u>-Constant positive G, constant pitch & roll</p>	<p>Anticipates roll out to base leg</p> <p>Sustains level turn</p>	<p>CR-7g H 332</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>Ai st</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC M	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	Ai st	INPUT INDEX	I/O INPUT	OUTPUT INDEX	50	100	V2
1 C	2 Me	3 Mo																			
VC M	MR (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	Ai st																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
50	100	V2																			

Aircraft established on downwind at 7000' AGL,
300-350 knots, weapons select switches set and confirmed
SITUATION with WSO, second aircraft in flight, first pass, new event.

TASK NO. CR-7g **TASK** 30° Rockets Delivery/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Rocket Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
I.	<p>STARTS ROLL OUT OF TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch & roll</p>	Determines position to roll out on base leg to establish proper distance to target relationship	<p>CR-7g I 275</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VC M</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI/SC</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INPUT 275</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Coordinates aileron & rudder; relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT AI/SC	INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT AI/SC													
INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5													
J.	<p>CONTINUES ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder, decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines satisfactory roll rate & need to reduce power	<p>CR-7g J 275</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VC M</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI/SC</td> </tr> <tr> <td>INPUT INDEX 65</td> <td>I/O INPUT 275</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder with stabilator movement, adjusts throttle</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT AI/SC	INPUT INDEX 65	I/O INPUT 275	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT AI/SC													
INPUT INDEX 65	I/O INPUT 275	OUTPUT INDEX V-5													
K.	<p>STOPS ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, decreased stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines wings level approaching	<p>CR-7g K 17</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT AI/SC</td> </tr> <tr> <td>INPUT INDEX 65</td> <td>I/O INPUT 130</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Moves aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY A	QUANTITY 4-C	DECISION PROC SP	MOTOR OUTPUT AI/SC	INPUT INDEX 65	I/O INPUT 130	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY A													
QUANTITY 4-C	DECISION PROC SP	MOTOR OUTPUT AI/SC													
INPUT INDEX 65	I/O INPUT 130	OUTPUT INDEX V-2													
L.	<p>ESTABLISHES LEVEL FLIGHT ON BASE LEG</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch & roll stabilized</p>	Determines level flight established & need to adjust altitude & airspeed	<p>CR-7g L 32</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND VC M</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT AI/SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 100</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Increases stabilator pressure and adjusts throttle</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-C	DECISION PROC SP	MOTOR OUTPUT AI/SC	INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-C	DECISION PROC SP	MOTOR OUTPUT AI/SC													
INPUT INDEX 50	I/O INPUT 100	OUTPUT INDEX V-2													

Aircraft established on downwind at 7000' AGL,
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EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
M.	<p>CONTINUES BASE LEG</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg.in aircraft sound</p> <p><u>Control</u>-Increased stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Normal G, pitching down</p>	Determines proper altitude, airspeed & pattern spacing approaching	<p>CR-7g M 250</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>AM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>45</td> <td>✓1</td> </tr> </tbody> </table> <p>Decreases stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	A	AM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	45	✓1
1 C	2 Me	3 Mo																						
VC	MC	A																						
AM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-C	CP	St																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
45	45	✓1																						
N.	<p>CONTINUES ON BASE LEG</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch stabilized</p>	Determines proper altitude, airspeed, & track; need for trim	<p>CR-7g N 252</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>M</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>✓2</td> </tr> </tbody> </table> <p>Adjusts trim & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	A	M			QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	✓2
1 C	2 Me	3 Mo																						
VC	MC	A																						
M																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
3-C	CP	St																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
40	80	✓2																						
O.	<p>CONTINUES ON BASE LEG</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron, stabilator & rudder pressure, trim switch function</p> <p><u>Motion</u>-Normal G</p>	<p>Determines final roll in position approaching & need to check armament switches</p> <p>Sustains level flight</p>	<p>CR-7g O 287</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>(F)</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>30</td> <td>60</td> <td>✓2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	MC	A	(F)			QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	30	60	✓2
1 C	2 Me	3 Mo																						
VC	MC	A																						
(F)																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
2-C	CP	St																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
30	60	✓2																						
P.	<p>PREPARES TO TURN TO FINAL</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft Armament panel</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates roll in and dive on final</p> <p>Sustains level flight</p>	<p>CR-7g P 327</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MR</td> <td>A</td> </tr> <tr> <td>(I)</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>✓2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	MR	A	(I)			QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	✓2
1 C	2 Me	3 Mo																						
VC	MR	A																						
(I)																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
2-C	CP	St																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
40	80	✓2																						

Aircraft established on downwind at 7000' AGL,
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Q.	<p>STARTS ROLL IN TO FINAL</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Normal G</p>	Determines proper position to start roll in & need to call position to range officer	<p>CR-7g Q 278</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>RA/BS</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>200</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure, activates mic. button, communicates</p>	1 C	2 Me	3 Mo	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	RA/BS	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	200	V-5
1 C	2 Me	3 Mo																			
VC	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
2-C	CP	RA/BS																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
40	200	V-5																			
R.	<p>CONTINUES ROLL IN TO TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Target Range landmarks</p> <p><u>Aural</u>-Chg. in aircraft sound, communication- (clearance from range officer to launch rockets)</p> <p><u>Control</u>-Increased aileron & rudder pressure, constant stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	Determines satisfactory roll rate	<p>CR-7g R 269</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>RA/BS</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>65</td> <td>260</td> <td>V-4</td> </tr> </tbody> </table> <p>Maintains coordinated aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	RA/BS	INPUT INDEX	I/O INPUT	OUTPUT INDEX	65	260	V-4
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	RA/BS																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
65	260	V-4																			
S.	<p>STOPS ROLL IN TO TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Constant aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitching up, rolling</p>	Determines proper bank angle achieved	<p>CR-7g S 260</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>RA/BS</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	RA/BS	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	RA/BS																			
INPUT INDEX	I/O INPUT	OUTPUT INDEX																			
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TASK NO. CR-7g **TASK** 30° Rockets Delivery/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform Rocket Delivery **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
T.	<p>LOWERS NOSE HALFWAY THROUGH TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target Range landmarks</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitch & roll stabilized</p>	<p>TURN</p> <p>Determines halfway point in turn reached & need to lower nose & reduce power to planned power setting</p>	<p>CR-7g T 272</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI St R Th</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & rudder control, relaxes stabilator pressure, adjusts throttle</p>	1 C	2 Me	3 Mo	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI St R Th	INPUT INDEX	I/O INPUT	OUTPUT INDEX	40	80	V-2			
1 C	2 Me	3 Mo																						
VC	MC	R																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
3-C	CP	AI St R Th																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
40	80	V-2																						
U.	<p>ESTABLISHES DIVING TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: constant</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, decreased stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Decreasing positive G, pitching down, roll stabilized</p>	<p>Determines need to have minimum alt. loss during turn</p> <p>Sustains turn</p>	<p>CR-7g U 312</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td>(E)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>AI St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & rudder, stops stabilator movement</p>	1 C	2 Me	3 Mo	VA	MC	R	CM	(E)		QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	AI St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																						
VA	MC	R																						
CM	(E)																							
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
A-C	CP	AI St																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
55	110	V-2																						
V.	<p>CONTINUES TURN WITH NOSE DESCENDING SLOWLY</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Target Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Positive G, pitching down, roll stabilized</p>	<p>Determines altitude & airspeed schedule is as required (nose descending at desired rate)</p> <p>Sustains descending turn</p>	<p>CR-7g V 312</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td>(E)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>AI St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	CM	(E)		QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	AI St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																						
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A-C	CP	AI St																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
45	90	V-2																						
W.	<p>PREPARES TO ROLL OUT WINGS LEVEL ON FINAL</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: roll</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Positive G, pitching down, roll stabilized</p>	<p>Anticipates rolling out wings level (greater than 30° dive angle & pipper pointed at target-short)</p> <p>Sustains descending turn</p>	<p>CR-7g W 357</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>MR</td> <td>R</td> </tr> <tr> <td>CM</td> <td>(E)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>AI St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MR	R	CM	(E)		QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	AI St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
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Aircraft established on downwind at 7000' AGL
300-350 knots, weapons select switches set and confirmed
with WSO, second aircraft in flight, first pass, new event.

TASK NO. CR-7g TASK 30° Rockets Delivery/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform Rocket Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																								
X.	<p>STARTS ROLL OUT</p> <p><u>Visual</u>-Pitch att: dive Bank att: constant</p> <p>Target Sight</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Positive G, pitching down, roll stabilized</p>	Determines position to start roll out to have aircraft pointed at target	<p>CR-7g X 279</p> <table border="1"><thead><tr><th>TASK NO</th><th>SKILL NO</th><th>TIME</th></tr></thead><tbody><tr><td>1 C</td><td>2 Me</td><td>3 Mo</td></tr><tr><td>VA</td><td>MC</td><td>R</td></tr><tr><td>CM</td><td></td><td></td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-C</td><td>CP</td><td>SA St</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>55</td><td>220</td><td>V-4</td></tr></tbody></table> <p>Coordinates aileron, rudder & stabilator pressure</p>	TASK NO	SKILL NO	TIME	1 C	2 Me	3 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	SA St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	220	V-4
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INPUT INDEX	I/O INPUT	OUTPUT INDEX																									
55	220	V-4																									
Y.	<p>CONTINUES ROLL OUT TO FINAL</p> <p><u>Visual</u>-Pitch att: dive Bank att: rolling</p> <p>Target Sight</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron; rudder & stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, constant pitch, rolling</p>	Determines proper roll out rate, dive angle, & alignment with target approaching	<p>CR-7g Y 279</p> <table border="1"><thead><tr><th>TASK NO</th><th>SKILL NO</th><th>TIME</th></tr></thead><tbody><tr><td>1 C</td><td>2 Me</td><td>3 Mo</td></tr><tr><td>VA</td><td>MC</td><td>R</td></tr><tr><td>CM</td><td></td><td></td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-C</td><td>CP</td><td>SA St</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>55</td><td>220</td><td>V-4</td></tr></tbody></table> <p>Maintains coordinated aileron, rudder & stabilator pressure</p>	TASK NO	SKILL NO	TIME	1 C	2 Me	3 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	SA St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	220	V-4
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Z.	<p>STOPS ROLL OUT</p> <p><u>Visual</u>-Pitch att: dive Bank att: rolling</p> <p>Target Sight</p> <p>Flt.Inst: Alt,A/S,ADI</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines wings level attitude approaching & aircraft pointed at target	<p>CR-7g Z 257</p> <table border="1"><thead><tr><th>TASK NO</th><th>SKILL NO</th><th>TIME</th></tr></thead><tbody><tr><td>1 C</td><td>2 Me</td><td>3 Mo</td></tr><tr><td>VA</td><td>MC</td><td>A</td></tr><tr><td>CM</td><td></td><td></td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-C</td><td>CP</td><td>SA St</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>70</td><td>140</td><td>V-2</td></tr></tbody></table> <p>Moves aileron & rudder, maintains stabilator pressure</p>	TASK NO	SKILL NO	TIME	1 C	2 Me	3 Mo	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	SA St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	70	140	V-2
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AA.	<p>ESTABLISHES FINAL APPROACH CONDITIONS</p> <p><u>Visual</u>-Pitch att: dive Bank att: level</p> <p>Target Sight</p> <p>Flt.Inst: Alt,A/S, ADI</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO *(calls Alt,A/S & Dive)</p> <p><u>Control</u>-Increased aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch & roll stabilized</p>	Determines proper dive angle & airspeed approaching, & need to adjust trim	<p>CR-7g AA 257</p> <table border="1"><thead><tr><th>TASK NO</th><th>SKILL NO</th><th>TIME</th></tr></thead><tbody><tr><td>1 C</td><td>2 Me</td><td>3 Mo</td></tr><tr><td>VA</td><td>MC</td><td>A</td></tr><tr><td>CM</td><td></td><td></td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-C</td><td>CP</td><td>SA St</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>70</td><td>140</td><td>V-2</td></tr></tbody></table> <p>Adjusts trim & maintains stabilator pressure</p>	TASK NO	SKILL NO	TIME	1 C	2 Me	3 Mo	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	SA St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	70	140	V-2
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Aircraft established on downwind at 7000' AGL,
300-350 knots, weapons select switches set and confirmed
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EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
BB.	PREPARES TO TRACK TARGET AND <u>Visual</u> -Pitch att: constant Bank att: level Target/pipper Flt.Inst: Alt, A/S, ADI <u>Aural</u> -Normal aircraft sound, *communication - WSO <u>Control</u> -Constant stabilator pressure, neutral aileron & rudder pressure, trim switch function <u>Motion</u> -Normal G	LAUNCH ROCKETS Determines proper drift rate of pipper towards target & release altitude approach- ing	CR-7g BB 252 TASK NO. SKILL NO. TEST NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA MC A C QUANTITY DECISION PROC MOTOR OUTPUT 3-0 CP / A SC INPUT INDEX I/O INPUT OUTPUT INDEX 45 90 V-2 Maintains required aileron, rudder & stabilator pressure
CC.	CONTINUES ON FINAL TOWARDS RELEASE CONDITIONS <u>Visual</u> -Pitch att: dive Bank att: level Target/pipper Flt.Inst: Alt, A/S <u>Aural</u> -Normal aircraft sound, *communication - WSO <u>Control</u> -Aileron, rudder & stabilator pressure <u>Motion</u> -Normal G	Anticipates rocket release conditions, recovery, & pull up Sustains dive	CR-7g CC 332 TASK NO. SKILL NO. TEST NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA MR A C (E) QUANTITY DECISION PROC MOTOR OUTPUT 3-0 CP / A SC INPUT INDEX I/O INPUT OUTPUT INDEX 45 90 V-2 Maintains required aileron & stabilator pressure
DD.	STARTS FINAL SEGMENT OF APPROACH <u>Visual</u> -Pitch att: dive Bank att: level Target/pipper Flt.Inst: Alt, A/S <u>Aural</u> -Normal aircraft sound, *communication - WSO <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Determines airspeed building towards release conditions & rate of pipper drift	CR-7g DD 252 TASK NO. SKILL NO. TEST NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA MC A C QUANTITY DECISION PROC MOTOR OUTPUT 3-0 CP / A SC INPUT INDEX I/O INPUT OUTPUT INDEX 40 80 V-2 Maintains required aileron, rudder & stabilator pressure
EE.	CONTINUES ON FINAL <u>Visual</u> -Pitch att: dive Bank att: level Target/pipper Flt.Inst: Alt, A/S <u>Aural</u> -Normal aircraft sound, *communication - WSO <u>Control</u> -Aileron, rudder & stabilator pressure <u>Motion</u> -Normal G	Determines satis- factory sight picture approaching	CR-7g EE 252 TASK NO. SKILL NO. TEST NO. 1 C 2 Me 3 Mo KIND INFO PROCESS CONTINUITY VA MC A C QUANTITY DECISION PROC MOTOR OUTPUT 3-0 CP / A SC INPUT INDEX I/O INPUT OUTPUT INDEX 45 90 V-2 Maintains required aileron, rudder & stabilator pressure

Aircraft established on downwind at 7000' AGL,
300-350 knots, weapons select switches set and confirmed
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FF.	LAUNCHES ROCKETS <u>Visual</u> -Pitch att: dive Bank att: level Target/pipper Flt.Inst: Alt, A/S <u>Aural</u> -Normal aircraft sound, *communication - WSO <u>Control</u> -Aileron, rudder & stabilator pressure <u>Motion</u> -Normal G	Determines proper sight picture for weapon release	<div>CR-7g FF 252 TASK NO. SKILL NO. SGT NO.</div> <table><thead><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><th>INFO PROCESS</th><th>CONTINUITY</th><th></th></tr></thead><tbody><tr><td>VA C</td><td>MC</td><td>A</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>3-0</td><td>CP</td><td>St</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>45</td><td>90</td><td>V-2</td></tr></tbody></table> <p>Maintains required aileron, rudder & stabilator pressure; activates weapon release button</p>	1 C	2 Me	3 Mo	INFO PROCESS	CONTINUITY		VA C	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																						
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GG.	STARTS RECOVERY <u>Visual</u> -Pitch att: dive Bank att: level Target/pipper <u>Aural</u> -Chg. in aircraft sound, communication (following aircraft) <u>Control</u> -Aileron, rudder & stabilator pressure, weapon release button <u>Motion</u> -Normal G	Determines need to effect smooth recovery to 4G's within 2 seconds	<div>CR-7g GG 271 TASK NO. SKILL NO. SGT NO.</div> <table><thead><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><th>INFO PROCESS</th><th>CONTINUITY</th><th></th></tr></thead><tbody><tr><td>VA C</td><td>MC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>3-0</td><td>CP</td><td>St</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>45</td><td>45</td><td>V-1</td></tr></tbody></table> <p>Moves stabilator</p>	1 C	2 Me	3 Mo	INFO PROCESS	CONTINUITY		VA C	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	45	V-1
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HH.	BEGINS 4G PULL OUT <u>Visual</u> -Pitch att: increasing Bank att: level Target Leading aircraft <u>Aural</u> -Chg. in aircraft sound, communication - range officer (gives rocket score) <u>Control</u> -Increased stabilator pressure, constant aileron & rudder pressure <u>Motion</u> -Positive G onset	Determines satisfactory pitch movement & need to increase power to full mil. as nose comes through horizon	<div>CR-7g HH 272 TASK NO. SKILL NO. SGT NO.</div> <table><thead><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><th>INFO PROCESS</th><th>CONTINUITY</th><th></th></tr></thead><tbody><tr><td>VA CM</td><td>MC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-0</td><td>CP</td><td>St</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>50</td><td>100</td><td>V-2</td></tr></tbody></table> <p>Maintains stabilator pressure & moves throttle</p>	1 C	2 Me	3 Mo	INFO PROCESS	CONTINUITY		VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	CP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	50	100	V-2
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II.	ESTABLISHES 4G PULL OUT <u>Visual</u> -Pitch att: increasing Bank att: level Range landmarks Leading aircraft Flt.Inst: G meter <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Constant stabilator pressure, throttle advance <u>Motion</u> -Constant positive G, pitching up, acceleration	Determines 4G schedule approaching & need to establish constant schedule	<div>CR-7g II 36 TASK NO. SKILL NO. SGT NO.</div> <table><thead><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><th>INFO PROCESS</th><th>CONTINUITY</th><th></th></tr></thead><tbody><tr><td>VA CM</td><td>MC</td><td>R</td></tr><tr><td>QUANTITY</td><td>DECISION PROC</td><td>MOTOR OUTPUT</td></tr><tr><td>4-0</td><td>SP</td><td>St</td></tr><tr><td>INPUT INDEX</td><td>I/O INPUT</td><td>OUTPUT INDEX</td></tr><tr><td>55</td><td>55</td><td>V-1</td></tr></tbody></table> <p>Maintains stabilator pressure</p>	1 C	2 Me	3 Mo	INFO PROCESS	CONTINUITY		VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	SP	St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	55	55	V-1
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TASK GOAL Perform Rocket Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
JJ.	<p>STOPS PULL OUT</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching up</p>	Determines proper pitch achieved & need for trim	<p>CR-7g JJ 17</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT St</td> </tr> <tr> <td>INPUT INDEX 40</td> <td>I/O INPUT 80</td> <td>OUTPUT INDEX V2</td> </tr> </tbody> </table> <p>Relaxes stabilator pressure, adjusts trim</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY A	QUANTITY 4-0	DECISION PROC SP	MOTOR OUTPUT St	INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY A													
QUANTITY 4-0	DECISION PROC SP	MOTOR OUTPUT St													
INPUT INDEX 40	I/O INPUT 80	OUTPUT INDEX V2													
KK.	<p>PREPARES TRANSITION TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: climb Bank att: level</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Decreased stabilator pressure, trim switch function</p> <p><u>Motion</u>-Constant positive G</p>	<p>Anticipates initiating climbing turn to downwind when nose passes 10-20° above horizon</p> <p>Sustains climb</p>	<p>CR-7g KK 92</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VC M</td> <td>INFO PROCESS MR (E)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC SP</td> <td>MOTOR OUTPUT St</td> </tr> <tr> <td>INPUT INDEX 35</td> <td>I/O INPUT 70</td> <td>OUTPUT INDEX V2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MR (E)	CONTINUITY A	QUANTITY 3-0	DECISION PROC SP	MOTOR OUTPUT St	INPUT INDEX 35	I/O INPUT 70	OUTPUT INDEX V2
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MR (E)	CONTINUITY A													
QUANTITY 3-0	DECISION PROC SP	MOTOR OUTPUT St													
INPUT INDEX 35	I/O INPUT 70	OUTPUT INDEX V2													
LL.	<p>STARTS ROLL IN TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: climb Bank att: level</p> <p>Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G</p>	Determines nose passing through 10-20° & need to initiate turn to downwind	<p>CR-7g LL 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VC M</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT St</td> </tr> <tr> <td>INPUT INDEX 45</td> <td>I/O INPUT 225</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement, moves stabilator</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT St	INPUT INDEX 45	I/O INPUT 225	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT St													
INPUT INDEX 45	I/O INPUT 225	OUTPUT INDEX V-5													
MM.	<p>CONTINUES ROLL IN TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron rudder & stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitching up, rolling</p>	Determines desired pitch attitude & satisfactory roll rate/turn for proper spacing	<p>CR-7g MM 274</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VC M</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT St</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 200</td> <td>OUTPUT INDEX V-4</td> </tr> </tbody> </table> <p>Maintains coordinated aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VC M	INFO PROCESS MC	CONTINUITY R	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT St	INPUT INDEX 50	I/O INPUT 200	OUTPUT INDEX V-4
1 C	2 Me	3 Mo													
KIND VC M	INFO PROCESS MC	CONTINUITY R													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT St													
INPUT INDEX 50	I/O INPUT 200	OUTPUT INDEX V-4													

Aircraft established on downwind at 7000' AGL,
300-350 knots, weapons select switches set and confirmed
with WSO, second aircraft in flight, first pass, new event.

SITUATION

TASK NO. CR-7g TASK 30° Rockets Delivery/Controlled Range AIRCRAFT F-4E

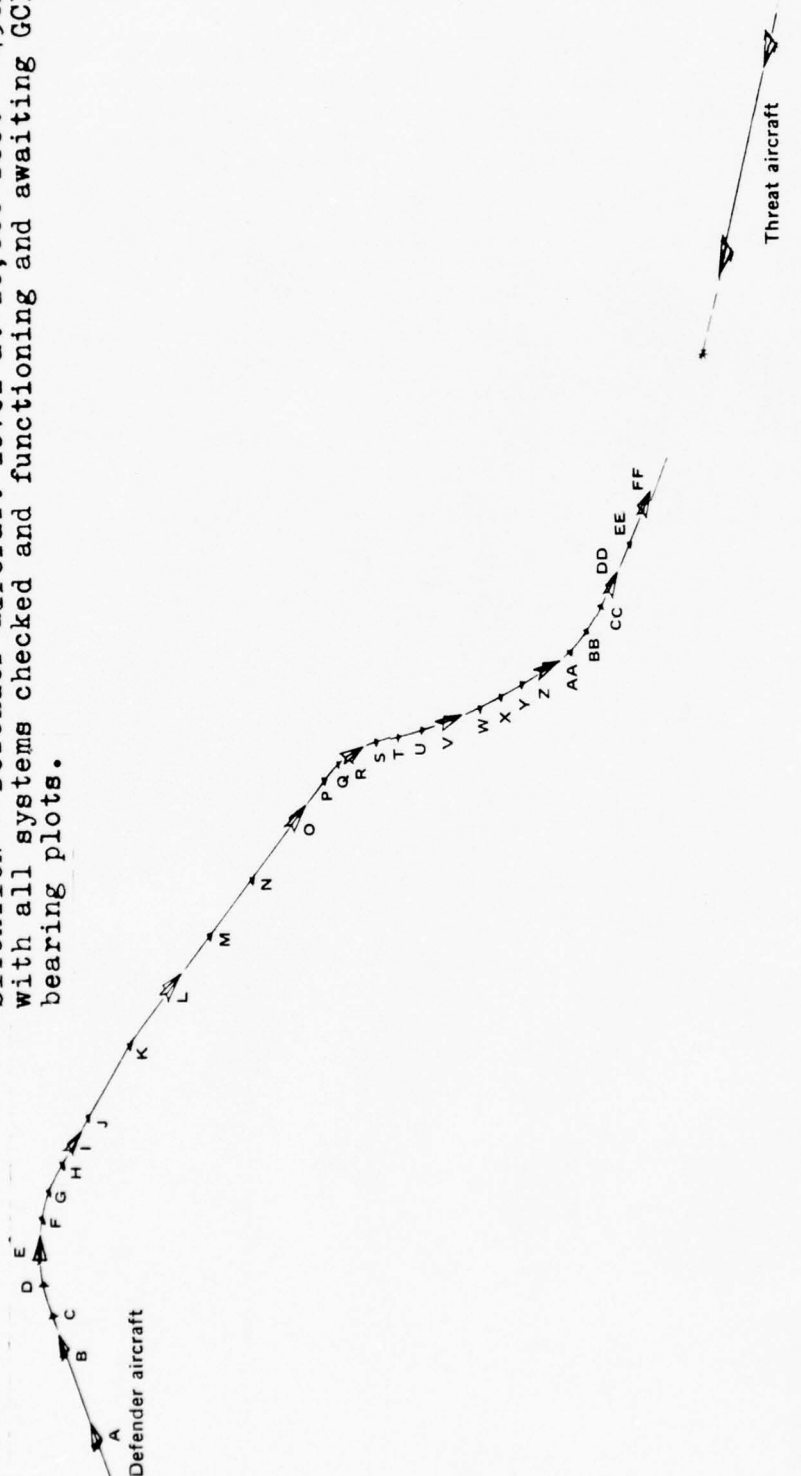
TASK GOAL Perform Rocket Delivery DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
NN.	<p>STOPS ROLL IN TO CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: roll</p> <p>Range landmarks Leading aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch, rolling</p>	<p>Determines proper pitch attitude & bank angle achieved</p>	<p>027g NN 15 TASK NO. SKILL NO. TEST NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC M</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>SP</td> <td>20/sc</td> </tr> <tr> <td>INPUT INDEX</td> <td>OUTPUT INDEX</td> <td></td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VC M	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	SP	20/sc	INPUT INDEX	OUTPUT INDEX		50	250	V-5
1 C	2 Me	3 Mo																			
VC M	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	SP	20/sc																			
INPUT INDEX	OUTPUT INDEX																				
50	250	V-5																			
OO.	<p>ESTABLISHES CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Range landmarks Leading aircraft Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch, roll stabilized</p>	<p>Determines need for trim</p>	<p>027g OO 12 TASK NO. SKILL NO. TEST NO.</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC M</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>SP</td> <td>Tr/sc</td> </tr> <tr> <td>INPUT INDEX</td> <td>OUTPUT INDEX</td> <td></td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </table> <p>Adjusts trim, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VC M	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	SP	Tr/sc	INPUT INDEX	OUTPUT INDEX		50	100	V-2
1 C	2 Me	3 Mo																			
VC M	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	SP	Tr/sc																			
INPUT INDEX	OUTPUT INDEX																				
50	100	V-2																			

One v One INTERCEPT/SINGLE TURN CONVERSION

(Missile Shot, Like Aircraft, Controlled Range Exercise)

SITUATION - Defender aircraft level at 20,000 feet - 450kts. with all systems checked and functioning and awaiting GCI bearing plots.



Single turn conversion maneuver diagram.

Defender aircraft, level at 20,000', 450 knots,
all systems checked and functioning, awaiting GCI
bearing plots; hostile aircraft at 27,000'.
AIM-7 attack

SITUATION CR-la Controlled
TASK NO. CR-la **TASK** Air to air intercept/Range **AIRCRAFT** F-4E

TASK GOAL Perform single turn conversion, launch AIM-7 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
A.	<p>RECEIVES GCI COMMITMENT AGAINST TARGET AIRCRAFT</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Flt.Inst: cross check</p> <p><u>Aural</u>-Normal aircraft sound, communication - GCI</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Discerns communication (GCI advises commit on target)</p> <p>Sustains level flight</p>	<p>CR-10 A 212</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA C</td> <td>SC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>SP</td> <td>DS AI CW St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>30</td> <td>60</td> <td>V-2</td> </tr> </table> <p>Activates mic. button, communicates - (acknowledgment), maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA C	SC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	SP	DS AI CW St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	30	60	V-2
1 C	2 Me	3 Mo																			
VA C	SC (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	SP	DS AI CW St																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
30	60	V-2																			
B.	<p>PREPARES TURN TO ATTACK VECTOR AND CLIMB TO COMBAT ALTITUDE</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Flt.Inst: cross check</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls radar contact & lock-on)</p> <p><u>Control</u>-Aileron & stabilator pressure, mic. button function</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates climbing turn</p> <p>Sustains level flight</p>	<p>CR-10 B 232</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA C</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </table> <p>Maintains aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA C	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VA C	MR (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	AI St																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
35	70	V-2																			
C.	<p>STARTS ROLL IN AND CLIMB</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls turn heading)</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Discerns requirement to start turn, climb to target vector</p>	<p>CR-10 C 195</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA C</td> <td>SC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>SP</td> <td>AI/SC RU/Th</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>25</td> <td>125</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron and rudder, moves stabilator, moves throttle</p>	1 C	2 Me	3 Mo	VA C	SC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	SP	AI/SC RU/Th	INPUT INDEX	I/O INDEX	OUTPUT INDEX	25	125	V-5
1 C	2 Me	3 Mo																			
VA C	SC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	SP	AI/SC RU/Th																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
25	125	V-5																			
D.	<p>CONTINUES ROLL IN AND CLIMB</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron, stabilator & rudder pressure; throttle advance</p> <p><u>Motion</u>-Positive G onset, acceleration, pitching up, rolling</p>	<p>Determines satisfactory pitch & roll rate</p>	<p>CR-10 D 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>AI St RU</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </table> <p>Maintains aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	AI St RU	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	AI St RU																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	110	V-2																			

Defender aircraft, level at 20,000', 450 knots,
all systems checked and functioning, awaiting GCI
bearing plots; hostile aircraft at 27,000'.
AIM-7 attack

SITUATION

TASK NO. CR-1a TASK Air to air intercept/ Controlled Range AIRCRAFT F-4E

TASK GOAL Perform single turn conversion, launch AIM-7 DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
E.	<p>STOPS ROLL IN AND CLIMB</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	Determines proper pitch & bank angles approaching	<p>CR-1a E 220</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>SP</td> <td>225</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>225</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	SP	225	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	225	V-5
1 C	2 Me	3 Mo																						
VA	MC	A																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	SP	225																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
45	225	V-5																						
F.	<p>CONTINUES TURN/CLIMB</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Flt.Inst: cross check</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, stabilized pitch & roll</p>	Sustains climbing turn	<p>CR-1a F 272</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>I</td> <td>R</td> </tr> <tr> <td>M</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>30</td> <td>CP</td> <td>225</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	I	R	M			QUANTITY	DECISION PROC	MOTOR OUTPUT	30	CP	225	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																						
VC	I	R																						
M																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
30	CP	225																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
35	70	V-2																						
G.	<p>STARTS ROLL OUT, CONTINUES CLIMB</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling</p> <p>Tracking: radar scope</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls roll out)</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch, rolling</p>	Discerns point for roll out	<p>CR-1a G 220</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>SC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>225</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>225</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA	SC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	225	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	225	V-5
1 C	2 Me	3 Mo																						
VA	SC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	225																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
45	225	V-5																						
H.	<p>CONTINUES ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, constant pitch, rolling</p>	Determines satisfactory roll rate & constant pitch attitude	<p>CR-1a H 272</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>M</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>30</td> <td>CP</td> <td>225</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	R	M			QUANTITY	DECISION PROC	MOTOR OUTPUT	30	CP	225	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																						
VC	MC	R																						
M																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
30	CP	225																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
40	80	V-2																						

Defender aircraft, level at 20,000', 450 knots,
all systems checked and functioning, awaiting GCI
bearing plots; hostile aircraft at 27,000'.

SITUATION AIM-7 attack Controlled

TASK NO. CR-1a **TASK** Air to air intercept/ Range **AIRCRAFT** F-4E

TASK GOAL Perform single turn conversion, launch AIM-7 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
I.	<p>STOPS ROLL OUT, CONTINUES CLIMB</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling</p> <p>Flt.Inst: cross check</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, constant pitch, rolling</p>	Determines wings level attitude approaching with constant pitch	<p>CR-1a I 255</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>INFO</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA M</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>RA/S</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>225</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	INFO	INFO PROCESS	CONTINUITY	VA M	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	RA/S	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	225	V-5
1 C	2 Me	3 Mo																						
INFO	INFO PROCESS	CONTINUITY																						
VA M	MC	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
3-C	CP	RA/S																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
45	225	V-5																						
J.	<p>STARTS LEVEL OFF</p> <p><u>Visual</u>-Pitch att: climb Bank att: level</p> <p>Flt.Inst: HSI</p> <p>Trk.Inst: radar scope (target heading determination)</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO *(calls azimuth, elevation & overtake)</p> <p><u>Control</u>-Neutral aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, constant pitch</p>	Discerns level off at combat altitude	<p>CR-1a J 16</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>INFO</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>SC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>SP</td> <td>St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>40</td> <td>V-1</td> </tr> </tbody> </table> <p>Moves stabilator</p>	1 C	2 Me	3 Mo	INFO	INFO PROCESS	CONTINUITY	VA CM	SC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	SP	St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	40	V-1
1 C	2 Me	3 Mo																						
INFO	INFO PROCESS	CONTINUITY																						
VA CM	SC	R																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	SP	St																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
40	40	V-1																						
K.	<p>COMPLETES LEVEL OFF</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: level</p> <p>Flt.Inst: cross check</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO *communication - WSO</p> <p><u>Control</u>-Decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down</p>	Determines level at combat altitude	<p>CR-1a K 16</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>INFO</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>35</td> <td>V-1</td> </tr> </tbody> </table> <p>Relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	INFO	INFO PROCESS	CONTINUITY	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	SP	St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	35	V-1
1 C	2 Me	3 Mo																						
INFO	INFO PROCESS	CONTINUITY																						
VA CM	MC	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-C	SP	St																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
35	35	V-1																						
L.	<p>SETS COMBAT MACH</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO **(calls target & alt.)</p> <p><u>Control</u>-Decreased stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch stabilized</p>	Determines combat Mach achieved	<p>CR-1a L 16</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>INFO</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>Th</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>35</td> <td>V-1</td> </tr> </tbody> </table> <p>Adjusts throttle (minimum AB)</p>	1 C	2 Me	3 Mo	INFO	INFO PROCESS	CONTINUITY	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	SP	Th	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	35	V-1
1 C	2 Me	3 Mo																						
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INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
35	35	V-1																						

Defender aircraft, level at 20,000', 450 knots,
all systems checked and functioning, awaiting GCI
bearing plots; hostile aircraft at 27,000'.
SITUATION AIM-7 attack Controlled
TASK NO. CK-1a **TASK** Air to air intercept/ Range **AIRCRAFT** F-4E
TASK GOAL Perform single turn conversion, launch AIM-7 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION															
M.	<p>CONTINUES INTERCEPT VECTOR</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - GCI (calls target hostile)</p> <p><u>Control</u>-Throttle advance</p> <p><u>Motion</u>-Normal G, acceleration</p>	<p>Discerns GCI communication & need to acknowledge</p> <p>Sustains level flight</p>	<p><i>CK-1a M 217</i></p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>SC</td> <td>A</td> </tr> <tr> <td>CM</td> <td>(I)</td> <td></td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>A/PS SC</td> </tr> <tr> <td>30</td> <td>60</td> <td>V-2</td> </tr> </tbody> </table> <p>Activates master arm</p> <p>Maintains required aileron & stabilator control, activates mic. button, communicates</p>	1 C	2 Me	3 Mo	VA	SC	A	CM	(I)		4-C	SP	A/PS SC	30	60	V-2
1 C	2 Me	3 Mo																
VA	SC	A																
CM	(I)																	
4-C	SP	A/PS SC																
30	60	V-2																
N.	<p>CONTINUES INTERCEPT VECTOR</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Flt.Inst: HSI</p> <p>Armament: Msl. status</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls "Judy" - taking over intercept)</p> <p><u>Control</u>-Aileron & stabilator pressure, master arm function</p> <p><u>Motion</u>-Normal G, mic. button function</p>	<p>Discerns satis- factory vector information</p> <p>Sustains level flight</p>	<p><i>CK-1a N 212</i></p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>SC</td> <td>A</td> </tr> <tr> <td>CM</td> <td>(I)</td> <td></td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>A/ SC</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA	SC	A	CM	(I)		4-C	CP	A/ SC	45	90	V-2
1 C	2 Me	3 Mo																
VA	SC	A																
CM	(I)																	
4-C	CP	A/ SC																
45	90	V-2																
O.	<p>CONTINUES INTERCEPT</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p><u>Aural</u>-Normal aircraft sound, **communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Sustains level flight</p>	<p><i>CK-1a O 132</i></p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>I</td> <td>A</td> </tr> <tr> <td>C</td> <td></td> <td></td> </tr> <tr> <td>3-C</td> <td>SP</td> <td>A/ SC</td> </tr> <tr> <td>25</td> <td>50</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA	I	A	C			3-C	SP	A/ SC	25	50	V-2
1 C	2 Me	3 Mo																
VA	I	A																
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TASK GOAL Perform single turn conversion, launch AIM-7 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
P.	<p>PREPARES HARD TURN TO TARGET</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p><u>Aural</u>-Normal aircraft sound, **communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates turn to intercept vector</p> <p>Sustains level flight</p>	<p>CR-1a P 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>NR</td> <td>A</td> </tr> <tr> <td>QTY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>PA/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>OUTPUT INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>25</td> <td>50</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA	NR	A	QTY	DECISION PROC	MOTOR OUTPUT	3-C	CP	PA/St	INPUT INDEX	OUTPUT INDEX	OUTPUT INDEX	25	50	V-2			
1 C	2 Me	3 Mo																						
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QTY	DECISION PROC	MOTOR OUTPUT																						
3-C	CP	PA/St																						
INPUT INDEX	OUTPUT INDEX	OUTPUT INDEX																						
25	50	V-2																						
Q.	<p>STARTS TURN TO INTERCEPT VECTOR</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines need to start turn to attack vector</p>	<p>CR-1a Q 270</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QTY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>PA/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>OUTPUT INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>25</td> <td>125</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates (rapid) aileron & rudder with throttle movement</p>	1 C	2 Me	3 Mo	VC	MC	R	QTY	DECISION PROC	MOTOR OUTPUT	2-C	CP	PA/St	INPUT INDEX	OUTPUT INDEX	OUTPUT INDEX	25	125	V-5			
1 C	2 Me	3 Mo																						
VC	MC	R																						
QTY	DECISION PROC	MOTOR OUTPUT																						
2-C	CP	PA/St																						
INPUT INDEX	OUTPUT INDEX	OUTPUT INDEX																						
25	125	V-5																						
R.	<p>CONTINUES ROLL IN</p> <p><u>Visual</u>-Pitch att: level Bank att: rolling</p> <p>Flt.Inst: ADI Trk.Inst: radar scope</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder pressure, throttle advance</p> <p><u>Motion</u>-Normal G, rolling</p>	<p>Determines satisfactory roll rate & need for stabilator to maintain level turn</p>	<p>CR-1a R 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QTY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>PA/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>OUTPUT INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>225</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure, moves stabilator</p>	1 C	2 Me	3 Mo	VA	MC	R	CM			QTY	DECISION PROC	MOTOR OUTPUT	4-C	CP	PA/St	INPUT INDEX	OUTPUT INDEX	OUTPUT INDEX	45	225	V-5
1 C	2 Me	3 Mo																						
VA	MC	R																						
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QTY	DECISION PROC	MOTOR OUTPUT																						
4-C	CP	PA/St																						
INPUT INDEX	OUTPUT INDEX	OUTPUT INDEX																						
45	225	V-5																						
S.	<p>STOPS ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p><u>Aural</u>-Normal aircraft sound **communication - WSO</p> <p><u>Control</u>-Increased stabilator pressure, constant aileron & rudder pressure</p> <p><u>Motion</u>-Positive G onset, rolling, pitching up</p>	<p>Determines correct bank angle approaching</p>	<p>CR-1a S 29</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QTY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>PA/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>OUTPUT INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>225</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	CM			QTY	DECISION PROC	MOTOR OUTPUT	4-C	SP	PA/St	INPUT INDEX	OUTPUT INDEX	OUTPUT INDEX	45	225	V-5
1 C	2 Me	3 Mo																						
VA	MC	A																						
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QTY	DECISION PROC	MOTOR OUTPUT																						
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INPUT INDEX	OUTPUT INDEX	OUTPUT INDEX																						
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TASK GOAL Perform single turn conversion, launch AIM-7 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
T.	<p>CONTINUES TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Flt.Inst: ADI, Alt.</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Neutral aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	Sustains turn	<p>CR-1a T 132</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC</td> <td>I</td> <td>A</td> </tr> <tr> <td>M</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>SP</td> <td>A¹/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VC	I	A	M			QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	SP	A ¹ /St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																						
VC	I	A																						
M																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
3-C	SP	A ¹ /St																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
40	80	V-2																						
U.	<p>STARTS ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Flt.Inst: ADI, HSI</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls "roll out")</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	Discerns roll out point	<p>CR-1a U 200</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>SC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>A¹/R/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>215</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA	SC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	SP	A ¹ /R/St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	215	V-5
1 C	2 Me	3 Mo																						
VA	SC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-C	SP	A ¹ /R/St																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
55	215	V-5																						
V.	<p>CONTINUES ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder, decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines satisfactory roll rate	<p>CR-1a V 200</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>AM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>A¹/R/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>200</td> <td>V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder pressure, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	R	AM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	A ¹ /R/St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	200	V-5
1 C	2 Me	3 Mo																						
VC	MC	R																						
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INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
40	200	V-5																						
W.	<p>STOPS ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling Flt.Inst: ADI, HSI</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines point for roll out achieved	<p>CR-1a W 20</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>A¹/R/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	SP	A ¹ /R/St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																						
VA	MC	A																						
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QUANTITY	DECISION PROC	MOTOR OUTPUT																						
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INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
50	250	V-5																						

Defender aircraft, level at 20,000', 450 knots,
all systems checked and functioning, awaiting GCI
bearing plots; hostile aircraft at 27,000'.
SITUATION AIM-7 attack Controlled
TASK NO. CR-1a **TASK** Air to air intercept/ Range **AIRCRAFT** F-4E
TASK GOAL Perform single turn conversion, launch AIM-7 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
X.	<p>PREPARES FOR FINAL ATTACK</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Trk.Inst: radar scope</p> <p><u>Aural</u>-Normal aircraft sound, **communication - WSO</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Normal G, pitch & roll stabilized</p>	<p>Anticipates final attack steering</p> <p>Sustains level flight</p>	<p>CR-1a X 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>1st</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	1st	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																			
VA CM	MR (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	1st																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
35	70	V-2																			
Y.	<p>PRESSES FINAL ATTACK STEERING</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines turn & climb required to achieve firing envelope position</p>	<p>CR-1a Y 370</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>1st R/R/1st</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>20</td> <td>100</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder movement, moves stabilator</p>	1 C	2 Me	3 Mo	VC	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	2-C	CP	1st R/R/1st	INPUT INDEX	I/O INDEX	OUTPUT INDEX	20	100	V-5
1 C	2 Me	3 Mo																			
VC	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
2-C	CP	1st R/R/1st																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
20	100	V-5																			
Z.	<p>CONTINUES ROLL IN TO FINAL ATTACK</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Trk.Inst: radar scope attack display</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls "you have the dot" - pilot now has control of intercept)</p> <p><u>Control</u>-Increased aileron rudder & stabilator pressure</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	<p>Determines correct- ives to pitch & roll rates</p>	<p>CR-1a Z 377</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>1st R/R</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains aileron & rudder pressure with constant stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	1st R/R	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	1st R/R																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	100	V-2																			
AA.	<p>STOPS ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Trk.Inst: radar scope attack display</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	<p>Determines proper pitch & bank angle approaching</p>	<p>CR-1a AA 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>1st R/R</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>46</td> <td>225</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VC M	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	1st R/R	INPUT INDEX	I/O INDEX	OUTPUT INDEX	46	225	V-5
1 C	2 Me	3 Mo																			
VC M	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
3-C	CP	1st R/R																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
46	225	V-5																			

Defender aircraft, level at 20,000', 450 knots,
all systems checked and functioning, awaiting GCI
bearing plots; hostile aircraft at 27,000'.
SITUATION AIM-7 attack Controlled
TASK NO. CR-1a **TASK** Air to air intercept/ Range **AIRCRAFT** F-4E
TASK GOAL Perform single turn conversion, launch AIM-7 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																								
BB.	<p>CONTINUES TURN TO FINAL ATTACK VECTOR</p> <p><u>Visual</u>-Pitch att: climb (constant) Bank att: rolling</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls target range & launch range)</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching up, roll stabilizing</p>	Sustains turn	<p>CR-1a BB 157</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>I</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>SP</td> <td>AI RU St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA	I	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	SP	AI RU St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
VA	I	R																									
CM																											
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
40	SP	AI RU St																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
35	70	V-2																									
CC.	<p>STARTS ROLL OUT ON ATTACK VECTOR</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling</p> <p>Trk.Inst: radar scope attack display</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	Determines lead point for roll out achieved	<p>CR-1a CC 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>M</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>AI RU St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>225</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VC	MC	R	M			QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	AI RU St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	225	V-5
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
VC	MC	R																									
M																											
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
3-0	CP	AI RU St																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
45	225	V-5																									
DD.	<p>CONTINUES ROLL OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: rolling</p> <p>Trk.Inst: radar scope attack display</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls target range & launch range)</p> <p><u>Control</u>-Increased aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitch constant, rolling</p>	Determines need for minor corrections in pitch attitude & roll rate to center steering dot	<p>CR-1a DD 272</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>AI RU St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </tbody> </table> <p>Moves aileron & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	AI RU St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
VA	MC	R																									
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QUANTITY	DECISION PROC	MOTOR OUTPUT																									
40	CP	AI RU St																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
50	100	V-2																									

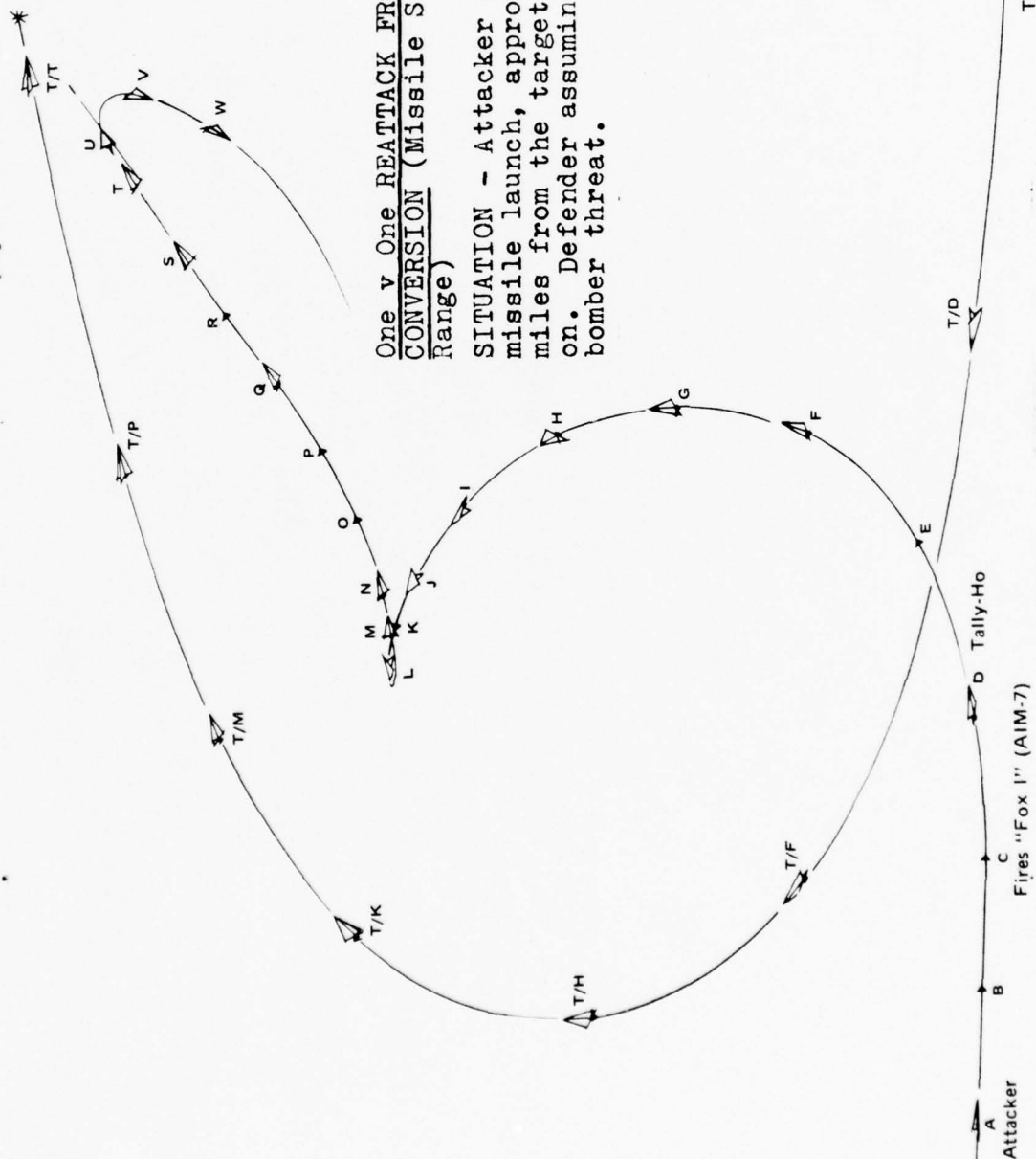
Defender aircraft, level at 20,000', 450 knots,
all systems checked and functioning, awaiting GCI
bearing plots; hostile aircraft at 27,000'.

SITUATION AIM-7 attack Controlled

TASK NO. CR-1a **TASK** Air to air intercept/ Range **AIRCRAFT** F-4E

TASK GOAL Perform single turn conversion, launch AIM-7 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																								
EE.	<p>STOPS ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Trk.Inst: radar scope attack display</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron, decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines steering dot centered	<p>CR-1a EE 37</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>INFO</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>SP</td> <td>/A/ R/ St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Maintains aileron, stabilator & rudder pressure</p>	1 C	2 Me	3 Mo	INFO	INFO PROCESS	CONTINUITY	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	SP	/A/ R/ St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																									
INFO	INFO PROCESS	CONTINUITY																									
VA	MC	R																									
CM																											
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
A-C	SP	/A/ R/ St																									
INPUT INDEX	I/O INPUT	OUTPUT INDEX																									
45	90	V-2																									
FF.	<p>FIRES AIM-7 MISSILE</p> <p><u>Visual</u>-Pitch att: climb Bank att: level</p> <p>Trk.Inst: radar scope attack display</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO (calls in range)</p> <p><u>Control</u>-Constant aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Normal G, pitch & roll constant</p>	<p>Determines in heart of launch envelope & time to fire AIM-7 (dot in ASE circle while expanding)</p> <p>Sustains climb</p>	<p>CR-1a FF 317</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>INFO</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td>(I)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>/A/ St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control, activates missile firing trigger (twice)</p>	1 C	2 Me	3 Mo	INFO	INFO PROCESS	CONTINUITY	VA	MC	R	CM	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	A-C	CP	/A/ St	INPUT INDEX	I/O INPUT	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																									
INFO	INFO PROCESS	CONTINUITY																									
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INPUT INDEX	I/O INPUT	OUTPUT INDEX																									
50	100	V-2																									



One v One REATTACK FROM A SINGLE TURN
CONVERSION (Missile Shot, Controlled
Range)

SITUATION - Attacker set for "Fox I" missile launch, approximately 4 to 6 miles from the target, with radar lock-on. Defender assuming the roll of a bomber threat.

Reattack maneuver diagram.

Attacker set for "Fox I" missile launch, approximately 4 to 6 miles from the target, with radar lock-on.
SITUATION Defender assuming roll of a bomber threat.

TASK NO. CR-2a **TASK** Reattack/Controlled Range **AIRCRAFT** F-4E
 To Reattack from Single Turn
TASK GOAL Conversion and launch AIM-9 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
A.	<p>APPROACHES "FOX I" MISSILE SHOT (FRONT QUARTERING ATTACK)</p> <p><u>Visual</u>-Pitch att: level Bank att: constant</p> <p>Trk.Inst: radar scope attack display</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO *(calls azimuth, elevation, range & knots overtake in relation to hostile aircraft)</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines "Fox I" parameters approaching (steering dot centering)</p> <p>Sustains climb</p>	<p>CR-2a A 295</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>C</td> <td>(I)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI RS SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, rudder & stabilator control</p>	1 C	2 Me	3 Mo	VA	MC	A	C	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI RS SE	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																						
VA	MC	A																						
C	(I)																							
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
3-C	CP	AI RS SE																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
35	70	V-2																						
B.	<p>PREPARES FOR "FOX I" LAUNCH & REATTACK</p> <p><u>Visual</u>-Pitch att: level Bank att: constant</p> <p>Trk.Inst: radar scope attack display</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates missile launch & reattack</p> <p>Sustains climb</p>	<p>CR-2a B 332</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>C</td> <td>(I)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI RS SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, rudder & stabilator control</p>	1 C	2 Me	3 Mo	VA	MC	A	C	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI RS SE	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																						
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QUANTITY	DECISION PROC	MOTOR OUTPUT																						
3-C	CP	AI RS SE																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
35	70	V-2																						
C.	<p>LAUNCHES "FOX I" (AIM-7)</p> <p><u>Visual</u>-Pitch att: level Bank att: constant</p> <p>Trk.Inst: radar scope attack display</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines proper missile launch parameters, need to launch missile & communicate (call "Fox I" to GCI)</p> <p>Sustains climb</p>	<p>CR-2a C 292</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>C</td> <td>(I)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI RS SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INPUT</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Activates trigger; maintains required aileron, rudder & stabilator control; activates mic. button; communicates</p>	1 C	2 Me	3 Mo	VA	MC	A	C	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	3-C	CP	AI RS SE	INPUT INDEX	I/O INPUT	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																						
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QUANTITY	DECISION PROC	MOTOR OUTPUT																						
3-C	CP	AI RS SE																						
INPUT INDEX	I/O INPUT	OUTPUT INDEX																						
35	70	V-2																						

SITUATION Attacker set for "Fox I" missile launch, approximately 4 to 6 miles from the target, with radar lock-on. Defender assuming roll of a bomber threat.

TASK NO. CR-2a TASK Reattack/Controlled Range AIRCRAFT F-4E
To Reattack from Single Turn
TASK GOAL Conversion and launch AIM-9 DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION
D.	STARTS PULL-UP OUT OF HOSTILE PLANE <u>Visual</u> -Pitch att: level Bank att: constant <u>Aural</u> -Normal aircraft sound, communication - WSO (calls "come hard up, left") <u>Control</u> -Aileron, rudder & stabilator pressure; trigger function; mic. function <u>Motion</u> -Normal G	Discerns need to pull & add power, and locate target visually	CR-2a D 195 1 C 2 Me 3 Mo VA SC R 3-0 SP 200 40 200 V-5 Coordinates aileron & rudder pressure, moves stabilator, moves throttle (to AB)
E.	CONTINUES PULL UP INTO LEFT TURN <u>Visual</u> -Pitch att: increasing Bank att: rolling Target (aircraft) <u>Aural</u> -Chg. in aircraft sound <u>Control</u> -Increased aileron & rudder pressure, increasing stabilator pressure, throttle advance <u>Motion</u> -Positive G onset, pitching up, rolling	Discerns target & need to continue pull-up out of hostile aircraft's plane & call "Tally Ho"	CR-2a E 240 1 C 2 Me 3 Mo VA SC R 40 CP 275 55 275 V-5 Maintains coordinated aileron & rudder pressure, moves stabilator, communicates (calls "Tally Ho" to WSO)
F.	CONTINUES PULL-UP AND LEFT TURN <u>Visual</u> -Pitch att: increasing Bank att: rolling Target <u>Aural</u> -Chg. in aircraft sound, communication - WSO (calls "Stab Out") <u>Control</u> -Constant aileron & rudder pressure, increased stabilator pressure <u>Motion</u> -Increasing positive G, pitching up, rolling	Determines need to continue pull & roll to stay behind target aircraft's 3-9 line & make aero call to WSO (target's position)	CR-2a F 277 1 C 2 Me 3 Mo VA MC R 40 CP 110 55 110 V-2 Maintains constant aileron, rudder & stabilator pressure; communicates (pilot calls target's position in relation to wings of aircraft)

Attacker set for "Fox I" missile launch, approximately
4 to 6 miles from the target, with radar lock-on.
Defender assuming roll of a bomber threat.

SITUATION

TASK NO. CR-2a **TASK** Reattack/Controlled Range **AIRCRAFT** F-4E
To Reattack from Single Turn
TASK GOAL Conversion and launch AIM-9 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
G.	<p>CONTINUES PULL-UP & ROLL OVER THE TOP</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - pilot to WSO</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant G, pitching up, rolling</p>	Determines need to roll over the top toward target aircraft's flight path & make aero call to WSO	<p>CR-2a G 273</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY A-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A1 25 Cm</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INDEX 110</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Maintains constant aileron, rudder & stabilator pressure; communicates - WSO</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY A-C	DECISION PROC CP	MOTOR OUTPUT A1 25 Cm	INPUT INDEX 55	I/O INDEX 110	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY A-C	DECISION PROC CP	MOTOR OUTPUT A1 25 Cm													
INPUT INDEX 55	I/O INDEX 110	OUTPUT INDEX V-2													
H.	<p>STARTS ROLL OVER THE TOP</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant G, pitching up, rolling</p>	Determines adequate vertical & lateral separation, need to roll over the top to target aircraft's flight path & make aero call to WSO	<p>CR-2a H 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY A-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A1 25 Cm</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INDEX 275</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Coordinates aileron & rudder, relaxes stabilator pressure, communicates - WSO</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY A-C	DECISION PROC CP	MOTOR OUTPUT A1 25 Cm	INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY A-C	DECISION PROC CP	MOTOR OUTPUT A1 25 Cm													
INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V-5													
I.	<p>CONTINUES ROLL OVER THE TOP</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Increased aileron & rudder pressure, reduced stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines adequate vertical & lateral separation, & need to continue roll rate	<p>CR-2a I 274</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY A-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A1 25 Cm</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INDEX 220</td> <td>OUTPUT INDEX V-4</td> </tr> </table> <p>Maintains coordinated aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY A-C	DECISION PROC CP	MOTOR OUTPUT A1 25 Cm	INPUT INDEX 55	I/O INDEX 220	OUTPUT INDEX V-4
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY A-C	DECISION PROC CP	MOTOR OUTPUT A1 25 Cm													
INPUT INDEX 55	I/O INDEX 220	OUTPUT INDEX V-4													
J.	<p>CONTINUES ROLL OVER THE TOP (INVERTED) TOWARDS TARGET'S FLIGHT PATH</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching down, rolling</p>	Determines proper flight path position in relation to target aircraft, need to continue roll down into target's plane, & need to make aero call to WSO	<p>CR-2a J 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY A-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A1 25 Cm</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 250</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder pressure, moves stabilator, communicates - WSO</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY A-C	DECISION PROC CP	MOTOR OUTPUT A1 25 Cm	INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY A-C	DECISION PROC CP	MOTOR OUTPUT A1 25 Cm													
INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5													

Attacker set for "Fox I" missile launch, approximately 4 to 6 miles from the target, with radar lock-on.
SITUATION Defender assuming roll of a bomber threat.

TASK NO. CR-2a **TASK** Reattack/Controlled Range **AIRCRAFT** F-4E
 To Reattack from Single Turn
TASK GOAL Conversion and launch AIM-9 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
K.	<p>CONTINUES ROLL & PULL TO TARGET AIRCRAFT'S FLIGHT PATH</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitching down, rolling</p>	<p>Determines proper roll rate & need to continue pull down to target aircraft's plane</p>	<p>CR-2a K 279</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>VA/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>10 INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>220</td> <td>V-4</td> </tr> </table> <p>Maintains coordinated aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION	MOTOR OUTPUT	4-C	CP	VA/SC	INPUT INDEX	10 INDEX	OUTPUT INDEX	55	220	V-4
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION	MOTOR OUTPUT																			
4-C	CP	VA/SC																			
INPUT INDEX	10 INDEX	OUTPUT INDEX																			
55	220	V-4																			
L.	<p>ADJUSTS ROLL AND PULL TO GET INSIDE TARGET'S FLIGHT PATH, SLIGHTLY LOW</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching down, rolling</p>	<p>Determines roll out point approaching, need to adjust roll rate & make aero call to WSO</p>	<p>CR-2a L 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>VA/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>10 INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder, maintains required stabilator pressure, communicates - WSO</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION	MOTOR OUTPUT	4-C	CP	VA/SC	INPUT INDEX	10 INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION	MOTOR OUTPUT																			
4-C	CP	VA/SC																			
INPUT INDEX	10 INDEX	OUTPUT INDEX																			
50	250	V-5																			
M.	<p>STARTS ROLL OUT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Increasing aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching down, rolling</p>	<p>Determines roll out point approaching & need to begin roll out</p>	<p>CR-2a M 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>VA/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>10 INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder, moves stabilator</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION	MOTOR OUTPUT	4-C	CP	VA/SC	INPUT INDEX	10 INDEX	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION	MOTOR OUTPUT																			
4-C	CP	VA/SC																			
INPUT INDEX	10 INDEX	OUTPUT INDEX																			
55	275	V-5																			
N.	<p>CONTINUES ROLL OUT</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increasing aileron rudder & stabilator pressure</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	<p>Determines proper roll out rate, need to continue roll out & give aero call to WSO</p>	<p>CR-2a N 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>VA/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>10 INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Maintains coordinated aileron, rudder & stabilator pressure; communicates - WSO</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION	MOTOR OUTPUT	4-C	CP	VA/SC	INPUT INDEX	10 INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION	MOTOR OUTPUT																			
4-C	CP	VA/SC																			
INPUT INDEX	10 INDEX	OUTPUT INDEX																			
50	250	V-5																			

SITUATION Attacker set for "Fox I" missile launch, approximately 4 to 6 miles from the target, with radar lock-on. Defender assuming roll of a bomber threat.

TASK NO. CR-2a **TASK** Reattack/Controlled Range **AIRCRAFT** F-4E
To Reattack from Single Turn
TASK GOAL Conversion and launch AIM-9 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
O.	<p>STOPS ROLL OUT</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	<p>Determines roll out complete, need to stop roll out & give aero call to WSO</p>	<p>CR-2a O 40</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>AI St R/CM</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder, relaxes stabilator, communicates - WSO</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	SP	AI St R/CM	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	SP	AI St R/CM																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	275	V-5																			
P.	<p>ESTABLISHED BEHIND TARGET & BELOW FLIGHT PATH OUTSIDE "FOX II"</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target</p> <p>Sight</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Increased aileron & rudder pressure, reduced stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	<p>Determines need to cage radar (5 mi. & boresight) & activate Auto. Acq. mode</p> <p>Sustains pursuit curve</p>	<p>CR-2a P 347</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>AI St R/CM</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, rudder & stabilator control; activates radar cage button & Auto. Acq. button</p>	1 C	2 Me	3 Mo	VA CM	MC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	AI St R/CM	INPUT INDEX	I/O INDEX	OUTPUT INDEX	60	120	V-2
1 C	2 Me	3 Mo																			
VA CM	MC (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	AI St R/CM																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
60	120	V-2																			
Q.	<p>PREPARES FOR MISSILE SHOT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target</p> <p>Sight/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO (calls "Lock On")</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure; radar cage switch function; Auto Acq. function</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	<p>Anticipates missile parameters approaching & missile launch sequence</p> <p>Sustains turn</p>	<p>CR-2a Q 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>AI St R/CM</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>70</td> <td>140</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, rudder & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-C	CP	AI St R/CM	INPUT INDEX	I/O INDEX	OUTPUT INDEX	70	140	V-2
1 C	2 Me	3 Mo																			
VA CM	MR (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
4-C	CP	AI St R/CM																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
70	140	V-2																			

SITUATION Attacker set for "Fox I" missile launch, approximately 4 to 6 miles from the target, with radar lock-on. Defender assuming roll of a bomber threat.

TASK NO. CR-2a **TASK** Reattack/Controlled Range **AIRCRAFT** F-4E
TASK GOAL To Reattack from Single Turn Conversion and launch AIM-9 **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
R.	<p>STARTS MISSILE LAUNCH SEQUENCE</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Target Sight/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO (calls range & overtake)</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G</p>	<p>Determines slant range decreasing & need to set pinkie switch to heat function</p> <p>Sustains turn</p>	<p>CR-2a R 297</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>AI & RUDS</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, rudder & stabilator control; activates pinkie switch (heat function)</p>	1 C	2 Me	3 Mo	VA CM	MC (I)	A	4-C	CP	AI & RUDS	50	100	V-2
1 C	2 Me	3 Mo													
VA CM	MC (I)	A													
4-C	CP	AI & RUDS													
50	100	V-2													
S.	<p>CONTINUES MISSILE LAUNCH SEQUENCE</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Target Sight/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO (calls range & overtake, weapons tone - growl)</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure; pinkie switch function</p> <p><u>Motion</u>-Constant positive G</p>	<p>Determines missile parameters approaching & launch imminent</p> <p>Sustains turn</p>	<p>CR-2a S 297</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>AI & RUDS</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, rudder & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MC (I)	A	4-C	CP	AI & RUDS	60	120	V-2
1 C	2 Me	3 Mo													
VA CM	MC (I)	A													
4-C	CP	AI & RUDS													
60	120	V-2													
T.	<p>FIRES AIM-9 (FOX II) MISSILE</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Target Sight/pipper</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO (calls "In Range", weapon tone)</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G</p>	<p>Determines proper missile parameters achieved & need to launch missile separate from target aircraft</p> <p>Sustains turn</p>	<p>CR-2a T 297</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>AI & RUDS</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, rudder & stabilator control; activates trigger</p>	1 C	2 Me	3 Mo	VA CM	MC (I)	A	4-C	CP	AI & RUDS	55	110	V-2
1 C	2 Me	3 Mo													
VA CM	MC (I)	A													
4-C	CP	AI & RUDS													
55	110	V-2													

Attacker set for "Fox II" missile launch, approximately 4 to 6 miles from the target, with radar lock-on. Defender assuming roll of a bomber threat.

SITUATION

TASK NO. CR-2a TASK Reattack/Controlled Range AIRCRAFT F-4E
 To Reattack from Single Turn
 TASK GOAL Conversion and launch AIM-9 DATE Sept., 1977

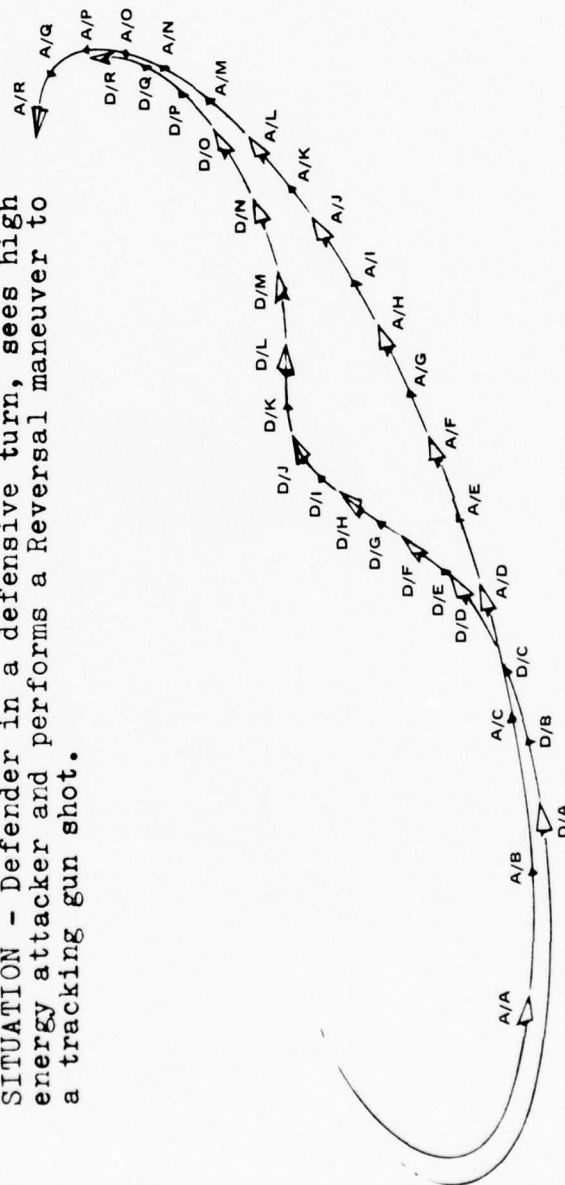
EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
U.	<p>STARTS ROLL AWAY FROM TARGET</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Target</p> <p><u>Aural</u>-Chg. in aircraft sound, weapon tone (stopped)</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure; trigger function</p> <p><u>Motion</u>-Constant positive G</p>	<p>& BEGINS SEPARATION</p> <p>Determines need to roll away from target (unload & separate from the attack)</p>	<p>CR-2a U 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/S R/S</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 250</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder, moves stabilator</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/S R/S	INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/S R/S													
INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5													
V.	<p>CONTINUES SEPARATION</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Negative G onset, pitching down, rolling</p>	<p>Determines satisfactory pitch & roll attitude, & need to call "Fox II" to GCI</p>	<p>CR-2a V 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/S R/S CM</td> </tr> <tr> <td>INPUT INDEX 45</td> <td>I/O INDEX 90</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains aileron & rudder pressure, decreased stabilator pressure, activates mic. button, communicates - GCI</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/S R/S CM	INPUT INDEX 45	I/O INDEX 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/S R/S CM													
INPUT INDEX 45	I/O INDEX 90	OUTPUT INDEX V-2													
W.	<p>STOPS SEPARATION</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure; mic. switch function</p> <p><u>Motion</u>-Constant negative G, pitching down, rolling</p>	<p>Determines separation complete, need to return to straight & level cruise, need for trim</p>	<p>CR-2a W 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/S R/S CM</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 250</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder, relaxes stabilator pressure, moves throttle (out of AB), adjusts trim</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/S R/S CM	INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/S R/S CM													
INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5													

One v One REVERSAL

(Tracking Gun Shot, Like Aircraft, Controlled Range)

SITUATION - Attacker fails to Yo-Yo and overshoots due to excess energy.

SITUATION - Defender in a defensive turn, sees high energy attacker and performs a Reversal maneuver to a tracking gun shot.



Reversal and counter reversal maneuver diagram.

SITUATION Defender in a defensive turn, sees high energy attacker and performs a Reversal maneuver to a tracking gun shot.

TASK NO. CR-3a TASK Reversal/Controlled Range AIRCRAFT F-4E

TASK GOAL Defender to become the attacker DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
A.	<p>ESTABLISHED LEVEL DEFENSIVE TURN/ATTACKER IN SIGHT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Threat (aircraft) <u>Aural</u>-Normal aircraft sound, communication - WSO *(calls threat's position) <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Constant positive G</p>	<p>Determines attacker's range & recognizes overtake</p> <p>Sustains defensive turn</p>	<p>CR-3a A 292</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PRIO CP</td> <td>MOTOR OUTPUT 1/2 A SE</td> </tr> <tr> <td>INPUT INDEX 35</td> <td>TO INDEX 70</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Checks six, maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MC (I)	A	QUANTITY 40	DECISION PRIO CP	MOTOR OUTPUT 1/2 A SE	INPUT INDEX 35	TO INDEX 70	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC (I)	A													
QUANTITY 40	DECISION PRIO CP	MOTOR OUTPUT 1/2 A SE													
INPUT INDEX 35	TO INDEX 70	OUTPUT INDEX V-2													
B.	<p>CONTINUES TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Threat <u>Aural</u>-Normal aircraft sound, *communication - WSO <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Constant positive G</p>	<p>Determines overshoot developing & need to increase turn rate of force overshoot</p>	<p>CR-3a B 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PRIO CP</td> <td>MOTOR OUTPUT 1/2 A SE</td> </tr> <tr> <td>INPUT INDEX 35</td> <td>TO INDEX 175</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Checks six, coordinates aileron & rudder pressure, moves stabilator</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 40	DECISION PRIO CP	MOTOR OUTPUT 1/2 A SE	INPUT INDEX 35	TO INDEX 175	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 40	DECISION PRIO CP	MOTOR OUTPUT 1/2 A SE													
INPUT INDEX 35	TO INDEX 175	OUTPUT INDEX V-5													
C.	<p>CONTINUES TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: constant Threat <u>Aural</u>-Chg. in aircraft sound, *communication - WSO <u>Control</u>-Increased aileron, rudder & stabilator pressure <u>Motion</u>-Increasing positive G</p>	<p>Determines overshoot continuing & need to increase turn rate & reduce power</p>	<p>CR-3a C 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PRIO CP</td> <td>MOTOR OUTPUT 1/2 A SE</td> </tr> <tr> <td>INPUT INDEX 45</td> <td>TO INDEX 225</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Checks six, coordinates aileron & rudder pressure, moves stabilator, reduces throttle</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 40	DECISION PRIO CP	MOTOR OUTPUT 1/2 A SE	INPUT INDEX 45	TO INDEX 225	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 40	DECISION PRIO CP	MOTOR OUTPUT 1/2 A SE													
INPUT INDEX 45	TO INDEX 225	OUTPUT INDEX V-5													
D.	<p>CONTINUES TURN AS OVERSHOOT DEVELOPS/ATTACKER SLIDES THRU 6 O'CLOCK POSITION</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling Threat <u>Aural</u>-Chg. in aircraft sound *communication - WSO <u>Control</u>-Aileron, rudder & stabilator pressure; throttle function <u>Motion</u>-Increasing positive G, deceleration</p>	<p>Determines attacker definitely overshooting</p> <p>Sustains turn</p>	<p>CR-3a D 292</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PRIO CP</td> <td>MOTOR OUTPUT 1/2 A SE</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>TO INDEX 110</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Checks six, maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MC (I)	A	QUANTITY 40	DECISION PRIO CP	MOTOR OUTPUT 1/2 A SE	INPUT INDEX 55	TO INDEX 110	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC (I)	A													
QUANTITY 40	DECISION PRIO CP	MOTOR OUTPUT 1/2 A SE													
INPUT INDEX 55	TO INDEX 110	OUTPUT INDEX V-2													

SITUATION Defender in a defensive turn, sees high energy attacker and performs a Reversal maneuver to a tracking gun shot.

TASK NO. CR-3a TASK Reversal/Controlled Range AIRCRAFT F-4E

TASK GOAL Defender to become the attacker DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
E.	<p>PREPARES FOR REVERSAL</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant <u>Aural</u>-Chg. in aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Constant max. G</p>	<p>Anticipates need to start reversal</p> <p>Sustains turn</p>	<p>CR-3a E 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MR</td> <td>A</td> </tr> <tr> <td>CM</td> <td>(I)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>AI</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>30</td> <td>60</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA	MR	A	CM	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	AC	CP	AI	INPUT INDEX	I/O INDEX	OUTPUT INDEX	30	60	V-2
1 C	2 Me	3 Mo																						
VA	MR	A																						
CM	(I)																							
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
AC	CP	AI																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
30	60	V-2																						
F.	<p>STARTS REVERSAL</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant <u>Aural</u>-Chg. in aircraft sound <u>Control</u>-Aileron & stabilator pressure <u>Motion</u>-Constant positive G, buffeting</p>	<p>Determines proper time & position to start reversal & need for power (based on defender's last position & rate of overshoot)</p>	<p>CR-3a F 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>AI</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>175</td> <td>V-5</td> </tr> </tbody> </table> <p>Moves stabilator, coordinates (top) rudder & aileron pressure, moves throttle (to AB)</p>	1 C	2 Me	3 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	AC	CP	AI	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	175	V-5
1 C	2 Me	3 Mo																						
VA	MC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
AC	CP	AI																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
35	175	V-5																						
G.	<p>CONTINUES REVERSAL</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling Threat(back into view) <u>Aural</u>-Chg. in aircraft sound <u>Control</u>-Increasing aileron, rudder & stabilator pressure, throttle advance <u>Motion</u>-Increasing positive G, pitching up, rolling, buffeting, acceleration</p>	<p>Determines proper nose high attitude & roll rate based on relative positions</p>	<p>CR-3a G 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>AI</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>65</td> <td>130</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains top aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	AC	CP	AI	INPUT INDEX	I/O INDEX	OUTPUT INDEX	65	130	V-2
1 C	2 Me	3 Mo																						
VA	MC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
AC	CP	AI																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
65	130	V-2																						
H.	<p>CONTINUES REVERSAL</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling Threat <u>Aural</u>-Chg. in aircraft sound, AOA tone <u>Control</u>-Aileron, rudder & stabilator pressure <u>Motion</u>-Increasing positive G, pitching up, rolling, buffeting</p>	<p>Determines proper nose high attitude & roll rate achieved</p>	<p>CR-3a H 37</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>AC</td> <td>SP</td> <td>AI</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains aileron & rudder pressure, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	AC	SP	AI	INPUT INDEX	I/O INDEX	OUTPUT INDEX	60	120	V-2
1 C	2 Me	3 Mo																						
VA	MC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
AC	SP	AI																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
60	120	V-2																						

SITUATION Defender in a defensive turn, sees high energy attacker and performs a Reversal maneuver to a tracking gun shot.

TASK NO. CR-3a TASK Reversal/Controlled Range AIRCRAFT F-4E

TASK GOAL Defender to become the attacker DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
I.	<p>STOPS NOSE HIGH SEQUENCE OF REVERSAL</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling Threat</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron & rudder pressure, reduced stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching up, rolling</p>	<p>Determines proper position to continue reversal over the top (above & behind 3-9 line of attacking aircraft)</p>	<p>CR-3a F 257</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 100</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Maintains aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/SC	INPUT INDEX 50	I/O INDEX 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	A													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/SC													
INPUT INDEX 50	I/O INDEX 100	OUTPUT INDEX V-2													
J.	<p>STARTS ROLL OVER THE TOP</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Threat</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, rolling, buffeting</p>	<p>Determines need to continue roll over the top & pull down into attacker's 6 o'clock position</p>	<p>CR-3a J 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/R/SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 250</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Increases stabilator pressure, coordinates aileron & rudder pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/R/SC	INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/R/SC													
INPUT INDEX 50	I/O INDEX 250	OUTPUT INDEX V-5													
K.	<p>CONTINUES ROLL OVER THE TOP</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling Threat</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increasing aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	<p>Determines proper roll rate & rate of nose movement</p>	<p>CR-3a K 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/SC</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 100</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Maintains aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/SC	INPUT INDEX 50	I/O INDEX 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/SC													
INPUT INDEX 50	I/O INDEX 100	OUTPUT INDEX V-2													
L.	<p>CONTINUES ROLL OVER THE TOP/CLOSING TO 6 O'CLOCK POSITION</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling Threat</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching down, rolling acceleration</p>	<p>Determines closure rate & need to pull to inside of attacker's turn</p>	<p>CR-3a L 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/SC</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INDEX 110</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Maintains aileron and rudder, moves stabilator</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/SC	INPUT INDEX 55	I/O INDEX 110	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT A/SC													
INPUT INDEX 55	I/O INDEX 110	OUTPUT INDEX V-2													

SITUATION Defender in a defensive turn, sees high energy attacker and performs a Reversal maneuver to a tracking gun shot.

TASK NO. CR-3a TASK Reversal/Controlled Range

AIRCRAFT F-4E

TASK GOAL Defender to become the attacker

DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
M.	<p>STOPS ROLL OVER THE TOP/ROLLS OUT INSIDE ATTACKER'S FLIGHT PATH AT 3000 FEET OUT</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Threat (now becomes the target)</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder, increased stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling, acceleration</p>	<p>Determines proper position achieved & need to continue for gun attack</p>	<p>CR-3a M 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains aileron & rudder, increased stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1/2	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	1/2																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	110	V-2																			
N.	<p>ESTABLISHES TURN FOR GUN ATTACK</p> <p><u>Visual</u>-Pitch att: increasing Bank att: stabilized</p> <p>Target/sight</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder, increased stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching up, roll stabilized</p>	<p>Determines need to acquire Auto Acq. lock-on and point aircraft at target</p>	<p>CR-3a N 257</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains variable aileron, rudder and stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1/2	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	1/2																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	100	V-2																			
O.	<p>STARTS TURNING ATTACK</p> <p><u>Visual</u>-Pitch att: stabilized Bank att: constant</p> <p>Target/pipper</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch, roll stabilized</p>	<p>Determines need to activate Auto Acq. button</p> <p>Sustains turning attack</p>	<p>CR-3a O 292</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>MC (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>30</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains variable required aileron, rudder & stabilator pressure; activates Auto Acq. button</p>	1 C	2 Me	3 Mo	VC M	MC (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	30	CP	1/2	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VC M	MC (E)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
30	CP	1/2																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
45	90	V-2																			
P.	<p>CONTINUES TURNING ATTACK & ACQUIRES LOCK-ON</p> <p><u>Visual</u>-Pitch att: constant °(variable) Bank att: constant °(variable)</p> <p>Target/pipper</p> <p>Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, communication</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure Auto Acq. button</p> <p><u>Motion</u>-°Constant positive G °Constant pitch & roll</p>	<p>Determines radar lock-on & need to begin tracking solution</p>	<p>CR-3a P 257</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains variable required aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1/2	INPUT INDEX	I/O INDEX	OUTPUT INDEX	60	120	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	1/2																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
60	120	V-2																			

SITUATION Defender in a defensive turn, sees high energy attacker and performs a Reversal maneuver to a tracking gun shot.

TASK NO. CR-3a TASK Reversal/Controlled Range AIRCRAFT F-4E
TASK GOAL Defender to become the attacker DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																								
Q.	<p>PRESSES ATTACK AND FIRES</p> <p><u>Visual</u>-Pitch att: °Constant Bank att: °Constant</p> <p>Target/pipper Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-°Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-°Constant positive G, °constant pitch & roll</p>	Determines proper position to fire based on range & sight picture	<p>CR-3a Q 252</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>M</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTION OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AS RDS</td> </tr> <tr> <td>INPUT INDEX</td> <td>LO INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </table> <p>Maintains required variable aileron, rudder & stabilator pressure; activates trigger</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VC	MC	A	M			QUANTITY	DECISION PROC	MOTION OUTPUT	3-C	CP	AS RDS	INPUT INDEX	LO INDEX	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
VC	MC	A																									
M																											
QUANTITY	DECISION PROC	MOTION OUTPUT																									
3-C	CP	AS RDS																									
INPUT INDEX	LO INDEX	OUTPUT INDEX																									
50	100	V-2																									
R.	<p>CONTINUES TRACKING AND CEASES FIRE</p> <p><u>Visual</u>-Pitch att: °Constant Bank att: °Constant</p> <p>Target/pipper Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, weapons sound</p> <p><u>Control</u>-°Constant aileron, rudder & stabilator pressure; trigger function</p> <p><u>Motion</u>-°Constant positive G, °Constant pitch & roll</p>	Discerns target jinking	<p>CR-3a R 177</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>SC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTION OUTPUT</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>AS RDS</td> </tr> <tr> <td>INPUT INDEX</td> <td>LO INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </table> <p>Maintains required variable aileron, rudder & stabilator control; deactivates trigger</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA	SC	A	CM			QUANTITY	DECISION PROC	MOTION OUTPUT	4-C	SP	AS RDS	INPUT INDEX	LO INDEX	OUTPUT INDEX	60	120	V-2
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
VA	SC	A																									
CM																											
QUANTITY	DECISION PROC	MOTION OUTPUT																									
4-C	SP	AS RDS																									
INPUT INDEX	LO INDEX	OUTPUT INDEX																									
60	120	V-2																									

SITUATION Attacker fails to Yo-Yo and overshoots due to excess energy.

TASK NO. CR-4a TASK Reversal/Controlled Range AIRCRAFT F-4E

TASK GOAL Attacker to become defender DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
A.	<p>ESTABLISHED IN TURN INSIDE DEFENDER'S FLIGHT PATH</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target</p> <p>Aural-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G</p>	Sustains turn inside defender's flight path	<p>CR-4A 132</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC</td> <td>I</td> <td>A</td> </tr> <tr> <td>3-0</td> <td>SP</td> <td>1/2</td> </tr> <tr> <td>30</td> <td>60</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VC	I	A	3-0	SP	1/2	30	60	V-2
1 C	2 Me	3 Mo													
VC	I	A													
3-0	SP	1/2													
30	60	V-2													
B.	<p>CONTINUES TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target</p> <p>Aural-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G</p>	Determines overshoot developing & need to stay inside defender's flight path	<p>CR-4B 275</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC</td> <td>MC</td> <td>R</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>30</td> <td>150</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, increases stabilator pressure</p>	1 C	2 Me	3 Mo	VC	MC	R	3-0	CP	1/2	30	150	V-5
1 C	2 Me	3 Mo													
VC	MC	R													
3-0	CP	1/2													
30	150	V-5													
C.	<p>TIGHTENS TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: constant</p> <p>Target</p> <p>Aural-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Increasing positive G</p>	Determines overshoot continuing & need to increase back pressure & reduce power	<p>CR-4B 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>4-0</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </table> <p>Maintains aileron & rudder pressure, moves stabilator, moves throttle (out of AB)</p>	1 C	2 Me	3 Mo	VA	MC	R	4-0	CP	1/2	40	80	V-2
1 C	2 Me	3 Mo													
VA	MC	R													
4-0	CP	1/2													
40	80	V-2													
D.	<p>BEGINS OVERTHROAT (SLIDES OUTSIDE FLIGHT PATH IN SAME PLANE)</p> <p><u>Visual</u>-Pitch att: increasing Bank att: constant</p> <p>Target</p> <p>Aural-Normal aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder, increased stabilator pressure, throttle decrease</p> <p><u>Motion</u>-Increasing positive G</p>	Determines unable to stay inside defender's flight path & need to maintain G	<p>CR-4B 252</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>3-0</td> <td>CP</td> <td>1/2</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </table> <p>Maintains stabilator pressure, reduces throttle</p>	1 C	2 Me	3 Mo	VC	MC	A	3-0	CP	1/2	40	80	V-2
1 C	2 Me	3 Mo													
VC	MC	A													
3-0	CP	1/2													
40	80	V-2													

SITUATION Attacker fails to Yo-Yo and overshoots due to excess energy.

TASK NO. CR-4a TASK Reversal/Controlled Range AIRCRAFT F-4E

TASK GOAL Attacker to become defender DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
E.	<p>CONTINUES OVERSHOOT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Target (sees target moving behind)</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Decreasing positive G, deceleration</p>	<p>Determines definite overshoot developing</p> <p>Sustains level turn</p>	<p>CR-4a E 297</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI SE</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 100</td> <td>OUTPUT INDEX V2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MC (E)	A	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT AI SE	INPUT INDEX 50	I/O INDEX 100	OUTPUT INDEX V2
1 C	2 Me	3 Mo													
VA CM	MC (E)	A													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT AI SE													
INPUT INDEX 50	I/O INDEX 100	OUTPUT INDEX V2													
F.	<p>CONTINUES LEVEL TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Target</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO *(calls out target's position)</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, deceleration</p>	<p>Determines defender starting reversal & need for power</p>	<p>CR-4a F 297</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI SE</td> </tr> <tr> <td>INPUT INDEX 45</td> <td>I/O INDEX 90</td> <td>OUTPUT INDEX V2</td> </tr> </table> <p>Maintains aileron, rudder & stabilator pressure; throttle advance (to AB)</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT AI SE	INPUT INDEX 45	I/O INDEX 90	OUTPUT INDEX V2
1 C	2 Me	3 Mo													
VA CM	MC	A													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT AI SE													
INPUT INDEX 45	I/O INDEX 90	OUTPUT INDEX V2													
G.	<p>STARTS DESCENDING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Target</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO *communication - WSO</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure; throttle function</p> <p><u>Motion</u>-Constant positive G, acceleration</p>	<p>Determines reversal continuing, need to lower nose & increase airspeed</p>	<p>CR-4a G 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI SE</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INDEX 275</td> <td>OUTPUT INDEX V5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, increases stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT AI SE	INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT AI SE													
INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V5													
H.	<p>CONTINUES DESCENDING TURN</p> <p><u>Visual</u>-Pitch att: descending Bank att: rolling</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO *communication - WSO</p> <p><u>Control</u>-Aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling acceleration</p>	<p>Determines defender continuing nose high reversal, need to continue descending turn</p>	<p>CR-4a H 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI SE</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INDEX 275</td> <td>OUTPUT INDEX V5</td> </tr> </table> <p>Checks six, maintains coordinated aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT AI SE	INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT AI SE													
INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V5													

SITUATION Attacker fails to Yo-Yo and overshoots due to excess energy.

TASK NO. CR-4a TASK Reversal/Controlled Range AIRCRAFT F-4E

TASK GOAL Attacker to become defender DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
I.	<p>CONTINUES DESCENDING TURN</p> <p><u>Visual</u>-Pitch att: descending Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching down, rolling</p>	Sustains descending turn	<p>CR-4a I 157</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>I</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>SP</td> <td>A/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA	I	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	SP	A/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																						
VA	I	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	SP	A/SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
55	110	V-2																						
J.	<p>CONTINUES DESCENDING TURN</p> <p><u>Visual</u>-Pitch att: descending Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching down, rolling</p>	<p>Determines need to keep descending turn going</p> <p>Sustains descending turn</p>	<p>CR-4a J 297</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td>(I)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>A/R</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </tbody> </table> <p>Checks six, maintains required aileron, rudder & stabilator control</p>	1 C	2 Me	3 Mo	VA	MC	A	CM	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	A/R	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																						
VA	MC	A																						
CM	(I)																							
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	A/R																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
50	100	V-2																						
K.	<p>INCREASES TURN INTO DEFENDER</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	Discerns defender rolling over the top (probable gun attack & need to increase turn into defender)	<p>CR-4a K 444</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>SC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>A/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, moves stabilator</p>	1 C	2 Me	3 Mo	VA	SC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	A/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																						
VA	SC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	A/SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
50	250	V-5																						
L.	<p>CONTINUES HARD TURN INTO DEFENDER</p> <p><u>Visual</u>-Pitch att: descending Bank att: rolling</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching down, rolling</p>	Determines defender closing at 6 o'clock & need to continue turn	<p>CR-4a L 251</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>A/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </tbody> </table> <p>Checks six, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	A/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																						
VA	MC	A																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	A/SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
45	90	V-2																						

SITUATION Attacker fails to Yo-Yo and overshoots due to excess energy.

TASK NO. CR-4a TASK Reversal/Controlled Range AIRCRAFT F-4E

TASK GOAL Attacker to become defender DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
M.	<p>CONTINUES HARD TURN INTO DEFENDER</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound *communication - WSO</p> <p><u>Control</u>-Constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	Determines defender still out of gun range & need to continue turn	<p>CR-4a M 257</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT /CK SE</td> </tr> <tr> <td>INPUT INDEX 45</td> <td>LOG INDEX 90</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Checks six, increases stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT /CK SE	INPUT INDEX 45	LOG INDEX 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	A													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT /CK SE													
INPUT INDEX 45	LOG INDEX 90	OUTPUT INDEX V-2													
N.	<p>CONTINUES HARD TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO AOA tone</p> <p><u>Control</u>-Increased stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitch & roll stabilized</p>	Determines defender approaching gun range & attack imminent	<p>CR-4a N 257</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY A-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT /CK SE</td> </tr> <tr> <td>INPUT INDEX 45</td> <td>LOG INDEX 90</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Checks six, increases stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY A-C	DECISION PROC CP	MOTOR OUTPUT /CK SE	INPUT INDEX 45	LOG INDEX 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	A													
QUANTITY A-C	DECISION PROC CP	MOTOR OUTPUT /CK SE													
INPUT INDEX 45	LOG INDEX 90	OUTPUT INDEX V-2													
O.	<p>PREPARES FOR GUN ATTACK & LAST DITCH JINK OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO AOA tone</p> <p><u>Control</u>-Increased stabilator pressure</p> <p><u>Motion</u>-Increased positive G</p>	<p>Anticipates gun attack & last ditch maneuver</p> <p>Sustains turn</p>	<p>CR-4a O 337</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MB (F)</td> <td>A</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT /A SE</td> </tr> <tr> <td>INPUT INDEX 40</td> <td>LOG INDEX 80</td> <td>OUTPUT INDEX V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MB (F)	A	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT /A SE	INPUT INDEX 40	LOG INDEX 80	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MB (F)	A													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT /A SE													
INPUT INDEX 40	LOG INDEX 80	OUTPUT INDEX V-2													
P.	<p>STARTS MAX TURN & ANTICIPATES LAST DITCH JINK OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO AOA tone</p> <p><u>Control</u>-Constant aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G</p>	Determines defender within gun range & need to start break into defender	<p>CR-4a P 200</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 40</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT /R SE</td> </tr> <tr> <td>INPUT INDEX 40</td> <td>LOG INDEX 200</td> <td>OUTPUT INDEX V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, moves stabilator</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT /R SE	INPUT INDEX 40	LOG INDEX 200	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT /R SE													
INPUT INDEX 40	LOG INDEX 200	OUTPUT INDEX V-5													

SITUATION Attacker fails to Yo-Yo and overshoots due to excess energy.

TASK NO. CR-4a TASK Reversal/Controlled Range AIRCRAFT F-4E

TASK GOAL Attacker to become defender DATE Sept., 1977

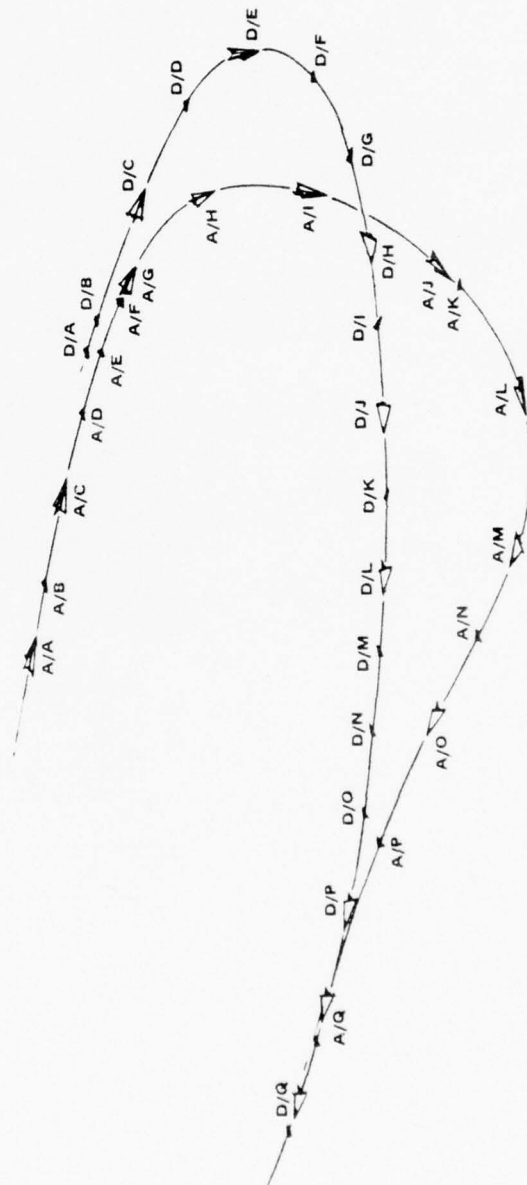
EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
Q.	<p>VIEWS GUN ATTACK & STARTS LAST DITCH MANEUVER</p> <p><u>Visual</u>-Pitch att: descending Bank att: rolling</p> <p>Target Narrowing vision</p> <p><u>Aural</u>-Chg. in aircraft sound, AOA tone</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching down, rolling</p>	<p>Determines need for last ditch jink out</p>	<p>CR-4a Q 37</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>SP</td> <td>SC RU</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </table> <p>Moves stabilator & (top) rudder</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	SP	SC RU	INPUT INDEX	I/O INDEX	OUTPUT INDEX	60	120	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	SP	SC RU																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
60	120	V-2																			
R.	<p>CONTINUES LAST DITCH JINK OUT</p> <p><u>Visual</u>-Pitch att: varying Bank att: rolling</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Increased aileron rudder & stabilator pressure</p> <p><u>Motion</u>-Negative G onset, pitching down, rolling, buffeting</p>	<p>Determines need to continue last ditch jink out</p>	<p>CR-4a R 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SC RU</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </table> <p>Moves stabilator & (top) rudder</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SC RU	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	SC RU																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	100	V-2																			

One v One LOW YO-YO AND COUNTER LOW YO-YO

(Like Aircraft, Missile Shot, Controlled Range)

SITUATION - Attacker in approximately 5:30 position, 12,000 feet out, co-air speed and altitude.

SITUATION - Defender in a turn at high cruise.



Low yo-yo and counter low yo-yo maneuver diagram.

SITUATION Attacker in approximately 5:30 position.
12,000 feet out, co-air speed and altitude.

TASK NO. CR-5a TASK Low Yo-Yo (Attacker)/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform Low Yo-Yo to acquire closure DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
A.	<p>SIGHTS TARGET AND PREPARES ATTACK</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates attack</p> <p>Sustains level flight</p>	<p>CR-5a A 322</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VC</td> <td>INFO PROCESS MR (I)</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 2-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT /A/ St</td> </tr> <tr> <td>INPUT INDEX 30</td> <td>I/O INPUT 60</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND VC	INFO PROCESS MR (I)	CONTINUITY A	QUANTITY 2-C	DECISION PROC CP	MOTOR OUTPUT /A/ St	INPUT INDEX 30	I/O INPUT 60	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VC	INFO PROCESS MR (I)	CONTINUITY A													
QUANTITY 2-C	DECISION PROC CP	MOTOR OUTPUT /A/ St													
INPUT INDEX 30	I/O INPUT 60	OUTPUT INDEX V-2													
B.	<p>STARTS ATTACK</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target aircraft</p> <p><u>Aural</u>-Normal aircraft sound, communication</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines need for armament set up and closure with target, need to call "Tally Ho" to WSO</p>	<p>CR-5a B 252</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA</td> <td>INFO PROCESS MC</td> <td>CONTINUITY A</td> </tr> <tr> <td>QUANTITY 3-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT /A/ St</td> </tr> <tr> <td>INPUT INDEX 30</td> <td>I/O INPUT 60</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Communicates, activates Master Arm switch, moves throttle, increases stabilator pressure, activates pinkie switch</p>	1 C	2 Me	3 Mo	KIND VA	INFO PROCESS MC	CONTINUITY A	QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT /A/ St	INPUT INDEX 30	I/O INPUT 60	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA	INFO PROCESS MC	CONTINUITY A													
QUANTITY 3-C	DECISION PROC CP	MOTOR OUTPUT /A/ St													
INPUT INDEX 30	I/O INPUT 60	OUTPUT INDEX V-2													
C.	<p>CONTINUES ATTACK AND STARTS TURN</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound communication - WSO (calls lock-on)</p> <p><u>Control</u>-Increased stabilator pressure, throttle advanced (AB), pinkie switch function, Master Arm function</p> <p><u>Motion</u>-Normal G, acceleration</p>	<p>Determines target's turn</p>	<p>CR-5a C 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>KIND VA CM</td> <td>INFO PROCESS MC</td> <td>CONTINUITY R</td> </tr> <tr> <td>QUANTITY 4-C</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT /A/ St</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INPUT 250</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder with stabilator movement</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT /A/ St	INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 4-C	DECISION PROC CP	MOTOR OUTPUT /A/ St													
INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5													

SITUATION Attacker in approximately 5:30 position,
12,000 feet out, co-airspeed and altitude.

TASK NO. CR-5a TASK Low Yo-Yo (Attacker)/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform Low Yo-Yo to acquire closure DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
D.	<p>CONTINUES TURNING ATTACK</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target aircraft Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO *(calls target range)</p> <p><u>Control</u>-Increased aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	Determines satis- factory roll rate, communication - WSO	<p>CR-5a P 280</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VA CM</td><td>INFO PROCESS MC</td><td>CONTINUITY R</td></tr><tr><td>QUANTITY 40</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT SAI RU/SC</td></tr><tr><td>INPUT INDEX 55</td><td>I/O INPUT 275</td><td>OUTPUT INDEX V-5</td></tr></table> <p>Maintains coordinated aileron & rudder, increased stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SAI RU/SC	INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SAI RU/SC													
INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5													
E.	<p>ESTABLISHES TURNING ATTACK AND STOPS ROLL IN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target aircraft Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	Determines proper bank attitude approaching & stag- nated position	<p>CR-5a F 260</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VA CM</td><td>INFO PROCESS MC</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 40</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT SAI RU/SC</td></tr><tr><td>INPUT INDEX 55</td><td>I/O INPUT 275</td><td>OUTPUT INDEX V-5</td></tr></table> <p>Coordinates aileron & rudder movement, maintains stabilator pressure</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY A	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SAI RU/SC	INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY A													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SAI RU/SC													
INPUT INDEX 55	I/O INPUT 275	OUTPUT INDEX V-5													
F.	<p>MAINTAINS TURNING ATTACK/PREPARES YO-YO</p> <p><u>Visual</u>-Pitch att: constant Bank att: stabilized</p> <p>Target aircraft Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	<p>Anticipates low yo-yo to close</p> <p>Sustains turn</p>	<p>CR-5a F 337</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VA CM</td><td>INFO PROCESS MR (I)</td><td>CONTINUITY A</td></tr><tr><td>QUANTITY 40</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT SAI SC</td></tr><tr><td>INPUT INDEX 45</td><td>I/O INPUT 90</td><td>OUTPUT INDEX V-2</td></tr></table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MR (I)	CONTINUITY A	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SAI SC	INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MR (I)	CONTINUITY A													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SAI SC													
INPUT INDEX 45	I/O INPUT 90	OUTPUT INDEX V-2													
G.	<p>STARTS YO-YO/ALTERS TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target aircraft Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch & roll</p>	Determines target lead point & need to pull inside target aircraft	<p>CR-5a G 280</p> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>KIND VA CM</td><td>INFO PROCESS MC</td><td>CONTINUITY R</td></tr><tr><td>QUANTITY 40</td><td>DECISION PROC CP</td><td>MOTOR OUTPUT SAI RU/SC</td></tr><tr><td>INPUT INDEX 50</td><td>I/O INPUT 250</td><td>OUTPUT INDEX V-5</td></tr></table> <p>Coordinates aileron & rudder pressure with stabilator movement</p>	1 C	2 Me	3 Mo	KIND VA CM	INFO PROCESS MC	CONTINUITY R	QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SAI RU/SC	INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
KIND VA CM	INFO PROCESS MC	CONTINUITY R													
QUANTITY 40	DECISION PROC CP	MOTOR OUTPUT SAI RU/SC													
INPUT INDEX 50	I/O INPUT 250	OUTPUT INDEX V-5													

SITUATION Attacker in approximately 5:30 position,
12,000 feet out, co-air speed and altitude.

TASK NO. CR-5a TASK Low Yo-Yo (Attacker)/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform Low Yo-Yo to acquire closure DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
H.	<p>ESTABLISHES TURN & STARTS DESCENT</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target aircraft Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitching up, rolling</p>	<p>Determines proper lead point (bank) achieved & need to unload G to acquire acceleration</p>	<p>CR-5a H 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 4.0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI/RU/St</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INDEX 275</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, moves stabilator</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 4.0	DECISION PROC CP	MOTOR OUTPUT AI/RU/St	INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 4.0	DECISION PROC CP	MOTOR OUTPUT AI/RU/St													
INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V-5													
I.	<p>CONTINUES DESCENT IN ESTABLISHED TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: stabilized</p> <p>Target aircraft Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron & rudder pressure, decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, roll stabilized</p>	<p>Determines satis- factory pitch movement & bank attitude</p>	<p>CR-5a I 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 4.0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI/RU/St</td> </tr> <tr> <td>INPUT INDEX 60</td> <td>I/O INDEX 120</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Relaxes stabilator pressure, maintains constant aileron & rudder pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY 4.0	DECISION PROC CP	MOTOR OUTPUT AI/RU/St	INPUT INDEX 60	I/O INDEX 120	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	R													
QUANTITY 4.0	DECISION PROC CP	MOTOR OUTPUT AI/RU/St													
INPUT INDEX 60	I/O INDEX 120	OUTPUT INDEX V-2													
J.	<p>ESTABLISHES DESCENDING TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: constant</p> <p>Target aircraft Sight analog bar Flt.Inst: cross-check</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Decreased stabilator pressure, constant aileron & rudder pressure</p> <p><u>Motion</u>-Unloaded G, pitching down, constant roll</p>	<p>Determines proper pitch & bank attitude achieved</p>	<p>CR-5a J 260</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY 4.0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI/RU/St</td> </tr> <tr> <td>INPUT INDEX 65</td> <td>I/O INDEX 325</td> <td>OUTPUT INDEX V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure with constant stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY 4.0	DECISION PROC CP	MOTOR OUTPUT AI/RU/St	INPUT INDEX 65	I/O INDEX 325	OUTPUT INDEX V-5
1 C	2 Me	3 Mo													
VA CM	MC	A													
QUANTITY 4.0	DECISION PROC CP	MOTOR OUTPUT AI/RU/St													
INPUT INDEX 65	I/O INDEX 325	OUTPUT INDEX V-5													
K.	<p>PREPARES TURNING PULL UP</p> <p><u>Visual</u>-Pitch att: constant (dive) Bank att: constant</p> <p>Target aircraft Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Neutral aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Unloaded G, pitch stabilized, constant roll</p>	<p>(Sufficient energy, lead & altitude separation approach- ing)</p> <p>Anticipates smooth G pull & missile delivery</p> <p>Sustains turning descent</p>	<p>CR-5a K 337</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MR (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY 4.0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT AI/RU/St</td> </tr> <tr> <td>INPUT INDEX 50</td> <td>I/O INDEX 100</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MR (E)	A	QUANTITY 4.0	DECISION PROC CP	MOTOR OUTPUT AI/RU/St	INPUT INDEX 50	I/O INDEX 100	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MR (E)	A													
QUANTITY 4.0	DECISION PROC CP	MOTOR OUTPUT AI/RU/St													
INPUT INDEX 50	I/O INDEX 100	OUTPUT INDEX V-2													

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SITUATION Attacker in approximately 5:30 position,
12,000 feet out, co-air speed and altitude.

TASK NO. CR-5a TASK Low Yo-Yo (Attacker)/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform Low Yo-Yo to acquire closure DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
L.	<p>STARTS TURNING PULL UP</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Target aircraft Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Unloaded G, constant pitch & roll</p>	Determines position to initiate pull back into target's plane	<p>CR-5a L 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>RA/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </tbody> </table> <p>Moves stabilator, coordinates aileron & rudder pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	RA/St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																			
VA	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	RA/St																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	250	V-5																			
M.	<p>CONTINUES TURNING PULL</p> <p><u>Visual</u>-Pitch att: increasing Bank att: constant</p> <p>Target aircraft Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Positive G onset, pitching up, constant roll</p>	Determines satisfactory G (pitch rate) movement & bank attitude (lead)	<p>CR-5a M 276</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>60</td> <td>V-1</td> </tr> </tbody> </table> <p>Maintains constant stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	60	60	V-1
1 C	2 Me	3 Mo																			
VA	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	St																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
60	60	V-1																			
N.	<p>ESTABLISHES CLIMB RATE AND ALTERS TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: constant</p> <p>Target aircraft Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching up, constant roll</p>	Determines proper G loading achieved & need to change bank to refine lead point	<p>CR-5a N 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>RA/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	RA/St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																			
VA	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	RA/St																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	250	V-5																			
O.	<p>STARTS TURNING ATTACK</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO **(calls range & missile parameters)</p> <p><u>Control</u>-Increased aileron, & rudder pressure with decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching up, rolling</p>	Determines lead point to arrive at missile parameters	<p>CR-5a O 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>RA/St</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>300</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure, increased stabilator pressure</p>	1 C	2 Me	3 Mo	VA	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	RA/St	INPUT INDEX	I/O INDEX	OUTPUT INDEX	60	300	V-5
1 C	2 Me	3 Mo																			
VA	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	RA/St																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
60	300	V-5																			

SITUATION Attacker in approximately 5:30 position,
12,000 feet out, co-air speed and altitude.

TASK NO. CR-5a TASK Low Yo-Yo (Attacker)/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform Low Yo-Yo to acquire closure DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3. MOTOR ACTION												
P.	<p>CONTINUES TURNING ATTACK AND</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Target/sight</p> <p><u>Aural</u>-Chg. in aircraft sound **communication - WSO</p> <p><u>Control</u>-Aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitching up, rolling</p>	<p>BEGINS TRACKING</p> <p>Determines proper missile parameters approaching</p>	<p>CR-5a P 259</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/St</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INDEX 275</td> <td>OUTPUT INDEX V-4</td> </tr> </tbody> </table> <p>Maintains required variable aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT A/St	INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V-4
1 C	2 Me	3 Mo													
VA CM	MC	A													
QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT A/St													
INPUT INDEX 55	I/O INDEX 275	OUTPUT INDEX V-4													
Q.	<p>PRESSES TURNING ATTACK AND EXPENDS ORDNANCE</p> <p><u>Visual</u>-Pitch att: constant °(variable with target)</p> <p>Bank att: stabilized</p> <p>Target/pipper</p> <p>Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, **communication - WSO</p> <p><u>Control</u>-Aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-°Constant positive G, pitch stabilized, °constant roll</p>	<p>Determines inside missile parameter & proper tracking solution to fire</p>	<p>CR-5a Q 257</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY 4-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/St R/Ds</td> </tr> <tr> <td>INPUT INDEX 60</td> <td>I/O INDEX 120</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Maintains required variable aileron, stabilator & rudder control, activates trigger</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT A/St R/Ds	INPUT INDEX 60	I/O INDEX 120	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MC	A													
QUANTITY 4-0	DECISION PROC CP	MOTOR OUTPUT A/St R/Ds													
INPUT INDEX 60	I/O INDEX 120	OUTPUT INDEX V-2													
R.	<p>CONTINUES TRACKING</p> <p><u>Visual</u>-Pitch att: °constant Bank att: °constant</p> <p>Target/pipper</p> <p>Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound,</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure, trigger (missile) function</p> <p><u>Motion</u>-°Constant positive G, °constant pitch & roll</p>	<p>Determines need to tighten turn to stay with target and need to call "Fox 2"</p>	<p>CR-5a R 272</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VC M</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY 3-0</td> <td>DECISION PROC CP</td> <td>MOTOR OUTPUT A/St R/Ds</td> </tr> <tr> <td>INPUT INDEX 55</td> <td>I/O INDEX 110</td> <td>OUTPUT INDEX V-2</td> </tr> </tbody> </table> <p>Increases stabilator pressure, activates mic. button, communicates</p>	1 C	2 Me	3 Mo	VC M	MC	R	QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT A/St R/Ds	INPUT INDEX 55	I/O INDEX 110	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VC M	MC	R													
QUANTITY 3-0	DECISION PROC CP	MOTOR OUTPUT A/St R/Ds													
INPUT INDEX 55	I/O INDEX 110	OUTPUT INDEX V-2													

SITUATION Defender in a turn at high cruise.

TASK NO. CR-6a TASK Counter Low Yo-Yo/Controlled Range AIRCRAFT F-4E

TASK GOAL To keep attacker out of lethal cone DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
A.	ESTABLISHES LEVEL TURN <u>Visual</u> -Pitch att: constant Bank att: constant <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Constant positive G, constant pitch & roll	Determines need for vigilance Sustains level turn	<div>CR-6a A 292</div> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VC M</td><td>MO (I)</td><td>A</td></tr><tr><td>QUANTITY 3-0</td><td>DECISION MADE CP</td><td>MOTOR OUTPUT /Ch Ai St</td></tr><tr><td>INPUT INDEX 35</td><td>1/0 INDEX 70</td><td>OUTPUT INDEX V-2</td></tr></table> Checks 360°, maintains required aileron & stabilator control	1 C	2 Me	3 Mo	VC M	MO (I)	A	QUANTITY 3-0	DECISION MADE CP	MOTOR OUTPUT /Ch Ai St	INPUT INDEX 35	1/0 INDEX 70	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VC M	MO (I)	A													
QUANTITY 3-0	DECISION MADE CP	MOTOR OUTPUT /Ch Ai St													
INPUT INDEX 35	1/0 INDEX 70	OUTPUT INDEX V-2													
B.	PREPARES DEFENSIVE ACTION <u>Visual</u> -Pitch att: constant Bank att: constant Target aircraft <u>Aural</u> -Normal aircraft sound, communication - WSO (calls target position) <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Constant positive G, constant pitch & roll	Anticipates evasive action Sustains level turn	<div>CR-6a B 337</div> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA CM</td><td>MR (I)</td><td>A</td></tr><tr><td>QUANTITY 4-0</td><td>DECISION MADE CP</td><td>MOTOR OUTPUT /Ch Ai Cm St</td></tr><tr><td>INPUT INDEX 45</td><td>1/0 INDEX 90</td><td>OUTPUT INDEX V-2</td></tr></table> Checks six, communicates - WSO, maintains required aileron & stabilator control	1 C	2 Me	3 Mo	VA CM	MR (I)	A	QUANTITY 4-0	DECISION MADE CP	MOTOR OUTPUT /Ch Ai Cm St	INPUT INDEX 45	1/0 INDEX 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MR (I)	A													
QUANTITY 4-0	DECISION MADE CP	MOTOR OUTPUT /Ch Ai Cm St													
INPUT INDEX 45	1/0 INDEX 90	OUTPUT INDEX V-2													
C.	CONTINUES TURN/STARTS SEPARATION <u>Visual</u> -Pitch att: constant Bank att: constant Target aircraft <u>Aural</u> -Normal aircraft sound, communication - WSO <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Constant positive G, constant pitch & roll	Determines target as possible threat & need for separation	<div>CR-6a C 217</div> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VA CM</td><td>MO</td><td>R</td></tr><tr><td>QUANTITY 4-0</td><td>DECISION MADE CP</td><td>MOTOR OUTPUT /Ch Ai Th St</td></tr><tr><td>INPUT INDEX 45</td><td>1/0 INDEX 90</td><td>OUTPUT INDEX V-2</td></tr></table> Checks six, moves throttle, moves aileron & relaxes stabilator	1 C	2 Me	3 Mo	VA CM	MO	R	QUANTITY 4-0	DECISION MADE CP	MOTOR OUTPUT /Ch Ai Th St	INPUT INDEX 45	1/0 INDEX 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VA CM	MO	R													
QUANTITY 4-0	DECISION MADE CP	MOTOR OUTPUT /Ch Ai Th St													
INPUT INDEX 45	1/0 INDEX 90	OUTPUT INDEX V-2													
D.	CONTINUES TURNING SEPARATION <u>Visual</u> -Pitch att: decreasing Bank att: constant Threat aircraft <u>Aural</u> -Chg. in aircraft sound, communication - WSO (calls threat position) <u>Control</u> -Reduced stabilator pressure with aileron pressure, throttle advanced (to AB) <u>Motion</u> -Decreased positive G	Discerns threat's inability to close range Sustains accelerated turn	<div>CR-6a D 457</div> <table><tr><th>1 C</th><th>2 Me</th><th>3 Mo</th></tr><tr><td>VC AM</td><td>SU (I)</td><td>A</td></tr><tr><td>QUANTITY 4-0</td><td>DECISION MADE CP</td><td>MOTOR OUTPUT /Ch Ai St</td></tr><tr><td>INPUT INDEX 45</td><td>1/0 INDEX 90</td><td>OUTPUT INDEX V-2</td></tr></table> Maintains required aileron & stabilator control	1 C	2 Me	3 Mo	VC AM	SU (I)	A	QUANTITY 4-0	DECISION MADE CP	MOTOR OUTPUT /Ch Ai St	INPUT INDEX 45	1/0 INDEX 90	OUTPUT INDEX V-2
1 C	2 Me	3 Mo													
VC AM	SU (I)	A													
QUANTITY 4-0	DECISION MADE CP	MOTOR OUTPUT /Ch Ai St													
INPUT INDEX 45	1/0 INDEX 90	OUTPUT INDEX V-2													

SITUATION Defender in a turn at high cruise.

TASK NO. CR-6a TASK Counter Low Yo-Yo/Controlled Range AIRCRAFT F-4E

TASK GOAL To keep attacker out of lethal cone DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
E.	<p>ESTABLISHES TURNING EXTENSION</p> <p><u>Visual</u>-Pitch att: level Bank att: constant Threat aircraft Flt.Inst: cross-check</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G</p>	<p>Discerns favorable energy state</p> <p>Sustains separation turn</p>	<p>CR-6a E 157</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>KIND</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>SC (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/4 SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>80</td> <td>V-2</td> </tr> </tbody> </table> <p>Checks six, maintains aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA CM	SC (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1/4 SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	80	V-2
1 C	2 Me	3 Mo																						
KIND	INFO PROCESS	CONTINUITY																						
VA CM	SC (E)	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	1/4 SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
40	80	V-2																						
F.	<p>MAINTAINS EXTENSION</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Threat aircraft</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G</p>	<p>Determines attacker's stagnated position</p> <p>Sustains turn</p>	<p>CR-6a F 247</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>KIND</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/4 AT</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>70</td> <td>V-2</td> </tr> </tbody> </table> <p>Checks six, maintains aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA CM	MC (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1/4 AT	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	70	V-2
1 C	2 Me	3 Mo																						
KIND	INFO PROCESS	CONTINUITY																						
VA CM	MC (E)	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	1/4 AT																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
35	70	V-2																						
G.	<p>STARTS CLIMB AND TIGHTENS TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Threat aircraft</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G</p>	<p>Determines need to counter threat's descending inside turn</p>	<p>CR-6a G 200</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>KIND</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-0</td> <td>CP</td> <td>1/4 R/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>35</td> <td>175</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder pressure with stabilator movement</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	CP	1/4 R/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	175	V-5
1 C	2 Me	3 Mo																						
KIND	INFO PROCESS	CONTINUITY																						
VA CM	MC	R																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-0	CP	1/4 R/SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
35	175	V-5																						
H.	<p>CONTINUES CLIMBING TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling Threat aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	<p>Determines satisfactory rate of pitch & roll movement approaching</p>	<p>CR-6a H 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>KIND</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-0</td> <td>CP</td> <td>1/4 R/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </tbody> </table> <p>Checks six, maintains coordinated aileron & rudder pressure with constant stabilator pressure</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	4-0	CP	1/4 R/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																						
KIND	INFO PROCESS	CONTINUITY																						
VA CM	MC	R																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
4-0	CP	1/4 R/SC																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
55	275	V-5																						

SITUATION Defender in a turn at high cruise.

TASK NO. CR-6a TASK Counter Low Yo-Yo/Controlled Range AIRCRAFT F-4E

TASK GOAL To keep attacker out of lethal cone DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																								
I.	<p>STOPS CLIMB AND MAINTAINS TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Threat aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound *communication - WSO</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitch increasing, rolling</p>	<p>Determines proper pitch and roll attitude achieved as threat continues descending turn</p>	<p>CR-6a-I 260</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SAI/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SAI/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
VA	MC	A																									
CM																											
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
40	CP	SAI/SC																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
55	275	V-5																									
J.	<p>ESTABLISHES TIGHTENED TURN</p> <p><u>Visual</u>-Pitch att: level Bank att: stabilized</p> <p>Threat aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound *communication - WSO</p> <p><u>Control</u>-Increased aileron & rudder pressure, reduced stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	<p>Determines threat's tactics as closure maneuver</p> <p>Sustains turn</p>	<p>CR-6a-J 297</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td>(I)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SAI/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </table> <p>Checks six, maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA	MC	A	CM	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SAI/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
VA	MC	A																									
CM	(I)																										
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
40	CP	SAI/SC																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
55	110	V-2																									
K.	<p>MAINTAINS TURN</p> <p><u>Visual</u>-Pitch att: level Bank att: constant</p> <p>Threat aircraft</p> <p>Flt.Inst: cross-check</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Determines acceptable energy state & position</p> <p>Sustains turn</p>	<p>CR-6a-K 297</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td>(I)</td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SAI/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA	MC	A	CM	(I)		QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SAI/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
VA	MC	A																									
CM	(I)																										
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
40	CP	SAI/SC																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
50	100	V-2																									
L.	<p>STARTS DEFENSIVE TURN</p> <p><u>Visual</u>-Pitch att: level Bank att: constant</p> <p>Threat aircraft</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Determines threat's pull up and closure, & need to counter</p>	<p>CR-6a-L 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>KIND</td> <td>INFO PROCESS</td> <td>CONTINUITY</td> </tr> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SAI/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>225</td> <td>V-5</td> </tr> </table> <p>Checks six, coordinates aileron & rudder pressure with increased stabilator pressure</p>	1 C	2 Me	3 Mo	KIND	INFO PROCESS	CONTINUITY	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SAI/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	225	V-5
1 C	2 Me	3 Mo																									
KIND	INFO PROCESS	CONTINUITY																									
VA	MC	R																									
CM																											
QUANTITY	DECISION PROC	MOTOR OUTPUT																									
40	CP	SAI/SC																									
INPUT INDEX	I/O INDEX	OUTPUT INDEX																									
45	225	V-5																									

SITUATION Defender in a turn at high cruise.

TASK NO. CR-6a TASK Counter Low Yo-Yo/Controlled Range AIRCRAFT F

TASK GOAL To keep attacker out of lethal cone DATE Sept.

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACT																					
M.	<p>CONTINUES DEFENSIVE TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Threat aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling</p>	Determines satisfactory roll rate to turn down into threat	<p>CR-6a M</p> <table border="1"> <tr> <td>1 C</td> <td>2 Me</td> <td>3</td> </tr> <tr> <td>VA</td> <td>MC</td> <td></td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>SA</td> </tr> <tr> <td>INPUT INDEX</td> <td>1/2 INDEX</td> <td>OUTPUT</td> </tr> <tr> <td>55</td> <td>275</td> <td>V</td> </tr> </table> <p>Checks six, maintains coordinated aileron & rudder increased stabilator pressure</p>	1 C	2 Me	3	VA	MC		CM			QUANTITY	DECISION PROC	MOTOR	4-C	CP	SA	INPUT INDEX	1/2 INDEX	OUTPUT	55	275	V
1 C	2 Me	3																						
VA	MC																							
CM																								
QUANTITY	DECISION PROC	MOTOR																						
4-C	CP	SA																						
INPUT INDEX	1/2 INDEX	OUTPUT																						
55	275	V																						
N.	<p>CONTINUES DEFENSE/TIGHTENS TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO, AOA tone</p> <p><u>Control</u>-Constant aileron & rudder pressure with increased stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching down, rolling</p>	Determines threat must turn corner, and need for countering with max. turn	<p>CR-6a N</p> <table border="1"> <tr> <td>1 C</td> <td>2 Me</td> <td>3</td> </tr> <tr> <td>VA</td> <td>MC</td> <td></td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>SA</td> </tr> <tr> <td>INPUT INDEX</td> <td>1/2 INDEX</td> <td>OUTPUT</td> </tr> <tr> <td>60</td> <td>300</td> <td>V</td> </tr> </table> <p>Maintains coordinated aileron & rudder pressure with increasing stabilator pressure</p>	1 C	2 Me	3	VA	MC		CM			QUANTITY	DECISION PROC	MOTOR	4-C	CP	SA	INPUT INDEX	1/2 INDEX	OUTPUT	60	300	V
1 C	2 Me	3																						
VA	MC																							
CM																								
QUANTITY	DECISION PROC	MOTOR																						
4-C	CP	SA																						
INPUT INDEX	1/2 INDEX	OUTPUT																						
60	300	V																						
O.	<p>STARTS MAX. BREAKING TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: stabilized</p> <p><u>Aural</u>-Chg. in aircraft sound, AOA tone</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching down, constant roll</p>	Determines threat's position approaching lethal cone	<p>CR-6a O</p> <table border="1"> <tr> <td>1 C</td> <td>2 Me</td> <td>3</td> </tr> <tr> <td>VA</td> <td>MC</td> <td></td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>SA</td> </tr> <tr> <td>INPUT INDEX</td> <td>1/2 INDEX</td> <td>OUTPUT</td> </tr> <tr> <td>50</td> <td>50</td> <td>V</td> </tr> </table> <p>Moves stabilator</p>	1 C	2 Me	3	VA	MC		CM			QUANTITY	DECISION PROC	MOTOR	4-C	CP	SA	INPUT INDEX	1/2 INDEX	OUTPUT	50	50	V
1 C	2 Me	3																						
VA	MC																							
CM																								
QUANTITY	DECISION PROC	MOTOR																						
4-C	CP	SA																						
INPUT INDEX	1/2 INDEX	OUTPUT																						
50	50	V																						
P.	<p>CONTINUES MAX. TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Narrow vision onset</p> <p><u>Aural</u>-Chg. in aircraft sound, AOA tone</p> <p><u>Control</u>-Neutral aileron & rudder, increased stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitch & roll constant, increased buffeting, vibration</p>	Determines max. turn achieved	<p>CR-6a P</p> <table border="1"> <tr> <td>1 C</td> <td>2 Me</td> <td>3</td> </tr> <tr> <td>VA</td> <td>MC</td> <td></td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR</td> </tr> <tr> <td>4-C</td> <td>SP</td> <td>S</td> </tr> <tr> <td>INPUT INDEX</td> <td>1/2 INDEX</td> <td>OUTPUT</td> </tr> <tr> <td>55</td> <td>55</td> <td>V</td> </tr> </table> <p>Maintains constant stabilator pressure</p>	1 C	2 Me	3	VA	MC		CM			QUANTITY	DECISION PROC	MOTOR	4-C	SP	S	INPUT INDEX	1/2 INDEX	OUTPUT	55	55	V
1 C	2 Me	3																						
VA	MC																							
CM																								
QUANTITY	DECISION PROC	MOTOR																						
4-C	SP	S																						
INPUT INDEX	1/2 INDEX	OUTPUT																						
55	55	V																						

SITUATION Defender in a turn at high cruise.

TASK NO. CR-6a TASK Counter Low Yo-Yo/Controlled Range AIRCRAFT F-4

TASK GOAL To keep attacker out of lethal cone DATE Sept.,

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
Q.	ESTABLISHES MAX. TURN <u>Visual</u> -Pitch att: constant Bank att: constant Gray out <u>Aural</u> -Chg. in aircraft sound, AOA tone <u>Control</u> -Constant stabilator pressure <u>Motion</u> -Constant positive G, constant pitch & roll, constant buffeting, vibration	Sustains max. turn	<div>CR-6a Q</div> <table><tr><th>1 C</th><th>2 Me</th><th>3 M</th></tr><tr><td>VA</td><td>I</td><td>A</td></tr><tr><td>CM</td><td></td><td></td></tr><tr><td>QUANTITY</td><td>DECISION PRG</td><td>MOTOR OUT</td></tr><tr><td>4-C</td><td>SP</td><td>1/20</td></tr><tr><td>INPUT INDEX</td><td>110</td><td>V-2</td></tr></table> <p>Maintains require aileron, rudder stabilator contr</p>	1 C	2 Me	3 M	VA	I	A	CM			QUANTITY	DECISION PRG	MOTOR OUT	4-C	SP	1/20	INPUT INDEX	110	V-2
1 C	2 Me	3 M																			
VA	I	A																			
CM																					
QUANTITY	DECISION PRG	MOTOR OUT																			
4-C	SP	1/20																			
INPUT INDEX	110	V-2																			

One v One HIGH YO-YO AND COUNTER HIGH YO-YO
(Tracking Gun Shot, Like Aircraft, Controlled Range)

SITUATION - Attacker approximately 4:30 position, 12,000 feet out and 5,000 feet higher, high cruise.

SITUATION - Defender in level flight at cruise power.



High yo-yo and counter high yo-yo maneuver diagram.

Attacker approximately 4:30 position,
SITUATION 12,000 feet out and 5,000 feet higher, high cruise.

TASK NO. CR-7a TASK High Yo-Yo (Attacker)/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform High Yo-Yo to prevent overshoot DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
A.	<p>SIGHTS TARGET AND PREPARES ATTACK</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates attack</p> <p>Sustains level flight</p>	<p>CR-7a A 327</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> <tr> <th>KIND</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <th>QUANTITY</th> <th>DECISION PROC</th> <th>MOTOR OUTPUT</th> </tr> <tr> <td>20</td> <td>CP</td> <td>AI/SE</td> </tr> <tr> <th>INPUT INDEX</th> <th>I/O INDEX</th> <th>OUTPUT INDEX</th> </tr> <tr> <td>30</td> <td>60</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	1 Me	1 Mo	KIND	INFO PROCESS	CONTINUITY	VC	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	20	CP	AI/SE	INPUT INDEX	I/O INDEX	OUTPUT INDEX	30	60	V-2
1 C	1 Me	1 Mo																						
KIND	INFO PROCESS	CONTINUITY																						
VC	MR (I)	A																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
20	CP	AI/SE																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
30	60	V-2																						
B.	<p>STARTS ATTACK ROLL IN AND DESCENT</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target aircraft</p> <p>Armament panel</p> <p><u>Aural</u>-Normal aircraft sound,</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines need for armament set up, closure with target & tell WSO to go "stab. out"</p>	<p>CR-7a B 275</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> <tr> <th>KIND</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <th>QUANTITY</th> <th>DECISION PROC</th> <th>MOTOR OUTPUT</th> </tr> <tr> <td>3-0</td> <td>CP</td> <td>AI/TH</td> </tr> <tr> <th>INPUT INDEX</th> <th>I/O INDEX</th> <th>OUTPUT INDEX</th> </tr> <tr> <td>35</td> <td>175</td> <td>V-5</td> </tr> </tbody> </table> <p>Activates Master Arm, coordinates aileron & rudder movement with stabilator & throttle movement, activates pinkie switch, communicates</p>	1 C	1 Me	1 Mo	KIND	INFO PROCESS	CONTINUITY	VA	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	3-0	CP	AI/TH	INPUT INDEX	I/O INDEX	OUTPUT INDEX	35	175	V-5
1 C	1 Me	1 Mo																						
KIND	INFO PROCESS	CONTINUITY																						
VA	MC	R																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
3-0	CP	AI/TH																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
35	175	V-5																						
C.	<p>CONTINUES ROLL IN AND DESCENT</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO (calls target range)</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure, throttle advance (AB), Master Arm function, pinkie switch function</p> <p><u>Motion</u>-Positive G onset, acceleration, pitching down, rolling</p>	<p>Determines satisfactory pitch & roll rate to lead & close on target</p>	<p>CR-7a C 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> <tr> <th>KIND</th> <th>INFO PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <th>QUANTITY</th> <th>DECISION PROC</th> <th>MOTOR OUTPUT</th> </tr> <tr> <td>40</td> <td>CP</td> <td>AI/SE</td> </tr> <tr> <th>INPUT INDEX</th> <th>I/O INDEX</th> <th>OUTPUT INDEX</th> </tr> <tr> <td>15</td> <td>375</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder pressure with increased stabilator pressure</p>	1 C	1 Me	1 Mo	KIND	INFO PROCESS	CONTINUITY	VA	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	AI/SE	INPUT INDEX	I/O INDEX	OUTPUT INDEX	15	375	V-5
1 C	1 Me	1 Mo																						
KIND	INFO PROCESS	CONTINUITY																						
VA	MC	R																						
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	AI/SE																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
15	375	V-5																						

SITUATION Attacker approximately 4:30 position,
12,000 feet out and 5,000 feet higher, high cruise.

TASK NO. CR-7a TASK High Yo-Yo (Attacker)/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform High Yo-Yo to prevent overshoot DATE Sept., 1977

PL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
D.	<p>ALTERS ROLL AND MAINTAINS DESCENDING ATTACK</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target aircraft</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Unloaded G, acceleration, pitching down, rolling</p>	<p>Discerns target beginning steep level turn</p>	<p>CR-7a R 200</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>SC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>SP</td> <td>VA/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V5</td> </tr> </table> <p>Increased coordinated aileron & rudder pressure, increased stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	SC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	SP	VA/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	275	V5
1 C	2 Me	3 Mo																			
VA CM	SC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	SP	VA/SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	275	V5																			
E.	<p>STOPS ROLL AND DESCENT, AND GAINS RADAR LOCK-ON</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target aircraft</p> <p>Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls range & overtake)</p> <p><u>Control</u>-Increased aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Unloaded G, pitching down, rolling</p>	<p>Determines proper pitch & bank attitude approaching</p>	<p>CR-7a E 274</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>VA/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>220</td> <td>VA</td> </tr> </table> <p>Coordinates aileron, rudder & stabilator movement</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	VA/SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	220	VA
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	VA/SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	220	VA																			
F.	<p>ESTABLISHES TURNING ATTACK</p> <p><u>Visual</u>-Pitch att: descent (constant) Bank att: constant</p> <p>Target aircraft</p> <p>Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO *(calls range and closure rate)</p> <p><u>Control</u>-Neutral aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Positive G, roll stabilized</p>	<p>Determines need to maintain position behind target</p>	<p>CR-7a F 256</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>40</td> <td>40</td> <td>V-1</td> </tr> </table> <p>Maintains stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	SC	INPUT INDEX	I/O INDEX	OUTPUT INDEX	40	40	V-1
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	SC																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
40	40	V-1																			

Attacker approximately 4:30 position,
SITUATION 12,000 feet out and 5,000 feet higher, high cruise.

TASK NO. CR-7a **TASK** High Yo-Yo (Attacker)/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform High Yo-Yo to prevent overshoot **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
G.	<p>PRESSES TURNING ATTACK</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Target aircraft Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch & roll</p>	<p>Anticipates pull out of target's plane</p> <p>Sustains turning attack</p>	<p>CR-7a G 337</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1st A1</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	MR (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1st A1	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VA CM	MR (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	1st A1																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
45	90	V-2																			
H.	<p>STARTS PULL UP INTO HIGH YO-YO</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant Target aircraft Sight analog bar</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch & roll</p>	<p>Determines position to begin pull up & out of target's flight plane</p>	<p>CR-7a H 250</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1st A1</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder, moves stabilator</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1st A1	INPUT INDEX	I/O INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	1st A1																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
50	250	V-5																			
I.	<p>CONTINUES PULL UP AND TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling Target aircraft/canopy Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching up, rolling</p>	<p>Determines satisfactory pitch & roll movement</p> <p>(NOTE: the use of AB the entire maneuver or save fuel & go to idle and apex on a lower Yo-Yo is decided at this point.)</p>	<p>CR-7a I 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1st A1</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </table> <p>Maintains aileron pressure & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1st A1	INPUT INDEX	I/O INDEX	OUTPUT INDEX	60	120	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	1st A1																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
60	120	V-2																			
J.	<p>STOPS PULL UP AND CONTINUES TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling Target aircraft/canopy Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Constant aileron, reduced stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitching up, roll stabilized</p>	<p>Determines target unloading turn</p> <p>(NOTE: radar probably will not break lock during a properly executed Yo-Yo.)</p>	<p>CR-7a J 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1st A1</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </table> <p>Increased aileron & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1st A1	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	1st A1																			
INPUT INDEX	I/O INDEX	OUTPUT INDEX																			
55	110	V-2																			

Attacker approximately 4:30 position,
SITUATION 12,000 feet out and 5,000 feet higher, high cruise.

TASK NO. CR-7a TASK High Yo-Yo (Attacker)/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform High Yo-Yo to prevent overshoot DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
K.	<p>REACHES APEX AND TURNS</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target aircraft/canopy Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased aileron & stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitch stabilizing, rolling</p>	Determines satisfactory pitch & roll relative to target's position	<p>CR-7a K 270</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>WATCH OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>LD INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>55</td> <td>V-1</td> </tr> </tbody> </table> <p>Maintains constant stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	WATCH OUTPUT	AC	CP	SC	INPUT INDEX	LD INDEX	OUTPUT INDEX	55	55	V-1
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	WATCH OUTPUT																			
AC	CP	SC																			
INPUT INDEX	LD INDEX	OUTPUT INDEX																			
55	55	V-1																			
L.	<p>STARTS PULL DOWN AND TURN BACK TO TARGET</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: stabilized</p> <p>Target aircraft/canopy Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Constant stabilator pressure</p> <p><u>Motion</u>-Positive G, pitching down, rolling</p>	Determines target's lead position	<p>CR-7a L 279</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>WATCH OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>LD INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>200</td> <td>V-4</td> </tr> </tbody> </table> <p>Coordinates aileron, rudder & stabilator movement</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	WATCH OUTPUT	AC	CP	SC	INPUT INDEX	LD INDEX	OUTPUT INDEX	50	200	V-4
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	WATCH OUTPUT																			
AC	CP	SC																			
INPUT INDEX	LD INDEX	OUTPUT INDEX																			
50	200	V-4																			
M.	<p>CONTINUES PULL DOWN AND TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target aircraft/canopy Sight analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-Increasing positive G, pitching down, rolling</p>	Determines pitch & roll rate satisfactory for lead estimate- as target pulls into tighter level turn	<p>CR-7a M 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>WATCH OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>LD INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>60</td> <td>300</td> <td>V-5</td> </tr> </tbody> </table> <p>Maintains coordinated aileron & rudder, increases stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	WATCH OUTPUT	AC	CP	SC	INPUT INDEX	LD INDEX	OUTPUT INDEX	60	300	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	WATCH OUTPUT																			
AC	CP	SC																			
INPUT INDEX	LD INDEX	OUTPUT INDEX																			
60	300	V-5																			
N.	<p>STOPS PULL DOWN AND CONTINUES TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Target Sight</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Constant aileron & rudder, increased stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitching down, rolling</p>	Determines proper pitch attitude approaching & need to pull into target	<p>CR-7a N 280</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>WATCH OUTPUT</td> </tr> <tr> <td>AC</td> <td>CP</td> <td>SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>LD INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>65</td> <td>325</td> <td>V-5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder, increases stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	WATCH OUTPUT	AC	CP	SC	INPUT INDEX	LD INDEX	OUTPUT INDEX	65	325	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	WATCH OUTPUT																			
AC	CP	SC																			
INPUT INDEX	LD INDEX	OUTPUT INDEX																			
65	325	V-5																			

SITUATION Attacker approximately 4:30 position,
12,000 feet out and 5,000 feet higher, high cruise.

TASK NO. CR-7a TASK High Yo-Yo (Attacker)/Controlled Range AIRCRAFT F-4E

TASK GOAL Perform High Yo-Yo to prevent overshoot DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
O.	<p>ESTABLISHES TURN AND NEARING</p> <p><u>Visual</u>-Pitch att: increasing Bank att: stabilized Target/sight</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Neutral aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitching up, roll stabilized</p>	<p>GUN PARAMETERS</p> <p>Determines need for trim</p>	<p>CR-7a O 372</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>A</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>SP</td> <td>SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V2</td> </tr> </tbody> </table> <p>Activates trim switch & maintains stabilator pressure</p>	1 C	1 Me	1 Mo	VA	MC	A	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	SP	SE	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V2
1 C	1 Me	1 Mo																						
VA	MC	A																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	SP	SE																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
45	90	V2																						
P.	<p>STARTS TURNING ATTACK</p> <p><u>Visual</u>-Pitch att: stabilized Bank att: constant Target/sight</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Constant stabilator pressure, trim switch function</p> <p><u>Motion</u>-Constant positive G, pitch stabilized, roll constant</p>	<p>Sustains turning attack</p>	<p>CR-7a P 372</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>I</td> <td>R</td> </tr> <tr> <td>N</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>30</td> <td>CP</td> <td>SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V2</td> </tr> </tbody> </table> <p>Maintains required (variable) aileron, stabilator & rudder pressure</p>	1 C	1 Me	1 Mo	VC	I	R	N			QUANTITY	DECISION PROC	MOTOR OUTPUT	30	CP	SE	INPUT INDEX	I/O INDEX	OUTPUT INDEX	45	90	V2
1 C	1 Me	1 Mo																						
VC	I	R																						
N																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
30	CP	SE																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
45	90	V2																						
Q.	<p>CONTINUES TURNING ATTACK AND</p> <p><u>Visual</u>-Pitch att: constant °(variable) Bank att: °constant Target/sight</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls lock-on)</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure</p> <p><u>Motion</u>-°Constant positive G, °constant pitch & roll</p>	<p>ACQUIRES LOCK-ON</p> <p>Determines need to begin tracking solution</p>	<p>CR-7a Q 372</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>R, SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V2</td> </tr> </tbody> </table> <p>Maintains required (variable) aileron & rudder control, increases stabilator pressure</p>	1 C	1 Me	1 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	R, SE	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	110	V2
1 C	1 Me	1 Mo																						
VA	MC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	R, SE																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
55	110	V2																						
R.	<p>PRESSES ATTACK AND EXPENDS ORDNANCE</p> <p><u>Visual</u>-Pitch att: °constant Bank att: °constant Target/pipper</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-°Constant positive G, °Constant pitch & roll</p>	<p>Determines proper range & tracking solution & position to fire</p>	<p>CR-7a R 372</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>1 Me</th> <th>1 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>R, SE</td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V2</td> </tr> </tbody> </table> <p>Maintains required (variable) aileron, stabilator & rudder pressure; activates trigger</p>	1 C	1 Me	1 Mo	VA	MC	R	CM			QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	R, SE	INPUT INDEX	I/O INDEX	OUTPUT INDEX	55	110	V2
1 C	1 Me	1 Mo																						
VA	MC	R																						
CM																								
QUANTITY	DECISION PROC	MOTOR OUTPUT																						
40	CP	R, SE																						
INPUT INDEX	I/O INDEX	OUTPUT INDEX																						
55	110	V2																						

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Attacker approximately 4:30 position,
SITUATION 12,000 feet out and 5,000 feet higher, high cruise.

TASK NO. CR-7a **TASK** High Yo-Yo (Attacker)/Controlled Range **AIRCRAFT** F-4E

TASK GOAL Perform High Yo-Yo to prevent overshoot **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION															
S.	<p>CONTINUES TRACKING AND CEASES FIRE</p> <p><u>Visual</u>-Pitch att: °constant Bank att: °Constant Target/pipper</p> <p><u>Aural</u>-Normal aircraft sound, communication - Pilot (calls "Fox 3")</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure; trigger function</p> <p><u>Motion</u>-°Constant positive G, °constant pitch & roll</p>	<p>Discerns target jinking and sustains position behind target</p>	<p>4278 S 477</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>SC</td> <td>R</td> </tr> <tr> <td>CM</td> <td>(F)</td> <td></td> </tr> <tr> <td>40</td> <td>CP</td> <td>1/2 SC</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </tbody> </table> <p>Deactivates trigger, maintains required (variable) aileron, stabilator & rudder control</p>	1 C	2 Me	3 Mo	VA	SC	R	CM	(F)		40	CP	1/2 SC	60	120	V-2
1 C	2 Me	3 Mo																
VA	SC	R																
CM	(F)																	
40	CP	1/2 SC																
60	120	V-2																

SITUATION Defender in level flight at cruise power.

TASK NO. CR-8a TASK Counter High Yo-Yo/Controlled Range AIRCRAFT F-4E

TASK GOAL To keep attacker out of lethal cone DATE Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																					
A.	<p>CONTINUES CRUISE FLIGHT</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines need for constant vigilant posture</p> <p>Sustains level flight</p>	<p>CR-804A 287</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>Q. NO.</th> <th>INFO. PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC.</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>1/A</td> </tr> <tr> <td>INPUT INDEX</td> <td>LOG INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>20</td> <td>40</td> <td>V2</td> </tr> </tbody> </table> <p>Checks 360°, maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	Q. NO.	INFO. PROCESS	CONTINUITY	VC	MC	A	QUANTITY	DECISION PROC.	MOTOR OUTPUT	2-C	CP	1/A	INPUT INDEX	LOG INDEX	OUTPUT INDEX	20	40	V2
1 C	2 Me	3 Mo																						
Q. NO.	INFO. PROCESS	CONTINUITY																						
VC	MC	A																						
QUANTITY	DECISION PROC.	MOTOR OUTPUT																						
2-C	CP	1/A																						
INPUT INDEX	LOG INDEX	OUTPUT INDEX																						
20	40	V2																						
B.	<p>PREPARES DEFENSIVE ACTION</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Target aircraft</p> <p><u>Aural</u>-Normal aircraft sound</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates evasive action</p> <p>Sustains level flight</p>	<p>CR-804B 327</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>Q. NO.</th> <th>INFO. PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VC</td> <td>MR</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC.</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>2-C</td> <td>CP</td> <td>1/A</td> </tr> <tr> <td>INPUT INDEX</td> <td>LOG INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>25</td> <td>50</td> <td>V2</td> </tr> </tbody> </table> <p>Maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	Q. NO.	INFO. PROCESS	CONTINUITY	VC	MR	A	QUANTITY	DECISION PROC.	MOTOR OUTPUT	2-C	CP	1/A	INPUT INDEX	LOG INDEX	OUTPUT INDEX	25	50	V2
1 C	2 Me	3 Mo																						
Q. NO.	INFO. PROCESS	CONTINUITY																						
VC	MR	A																						
QUANTITY	DECISION PROC.	MOTOR OUTPUT																						
2-C	CP	1/A																						
INPUT INDEX	LOG INDEX	OUTPUT INDEX																						
25	50	V2																						
C.	<p>STARTS TURN INTO THREAT</p> <p><u>Visual</u>-Pitch att: level Bank att: level</p> <p>Threat</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO *(threat position)</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Discerns target as threat</p>	<p>CR-804C 435</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>Q. NO.</th> <th>INFO. PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>SC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC.</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>1/A</td> </tr> <tr> <td>INPUT INDEX</td> <td>LOG INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>30</td> <td>150</td> <td>V5</td> </tr> </tbody> </table> <p>Coordinates aileron & rudder with stabilator movement, and moves throttle (to AB) communicates (to WSO)</p>	1 C	2 Me	3 Mo	Q. NO.	INFO. PROCESS	CONTINUITY	VA	SC	R	QUANTITY	DECISION PROC.	MOTOR OUTPUT	3-C	CP	1/A	INPUT INDEX	LOG INDEX	OUTPUT INDEX	30	150	V5
1 C	2 Me	3 Mo																						
Q. NO.	INFO. PROCESS	CONTINUITY																						
VA	SC	R																						
QUANTITY	DECISION PROC.	MOTOR OUTPUT																						
3-C	CP	1/A																						
INPUT INDEX	LOG INDEX	OUTPUT INDEX																						
30	150	V5																						
D.	<p>CONTINUES ROLL IN TO TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Threat</p> <p><u>Aural</u>-Chg. in aircraft sound *communication - WSO</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure, throttle advance</p> <p><u>Motion</u>-Positive G onset, acceleration, pitching up, rolling</p>	<p>Determines satisfactory roll rate & need to maintain visual target contact</p>	<p>CR-804D 477</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <th>Q. NO.</th> <th>INFO. PROCESS</th> <th>CONTINUITY</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC.</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>1/A</td> </tr> <tr> <td>INPUT INDEX</td> <td>LOG INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>65</td> <td>130</td> <td>V2</td> </tr> </tbody> </table> <p>Checks six, maintains aileron & rudder with increased stabilator movement</p>	1 C	2 Me	3 Mo	Q. NO.	INFO. PROCESS	CONTINUITY	VA	MC	R	QUANTITY	DECISION PROC.	MOTOR OUTPUT	4-C	CP	1/A	INPUT INDEX	LOG INDEX	OUTPUT INDEX	65	130	V2
1 C	2 Me	3 Mo																						
Q. NO.	INFO. PROCESS	CONTINUITY																						
VA	MC	R																						
QUANTITY	DECISION PROC.	MOTOR OUTPUT																						
4-C	CP	1/A																						
INPUT INDEX	LOG INDEX	OUTPUT INDEX																						
65	130	V2																						

SITUATION Defender in level flight at cruise power.

TASK NO. CR-8a TASK Counter High Yo-Yo/Controlled Range AIRCRAFT F-4E

TASK GOAL To keep attacker out of lethal cone DATE Sept., 197

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
E.	<p>STOPS ROLL IN AND TIGHTENS TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Threat</p> <p><u>Aural</u>-Chg. in aircraft sound</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitching up, rolling</p>	Determines desired bank & need to tighten turn	<p>CR-8a E 260</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>RA/CK</td> </tr> <tr> <td>INPUT INDEX</td> <td>LOG INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>250</td> <td>V-5</td> </tr> </table> <p>Checks six, coordinates aileron & rudder, increases stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	RA/CK	INPUT INDEX	LOG INDEX	OUTPUT INDEX	50	250	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	RA/CK																			
INPUT INDEX	LOG INDEX	OUTPUT INDEX																			
50	250	V-5																			
F.	<p>ESTABLISHES DEFENSIVE TURN</p> <p><u>Visual</u>-Pitch att: stabilized Bank att: constant</p> <p>Threat</p> <p><u>Aural</u>-Chg. in aircraft sound, AOA tone</p> <p><u>Control</u>-Neutral aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Increased positive G, pitch & roll stabilized, buffeting onset</p>	Determines satisfactory turn in relation to threat & need for trim	<p>CR-8a F 257</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>RA/CK</td> </tr> <tr> <td>INPUT INDEX</td> <td>LOG INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>50</td> <td>100</td> <td>V-2</td> </tr> </table> <p>Checks six, adjusts trim, & relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	RA/CK	INPUT INDEX	LOG INDEX	OUTPUT INDEX	50	100	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	RA/CK																			
INPUT INDEX	LOG INDEX	OUTPUT INDEX																			
50	100	V-2																			
G.	<p>CONTINUES DEFENSIVE TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Threat</p> <p><u>Aural</u>-Normal aircraft sound, AOA tone</p> <p><u>Control</u>-Decreased stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant, buffeting</p>	<p>Discerns threat's high closure rate</p> <p>Sustains level high G turn</p>	<p>CR-8a G 457</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>SC (I)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>RA/CK</td> </tr> <tr> <td>INPUT INDEX</td> <td>LOG INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Checks six, maintains required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	SC (I)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	RA/CK	INPUT INDEX	LOG INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VA CM	SC (I)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	RA/CK																			
INPUT INDEX	LOG INDEX	OUTPUT INDEX																			
45	90	V-2																			
H.	<p>STARTS UNLOADING TURN FOR EXTENSION</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Threat</p> <p><u>Aural</u>-Normal aircraft sound, AOA tone, communication - WSO **(threat's position)</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant, buffeting</p>	Determines a counter to threat's roll & climb	<p>CR-8a H 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>RA/CK</td> </tr> <tr> <td>INPUT INDEX</td> <td>LOG INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder, relaxes stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	RA/CK	INPUT INDEX	LOG INDEX	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	RA/CK																			
INPUT INDEX	LOG INDEX	OUTPUT INDEX																			
55	275	V-5																			

SITUATION Defender in level flight at cruise power.

TASK NO. CR-8a TASK Counter High Yo-Yo/Controlled Range AIRCRAFT F-4E

TASK GOAL To keep attacker out of lethal cone DATE Sept., 197

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION																		
I.	<p>CONTINUES SEPARATION TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Threat</p> <p><u>Aural</u>-Chg. in aircraft sound, **communication - WSO</p> <p><u>Control</u>-Increased aileron & rudder with decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing G, pitching down, rolling</p>	Determines satis- factory pitch & roll movement	<p>CR-8a I 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1A/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>TD INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>275</td> <td>V-5</td> </tr> </table> <p>Checks six, maintai coordinated aileron rudder with relaxed stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	R	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1A/SC	INPUT INDEX	TD INDEX	OUTPUT INDEX	55	275	V-5
1 C	2 Me	3 Mo																			
VA CM	MC	R																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	1A/SC																			
INPUT INDEX	TD INDEX	OUTPUT INDEX																			
55	275	V-5																			
J.	<p>STOPS UNLOADING TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: rolling</p> <p>Threat</p> <p><u>Aural</u>-Chg. in aircraft sound, **communication - WSO</p> <p><u>Control</u>-Increased aileron & rudder pressure, reduced stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G, pitching down, rolling</p>	Determines proper tactical position & energy state achieved	<p>CR-8a J 257</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1A/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>TD INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </table> <p>Checks six, maintai aileron, rudder & stabilator pressure</p>	1 C	2 Me	3 Mo	VA CM	MC	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1A/SC	INPUT INDEX	TD INDEX	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																			
VA CM	MC	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	1A/SC																			
INPUT INDEX	TD INDEX	OUTPUT INDEX																			
55	110	V-2																			
K.	<p>ESTABLISHES TURN</p> <p><u>Visual</u>-Pitch att: stabilized Bank att: constant</p> <p>Threat</p> <p><u>Aural</u>-Chg. in aircraft sound, **communication - WSO</p> <p><u>Control</u>-Constant aileron & rudder, constant stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized</p>	<p>Sustains separation turn</p> <p>Anticipates counter- ing threat's tactical position</p>	<p>CR-8a K 337</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MR (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>CP</td> <td>1A/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>TD INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilato control</p>	1 C	2 Me	3 Mo	VA CM	MR (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	CP	1A/SC	INPUT INDEX	TD INDEX	OUTPUT INDEX	55	110	V-2
1 C	2 Me	3 Mo																			
VA CM	MR (E)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	CP	1A/SC																			
INPUT INDEX	TD INDEX	OUTPUT INDEX																			
55	110	V-2																			
L.	<p>CONTINUES TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Threat</p> <p><u>Aural</u>-Normal aircraft sound, **communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	<p>Discerns threat</p> <p>Sustains turn</p>	<p>CR-8a L 247</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>SC (E)</td> <td>A</td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOTOR OUTPUT</td> </tr> <tr> <td>40</td> <td>SP</td> <td>1A/SC</td> </tr> <tr> <td>INPUT INDEX</td> <td>TD INDEX</td> <td>OUTPUT INDEX</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Checks six, maintai required aileron & stabilator control</p>	1 C	2 Me	3 Mo	VA CM	SC (E)	A	QUANTITY	DECISION PROC	MOTOR OUTPUT	40	SP	1A/SC	INPUT INDEX	TD INDEX	OUTPUT INDEX	45	90	V-2
1 C	2 Me	3 Mo																			
VA CM	SC (E)	A																			
QUANTITY	DECISION PROC	MOTOR OUTPUT																			
40	SP	1A/SC																			
INPUT INDEX	TD INDEX	OUTPUT INDEX																			
45	90	V-2																			

SITUATION Defender in level flight at cruise power.

TASK NO. CR-8a TASK Counter High Yo-Yo/Controlled Range AIRCRAFT 1

TASK GOAL To keep attacker out of lethal cone DATE Sept.

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION										
M.	<p>RESUMES DEFENSIVE TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Threat</p> <p><u>Aural</u>-Normal aircraft sound, **communication - WSO</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll constant</p>	Determines threat will not overshoot, & need for tighter turn	<p>CR-8a M</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> </tr> <tr> <td>VA</td> <td>MC</td> </tr> <tr> <td>CM</td> <td></td> </tr> <tr> <td>4C</td> <td>CP</td> </tr> <tr> <td>45</td> <td>225</td> </tr> </table> <p>Checks six, coordinates aileron & rudder with stabilator motion</p>	1 C	2 Me	VA	MC	CM		4C	CP	45	225
1 C	2 Me												
VA	MC												
CM													
4C	CP												
45	225												
N.	<p>CONTINUES DEFENSIVE TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Threat</p> <p><u>Aural</u>-Chg. in aircraft sound, **communication - WSO AOA tone</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling, buffeting onset</p>	Determines pitch & bank rate satisfactory	<p>CR-8a N</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> </tr> <tr> <td>VA</td> <td>MC</td> </tr> <tr> <td>CM</td> <td></td> </tr> <tr> <td>4C</td> <td>CP</td> </tr> <tr> <td>65</td> <td>130</td> </tr> </table> <p>Maintains aileron & rudder pressure, increased stabilator pressure</p>	1 C	2 Me	VA	MC	CM		4C	CP	65	130
1 C	2 Me												
VA	MC												
CM													
4C	CP												
65	130												
O.	<p>ESTABLISHES BANK AND TIGHTENS TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: rolling</p> <p>Threat</p> <p><u>Aural</u>-Chg. in aircraft sound, **communication - WSO AOA tone</p> <p><u>Control</u>-Constant aileron & rudder pressure, increased stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, pitching up, rolling, buffeting</p>	Determines proper pitch & roll approaching	<p>CR-8a O</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> </tr> <tr> <td>VA</td> <td>MC</td> </tr> <tr> <td>CM</td> <td></td> </tr> <tr> <td>4C</td> <td>CP</td> </tr> <tr> <td>65</td> <td>325</td> </tr> </table> <p>Checks six, coordinates aileron & rudder with stabilator position</p>	1 C	2 Me	VA	MC	CM		4C	CP	65	325
1 C	2 Me												
VA	MC												
CM													
4C	CP												
65	325												
P.	<p>CONTINUES DEFENSIVE TURN</p> <p><u>Visual</u>-Pitch att: stabilized Bank att: constant</p> <p>Threat</p> <p><u>Aural</u>-Normal aircraft sound, **communication - WSO AOA tone</p> <p><u>Control</u>-Neutral aileron & rudder, increased stabilator pressure</p> <p><u>Motion</u>-Constant positive G, pitch & roll stabilized, constant buffet</p>	<p>Discerns threat's position</p> <p>Sustains turn</p>	<p>CR-8a P</p> <table border="1"> <tr> <th>1 C</th> <th>2 Me</th> </tr> <tr> <td>VA</td> <td>SC</td> </tr> <tr> <td>CM</td> <td>(D)</td> </tr> <tr> <td>4C</td> <td>SP</td> </tr> <tr> <td>50</td> <td>100</td> </tr> </table> <p>Checks six, maintains roll aileron & stabilator control</p>	1 C	2 Me	VA	SC	CM	(D)	4C	SP	50	100
1 C	2 Me												
VA	SC												
CM	(D)												
4C	SP												
50	100												

186

SITUATION Defender in level flight at cruise power.

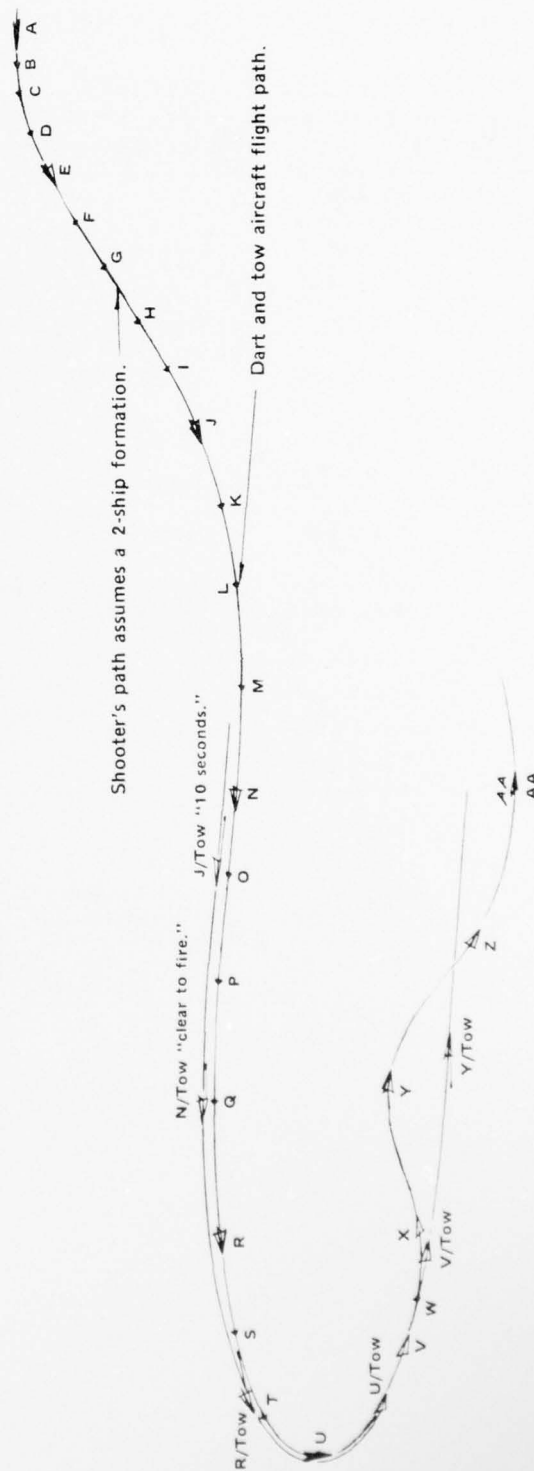
TASK NO. CR-8a TASK Counter High Yo-Yo/Controlled Range AIRCRAFT F

TASK GOAL To keep attacker out of lethal cone DATE Sept.,

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACT																					
Q.	<p>STARTS MAX. BREAKING TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Narrow vision onset</p> <p><u>Aural</u>-Normal aircraft sound, **communication - WSO AOA tone</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Constant positive G, constant pitch, rolling, buffeting</p>	Determines threat's position in approaching the lethal cone	<p>CR-8a Q</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td></td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOD</td> </tr> <tr> <td>AC</td> <td>CP</td> <td></td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUT</td> </tr> <tr> <td>55</td> <td>55</td> <td></td> </tr> </tbody> </table> <p>Increases stab pressure</p>	1 C	2 Me	3	VA	MC		CM			QUANTITY	DECISION PROC	MOD	AC	CP		INPUT INDEX	I/O INDEX	OUT	55	55	
1 C	2 Me	3																						
VA	MC																							
CM																								
QUANTITY	DECISION PROC	MOD																						
AC	CP																							
INPUT INDEX	I/O INDEX	OUT																						
55	55																							
R.	<p>CONTINUES MAX. TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Narrowing vision</p> <p><u>Aural</u>-Chg. in aircraft sound, AOA tone</p> <p><u>Control</u>-Increased stabilator pressure</p> <p><u>Motion</u>-Increasing positive G, constant pitch & roll, increased buffeting, vibration</p>	Sustains max. turn	<p>CR-8a R</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>I</td> <td></td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOD</td> </tr> <tr> <td>AC</td> <td>SP</td> <td></td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUT</td> </tr> <tr> <td>55</td> <td>110</td> <td></td> </tr> </tbody> </table> <p>Maintains requ aileron & stab pressure</p>	1 C	2 Me	3	VA	I		CM			QUANTITY	DECISION PROC	MOD	AC	SP		INPUT INDEX	I/O INDEX	OUT	55	110	
1 C	2 Me	3																						
VA	I																							
CM																								
QUANTITY	DECISION PROC	MOD																						
AC	SP																							
INPUT INDEX	I/O INDEX	OUT																						
55	110																							
S.	<p>STARTS JINK OUT</p> <p><u>Visual</u>-Pitch att: constant Bank att: constant</p> <p>Gray out</p> <p><u>Aural</u>-Normal aircraft sound, AOA tone</p> <p><u>Control</u>-Aileron & stabilator control</p> <p><u>Motion</u>-Constant positive G, constant pitch & roll, constant buffeting, vibration</p>	Determines last ditch maneuver (Jink Out)	<p>CR-8a S</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>VA</td> <td>MC</td> <td></td> </tr> <tr> <td>CM</td> <td></td> <td></td> </tr> <tr> <td>QUANTITY</td> <td>DECISION PROC</td> <td>MOD</td> </tr> <tr> <td>AC</td> <td>CP</td> <td></td> </tr> <tr> <td>INPUT INDEX</td> <td>I/O INDEX</td> <td>OUT</td> </tr> <tr> <td>55</td> <td>55</td> <td></td> </tr> </tbody> </table> <p>Moves stabilat</p>	1 C	2 Me	3	VA	MC		CM			QUANTITY	DECISION PROC	MOD	AC	CP		INPUT INDEX	I/O INDEX	OUT	55	55	
1 C	2 Me	3																						
VA	MC																							
CM																								
QUANTITY	DECISION PROC	MOD																						
AC	CP																							
INPUT INDEX	I/O INDEX	OUT																						
55	55																							

RACETRACK PATTERN/DART FIRING

SITUATION - Two ship element in fighting wing formation, lead aircraft is the shooter, approximately 5 - 7,000 feet behind and 2 - 3,000 feet above the Dart target.



SITUATION Two ship element set up in fighting wing formation, aircraft is the shooter, approximately 5,000 - 7,000' behind DART, and 2,000 - 3,000' above DART target.

TASK NO. CR-9a TASK Racetrack Pattern DART firing AIRCR

TASK GOAL Align aircraft in DART plane and fire DATE

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTO
A.	ESTABLISHED ON PERCH <u>Visual</u> -Pitch att: level Bank att: level Dart Tow ship <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Determines perch position achieved Sustains level flight	CR-9a A 1 C 2 VC 2-C 30 Maintains aileron & control
B.	CONTINUES ON PERCH POSITION <u>Visual</u> -Pitch att: level Bank att: level Dart Tow ship Flt.Inst: Alt, A/S <u>Aural</u> -Normal aircraft sound <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Anticipates Dart tow calling out 30 second warning Sustains level flight	CR-9a B 1 C 2 VC 2-C 40 Maintains aileron & pressure
C.	CONTINUES PERCH POSITION/DART <u>Visual</u> -Pitch att: level Bank att: level Dart Tow ship Sight analog bar <u>Aural</u> -Normal aircraft sound, communication - WSO (calls lock-on) <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	LOCK-ON Determines WSO has radar locked on to Dart Sustains level flight	CR-9a C 1 C 2 VA 3-C 40 Maintains aileron & pressure
D.	STARTS DART CLOSURE IN A DESCENDING TURN <u>Visual</u> -Pitch att: level Bank att: level Dart Tow ship Flt.Inst: A/S <u>Aural</u> -Normal aircraft sound, communication -tow ship (30 second warning) <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Normal G	Determines need to lower nose and increase power, acknowledges tow ship	CR-9a D 1 C 2 VA 3-C 40 Coordinates & rudder, relaxes pressure, throttle, mic. switch, communicate (to tow ship)

AD-A061 387

DESIGN PLUS ST LOUIS MO

F/G 5/9

DEVELOPMENT AND APPLICATION OF A TASK TAXONOMY FOR TACTICAL FLY--ETC(U)

SEP 78 R P MEYER, J I LEVESON, G L PAPE

F33615-77-C-0020

UNCLASSIFIED

AFHRL-TR-78-42(I)

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SITUATION Two ship element set up in fighting wing formation, lead aircraft is the shooter, approximately 5,000 - 7,000' behind DART, and 2,000 - 3,000' above DART target.

TASK NO. CR-9a **TASK** Racetrack Pattern DART firing **AIRCRAFT** F-4E

TASK GOAL Align aircraft in DART plane and fire **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
E.	<p>CONTINUES TO CLOSE RANGE ON TARGET</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: level</p> <p>Dart Tow ship</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Increased aileron & rudder pressure, decreased stabilator pressure, throttle advance, mic. switch function</p> <p><u>Motion</u>-Unloaded G onset, pitching down</p>	<p>TARGET IN A DESCENDING TURN</p> <p>Determines need to move inside the intended Dart turn to obtain closure rate & need for trim</p>	<p>CR-9a E 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>SAI/SC RU/TF</td> </tr> <tr> <td>65</td> <td>325</td> <td>V-5</td> </tr> </table> <p>Maintains coordinated aileron & rudder with relaxed stabilator pressure, adjusts trim</p>	1 C	2 Mo	3 Mo	VA CM	MC	R	A-C	CP	SAI/SC RU/TF	65	325	V-5
1 C	2 Mo	3 Mo													
VA CM	MC	R													
A-C	CP	SAI/SC RU/TF													
65	325	V-5													
F.	<p>CONTINUES TO ESTABLISH DESCENT AND TURN</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: level</p> <p>Dart Tow ship Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO *(calls distance and overtake)</p> <p><u>Control</u>-Constant aileron & rudder pressure, decreased stabilator pressure, trim switch function</p> <p><u>Motion</u>-Unloaded G, pitching down</p>	<p>Determines rate of pitch, bank & acceleration satisfactory</p>	<p>CR-9a F 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>SAI/SC RU/TF</td> </tr> <tr> <td>70</td> <td>140</td> <td>V-2</td> </tr> </table> <p>Maintains stabilator, aileron & rudder pressure</p>	1 C	2 Mo	3 Mo	VA CM	MC	R	A-C	CP	SAI/SC RU/TF	70	140	V-2
1 C	2 Mo	3 Mo													
VA CM	MC	R													
A-C	CP	SAI/SC RU/TF													
70	140	V-2													
G.	<p>STOPS RATE OF DESCENT AND CONTINUES TURNING</p> <p><u>Visual</u>-Pitch att: decreasing Bank att: level</p> <p>Dart Tow ship Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Chg. in aircraft sound, communication - WSO *(calls distance and overtake)</p> <p><u>Control</u>-Constant aileron, stabilator and rudder pressure</p> <p><u>Motion</u>-Unloaded G, pitching down</p>	<p>Determines required pitch & bank attitude approaching (relative to the inside distance of the intended Dart turn)</p>	<p>CR-9a G 260</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>SAI/SC RU/TF</td> </tr> <tr> <td>65</td> <td>325</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder movement with stabilator movement</p>	1 C	2 Mo	3 Mo	VA CM	MC	A	A-C	CP	SAI/SC RU/TF	65	325	V-5
1 C	2 Mo	3 Mo													
VA CM	MC	A													
A-C	CP	SAI/SC RU/TF													
65	325	V-5													

SITUATION Two ship element set up in fighting wing formation, lead aircraft is the shooter, approximately 5,000 - 7,000' behind DART, and 2,000 - 3,000' above DART target.

TASK NO. CR-9a **TASK** Racetrack Pattern DART firing **AIRCRAFT** F-4E

TASK GOAL Align aircraft in DART plane and fire **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
H.	<p>ESTABLISHES RATE OF DESCENT (CONSTANT)</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Dart Tow ship Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Positive G onset, pitching down</p>	<p>Determines need for power adjustment and trim</p>	<p>CR-9a H 257</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>A</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>TR SC</td> </tr> <tr> <td>65</td> <td>130</td> <td>V-2</td> </tr> </table> <p>Adjusts throttle, adjusts trim, relaxes stabilator pressure</p>	1 C	2 Mo	3 Mo	VA CM	MC	A	A-C	CP	TR SC	65	130	V-2
1 C	2 Mo	3 Mo													
VA CM	MC	A													
A-C	CP	TR SC													
65	130	V-2													
I.	<p>PREPARES TO INTERCEPT PLANE OF DART</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Dart Tow ship</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Neutral stabilator pressure, trim switch function, throttle advance</p> <p><u>Motion</u>-Normal G</p>	<p>Anticipates tow ship giving 10 second warning before starting turn</p> <p>Sustains descent</p>	<p>CR-9a I 92</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA C</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <td>3-C</td> <td>SP</td> <td>AI SC</td> </tr> <tr> <td>40</td> <td>00</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Mo	3 Mo	VA C	MR (I)	A	3-C	SP	AI SC	40	00	V-2
1 C	2 Mo	3 Mo													
VA C	MR (I)	A													
3-C	SP	AI SC													
40	00	V-2													
J.	<p>STARTS INTERCEPT AS TOW SHIP</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Dart Tow ship Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound, communication-tow ship (calls "10 second warning")</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>CALLS "TEN SECOND WARNING"</p> <p>Determines approach- ing plane of Dart & need to acknow- ledge tow ship</p>	<p>CR-9a J 225</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA C</td> <td>MC</td> <td>R</td> </tr> <tr> <td>3-C</td> <td>CP</td> <td>AI SC</td> </tr> <tr> <td>45</td> <td>225</td> <td>V-5</td> </tr> </table> <p>Coordinates stabilator, aileron & rudder; activates mic. switch; communicates</p>	1 C	2 Mo	3 Mo	VA C	MC	R	3-C	CP	AI SC	45	225	V-5
1 C	2 Mo	3 Mo													
VA C	MC	R													
3-C	CP	AI SC													
45	225	V-5													
K.	<p>CONTINUES TO REFINES POSITION (TO INTERCEPT DART PLANE)</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Dart Tow ship Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Positive G onset, pitching up</p>	<p>Determines satis- factory rate of pitch movement & closure rate, need for trim</p>	<p>CR-9a K 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>A-C</td> <td>CP</td> <td>TR SC</td> </tr> <tr> <td>70</td> <td>140</td> <td>V-2</td> </tr> </table> <p>Adjusts trim, increased stabilator pressure</p>	1 C	2 Mo	3 Mo	VA CM	MC	R	A-C	CP	TR SC	70	140	V-2
1 C	2 Mo	3 Mo													
VA CM	MC	R													
A-C	CP	TR SC													
70	140	V-2													

SITUATION Two ship element set up in fighting wing formation, lead aircraft is the shooter, approximately 5,000 - 7,000' behind DART, and 2,000 - 3,000' above DART target.

TASK NO. CR-9a **TASK** Racetrack Pattern DART firing **AIRCRAFT** F-4E

TASK GOAL Align aircraft in DART plane and fire **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
L.	<p>ESTABLISHES INSIDE INTENDED DART TURN</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Dart Tow ship Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Stabilator pressure, trim switch function</p> <p><u>Motion</u>-Positive G, pitching up</p>	<p>Determines satisfactory position & closure rate</p>	<p>CR-40 L 276</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>40</td> <td>CP</td> <td>/Sc</td> </tr> <tr> <td>55</td> <td>55</td> <td>V-1</td> </tr> </table> <p>Relaxes stabilator pressure</p>	1 C	2 Mo	3 Mo	VA CM	MC	R	40	CP	/Sc	55	55	V-1
1 C	2 Mo	3 Mo													
VA CM	MC	R													
40	CP	/Sc													
55	55	V-1													
M.	<p>PREPARES TO START PURE PURSUIT CURVE</p> <p><u>Visual</u>-Pitch att: increasing Bank att: level</p> <p>Dart Tow ship Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound, *communication - WSO</p> <p><u>Control</u>-Decreased stabilator pressure</p> <p><u>Motion</u>-Decreasing positive G</p>	<p>Anticipates Dart starting turn & giving "clear to fire" call, and need to establish smooth lead pursuit curve</p> <p>Sustains level turn</p>	<p>CR-40 M 337</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MR (I)</td> <td>A</td> </tr> <tr> <td>40</td> <td>CP</td> <td>/A/Sc</td> </tr> <tr> <td>45</td> <td>90</td> <td>V-2</td> </tr> </table> <p>Maintains required aileron & stabilator pressure</p>	1 C	2 Mo	3 Mo	VA CM	MR (I)	A	40	CP	/A/Sc	45	90	V-2
1 C	2 Mo	3 Mo													
VA CM	MR (I)	A													
40	CP	/A/Sc													
45	90	V-2													
N.	<p>STARTS PURE PURSUIT CURVE AND CLIMB</p> <p><u>Visual</u>-Pitch att: constant Bank att: level</p> <p>Dart Tow ship</p> <p><u>Aural</u>-Normal aircraft sound, communication-tow ship (calls "cleared to fire")</p> <p><u>Control</u>-Aileron & stabilator pressure</p> <p><u>Motion</u>-Normal G</p>	<p>Determines need to start turn & acknowledge call</p>	<p>CR-40 N 275</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA C</td> <td>MC</td> <td>R</td> </tr> <tr> <td>30</td> <td>CP</td> <td>SAI/DS 12/CM Sc</td> </tr> <tr> <td>35</td> <td>175</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron, rudder & stabilator pressure; activates mic switch; communicates (to tow ship)</p>	1 C	2 Mo	3 Mo	VA C	MC	R	30	CP	SAI/DS 12/CM Sc	35	175	V-5
1 C	2 Mo	3 Mo													
VA C	MC	R													
30	CP	SAI/DS 12/CM Sc													
35	175	V-5													
O.	<p>CONTINUES ROLL IN TO CLIMBING TURN (TO ESTABLISH AIRCRAFT IN DART PLANE)</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Dart Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure, mic.switch function</p> <p><u>Motion</u>-Positive G onset, pitching up, rolling</p>	<p>Determines roll in rate satisfactory & need to place pipper slightly ahead of Dart</p>	<p>CR-40 O 274</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>40</td> <td>CP</td> <td>SAI/DS 12/CM Sc</td> </tr> <tr> <td>70</td> <td>280</td> <td>V-4</td> </tr> </table> <p>Maintains coordinated aileron, rudder & stabilator pressure</p>	1 C	2 Mo	3 Mo	VA CM	MC	R	40	CP	SAI/DS 12/CM Sc	70	280	V-4
1 C	2 Mo	3 Mo													
VA CM	MC	R													
40	CP	SAI/DS 12/CM Sc													
70	280	V-4													

SITUATION Two ship element set up in fighting wing formation, lead aircraft is the shooter, approximately 5,000 - 7,000' behind DART, and 2,000 - 3,000' above DART target.

TASK NO. CR-9a **TASK** Racetrack Pattern DART firing **AIRCRAFT** F-4E

TASK GOAL Align aircraft in DART plane and fire **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
P.	PREPARES TO MAINTAIN RATE OF <u>Visual</u> -Pitch att: increasing Bank att: roll Dart <u>Aural</u> -Chg. in aircraft sound, *communication - WSO <u>Control</u> -Increased aileron, rudder & stabilator pressure <u>Motion</u> -Positive G, pitching up, rolling	TURN AND CONVERT TO Anticipates match- ing turn rate with speed of Dart Sustains turn	LEAD PURSUIT <u>CR-9a P</u> 357 <table><tr><th>1 C</th><th>2 Mo</th><th>3 Mo</th></tr><tr><td>VA CM</td><td>MR (I)</td><td>R</td></tr><tr><td>A-C</td><td>CP</td><td>Ai St</td></tr><tr><td>55</td><td>110</td><td>V2</td></tr></table> Maintains required aileron & stabilator control	1 C	2 Mo	3 Mo	VA CM	MR (I)	R	A-C	CP	Ai St	55	110	V2
1 C	2 Mo	3 Mo													
VA CM	MR (I)	R													
A-C	CP	Ai St													
55	110	V2													
Q.	MAINTAINS RATE OF TURN & CLIMB RATE (LEAD PURSUIT) <u>Visual</u> -Pitch att: increasing Bank att: roll Dart <u>Aural</u> -Normal aircraft sound, *communication - WSO <u>Control</u> -Aileron & stabilator pressure <u>Motion</u> -Positive G, pitching up, rolling	Determines rate of turn approaching speed of Dart & need for trim	<u>CR-9a Q</u> 260 <table><tr><th>1 C</th><th>2 Mo</th><th>3 Mo</th></tr><tr><td>VA CM</td><td>MC</td><td>A</td></tr><tr><td>A-C</td><td>CP</td><td>Ai St</td></tr><tr><td>45</td><td>225</td><td>V5</td></tr></table> Coordinates aileron, rudder & stabilator pressure; adjusts trim	1 C	2 Mo	3 Mo	VA CM	MC	A	A-C	CP	Ai St	45	225	V5
1 C	2 Mo	3 Mo													
VA CM	MC	A													
A-C	CP	Ai St													
45	225	V5													
R.	ESTABLISHES PROPER LINE OF SIGHT TO TARGET (IN THE DART PLANE) <u>Visual</u> -Pitch att: constant Bank att: constant Sight/Dart <u>Aural</u> -Normal aircraft sound *communication - WSO <u>Control</u> -Increased aileron, rudder & stabilator pressure, trim switch function <u>Motion</u> -Positive G, pitch & roll stabilized	Determines proper sight picture approaching for Dart aiming point Sustains turn	<u>CR-9a R</u> 297 <table><tr><th>1 C</th><th>2 Mo</th><th>3 Mo</th></tr><tr><td>VA CM</td><td>MC (I)</td><td>A</td></tr><tr><td>A-C</td><td>CP</td><td>Ai St</td></tr><tr><td>55</td><td>110</td><td>V2</td></tr></table> Maintains required aileron, rudder & stabilator pressure	1 C	2 Mo	3 Mo	VA CM	MC (I)	A	A-C	CP	Ai St	55	110	V2
1 C	2 Mo	3 Mo													
VA CM	MC (I)	A													
A-C	CP	Ai St													
55	110	V2													
S.	CONTINUES LEAD PURSUIT CURVE <u>Visual</u> -Pitch att: constant °(variable) Bank att: constant °(variable) Sight/Dart <u>Aural</u> -Normal aircraft sound, *communication - WSO <u>Control</u> -Aileron, rudder & stabilator pressure <u>Motion</u> -Positive G, pitch & roll °constant	Determines proper rate of closure established & need to reduce power	<u>CR-9a S</u> 277 <table><tr><th>1 C</th><th>2 Mo</th><th>3 Mo</th></tr><tr><td>VA CM</td><td>MC</td><td>R</td></tr><tr><td>A-C</td><td>CP</td><td>Ai St</td></tr><tr><td>50</td><td>100</td><td>V2</td></tr></table> Maintains required aileron, stabilator & rudder pressure; adjusts throttle	1 C	2 Mo	3 Mo	VA CM	MC	R	A-C	CP	Ai St	50	100	V2
1 C	2 Mo	3 Mo													
VA CM	MC	R													
A-C	CP	Ai St													
50	100	V2													

SITUATION Two ship element set up in fighting wing formation, lead aircraft is the shooter, approximately 5,000 - 7,000' behind DART, and 2,000 - 3,000' above DART target.

TASK NO. CR-9a **TASK** Racetrack Pattern DART firing **AIRCRAFT** F-4E

TASK GOAL Align aircraft in DART plane and fire **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
T.	<p>ESTABLISHES DESIRED CLOSURE RATE</p> <p><u>Visual</u>-Pitch att: °constant Bank att: °constant Dart/pipper Analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Increased stabilator pressure, throttle reduction</p> <p><u>Motion</u>-Positive G, pitch & roll °constant</p>	<p>Determines pipper & Dart wingspan are nearly the same size (2500') & need to confirm to WSO, radar is locked on Dart</p>	<p>CR-9a T 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>Ai Tr St Cm</td> </tr> <tr> <td>55</td> <td>110</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, stabilator & rudder pressure, adjusts trim, communicates - WSO</p>	1 C	2 Me	3 Mo	VA CM	MC	R	4-C	CP	Ai Tr St Cm	55	110	V-2
1 C	2 Me	3 Mo													
VA CM	MC	R													
4-C	CP	Ai Tr St Cm													
55	110	V-2													
U.	<p>CONTINUES CLOSURE</p> <p><u>Visual</u>-Pitch att: °constant Bank att: °constant Dart/pipper Analog bar</p> <p><u>Aural</u>-Normal aircraft sound, communication - WSO (calls ready to fire)</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure, trim switch function</p> <p><u>Motion</u>-Positive G, pitch & roll ° constant</p>	<p>Determines 2000' range approaching & need to smoothly move pipper to Dart, & need to stabilize power before firing</p>	<p>CR-9a U 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>Ai Tr St Cm</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, stabilator & rudder pressure; adjusts throttle</p>	1 C	2 Me	3 Mo	VA CM	MC	R	4-C	CP	Ai Tr St Cm	60	120	V-2
1 C	2 Me	3 Mo													
VA CM	MC	R													
4-C	CP	Ai Tr St Cm													
60	120	V-2													
V.	<p>STARTS FIRING</p> <p><u>Visual</u>-Pitch att: °constant Bank att: °constant Dart/pipper Analog bar</p> <p><u>Aural</u>-Chg. in aircraft sound, *communication - WSO</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure; throttle decreased</p> <p><u>Motion</u>-Positive G, pitch & roll °constant</p>	<p>Determines pipper on target, 1500' range, & need to fire gun</p>	<p>CR-9a V 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>Ai Tr St Cm</td> </tr> <tr> <td>70</td> <td>140</td> <td>V-2</td> </tr> </tbody> </table> <p>Maintains required aileron, stabilator & rudder pressure; activates trigger</p>	1 C	2 Me	3 Mo	VA CM	MC	R	4-C	CP	Ai Tr St Cm	70	140	V-2
1 C	2 Me	3 Mo													
VA CM	MC	R													
4-C	CP	Ai Tr St Cm													
70	140	V-2													
W.	<p>STOPS FIRING/STARTS BREAKAWAY</p> <p><u>Visual</u>-Pitch att: °constant Bank att: °constant Dart (hit)</p> <p><u>Aural</u>-Normal aircraft sound, weapons discharge, communication - WSO (calls 1000' & cease fire)</p> <p><u>Control</u>-Aileron, stabilator & rudder pressure; trigger function</p> <p><u>Motion</u>-Positive G, pitch & roll °constant</p>	<p>Determines need to breakaway from Dart pursuit, and call out "hit"</p>	<p>CR-9a W 277</p> <table border="1"> <thead> <tr> <th>1 C</th> <th>2 Me</th> <th>3 Mo</th> </tr> </thead> <tbody> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>4-C</td> <td>CP</td> <td>Ai Tr St Cm</td> </tr> <tr> <td>60</td> <td>120</td> <td>V-2</td> </tr> </tbody> </table> <p>Deactivates trigger; Moves aileron, rudder, & stabilator; activates mic. switch; communicates; moves throttle</p>	1 C	2 Me	3 Mo	VA CM	MC	R	4-C	CP	Ai Tr St Cm	60	120	V-2
1 C	2 Me	3 Mo													
VA CM	MC	R													
4-C	CP	Ai Tr St Cm													
60	120	V-2													

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SITUATION Two ship element set up in fighting wing formation, lead aircraft is the shooter, approximately 5,000 - 7,000' behind DART, and 2,000 - 3,000' above DART target.

TASK NO. CR-9a **TASK** Racetrack Pattern DART firing **AIRCRAFT** F-4E

TASK GOAL Align aircraft in DART plane and fire **DATE** Sept., 1977

EL. SEQ.	1 CUES	2 MENTAL ACTION	3 MOTOR ACTION												
X.	<p>CONTINUES BREAKAWAY OUT OF DART PLANE</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Dart Tow ship</p> <p><u>Aural</u>-Chg. in aircraft sound, communication</p> <p><u>Control</u>-Increased aileron, rudder & stabilator pressure; mic. switch function; throttle adv; trigger function</p> <p><u>Motion</u>-Increased positive G, pitching up, rolling</p>	<p>Determines adequate clearance from Dart & need to fly 45° up & away from Dart</p>	<p>CR-9a X 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>40</td> <td>CP</td> <td>A/R</td> </tr> <tr> <td>75</td> <td>150</td> <td>V-2</td> </tr> </table> <p>Maintains aileron, rudder & stabilator pressure</p>	1 C	2 Mo	3 Mo	VA CM	MC	R	40	CP	A/R	75	150	V-2
1 C	2 Mo	3 Mo													
VA CM	MC	R													
40	CP	A/R													
75	150	V-2													
Y.	<p>STARTS TO RE-ESTABLISH PERCH POSITION</p> <p><u>Visual</u>-Pitch att: increasing Bank att: roll</p> <p>Dart Tow ship Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Chg. in aircraft sound, communication (wingman confirms hit)</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure</p> <p><u>Motion</u>-Positive G, pitching up, rolling</p>	<p>Determines need to reverse turn & climb to perch position (maintains a constant position on Dart)</p>	<p>CR-9a Y 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>40</td> <td>CP</td> <td>A/R/SC</td> </tr> <tr> <td>70</td> <td>350</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder, maintains stabilator pressure</p>	1 C	2 Mo	3 Mo	VA CM	MC	R	40	CP	A/R/SC	70	350	V-5
1 C	2 Mo	3 Mo													
VA CM	MC	R													
40	CP	A/R/SC													
70	350	V-5													
Z.	<p>CONTINUES ROLL IN TO REVERSE TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: roll</p> <p>Dart Tow ship Flt.Inst: Alt, A/S</p> <p><u>Aural</u>-Normal aircraft sound, communication (tow ship calls "cease fire")</p> <p><u>Control</u>-Inc. aileron & rudder pressure, constant stabilator pressure</p> <p><u>Motion</u>-Positive G, pitching up, rolling</p>	<p>Determines roll rate satisfactory & need to reply to cease fire</p>	<p>CR-9a Z 277</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>40</td> <td>CP</td> <td>A/R/SC</td> </tr> <tr> <td>65</td> <td>130</td> <td>V-2</td> </tr> </table> <p>Maintains aileron, rudder & stabilator pressure; activates mic. switch; communicates</p>	1 C	2 Mo	3 Mo	VA CM	MC	R	40	CP	A/R/SC	65	130	V-2
1 C	2 Mo	3 Mo													
VA CM	MC	R													
40	CP	A/R/SC													
65	130	V-2													
AA.	<p>STOPS ROLL IN TO TURN</p> <p><u>Visual</u>-Pitch att: constant Bank att: roll</p> <p>Dart Tow ship</p> <p><u>Aural</u>-Normal aircraft sound, communication</p> <p><u>Control</u>-Constant aileron, rudder & stabilator pressure, mic. switch function</p> <p><u>Motion</u>-Positive G, pitching up, rolling</p>	<p>Determines proper turning rate approaching to maintain position on Dart</p>	<p>CR-9a AA 280</p> <table border="1"> <tr> <th>1 C</th> <th>2 Mo</th> <th>3 Mo</th> </tr> <tr> <td>VA CM</td> <td>MC</td> <td>R</td> </tr> <tr> <td>40</td> <td>CP</td> <td>A/R/SC</td> </tr> <tr> <td>60</td> <td>300</td> <td>V-5</td> </tr> </table> <p>Coordinates aileron & rudder pressure with inc. stabilator pressure</p>	1 C	2 Mo	3 Mo	VA CM	MC	R	40	CP	A/R/SC	60	300	V-5
1 C	2 Mo	3 Mo													
VA CM	MC	R													
40	CP	A/R/SC													
60	300	V-5													

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