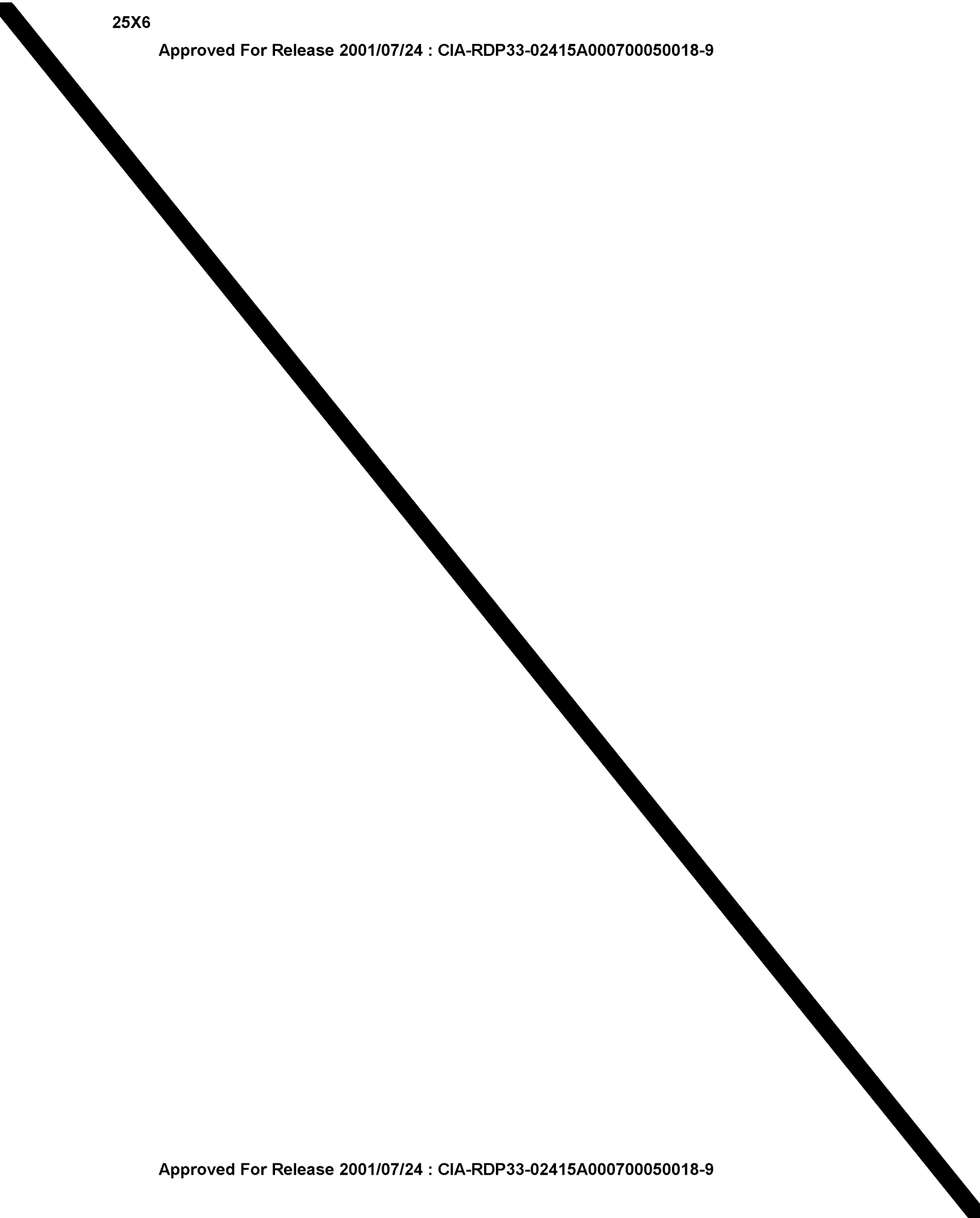

PROJECT HEADQUARTERS
DIRECTIVE 50-10-28

OPERATIONS
20 June 1966

Supersedes PHD #50-1095-1 dated 31 March 1964

STANDARD OPERATING PROCEDURES - CAMERA

1. PURPOSE:

To provide standard operating procedures for camera operation on all Headquarters directed missions.

2. GENERAL:

Procedures outlined herein are those intended to provide maximum photographic quality and equipment reliability. Headquarters will attempt to anticipate deviations occasioned by local operating conditions or seasonal variations, and forward necessary instructions. However, it is recognized that information concerning field conditions may not always be available in sufficient detail, or in sufficient time to direct deviations. In those instances, and if time permits, the Detachment will notify Project Headquarters of any local operating conditions which may affect compliance with this directive. If time does not permit prior consultation with Headquarters, deviations are authorized at the discretion of the Detachment Commander. In such instances Project Headquarters will be advised of the scope and reason for such deviations.

3. PROCEDURE:

a. All photographic equipment will be thoroughly bench checked prior to a photographic mission.

b. All camera windows will be cleaned inside and outside, and inspected for significant scratches, and nicks.

c. Cameras will be thoroughly preflighted after installation in the aircraft. Senior Special Equipment man will sign off equipment prior to flight to indicate that all ground tests have been completed and cameras are in operating order.

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d. Data Chamber Clock will be hacked to ZULU time and this time will be recorded on the preflight sheet.

e. Camera port covers will be removed from aircraft prior to take off roll.

f. Camera heaters and blowers will be in the "ON" position from take off to landing. For Delta series cameras heater blowers should be turned "OFF" when the cameras are turned to one of the Mode positions, and turned back "ON" again when the camera goes to "OFF" or "STANDBY".

g. Cycle cameras once when reaching cruise altitude, and once just prior to penetration. A single cycle in Mode I for the "B" Configuration and four cycles (approximately 30 seconds) for the Delta Configuration is sufficient.

h. Upon return from a photographic mission, Special Equipment personnel will:

(1) Inspect outside surfaces of camera ports for breaks, dirt, oil, or condensation which might affect photographic quality.

(2) Replace port covers.

(3) Conduct a thorough post-flight of all camera and associated equipment, making a note of discrepancies and malfunctions which would be useful in evaluating equipment performance.

(4) Record error of Data Chamber Clock and the time on the preflight sheet.

i. After processing of tracker film, head and tail of each roll of film should be marked with mission number, date, unit designation, and security classification, before making prints or dupes.

4. Camera procedures to be utilized prior to departure from home base and enroute to a pre-strike staging base.

a. Complete thorough camera preflight and loading of film.

b. Leave camera port covers on.

c. Do not cycle camera between home base and staging base.

d. Camera heaters and blowers on from take off to landing.

5. CAMERA SETTINGS:

25X1A Camera settings to be used on a mission will be forwarded to Detachment by Project Headquarters and will normally be included in the Alert Message [redacted]

a. Bravo camera standard settings with 8402 or 3401 film:

(1) $\frac{1}{150}$ TOT

(2) F/10 for film processed at Eastman Kodak.
F/16 for film processed in the field.

(3) 57½% overlap.

(4) Wratten 12 filter.

b. Bravo camera standard settings with 3400 film:

(1) $\frac{1}{150}$ TOT ($\frac{1}{100}$ for solar altitudes less than 20°).

(2) F/10 whether processed locally or at Eastman Kodak.

(3) 57½% overlap.

(4) Wratten 12 filter.

c. Delta III camera standard settings:

(1) 1/400 sec. - F/3.5, 3404 film.

(2) Mode selection: Mode 1, 2, or 3 dependent upon ground velocity and altitude.

d. Mark II Tracker standard settings:

(1) 32 second interval.

(2) Wratten 25 filter at Detachment "G".
Wratten 12 filter at Detachment "H".

(3) Tracker to be operated from take off to landing.

e. T-35 Tracker standard settings:

(1) 30 second interval.

(2) Wratten 12 filter, 3404 film.

(3) F 4.0 aperture.

(4) Tracker is to be operated from take off to landing.

25X1A

f. Paragraph F. of Alert Message [redacted] will give camera settings as "Standard" unless a change is required. The word "Standard" when referring to camera settings will denote the contents of paragraphs 5a through 5e.

6. Proposed revisions, suggested changes, or additions to this directive will be forwarded to Project Headquarters.

25X1A

[redacted]

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PROJECT HEADQUARTERS
DIRECTIVE 50-10-6

OPERATIONS
1 February 1967

Supersedes PHD 50-10-6 dated 7 February 1966

TAPE RECORDING OF PILOT BRIEFINGS AND DEBRIEFINGS

1. PURPOSE:

To establish the requirement for recording on tape the pilot general briefing of all U-2 sorties, and the pilot debriefing of all Headquarters directed operational missions.

2. SCOPE:

The provisions of this directive are applicable to detachments under the control of this Headquarters.

3. RESPONSIBILITY:

Detachment Commanders are responsible for ensuring compliance with the provisions of this directive.

4. GENERAL:

a. In order that a permanent record may be available, pilot general briefings for all U-2 sorties will be tape recorded.

b. Pilot debriefings of Project Headquarters directed operational missions will be tape recorded.

c. If at all possible, the tape recorder should be operated on sixty (60) cycle power.

d. To permit compliance with this directive when the detachment is operating away from the detachment permanent base, a portable tape recorder will be carried to the staging location.

e. A resume of the pilot's cover story, quoted from memory, will be part of the operational mission briefing for [redacted] pilots.

25X1A

f. All tapes will be classified TOP SECRET and the mission number and date will be marked on the container.

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g. Tapes of briefings and debriefings for operational missions will be couriered to Project Headquarters along with other mission take and will be filed in Project Headquarters with other mission records.

h. Tapes of briefings/debriefings for non-operational missions may be destroyed after the aircraft has landed without incident. In the event of an incident or accident the tapes will be retained by the detachment pending receipt, from Project Headquarters, of instructions for their disposition.

25X1A [redacted]

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PROJECT HEADQUARTERS
DIRECTIVE 50-10-17

OPERATIONS
7 February 1966

Supersedes PHD #50-1051-1 dated 1 September 1963

CARRIER QUALIFICATIONS

1. PURPOSE:

This Directive establishes the training requirements for carrier qualifications of IDEALIST pilots.

2. OBJECTIVE:

This program is designed to qualify IDEALIST pilots in aircraft carrier operations.

3. MINIMUM CHECK-OUT REQUIREMENTS:

Prior to becoming carrier qualified, each IDEALIST pilot will have successfully completed the ground training and flight training requirements of this Directive.

4. GENERAL:

a. Prior to carrier qualification in the article, IDEALIST pilots will be fully qualified in the appropriate Navy trainer aircraft.

b. Naval regulations will apply when flying Naval aircraft or when the Project aircraft operates from a carrier.

5. TRAINING POLICY:

a. Phase I - Each pilot will have successfully completed the following ground and flight training in the Navy trainer prior to proceeding to Phase II of this Directive:

(1) Familiarization and ground handling.

(2) Preflight brief.

(3) Day airways and penetration practice flight.

b. Phase II - Each pilot will have successfully completed the following ground and flight training in the Navy trainer prior to proceeding to Phase III of this Directive:

(1) Carrier landing practice.

(a) Landing Signal Officer will brief on carrier landing patterns, landing mirrors, use of angle of attack indicator, touch and go landings, wave off and go-around techniques.

(b) Landing Signal Officer will monitor landings and take off of each pilot, and has authority to stipulate number of landings required by each pilot.

(2) Carrier qualifications.

(a) Landing Signal Officer briefing (same as 4b(1)(a) above).

(b) Landings and launches aboard ship as Landing Signal Officer deems necessary.

c. Phase III - Upon completion of this phase, IDEALIST pilots will be considered operationally ready in carrier operations.

(1) Carrier landing practice - U-2.

Pilots will be required to have completed satisfactorily a landing practice stage in the U-2, prior to landing aboard an aircraft carrier.

(2) Carrier qualifications - U-2

Pilots will perform landings and take off aboard ship until such time as the Landing Signal Officer is satisfied they are qualified and operationally ready for aircraft carrier operations.

5. RECHECK REQUIREMENTS:

a. Pilots who have not had a landing aboard an aircraft carrier for a period over thirty days will be required to perform a carrier landing stage in the U-2, under the supervision of a qualified Landing Signal Officer. This landing stage will be all that is required for recurrency in U-2 carrier operations.

b. The Landing Signal Officer's judgement of the individual pilots abilities will be the determining factor in the amount of training necessary.

25X1A

[redacted]

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PROJECT HEADQUARTERS
DIRECTIVE 50-10-23

OPERATIONS
4 August 1967

Supersedes PHD # 50-10-23 dated 7 February 1966

OPERATIONAL READY STATUS OF IDEALIST ASSETS

1. PURPOSE:

To establish policy and guidance concerning periodic checks to ensure the operational ready status of assigned aircraft and equipment.

2. RESPONSIBILITY:

Detachment Commanders are responsible for implementing the provisions of this Directive.

3. PROCEDURE:

In commission aircraft and equipment will be flown, if feasible, under operational conditions in accordance with paragraph 4 below. If circumstances preclude an actual inflight check, a thorough bench and/or ground evaluation of the equipment will be made in any event to determine its status. When such ground tests are made in lieu of a test, appropriate status boards will be so annotated.

4. SCHEDULE OF PERIODIC CHECKS:*

a. Aircraft: Every five days.

b. Equipment:

(1) "B" Configuration - every thirty days.

(2) Delta Camera System - every thirty days.

(3) Tracker - every thirty days.

(4) "H" Configuration - every thirty days.

(5) System VI - pre and post flight every fifteen days.

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(6) Infrared Sensor System - every sixty days.

*NOTE: Under extreme conditions of moisture, dust, temperature, and/or inadequate storage facilities, Detachment Commanders will increase the frequency of equipment checks as considered appropriate.

5. GENERAL:

The requirements contained herein are effective upon receipt of this directive at operating detachments.

[redacted] 25X1A

TOP SECRET
IDEALIST

PROJECT HEADQUARTERS
DIRECTIVE 50-10-24

OPERATIONS
1 February 1967

Supersedes PHD 50-10-24 dated 7 February 1966

OPERATIONAL HAZARD REPORTS

1. PURPOSE:

To establish responsibilities and general procedures for the reporting of operational hazards. Prompt submission of Operational Hazard Reports will enable supervisory personnel to be immediately aware of, and to correct, dangerous conditions that could cause death or injury to personnel and loss or damage to aircraft and property.

2. RESPONSIBILITIES:

a. Detachment Commanders are responsible for prompt submission of Operational Hazard Reports and for corrective action that is required immediately.

b. Project Headquarters will forward details of the hazard to other interested agencies/contractors not included in paragraph 4d below.

c. Project Headquarters will direct additional corrective action, if required.

3. DEFINITION:

An Operational Hazard is any condition or occurrence that affects or could affect, the safety of Project aircraft or associated personnel, but which has not yet resulted in an incident/accident as defined in Project Headquarters Directive 50-10-20.

4. HOW TO REPORT:

a. When: As soon as possible.

b. How: By electrical transmission with classification and precedence as required.

25X1A

c. Slugged: [redacted] Operational Hazard.

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IDEALIST
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25X1A

d. Addressed to: Project Headquarters with information copies to [redacted] and other IDEALIST detachments.

e. Message Format:

(1) Aircraft Number

(2) Pilot

(3) Primary item (aircraft, electrical system, autopilot, etc.)

(4) Narrative describing hazard

(5) Corrective actions accomplished or recommended corrective action.

25X1A [redacted]

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(3) Oxygen system (C/G/R)

(4) DC generator (C/G)

(5) Main DC generator (R)

(6) Both primary inverters (C/G)

(7) Main AC generator (R)

(8) Oil pressure or temperature (C/G/R)

(9) Fuel pressure or uncontrollable uneven fuel feeding. (C/G/R)

b. Approach Phase: During the Approach Phase, the failure or malfunction of one or more of the following is mandatory cause for abort of the mission:

(1) Autopilot (C/G/R)

(2) Engine roughness or flameout (C/G/R)

(3) Oxygen system (C/G/R)

(4) DC generator (C/G)

(5) Main DC generator (R)

(6) Both primary inverters (C/G)

(7) Main AC generator (R)

(8) Oil pressure or temperature (C/G/R)

(9) Fuel pressure or uncontrollable uneven feeding. (C/G/R)

(10) Hydraulic pressure (C/G/R)

(11) System 9 (C/G)

(12) System 20 when installed (R)

(13) System 12 (C/G/R)

(14) System 13 (C/G/R)

(15) Oscar Sierra (C/G/R)

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(16) [redacted] (C/G/R)

(17) Single sideband radio (C/G/R)

(18) Primary camera (C/G/R)

(19) AC generator (C/G)

(20) Main AC generator (R)

(21) Cockpit or equipment bay pressurization (C/G/R)

(22) Any other malfunction, either singly or in combination, that could affect the safety of the mission. (C/G/R)

c. Penetration Phase: During the Penetration Phase of the mission, failure or malfunction of one or more of the following is cause for abort of the mission. Unless the malfunction is serious enough to warrant an emergency abort, pilot should reverse track, exit denied territory via the point of penetration and then proceed either to the take off base or briefed landing base via the most nearly direct, safe route dependent upon fuel remaining:

(1) Autopilot (C/G/R)

(2) Engine roughness or flameout (C/G/R)

(3) Oxygen system (C/G/R)

(4) DC generator (C/G)

(5) Main DC generator (R)

(6) Both primary inverters (C/G)

(7) Main AC generator (R)

(8) Oil pressure or temperature (C/G/R)

(9) Fuel pressure or uncontrollable uneven fuel feeding (C/G/R)

(10) Hydraulic pressure (C/G/R)

(11) System 12 (C/G/R)

(12) System 13 (C/G/R)

(13) Oscar Sierra (C/G/R)

25X1A (14) [redacted] (C/G/R)

(15) Single sideband radio (C/G/R)

(16) Primary camera (C/G/R)

(17) Cockpit or equipment bay pressurization. (C/G/R)

(18) Any other malfunction, either singly or in combination, that could jeopardize safety of the mission aircraft. (C/G/R)

d. Withdrawal Phase: After passing the Press-on Point, the mission aircraft should continue along the planned route unless an emergency abort situation is encountered.

25X1A [redacted]

Next 5 Page(s) In Document Exempt

b. U-2 Training:

25X6

(1) U-2 ground training for [redacted] pilots will consist of 60 hours in the U-2C and 62 hours in the U-2R. Minimum subjects for this training will consist of the following:

(a) Aircraft General.

(b) Engine/Fuel System

(c) Oxygen Air Conditioning Pressurization Systems.

(d) Hydraulic System/Flight Controls.

(e) Landing Gear/Brakes/Primary Flight Controls.

(f) Electrical System/Aircraft Lighting/ Electronic Systems.

(g) Communications/Annunciator Panel.

(h) Autopilot/AFCS and FRS Compass and Navigation System.

(i) Instruments/Doppler.

* (j) High Altitude Navigation Map Reading/Viewsight

* (k) Cruise Control/Flight Log/Flight Planning Procedures.

* (l) High Altitude Weather.

(m) Personal Equipment/Ejection Seat.

(n) Flight Characteristics/Aircraft Limitation.

(o) Emergency Procedures.

* (p) Special Equipment (Configurations and Tracker, Active and Passive Defensive Systems, and Sensor Systems).

* (q) Flight Line Techniques.

* (r) Tactical Doctrine Procedures.

(s) Local Operating Procedures.

(t) Cockpit Familiarization.

(Note: * These items may be excluded from the U-2R ground training phase at the discretion of the Detachment Commander.)

25X6 (2) U-2 flight training/transition and qualification for the [redacted] pilots will consist of a minimum of sixteen sorties (55 hours) in the U-2C and six sorties (25 hours) in the U-2R, with special emphasis on the following:

(a) Flight characteristics

(b) Traffic pattern and landings.

(c) Engine flameout and air start.

(d) Emergency gear extension.

(e) Fuel transfer and fuel dump procedures.

(f) Simulated flameout patterns.

(g) Speed control.

(h) Hand flying aircraft at altitudes above 65,000 feet.

(i) Stall characteristics.

(j) Special equipment operation.

(k) Adherence to photographic flight lines.

(l) Doppler navigation.

(m) Maintenance of flight log (green card).

(n) Maximum angle-of-bank evasive maneuvers.

(o) Night Operation.

(p) High altitude navigation.

(q) Maximum range cruise techniques.

(3) U-2 ground training for [redacted] 25X6 pilots will consist of 40 hours in the U-2C and 62 hours in the U-2R. Topics of instruction will be the same as prescribed by paragraph 4b (1) above, except U-2C training will not be required for the following:

(a) High Altitude Navigation and Map Reading

(b) Electronic Systems.

(c) High Altitude Weather.

(d) Flight Planning

(e) Flight Line Techniques

(f) Tactical Procedures

(g) Special Equipment (Configuration)

25X6 (4) U-2 flight training/transition and qualification for [redacted] pilots will consist of a minimum of five low altitude training sorties (approximately 10 25X1A hours) in the local [redacted] area below 45,000 feet and sixteen sorties (approximately 82 hours) in the U-2R with emphasis on items outlined in paragraph 4b (2) above.

c. Initial Survival, Evasion, Resistance and Escape (SERE) training will be completed prior to being designated O/R. This training will be conducted for the [redacted] pilot 25X6 trainees during the period they are at Detachment "G". [redacted] training will be given in accordance with Project Headquarters Field Directive Number 18-5-1.

5. REPORTS: 25X1A

a. Commander, Detachment "G" will submit a monthly progress report to Project Headquarters on each pilot trainee during the ground and flight training program. This report will:

(1) be submitted to Headquarters on the first duty day of each month.

(2) be narrative in form;

(3) include, as a minimum, measurable accomplishments during the week plus a statement as to what is scheduled for the following month, and Commander's estimate of the rate of progress.

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PROJECT HEADQUARTERS
DIRECTIVE 50-10-19

OPERATIONS
20 SEPTEMBER 1971

25X1A Supersedes PHD 50-10-19, dated 10 Feb 69; Proj Hqs Msg, Cite: [redacted] 6487, 11 Sep 69 and Proj Hqs Msg, Cite: [redacted] 3114, 20 May 71 25X1A

ABORT CRITERIA FOR U-2R OPERATIONAL OR DEPLOYMENT MISSIONS

1. PURPOSE:

To establish abort criteria and to provide guidance for mission pilots and other personnel responsible for the decision to abort an operational or deployment mission.

2. RESPONSIBILITY:

Detachment Commanders will insure that supervisory personnel concerned with control of an operational or deployment mission are thoroughly familiar with the provisions of this Directive.

3. DEFINITIONS:

a. Equal Time Point (ETP). A location where flying time to planned landing base is equal to the time to departure base. Required for all long overwater legs.

b. Emergency Abort. A mission abort caused by an aircraft malfunction which affects safety of flight and dictates that the aircraft exit denied territory as quickly as possible. Deployment aircraft would land at the nearest suitable recovery base.

c. Overflight. Any operational mission in which the article proceeds on a course along, across, or over specified political borders.

d. Approach Phase. That portion of the mission from take off to the point of penetration of denied territory.

e. Penetration Phase. That portion of the mission from point of entry of denied territory to the Continuation Point.

f. Continuation Point. That point on the route of flight beyond which it is deemed advisable for the aircraft to continue the mission as planned. Position of this point

is dependent on several factors; e.g., distance to the briefed landing base, hostile threat to the mission aircraft, proximity of the route to neutral/friendly borders, and type or severity of the malfunction encountered.

g. Withdrawal Phase. That portion of the mission from the Continuation Point to the briefed landing base.

h. Peripheral Mission. Any operational mission in which the article proceeds on a course adjacent to but does not cross specified political boundries.

i. Deployment. The Project Headquarters directed emplacement of a U-2R to perform an operational or training mission or to replace/exchange a prepositioned aircraft.

4. GENERAL:

a. Mission routes are planned so as to collect the maximum amount of intelligence data with the minimum threat to safety of the mission aircraft. After the route is planned, latest photography of the area within 30 NM of either side of the route is carefully searched for Surface-to-Air Missile (SAM) sites not previously detected and within a 50 NM radius of principal targets and suspect SAM areas. Although this procedure cannot guarantee that the route is free of SAM sites, it does provide some assurance of increased safety.

b. Some malfunctions of aircraft equipment are safety of flight items and make it mandatory that the mission be aborted immediately. Other malfunctions, which do not affect safety of flight, but could impair the success of the mission, are also mandatory causes for abort during the Approach Phase of the mission.

c. After the aircraft has penetrated denied territory so many variables can be present in an abort situation that specific instructions, which will cover each individual case, cannot be formulated. Unless the malfunction dictates an emergency abort, the decision to abort must be made by the mission pilot and the Detachment Commander, based on the circumstances existing at the time and with reference to the guidance outlined in paragraph 5.

d. On an individual mission basis, Project Headquarters will delete certain items of equipment from the list of mandatory causes for abort, but only when their failure/malfunction will not affect the safety of the mission aircraft.

e. Although it is desirable for a deployment aircraft to be operationally ready (O/R) on arrival, in most situations, time will be available prior to the operational mission for the aircraft and systems to be declared O/R. Unless specifically required by the deployment plan, failures/malfunctions of installed configuration, defensive and collection systems would not necessarily be cause for abort.

5. ABORT CRITERIA:

a. Emergency Abort. Failure or malfunction of any of the following, during any phase of the mission is considered mandatory cause for abort. The mission aircraft over denied territory will exit via the most direct safe route and proceed either to the briefed landing base or nearest friendly landing base, dependent upon fuel remaining and the ability of the pilot to control the emergency. The mission aircraft on a peripheral flight will abort via the shortest safe route away from mainland China coast, and proceed to home base or nearest friendly alternate in accordance with safe flight practices. Deployment aircraft will proceed to the nearest suitable recovery base.

(1) Engine.

(a) Roughness or flameout.

(b) Oil pressure out of limits.

(c) Temperatures out of limits.

(d) Fuel pressure out of limits or uncontrollable fuel feeding.

(2) Main AC generator.

(3) Autopilot.

(4) Oxygen System.

b. Overflight.

(1) Approach and Penetration Phases. During these phases and in addition to the emergency abort criteria, failure or malfunction of one or more of the following is also mandatory cause for abort of the mission. During penetration phase, unless the malfunction is serious enough to warrant an emergency abort, pilot should reverse track, exit denied territory via the point of penetration and proceed either to the take off base or briefed landing base via the most direct, safe route dependent upon fuel remaining.

(a) Auxiliary Systems.

(1) Hydraulic.

(2) Cockpit or equipment bay pressurization.

(3) Primary camera.

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(4) [redacted]

(5) Single sideband radio.

(b) Defensive Systems.

(1) Oscar Sierra.

(2) System 12.

(3) System 13.

(4) System 20.

(2) Withdrawal Phase. After passing the Continuation Point, the mission aircraft should continue along the planned route unless an emergency abort situation is encountered.

(3) Any other malfunction, either singly or in combination, that could affect the safety of the mission.

(4) Specific instructions for aborting due to weather, contrails, doppler failure and fuel reserves will be provided in the pilot's mission briefing.

c. Peripheral Missions.

(1) When peripheral missions are flown requiring both a primary camera and SIGINT collection capability, failure of either system alone is not cause for abort. Pilot will proceed on the mission as briefed and not abort while the remaining collection capability continues to function.

(2) When peripheral SIGINT missions are flown utilizing both ELINT and SIGINT systems, failure of either system will not be cause for abort. Failure of both systems either simultaneously or sequentially, will be cause for abort. Abort will then be accomplished in accordance with paragraph 5a, above.

d. Deployments. In addition to the abort criteria outlined for Emergency Abort and the Approach and Penetration Phases, failure/malfunction of both the TACAN and ADF will be reason for abort. Failure/malfunction of the defensive systems will not be reason for abort unless specifically identified for a mission approaching unfriendly territory.

[redacted] 25X1A

PROJECT HEADQUARTERS
DIRECTIVE 50-10-25

OPERATIONS
15 SEPTEMBER 1971

Supersedes PHD #50-10-25 dated 16 February 1970

INITIAL PILOT QUALIFICATION IN U-2 AIRCRAFT

1. PURPOSE:

To establish a program that will provide the minimum training necessary for initial pilot qualification in U-2 aircraft.

2. RESPONSIBILITY:

Commander Detachment "G" will:

a. Insure compliance with the provisions of this directive.

b. Consider the requirements of this directive as minimum requirements and provide additional training as required.

c. Publish a training syllabus, for [redacted] 25X6 25X6 pilots, which includes lesson plans, mission guides, questionnaires and other detailed instructions necessary for the conduct of the training program.

3. GENERAL:

a. Prior to any U-2 flight training, pilots will have satisfactorily completed physical examinations, pressure suit fittings and altitude chamber indoctrination.

b. Prior to initiating U-2 flight training, familiarization training in the T-33 aircraft will have been completed. Qualification will be accomplished in accordance with AFM 51-33 prior to U-2 training.

c. Within the fourteen day period prior to the first solo U-2 flight a qualified U-2 instructor pilot will demonstrate U-2 flight characteristics to the transition pilot. This demonstration will be simulated in a T-33 or support aircraft.

d. The first U-2 mission will require a T-33 chase aircraft with a U-2 pilot to observe air work maneuvers. In addition, a utility aircraft with a U-2 pilot will be assigned

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IDEALIST
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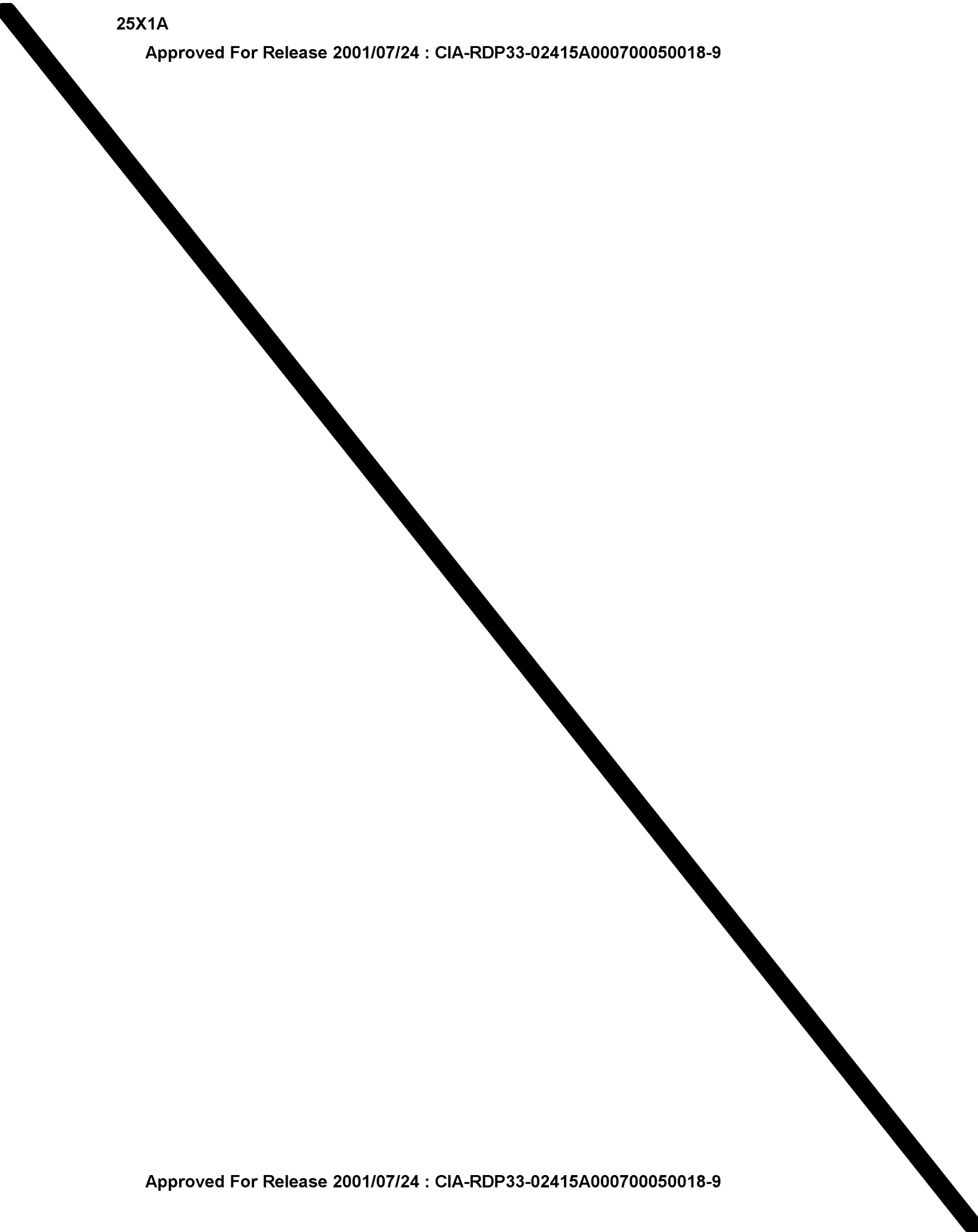

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The minimum requirements for this training will consist of the following:

(a) Aircraft General.

(b) Engine/Fuel System

(c) Oxygen/Air Conditioning/Pressurization Systems.

(d) Hydraulic System/Flight Controls.

(e) Landing Gear/Brakes/Primary Flight Controls.

(f) Electrical System/Aircraft Lighting/ Electronic Systems.

(g) Communications/Annunciator Panel.

(h) Autopilot/AFCS and FRS Compass and Navigation System.

(i) Instruments/Doppler.

(j) High Altitude Navigation Map Reading/Viewsight

(k) Cruise Control/Flight Log/Flight Planning Procedures.

(l) High Altitude Weather.

(m) Personal Equipment/Ejection Seat.

(n) Flight Characteristics/Aircraft Limitation.

(o) Emergency procedures.

(p) Special Equipment (Configurations and Tracker, Active and Passive Defensive Systems, and Sensor Systems).

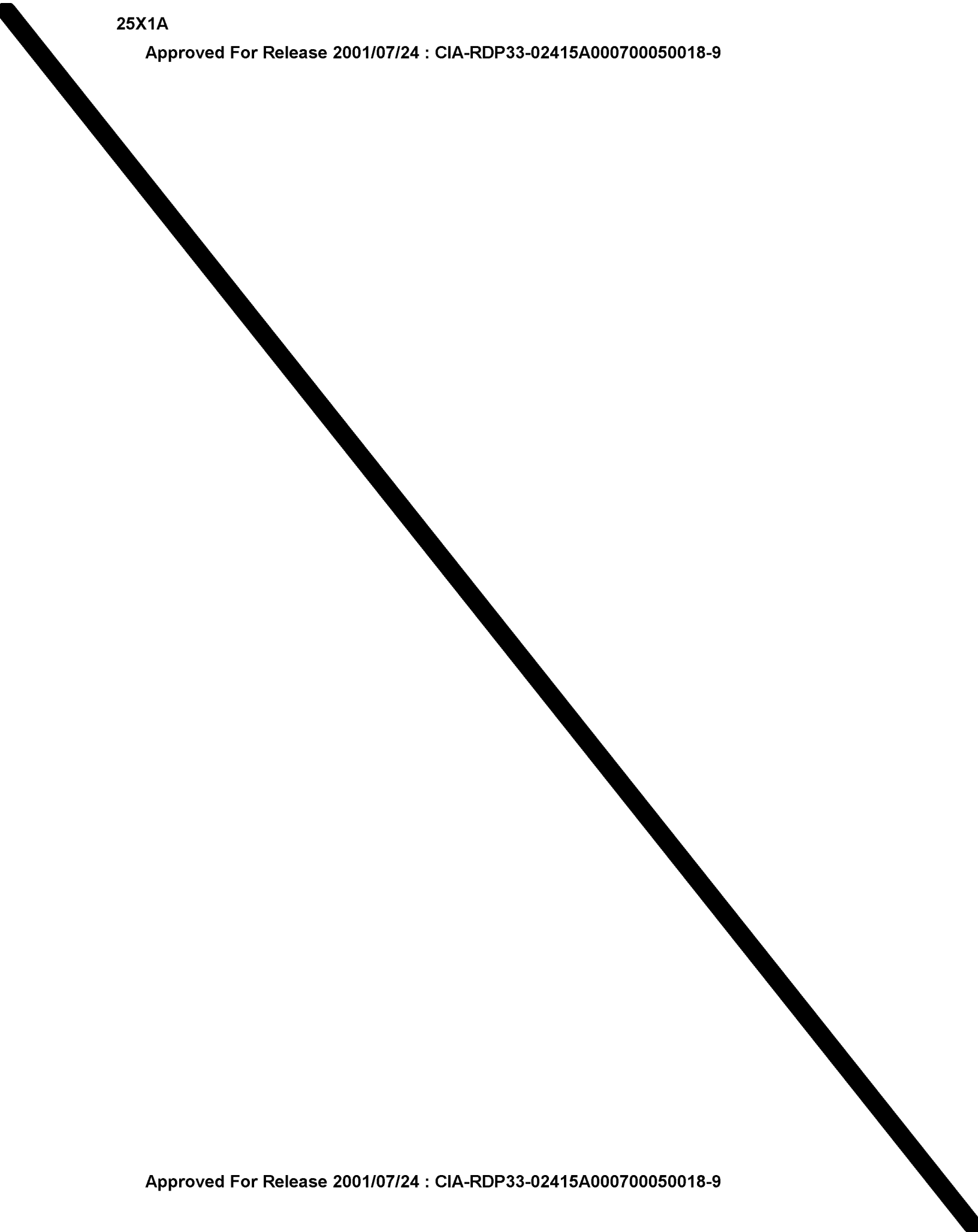
(q) Flight Line Techniques.

(r) Tactical Doctrine Procedures.

(s) Local Operating Procedures.

(t) Cockpit Familiarization.

(2) U-2 flight training/transition will consist of sixteen sorties with special emphasis on the following:



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(2) Be narrative in form.

(3) Include, as a minimum, measurable accomplishments during the month plus a statement as to what is scheduled for the following month, and Commander's estimate of the rate of progress.

b. Commander, Detachment "G" will submit a final training report to Project Headquarters following the completion of training for each student.

6. RECORDS:

A record of training will be maintained for each pilot. Contents of this folder will be as prescribed by Commander, Detachment "G".

7. SECURITY/COVER:

a. Project Headquarters Directive 10-10-1, will apply for training [redacted] pilots at Detachment "G". 25X6

25X6 b. Security/Cover requirements as outlined in the IDEALIST/[redacted] Agreement will apply for [redacted] pilots. 25X6

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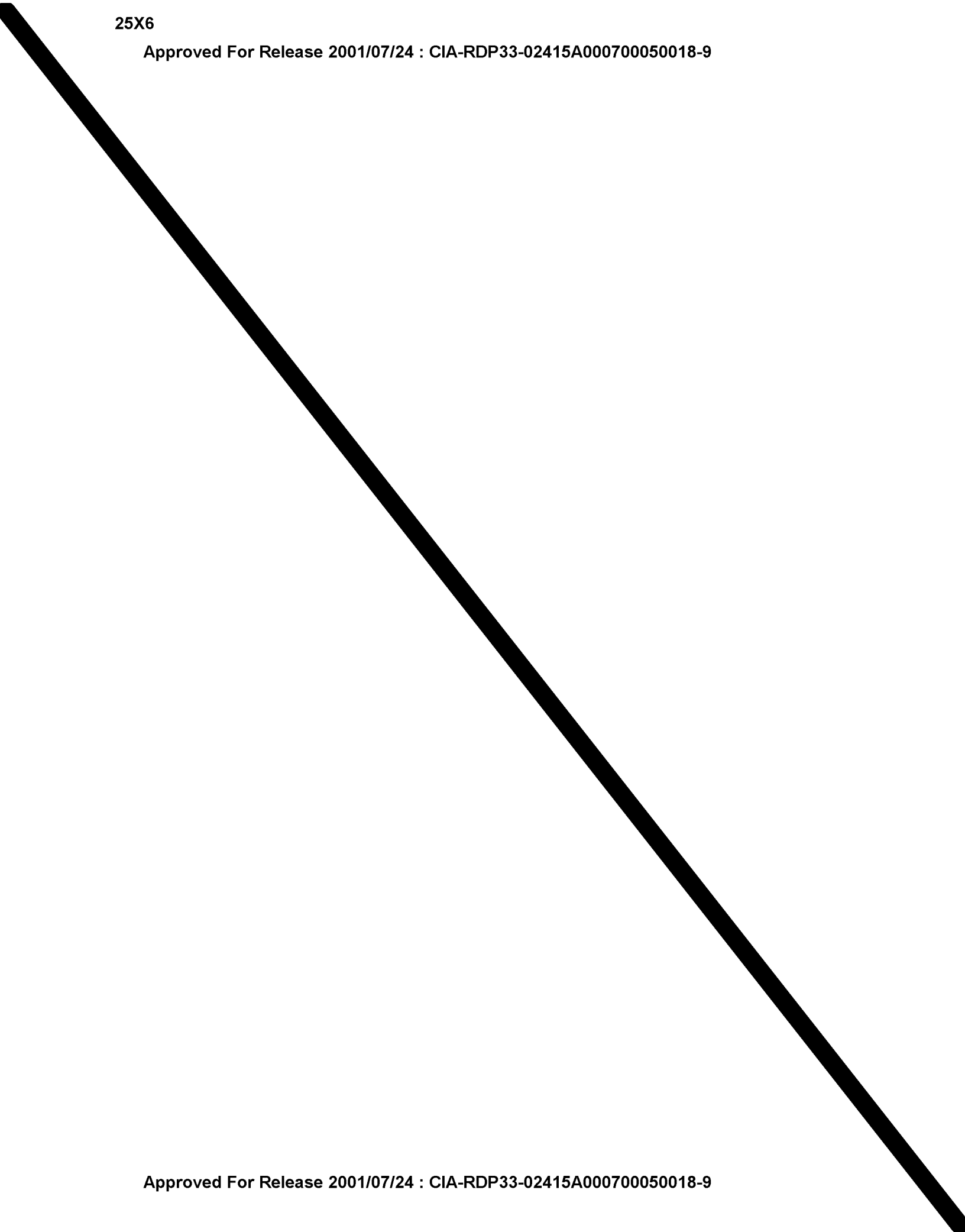

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indoctrinate [redacted] pilots in FAA enroute and approach procedures that they will encounter in U-2 flying. A secondary purpose is to evaluate instrument flying proficiency and provide additional instrument training as required.

c. Ground Training (U-2)

(1) Aircraft and engine 20 hrs.

(a) Aircraft general

(b) Engine

(c) Fuel System

(d) Hydraulic, oxygen and pressurization systems

(e) Electrical systems

(f) Landing gear, brakes and gust control

(2) Flight Characteristics 6 hrs.

(3) Cockpit check and aircraft familiarization 4 hrs.

(4) FAA procedures 1 hr.

(5) Personal equipment 3 hrs.

(6) Physiological aspects of high altitude flying 1 hr.

(7) High altitude weather 1 hr.

(8) Mission planning procedures 1 hr.

(9) Pre-flight and in-flight log procedures and cruise control 3 hrs.

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(10) High-altitude navigation	2 hrs.
(11) Celestial navigation and sextant indoctrination	4 hrs.
(12) Photographic equipment indoctrination	2 hrs.
(13) Electronic systems indoctrination	4 hrs.
(14) Autopilot and compass	2 hrs.
(15) Tactical doctrine	12 hrs.
(16) Emergency procedures	4 hrs. minimum
TOTAL	70 hrs.

d. Simulated U-2 Characteristics

(1) If a two-seat U-2 is available, it will be used to demonstrate flight characteristics to the student pilot.

(2) If the two-seat U-2 is unavailable, simulated U-2 characteristics will be demonstrated by a qualified U-2 instructor pilot in the U-3A aircraft.

(3) Simulated U-2 characteristics will be accomplished within the fourteen day period prior to the first solo flight in the U-2.

e. Pre-solo Proficiency Checks

Each student pilot will accomplish satisfactorily the following requirements prior to flying the U-2 aircraft:

(a) Aircraft questionnaire

(b) Emergency examination

(c) Aircraft exterior inspection

(d) Aircraft pre-take off procedures

(e) Aircraft emergency procedures (cockpit check)

f. Flight Training

Mission #1*	Low altitude to include turns - approach to stalls with various flap settings - five take off and landings with Pogos	2 + 00
Mission #2*	Same as #1	2 + 00
Mission #3*	Low altitude	2 + 00
Mission #4	Medium altitude 50m w/suit shut down and restart 7 SFO 7 landings w/o pogos	3 + 00
Mission #5	At 65,000 D.R Navigation w/camera 3 landings	4 + 30
Mission #6	Same as #5	4 + 30

*Note: Missions 1, 2, and 3 are to have a T-33 aircraft as chase for the air work maneuvers and a U-3 aircraft as chase for the traffic pattern maneuvers.

Mission #7	At 70,000	4 + 30
	Remainder same as #5	
Mission #8	Low altitude	3 + 00
	3 GCA - 3 SFO	
	3 Touch & Go	
Mission #9	Same as #7 (70,000)	4 + 30
Mission #10	Same as #7	4 + 30
Mission #11	Same as #8	3 + 00
Mission #12	70,000	6 + 00
	Requirements same as #5	
	except only 2 touch & go	
Mission #13	Maximum altitude	6 + 00
	Requirements same as #12	
Mission #14	Low Altitude	3 + 00
Mission #15	Maximum altitude simulated	7 + 30
	ops mission and standardiza-	
	tion check	

	DESIRED	MINIMUM
Sorties	15	15
Flying Hours	60	55
SFO	(As can be scheduled)	
GCA	(As can be scheduled)	

g. Operational Training

Upon return to their home detachment, the [redacted] pilots will be placed in Category III operational

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status and will be required to complete the requirements of Project Headquarters Directive 50-10-2 for upgrading to a Category I status.

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PROJECT HEADQUARTERS
DIRECTIVE 50-10-23

OPERATIONS
10 FEBRUARY 1969

Supersedes PHD #50-10-23 dated 4 August 1967

OPERATIONAL READY STATUS OF IDEALIST ASSETS

1. PURPOSE:

To establish policy and guidance concerning periodic checks to ensure the operational ready status of assigned aircraft and equipment.

2. RESPONSIBILITY:

Detachment Commanders are responsible for implementing the provisions of this Directive.

3. PROCEDURE:

In commission aircraft and equipment will be flown, if feasible, under operational conditions in accordance with paragraph 4 below. If circumstances preclude an actual inflight check, a thorough bench and/or ground evaluation of the equipment will be made in any event to determine its status. When such ground tests are made in lieu of a test, appropriate status boards will be so annotated.

4. SCHEDULE OF PERIODIC CHECKS:*

a. Aircraft: Every five days.

b. Equipment:

(1) "B" Configuration - every thirty days.

(2) Delta Camera System - every thirty days.

(3) Tracker - every thirty days.

(4) "H" Configuration - every thirty days.

(5) System VI - pre and post flight every fifteen days.

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(6) Iris II - every thirty days.

*NOTE: Under extreme conditions of moisture, dust, temperature, and/or inadequate storage facilities, Detachment Commanders will increase the frequency of equipment checks as considered appropriate.

5. GENERAL:

The requirements contained herein are effective upon receipt of this directive at operating detachments.

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PROJECT HEADQUARTERS
DIRECTIVE 50-10-30

OPERATIONS
TRAINING
10 FEBRUARY 1969

Supersedes PHD #50-10-30 dated 1 March 1968

INITIAL QUALIFICATION IN U-2 AIRCRAFT

1. PURPOSE:

To establish a program that will provide the minimum training necessary for initial qualification in U-2 aircraft.

2. RESPONSIBILITY:

Commander, Detachment "G" will:

a. Insure compliance with the provisions of this directive.

b. Consider the requirements of this directive as minimum requirements and provide additional training as required.

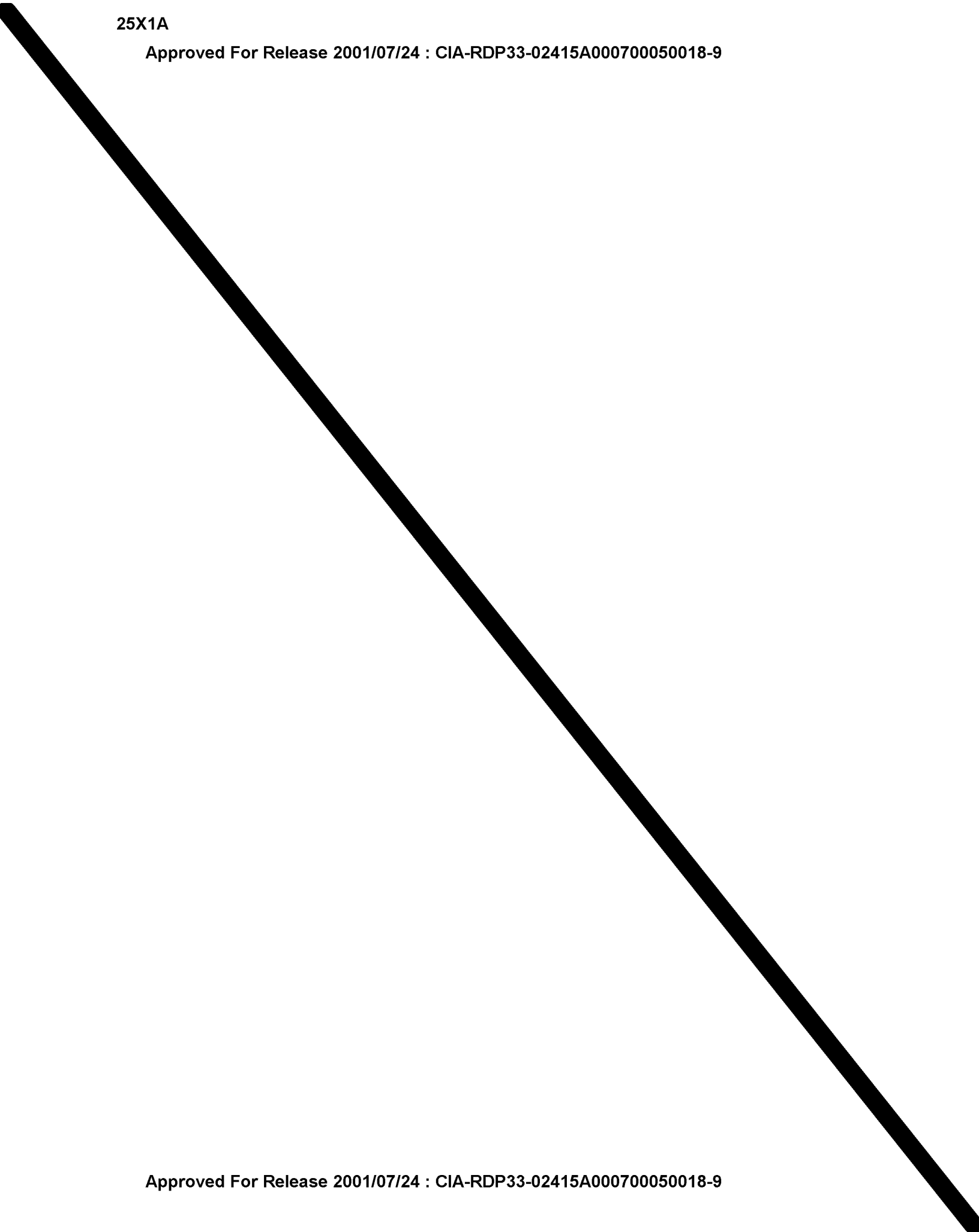
c. Publish a training syllabus which includes lesson plans, mission guides, questionnaires and other detailed instructions necessary for the conduct of the training program.

3. GENERAL:

a. Prior to any U-2 flight training, students will have satisfactorily completed physical examinations, pressure suit fittings and altitude chamber indoctrination.

b. Prior to initiating U-2 flight training, familiarization training in the T-33 aircraft will have been completed.

c. Within the fourteen day period prior to the first solo U-2 flight a qualified U-2 instructor pilot will demonstrate U-2 flight characteristics to the student



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(2) Ground and flying training will be tailored to the student's prior experience in the T-33 and the techniques to be used to simulate the U-2 characteristics as close as possible to include the following:

(a) Simulate U-2 flight and approach-to-stall characteristics.

(b) Provide practice in U-2 traffic pattern procedures.

(c) Familiarize students with lake-bed landing procedures.

b. U-2 Training:

(1) Ground training will consist of instruction in the following:

(a) Aircraft general	8 hours
(b) Engine and fuel system	4 hours
(c) Hydraulic, oxygen and pressurization systems.	4 hours
(d) Landing gear, brakes, speed brakes and gust control.	1 hour
(e) Electrical system.	4 hours
(f) Autopilot and compass systems.	4 hours
(g) Flight characteristics and aircraft limitations	6 hours
(h) Sextant, drift sight and/or doppler navigation system.	3 hours
(i) High altitude navigation and map reading.	2 hours

(j) Physiological aspects of high altitude flight and personal equipment indoctrination.	4 hours
(k) High altitude weather.	1 hour
(l) Flight log procedures, cruise control and flight planning.	2 hours
(m) Interpretation of celestial data.	4 hours
(n) Electronic systems indoctrination.	2 hours
(o) Photographic equipment indoctrination.	2 hours
(p) Flight line techniques.	1 hour
(q) Emergency procedures.	4 hours
(r) Cockpit familiarization.	4 hours
(s) Tactical Doctrine	3 hours
Total	63 hours

(2) Pre-solo Proficiency Checks. Each student pilot will satisfactorily complete the following requirements prior to flying the U-2 aircraft:

(a) Aircraft questionnaire.

(b) Emergency procedures examination.

(c) Aircraft exterior inspection.

(d) Pre-take off procedures (including start and taxi).

(e) Emergency procedures (instant responses in cockpit).

(3) Flying Training:

Will consist of a minimum of sixteen sorties and 60 flying hours, with special emphasis on the following:

(a) Flight characteristics.

(b) Traffic pattern and landings.

(c) Engine flameout and air start.

(d) Emergency gear extension.

(e) Fuel transfer and fuel dump procedures.

(f) Simulated flameout patterns.

(g) Speed control.

(h) Hand flying aircraft at altitudes above 65,000 feet.

(i) Stall characteristics.

(j) Special equipment operation.

(k) Adherence to photographic flight lines.

(l) Celestial/doppler navigation.

(m) Maintenance of flight log (green card).

(n) Maximum angle-of-bank evasive maneuvers.

(o) Night operation.

(p) High altitude navigation.

(q) Max range cruise techniques.

5. REPORTS:

a. Prior to the beginning of U-2 flight training, Commander, Detachment "G" will submit a weekly report of student progress to Project Headquarters. This report will:

(1) Be submitted each Friday by routine precedence message.

(2) Be narrative in form.

(3) Include, as a minimum, measurable accomplishments during the week plus a statement as to what is scheduled for accomplishment during the following week and Commander's estimate of student's rate of progress.

b. When U-2 flight training has begun, the weekly report may be discontinued and a monthly report submitted in its stead. This report will contain essentially the same type of information as the weekly report.

6. RECORDS:

A record of training will be maintained for each student pilot. Contents of this folder will be as prescribed by Commander, Detachment "G".

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